

COUNTY PURCHASING AGENT
Fort Bend County, Texas



Jaime Kovar
County Purchasing Agent

(281) 341-8640
Fax (281) 341-8645

March 1, 2022

TO: All Prospective Bidders

RE: Addendum No.1 – Fort Bend County RFP 22-034 – Purchase of Transit Vehicles

Addendum 1:

Attached is addendum 1. Vendors are to download, complete and provide the Addendum 1 document with their solicitation response. Due date is extended to March 15, 2022, 2:00PM. See amendments to pages; 2, 19, 143, 145, 147, and 158 of this file.

Immediately upon your receipt of this addendum, please fill out the following information and email this page to Olivia Rios at Olivia.Rios@fortbendcountytexas.gov .

Company Name

Signature of person receiving addendum

Date

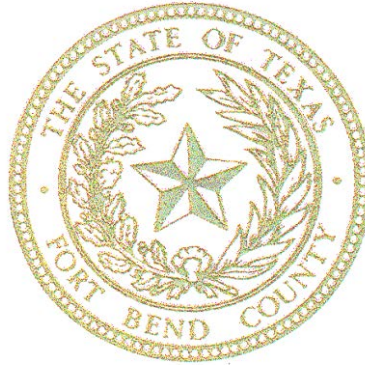
If you have any questions, please contact this office.

Sincerely,

Cheryl Krejci
Senior Buyer

***Addendum 1, 3/01/22**

**Fort Bend County, Texas
Request for Proposals**



**Purchase of Transit Vehicles for Fort Bend County Public Transportation
RFP 22-034**

SUBMIT PROPOSALS TO:

Fort Bend County
Purchasing Department
Travis Annex
301 Jackson, Suite 201
Richmond, TX 77469

****NOTE:**

All correspondence must include the term
“Purchasing Department” in address to
assist in proper delivery.

***SUBMIT NO LATER THAN:**

Tuesday, March 15 ~~8~~, 2022
2:00 PM (Central)

MARK ENVELOPE:

RFP 22-034
TRANSIT VEHICLES

***ALL RFPs MUST BE RECEIVED IN AND TIME/DATE STAMPED BY THE PURCHASING OFFICE
OF FORT BEND COUNTY ON OR BEFORE THE SPECIFIED TIME/DATE STATED ABOVE.***

***RFPs RECEIVED AS REQUIRED WILL THEN BE OPENED AND NAMES PUBLICLY READ.
RFPs RECEIVED AFTER THE SPECIFIED TIME, WILL BE RETURNED UNOPENED.***

Results will not be given by phone.
Results will be provided after final agreement
is approved in Commissioners Court

Requests for information must be in writing
and directed to:
Cheryl Krejci
Assistant County Purchasing Agent
Cheryl.Krejci@fortbendcountytexas.gov

Vendor Responsibilities:

- Download and complete any addendums. (Addendums will be posted on the Fort Bend County website no
Later than 48 hours prior to bid opening)
- Submit response in accordance with requirements stated on the cover of this document.
- DO NOT submit responses via email or fax.



**COUNTY PURCHASING AGENT
Fort Bend County, Texas**

Vendor Information

Jaime Kovar
Purchasing Agent

Office (281) 341-8640

Legal Company Name (top line of W9)				
Business Name (if different from legal name)				
Federal ID # or S.S. #		DUNS #		
Type of Business	<input type="checkbox"/> Corporation/LLC <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Proprietor/Individual <input type="checkbox"/> Tax Exempt Organization	Age in Business?		
Publicly Traded Business	<input type="checkbox"/> No <input type="checkbox"/> Yes Ticker Symbol _____			
Remittance Address				
City/State/Zip				
Physical Address				
City/State/Zip				
Phone/Fax Number	Phone: _____ Fax: _____			
Contact Person				
E-mail				
Check all that apply to the company listed above and provide certification number.	DBE-Disadvantaged Business Enterprise <input type="checkbox"/>	Certification # _____ Certification # _____ Certification # _____ Certification # _____	<u>Cert Date</u>	<u>Exp Date</u>
	SBE-Small Business Enterprise <input type="checkbox"/>		_____	_____
	HUB-Texas Historically Underutilized Business <input type="checkbox"/>		_____	_____
	WBE-Women's Business Enterprise <input type="checkbox"/>		_____	_____
Company's gross annual receipts	<\$500,000 _____	\$500,000-\$4,999,999 _____		
	\$5,000,000-\$16,999,999 _____	\$17,000,000-\$22,399,999 _____		
	>\$22,400,000 _____			
NAICs codes (Please enter all that apply)				
Signature of Authorized Representative				
Printed Name				
Title				
Date				

THIS FORM MUST BE SUBMITTED WITH THE SOLICITATION RESPONSE

1.0 SCOPE OF WORK:

Fort Bend County intends to contract with one (1) or more contractor(s) to provide transit vans and buses that meet or exceed the specifications contained herein. The specifications contained herein are for Fort Bend County to procure multiple size/type vehicles over the next five (5) years.

1.1 All vehicles must be new, current production models, and ADA (Americans with Disabilities Act) accessible. It is anticipated that vehicles will be:

Exhibit I Medium Duty Cutaway Bus, Type 11, 40 passenger
1 minimum, 70 maximum

Exhibit II Medium Duty Cutaway Bus, Type 11, 32 passenger
1 minimum, 10 maximum

Exhibit III Full Size ADA Van, Type 1, 12 passenger
1 minimum, 50 maximum

1.2 Contract will be awarded to the highest evaluated firm meeting specifications, per size vehicle.

2.0 GUIDELINES:

By virtue of submitting a proposal, interested parties are acknowledging:

2.1 The County reserves the right to reject any or all proposals if it determines that select proposals are not responsive to the RFP. The County reserves the right to reconsider any proposal submitted at any phase of the procurement. It also reserves the right to meet with select Respondents at any time to gather additional information. Furthermore, the County reserves the right to delete or add scope up until the final contract signing.

2.2 All Respondents submitting proposals agree that their pricing is valid for a minimum of ninety (90) days after proposal submission to the County. Furthermore, the County is by statute exempt from the State Sales Tax and Federal Excise Tax; therefore, proposal prices shall not include taxes.

2.3 This Proposal does not commit the County to award nor does it constitute an offer of employment or a contract for services. Costs incurred in the submission of this proposal, or in making necessary studies or designs for the preparation thereof, are the sole responsibility of the Respondents. Further, no reimbursable cost may be incurred in the anticipation of award. Proposals containing elaborate artwork, expensive paper and binding and expensive visual or other presentations are neither necessary nor desired.

- 2.4 In an effort to maintain fairness in the process, all inquiries concerning this procurement are to be directed only to the County's Purchasing Agent in writing. Attempts to contact any members of the County's Commissioners' Court or any other County employee to influence the procurement decision may lead to immediate elimination from further consideration.
- 2.5 When responding to this Proposal, follow all instructions carefully. Submit proposal contents according to the outline specified and submit all hard copy and electronic documents according to the instructions. Failure to follow these instructions may be considered a non-responsive proposal and may result in immediate elimination from further consideration.

3.0 PROPOSAL CONTACT:

This Proposal is being issued by the Assistant County Purchasing Agent on behalf of Fort Bend County, Texas. Thus, responses should be directed to the Assistant County Purchasing Agent, as outlined below. **Respondents are specifically directed NOT to contact any County personnel for meetings, conferences or technical discussions that are related to this Proposal other than specified herein. Unauthorized contact of any County personnel will likely be cause for rejection of the Respondent's proposal. All communications regarding the Proposal shall be directed to the County's Proposal Contact.** Communication with the Proposal Contact is permitted via email, facsimile, or written correspondence.

PROPOSAL CONTACT:

Cheryl Krejci
Assistant County Purchasing Agent
Fort Bend County Travis Annex
301 Jackson, Suite 201
Richmond, Texas 77469
Cheryl.Krejci@fortbendcountytexas.gov

4.0 SUBMISSION REQUIREMENTS:

- 4.1 Submission requirements: one (1) original proposal, six (6) paper copies, and one (1) electronic response on flash drive is required by RFP opening time of 2:00 PM on Tuesday, March 8, 2022. Flash drive must contain only one (1) file in PDF format and must match written response identically. Failure to provide proper flash drive is cause for disqualification. Proposal shall be submitted to the address shown below. Proposal shall be signed, in ink, by a person having the authority to bind the firm in a contract.

Fort Bend County
Purchasing Department
301 Jackson, Suite 201
Richmond, Texas 77469

Proposal Number: R22-034
Due Date: Tuesday, March 8, 2022
Time: 2:00 PM (CST)
For: Transit Vehicles

- 4.2 Respondents may submit their proposal any time prior to the Opening Date and time. The Respondent's name and address as well as a distinct reference to the Proposal number above shall be marked clearly on the submission. All proposals are time-stamped upon receipt and are securely kept, and unopened, until the Opening Date. No responsibility will attach to the County, or any official or employee thereof, for the pre-opening of, post-opening of, or the failure to open a proposal not properly addressed and identified. No oral, telegraphic, telephonic, or facsimile proposals will be considered.
- 4.3 Proposals may be modified or withdrawn prior to the established opening date by delivering written notice to the proposal contact. Any alteration made prior to opening date and time shall be initialed by the signer of the proposal, guaranteeing authenticity.
- 4.4 Proposals time-stamped after the due date and time will not be considered and will be returned to the Respondent unopened. Regardless of the method used for delivery, respondents shall be wholly responsible for the timely delivery of submitted proposals.
- 4.5 The Respondent's name and address shall be clearly marked on all copies of the proposal.

5.0 INCURRED COSTS:

Those submitting proposals do so entirely at their expense. There is no expressed or implied obligation by the County to reimburse any individual or firm for any costs incurred in preparing or submitting proposals, for providing additional information when requested by the County or for participating in any selection interviews, including discovery (pre-contract negotiations) and contract negotiations.

6.0 ACCEPTANCE:

- 6.1 Submission of any proposal indicates a Respondent's acceptance of the conditions contained in this Proposal unless clearly and specifically noted otherwise in their proposal.
- 6.2 Furthermore, the County is not bound to accept a proposal on the basis of lowest price, and further, the County has the sole discretion and reserves the right to cancel this Proposal, to reject any and all proposals, to waive any and all informalities and or irregularities, or to re-advertise with either the identical or revised specifications, if it is deemed to be in the County's best interests. The County reserves the right to

accept or reject any or all of the items in the proposal, and to award the contract in whole or in part and/or negotiate any or all items with individual Respondents if it is deemed in the County's best interest.

- 6.3 Although Fort Bend County desires to negotiate toward a contract with a selected Respondent, the Commissioners' Court may award the contract on the basis of the initial proposals received, without discussions. Therefore, each initial proposal should contain the Respondent's best terms.

7.0 INTERPRETATIONS, DISCREPANCIES, AND OMISSIONS:

- 7.1 It is incumbent upon each potential Respondent to carefully examine these specifications, terms, and conditions. Should any potential Respondent find discrepancies, omissions or ambiguities in this Proposal, the Respondent shall at once request in writing an interpretation from the County's Proposal Contact. Any inquiries, suggestions, or requests concerning interpretation, clarification or additional information shall be made in writing via e-mail only to the County's Proposal Contact, as specified in Section 4.0. Deadline for submission of questions and/or clarification is no later than **Tuesday, February 22, 2022 at 5:00 PM. (central)**. Requests received after the deadline will not be responded to due to the time constraints of this Proposal process.

- 7.2 The issuance of a written addendum is the only official method by which interpretation, clarification or additional information will be given by the County. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarification will be without legal effect. If it becomes necessary to revise or amend any part of this Proposal, notice will be given by the County Purchasing Agent to all prospective Respondents who were sent a Proposal. The Respondent in their proposal shall acknowledge receipts of amendments. Each Respondent shall ensure that they have received all addenda and amendments to this Proposal before submitting their proposals.

8.0 TENTATIVE SCHEDULE:

Release of RFP:	February 6, 2022
Pre-RFP Conference:	February 14, 2022 at 9am
Deadline for Questions:	February 22, 2022
Deadline for RFA:	February 22, 2022
Submission Due Date:	March 8, 2022
Evaluation of Submissions:	Week of March 14th
Commissioners Court Permission to Negotiate:	March 22, 2022
Negotiations:	March 22, 2022
Final Contract Approval Commissioners Court:	June 7, 2022

9.0 PRE-RFP CONFERENCE:

A pre-proposal conference will be conducted on **Monday, February 14, 2022 at 9:00 AM** (central). The pre-proposal conference will be held in the 2nd Floor Purchasing Conferenc Room, located at the Travis Annex, 301 Jackson St., Suite 201, Richmond, TX 77469. Attendance is not mandatory; however, all vendors are encouraged to attend.

10.0 RETENTION OF RESPONDENT’S MATERIAL:

The County reserves the right to retain all proposals regardless of which response is selected. All proposals and accompanying documents become the property of the County.

11.0 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION:

By submission of a proposal, each Respondent certifies, that in connection with this procurement:

- 11.1 The prices in this proposal have been arrived at independently, without consultation, communication, or agreement with any other Respondent; with any competitor; or with any County employee(s) or consultant(s) for the purpose of restricting competition on any matter relating to this Proposal.
- 11.2 Unless otherwise required by law, the prices which have been quoted in this proposal have not been knowingly disclosed by the Respondent and will not knowingly be disclosed by the Respondent prior to award directly or indirectly to any other Respondent or to any competitor; and;
- 11.3 No attempt has been made or will be made by the Respondent to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition.

12.0 ASSIGNMENT:

The Respondent may not sell, assign, transfer or convey the contract resulting from this Proposal, in whole or in part, without the prior written approval from Fort Bend County Commissioners’ Court.

13.0 CONFIDENTIAL MATTERS:

- 13.1 All data and information gathered by the Respondent and its agents, including this Proposal and all reports, recommendations, specifications, and data shall be treated by the Respondent and it’s agents as confidential. The Respondent and it’s agents shall not disclose or communicate the aforesaid matters to a third party or use them in advertising, publicity, propaganda, and/or in another job or jobs, unless written consent is obtained from the County.

- 13.2 Proposals will only be publicly received and acknowledged only so as to avoid disclosure of the contents to competing Respondents and kept secret during negotiation. However, all proposals shall be open for public inspection after the contract is awarded. Trade secrets and any material that is considered to be confidential information contained in the proposal and identified by Respondent as such will be treated as confidential to the extent allowable in the Open Records Act.

14.0 LIMITS OF SUBCONTRACTORS:

- 14.1 The County has approval rights over the use and/or removal of all subcontractors and/or vendor(s). Subcontractors shall conform to all County policies.
- 14.2 Any dispute between the Respondent and subcontractors, including any payment dispute, will be promptly remedied by the Respondent. Failure to promptly remedy or to make prompt payment to subcontractor may result in the withholding of funds from the Respondent by the County for any payments owed to the subcontractor.

15.0 JURISDICTION, VENUE, CHOICE OF LAW:

This Proposal and any contract resulting there from shall be governed by and construed according to the laws of the State of Texas. Should any portion of any contract be in conflict with the laws of the State of Texas, the State laws shall invalidate only that portion. The remaining portion of the contract(s) shall remain in effect. Any lawsuit shall be governed by Texas law and Fort Bend County, Texas shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Proposal process and resulting Agreements.

16.0 INDEPENDENT CONTRACTOR:

The Respondent is an independent contractor and no employee or agent of the Respondent shall be deemed for any reason to be an employee or agent of the County.

17.0 AMERICANS WITH DISABILITIES ACT (ADA)

Proposals shall comply with all federal, state, county, and local laws concerning this type of products/service/equipment/project and the fulfillment of all ADA requirements.

18.0 DRUG-FREE WORKPLACE:

All Respondents shall provide any and all notices as may be required under the Drug-Free Workplace Act of 1988, 28 CFR Part 67, Subpart F, to their employees and all sub-contractors to insure that the County maintains a drug-free workplace.

19.0 PERFORMANCE AND PAYMENT BOND:

No performance nor payment bond is required for this project.

20.0 POWER OF ATTORNEY:

An attorney-in-fact who signs a bid bond, performance bond or payment bond must file with each bond a certified and effectively dated copy of his or her power of attorney.

21.0 TEXAS ETHICS COMMISSION FORM 1295:

21.1 Effective January 1, 2016 all contracts executed by Commissioners Court, regardless of the dollar amount, will require completion of Form 1295 “Certificate of Interested Parties”, per the new Government Code Statue §2252.908. All firms submitting a response to a formal Bid, RFP, RFQ or any contracts, contract amendments, renewals or change orders are required to complete the Form 1295 online through the State of Texas Ethics Commission website. Please visit: <https://www.ethics.state.tx.us/File/>

21.2 On-line instructions:

21.2.1 Name of governmental entity is to read: Fort Bend County.

21.2.2 Identification number use: RFP 22-034.

21.2.3 Description is: Purchase of Transit Vehicles.

21.3 Highest evaluated vendor will be required to provide the Form 1295 within three (3) calendar days from notification; however, if your company is publicly traded you are not required to complete this form.

22.0 TERM:

This contract is for the period of five (5) years upon the date of execution. The term of this contract will begin on the date the agreement is fully executed. Either party for any reason may terminate this contract by giving thirty (30) days written notice of the intent to terminate.

23.0 INDEMNIFICATION:

Respondent shall save harmless County from and against all claims, liability, and expenses, including reasonable attorney’s fees, arising from activities of Respondent, its agents, servants or employees, performed under this agreement that result from the negligent act, error, or omission of Respondent or any of Respondent’s agents, servants or employees.

23.1 Respondent shall timely report all such matters to Fort Bend County and shall, upon the receipt of any such claim, demand, suit, action, proceeding, lien or judgment, not later than the fifteenth day of each month; provide Fort Bend County with a written report on each such matter, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of Fort Bend County required by Respondent in the defense of each matter.

- 23.2 Respondent's duty to defend, indemnify and hold Fort Bend County harmless shall be absolute. It shall not abate or end by reason of the expiration or termination of any contract unless otherwise agreed by Fort Bend County in writing. The provisions of this section shall survive the termination of the contract and shall remain in full force and effect with respect to all such matters no matter when they arise.
- 23.3 In the event of any dispute between the parties as to whether a claim, demand, suit, action, proceeding, lien or judgment appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of Respondent, Respondent shall never-the-less fully defend such claim, demand, suit, action, proceeding, lien or judgment until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of Respondent are not at issue in the matter.
- 23.4 Respondent's indemnification shall cover, and Respondent agrees to indemnify Fort Bend County, in the event Fort Bend County is found to have been negligent for having selected Respondent to perform the work described in this request.
- 23.5 The provision by Respondent of insurance shall not limit the liability of Respondent under an agreement.
- 23.6 Respondent shall cause all trade contractors and any other contractor who may have a contract to perform construction or installation work in the area where work will be performed under this request, to agree to indemnify Fort Bend County and to hold it harmless from all claims for bodily injury and property damage that arise may from said Respondent's operations. Such provisions shall be in form satisfactory to Fort Bend County.
- 23.7 Loss Deduction Clause - Fort Bend County shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of Respondent and/or trade contractor providing such insurance.

24.0 REQUEST FOR CHANGE OR APPROVED EQUAL (RFA):

- 24.1 Request(s) for change or approved equal to the technical specifications or other requirements of the solicitation document shall be submitted to Fort Bend County for evaluation by **Tuesday, February 22, 2022, no later than 5:00 pm (Central)**.
- 24.2 All request(s) for approval shall be submitted on the enclosed RFA form (**Attachment A**), with all necessary descriptive literature, technical data, or samples to clearly indicate all specifications of the item(s) or deviation(s) proposed to permit evaluation of the request and determine that they meet all requirements of the solicitation.

- 24.3 All requests for approval for Exhibit I and Exhibit II Section 10. Diesel Engine shall be fully supported with technical data, test results, and any other pertinent information available, as evidence that the requested deviation meets or exceeds the specification requirements.
- 24.4 Individual RFA's shall include all technical data and salient characteristics of the proposed item offered to meet the specification requirement. Such technical data and salient characteristics shall cover at a minimum the installation, operation and design performance of the item offered for approval.
- 24.5 Request(s) for approval may be submitted by email only to Cheryl Krejci, Assistant County Purchasing Agent at Cheryl.Krejci@fortbendcountytexas.gov.
- 24.6 Fort Bend County will respond to RFA's by **Tuesday, February 22, 2022, 5:00PM (Central)**.

25.0 REGULATIONS AND WARRANTIES:

Contractor must comply with all federal, state, and local requirements, standards, and regulations as it relates to the system and subsystems, including but not limited to fare boxes, destination signs, cameras, and AVL systems.

- 25.1 The manufacturer's standard warranty for body and chassis must be provided as well as a warranty for rust-proofing and lift. Warranties must be effective the day the buyer receives and signs delivery acceptance. The manufacturer shall warrant all parts and labor for one year from the date of delivery with an extended warranty of five (5) years for the engine and transmission.

The Contractor shall assume sole responsibility for the entire vehicle as to warranty and after-sales parts and service. This includes the pick-up and delivery of the vehicle.

- 25.2 Contractor must be able to provide warranty service for the vehicle in the area in which it is to be used. Contractors located outside this area must be able to arrange an agreement with one or more authorized distributors located within 50 miles of the service area or within Fort Bend County. This requirement is not meant to restrict responses but to ensure the availability of warranty services.

26.0 REQUIRED CERTIFICATIONS AND INFORMATION:

The Contractor agrees to comply with all Federal, State, and Local regulations and to submit the certifications and information **with their proposal** as described in this section. In the event of any conflict between the requirements of this solicitation and any applicable legal requirements, then the legal requirements shall prevail.

- 26.1 **General:** Contractor must **submit a letter** that they are a fully authorized distributor of the vehicle being bid.
- 26.2 **Fastener Specification:** Contractor must provide a letter stating their intent to meet the requirements outlined below. All items covered by these specifications shall conform to applicable SAE, U.S.S., or Metric Standards and shall be of U.S. manufacture. No counterfeit fasteners shall be permitted. Should the County find the Contractor or their suppliers providing counterfeit fasteners of any type, the Contractor may be declared in default in accordance with the contract. Fastener materials shall be compatible with materials being fastened. Where self-tapping fasteners are used, body panels shall be reinforced with steel backing, aluminum backing, or stainless-steel backing.
- 26.3 **Warranty:** Contractor must certify (**Attachment B**) they are prepared to perform warranty service or have arranged for service with a certified distributor in the area the vehicle will be used (must specify who); and that they can provide spare or replacement parts or can assure access to parts (must specify source).
- 26.4 **Disadvantaged Business Enterprise (DBE):** Contractor must provide a current copy of the manufacturer's TVM DBE Goal Concurrence/Certification Letter from FTA. Contractor must provide manufacturer's certification (**Attachment C**) for compliance with Transit Vehicle Manufacturers.
- 26.5 **Pre-Award and Post-Delivery Audit:** Contractor must certify (**Attachment D**) compliance with 49 U.S.C. § 5323(l) and the Federal Transit Administration's (FTA) implementing regulation at 49 C.F.R. § 663, Buy America, Solicitation Specification Requirements, and Federal Motor Vehicle Safety Standards (FMVSS). Fort Bend County reserves the right to utilize a third-party to audit and validate the manufacturer's data submitted to meet this requirement.
- 26.6 **Buy America:** Contractor must certify (**Attachment E**) that the vehicle meets FTA Buy America requirements as specified in 49 CFR §661. If the proposer certifies compliance with this requirement, it shall submit documentation that 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.
- 26.7 **Proposer Self Certification:** Contractor must certify (**Attachment F**) that the vehicle meets Purchaser's Requirement as specified in 49 CFR § 663.27. Proposer

certifies 1) manufactured good(s) furnished will meet or exceed the specifications, and/or that the services rendered will comply with the terms of the solicitation or contract and 2) that it has read all the RFP, proposal, or contract documents and agrees to abide by the terms, certifications, and conditions thereof.

- 26.8 **Safety Standards: Federal Motor Vehicle Safety Standards (FMVSS):** Contractor must certify (**Attachment G**) that the vehicle meets FMVSS as specific in 49 CFR § 571. If proposer certifies compliance with this requirement, it shall submit 1) manufacturer's self-certification information that the vehicle complies with relevant FMVSS or 2) certification that Federal motor vehicle standards do not apply.

Contractor must also **submit letter** stating that they meet the standards outlined herein. The bus shall meet all applicable Federal Motor Carrier Safety Regulations (FMCSR), and the Environmental Protection State (EPA) regulations in effect at the date of manufacture and the Manufacturer shall so certify. Manufacturers must be certified by the National Traffic Safety Administration to manufacture or alter vehicles in accordance with the Code of Federal Regulations, Title 49, § 567-568. The bus must comply with all Federal Transit Administration (FTA) recommended fire safety practices to the maximum extent possible in accordance with requirements of 49 U.S.C. 5323(e).

- 26.9 **Bus Testing:** Contractors that are offering vehicles (either as a base vehicle or with optional engines or modifications to the fuel system) are required to test at a minimum of 5-year/150,000-mile service life to CFR 49 § 665. Contractor must certify (**Attachment H**) that the vehicle(s) offered in this procurement comply with 49 U.S.C. § 5323(c) and FTA's implementing regulation at 49 CFR Part 665, and any amendments thereto, according to one of the following three alternatives. 1) The vehicles offered have been tested in accordance with 49 CFR Part 665; or 2) The vehicles offered are a new model, or with a major change in configuration or components to be acquired, and will be tested and the full bus testing report(s) and any applicable partial testing report(s) will be submitted to the Purchaser before final acceptance of the first vehicle; or 3) The vehicles offered have been "grandfathered."

Final Test Report must be submitted with the proposal. Failure to comply with this requirement will result in disqualification. Contractor may not offer buses using the FTA's demonstrator/prototype model Altoona test exemption provision for five (5) or fewer vehicles for sale under this contract.

- 26.10 **Lobbying:** Contractor must certify (**Attachment I & J**) that they will abide by the rules with respect to lobbying according to 31 U.S.C. 1352, as implemented at 49 C.F.R. Part 20.

- 26.11 **Debarment and Suspension:** Contractor must certify (**Attachment K**) it is neither debarred nor suspended from Federal programs under U. S. Department of Transportation regulations, “Nonprocurement Suspension and Debarment,” 2 CFR Parts 180 and 1200, or under the FAR at 48 CFR Chapter 1, Part 9.4.
- 26.12 PTN-130: The contractor must certify (**Attachment L**) to abide by these clauses and include the following clauses in each subcontract financed in whole or in part with Federal Transit Administration (FTA) funds. Vendors are certifying by reference the entire list of FTA current fiscal year Certifications and Assurances, and shall download the same at:
- <https://www.transit.dot.gov/funding/grantee-resources/certifications-and-assurances/certifications-assurances>
- 26.13 **International Organization for Standardization (ISO) 9001:2015:** The bus manufacturer must be ISO 9001:2015 certified and a **copy of current** certification must accompany the proposal submittals.
- 26.14 The following technical information and descriptive material must be **submitted with the proposal**.
- 26.14.1 Description of vehicle and body equipment, including body construction procedures; chassis make and model; passenger seats; and all other pertinent information as required by the specifications or required to allow the proper evaluation to determine the responsiveness of the proposal.
- 26.14.2 Detailed floor plans with dimensions, proposed seating arrangements, the interior layout of the bus, and seat spacing between ambulatory seats (to include spacing between wheelchair positions/flip seats). Drawings, at a minimum, shall show the location and dimensions of all seating positions, driver’s position, aisles, doors, modesty panels, stanchion, grab rails, tie-down locations, and other passenger assists. In addition, all major body interior and exterior dimensions, along with gross vehicle weight axle loads and gross vehicle weight rated axle loads must be shown. Separate diagrams can be provided to show seat location, lift, tie-downs, lighting, and window placement.
- 26.14.3 Buses must be capable of accommodating two (2) wheelchair positions with fold-down seats able to be used when wheelchair positions are not in use.

- 26.14.4 Vehicles must be designed and constructed to provide safe, economical, and reliable operation of demand response and fixed-route services, suitable for extended service hours in heavy stop-and-go transit service.
- 26.14.5 Overall design and construction shall be conducive to safe passenger entrance and egress and all movement within.
- 26.14.6 A weight distribution schematic and loading calculation must be shown for the floor plan.
- 26.14.7 Loading calculations must be made with full tanks of fuel.
- 26.14.8 The total capacity of the fuel tank.
- 26.14.9 Capacity and make of alternator and batteries.
- 26.14.10 Type and size of radial tires.
- 26.14.11 Lift, securement system, and occupant restraint system information.
- 26.14.12 Descriptive information for air conditioning equipment.
- 26.14.13 List of authorized service representatives for chassis, body, parts, and ancillary equipment.

27.0 FEDERAL CLAUSES:

Please refer to Exhibit VII. Federal Clauses.

28.0 EVALUATION CRITERIA:

In order to facilitate the analysis of responses to this Proposal, Respondents are required to prepare their proposals in accordance with the instructions outlined in this part. Proposals should be prepared as simply as possible and provide a straightforward, concise description of the Respondent's capabilities to satisfy the requirements of the Proposal. Emphasis should be concentrated on accuracy, completeness, and clarity of content. All parts, pages, figures, and tables should be numbered and clearly labeled.

- 28.1 Respondents are required to follow the outline below (utilizing tabs) when preparing their proposals:

Tab	Title
	Title Page
	Table of Contents
	Executive Summary

- 1 Understanding Scope of Work
- 2 Firm Experience/Qualifications/Financial Stability
- 3 Staff Experience/Qualifications/Availability
- 4 Cost
- 5 Required Forms and Overall Completeness of Proposal

28.2 Any exceptions to the Proposal requirements shall be identified in the applicable section.

28.3 Executive Summary - This part of the response to the Proposal should be limited to a brief narrative highlighting the Respondent's proposal. This section should not include cost quotations. Note that the executive summary should identify the primary contacts for the Respondent.

28.4 Respondents will be evaluated utilizing the factors, as weighted below:

Tab 1

Understanding of Scope of Work (weight factor = 30%)

- Respondent must express, in detail, their overall understanding of this RFP.
- Respondent must provide a detailed outline of all aspects of this project, including all relative activities, resources, proposed delivery schedule, floor plans, and information as requested in Section 26 of this RFP.
- Describe the approach your firm will take to accomplish the project, including providing a description of key components such as quality control, quality assurance, research and development, technical, training and parts support, response time, and product capabilities. Include your approach to resolving supply chain delays that would affect delivery.
- Describe vehicle fabrication and system design, as well as documented reliability and other design and performance elements of the components that comprise those systems.

Tab 2

Firm Experience/Qualifications/Financial Stability (weight factor = 25%)

- Provide firm experience minimum of five (5) years in business. Such experience must be in the form of providing transit vehicles to state/municipal/county governments. Experience in providing transit vehicles meeting Federal Transit Administration (FTA) requirements for Public Transportation services should also be detailed.
- Provide a minimum of three (3) references within the last five (5) years. Provide the name and location of the client, name of contact person, phone

number, email address, date of the delivery, item delivered, and if the delivery was for vehicles meeting Federal Transit Administration requirements for Public Transportation services.

- Provide details of any past or pending liens, fleet defect history, and warranty claims for the past five (5) years as well as the efforts taken to resolve concerns.
- Provide a general description of the respondent's financial condition and identify any conditions (bankruptcy, pending litigation, planned office closures, impending mergers, etc.) that may affect the respondent's ability to perform services under this contract.
- Provide audited financial statements for the three (3) most recent fiscal years, including the audit respondent's certification and management letter with a response. In the event an audited financial statement is not available, an independently "reviewed" financial statement for the three (3) most recent fiscal years will be acceptable as long as a certified accountant conducts the review. Financial and other documentation provided indicates respondent's capacity and ability to perform services.

Tab 3

Staff Experience/Qualifications/Availability (weight factor = 25%)

- Respondent must provide a proposed organizational chart, including the identification of project staff. Describe the role, responsibilities, and percentage of time of prime staff and physical location of staff office.
- Provide a professional biography of each of the proposed project staff. Biography must include education as well as a description of:
 - Two (2) relevant projects completed within the past five (5) years.
 - Each project must include the clients's name, name of contact person, email address, and phone number.

Tab 4

Cost (weight factor = 15%)

- Complete pricing sheet for each vehicle type, as per Exhibit VI. The price quoted in any proposal submitted shall include all items of labor, material, tools, equipment, and other costs necessary to fully complete the manufacture and delivery of the vehicles, pursuant to the specifications.

Tab 5

Required forms and overall completeness of proposal (weight factor = 5%)

- Completed Federal forms
- Completed W9 form
- Completed tax/debt/residence form
- The proposal must be well written and organized

29.0 AWARD:

The County will select the respondent whose proposal is the highest evaluated and responsible for the County. Contractual commitments are contingent upon the availability of funds, as evidenced by the issuance of a purchase order. All contracts are subject to the approval of the County's legal counsel and Commissioners' Court, prior to execution. Once awarded, the contract will be the final expression of the agreement between the parties and may not be altered, changed, or amended except by mutual agreement, in writing.

***30.0 ESCALATION:**

Successful respondent may apply for a price increase to the Fort Bend County (FBC) Purchasing Office and FBC Public Transportation. If increase is warranted, the request will be taken to Commissioners Court for their action to approve or not. The price increase will be based on the increase by Fred- Producer Price Index by Commodity <https://fred.stlouisfed.org/series/WPU1413> : Transportation Equipment: Truck and Bus Bodies. Written documentation of the increase must be provided to the Purchasing Agent. No application for a price increase may be submitted within the first year of this contract.

31.0 DELIVERY AND ACCEPTANCE:

- 31.1 Prior to vehicle acceptance by Fort Bend County, Contractor shall service and adjust each vehicle for operation. Fort Bend County will utilize a checklist similar to Exhibit V which is subject to change throughout the contract term.
- 31.2 Upon vehicle acceptance, vehicles should be delivered to Fort Bend County Public Transportation Facility, 3737 Bamore Road, Rosenberg, TX 77471.

32.0 STATE LAW REQUIREMENTS FOR CONTRACTS:

The contents of this section are required by Texas Law and are included by County regardless of content.

- 32.1 Agreement to Not Boycott Israel Chapter 2271 Texas Government Code: Contractor verifies that if Contractor employs ten (10) or more full-time employees and this Agreement has a value of \$100,000 or more, Contractor does not boycott Israel and will not boycott Israel during the term of this Agreement.

- 32.2 Texas Government Code Section 2251.152 Acknowledgment: By signature on vendor form, Contractor represents pursuant to Section 2252.152 of the Texas Government Code, that Contractor is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.

33.0 HUMAN TRAFFICKING:

By acceptance of this contract, Contractor acknowledges that Fort Bend County is opposed to human trafficking and that no County funds will be used in support of services or activities that violate human trafficking laws.

34.0 FORCE MAJEURE:

Force Majeure: Force Majeure means a delay encountered by a party in the performance of its obligations under this Agreement, which is caused by an event beyond the reasonable control of that party. Without limiting the generality of the foregoing, "Force Majeure" shall include but not be restricted to the following types of events: acts of God or public enemy; acts of governmental or regulatory authorities; fires, floods, epidemics or serious accidents; unusually severe weather conditions; strikes, lockouts, or other labor disputes; and defaults by subcontractors. In the event of a Force Majeure, the affected party shall not be deemed to have violated its obligations under this Agreement, and the time for performance of any obligations of that party shall be extended by a period of time necessary to overcome the effects of the Force Majeure, provided that the foregoing shall not prevent this Agreement from terminating in accordance with the termination provisions. If any event constituting a Force Majeure occurs, the affected party shall notify the other parties in writing, within twenty-four (24) hours, and disclose the estimated length of delay, and cause of the delay.

35.0 REQUIRED FORMS:

All respondents submitting are required to complete the attached/included and return with submission:

- 35.1 Vendor Information Form
- 35.2 W9 Form
- 35.3 Tax Form/Debt/Residence Certification
- 35.4 Attachment A: Request for Change or Approved Equal (RFA)
- 35.5 Attachment B: Warranty Certification
- 35.6 Attachment C: Transit Vehicle Manufacturers Certification of Compliance with 49 CRF Part 26.49

- 35.7 Attachment D: Pre-Award and Post-Delivery Audit Requirements Certification
- 35.8 Attachment E: Certificate of Compliance with Buy America Rolling Stock Requirements
- 35.9 Attachment F: Proposer Self Certification
- 35.10 Attachment G: FMVSS (Federal Motor Vehicle Safety Standards) Certification
- 35.11 Attachment H: Certificate of Compliance with FTA's Bus Testing Requirements
- 35.12 Attachment I: Certification of Restrictions on Lobbying
- 35.13 Attachment J: Disclosure of Lobbying Activities (write N/A on the form if not applicable)
- 35.14 Attachment K: Certification Regarding Government-Wide Debarment and Suspension (Nonprocurement)
- 35.15 Attachment L: Texas Department of Transportation PTN-130 Consolidated Certification Form
- 35.16 Attachment M: Intent to perform as a DBE (write N/A on the form if not applicable)
- 35.17 Attachment N: Subcontractor Participation form (write N/A on the form if not applicable)

36.0 REQUIRED FORMS AFTER CONTRACT EXECUTION:

- 36.1 Attachment O: Contractor Payment Report (write N/A on the form if not applicable)

37.0 NAICS CODES:

The following NAICS codes are set for this project

- 336211 – Motor Vehicle Body Manufacturing
- 336120 – Buses (Except trackless trolley) assembling on chassis of own manufacture
- 423110 – Automobile and Other Motor Merchant Wholesalers

38.0 PROTEST PROCEDURES:

You may acquire Fort Bend County's protest procedures in Section 11 of the guidelines for FTA-funded procurements document from the following link.

<https://www.fortbendcountytexas.gov/government/departments/purchasing-agent/fta-funded-procurements>

39.0 STANDARDS OF CONDUCT:

You may acquire Fort Bend County's standards of conduct in Section 2 of the guidelines for FTA-Funded procurement document from the following link.

<https://www.fortbendcountytexas.gov/sites/default/files/document-central/document-central/purchasing-documents/fta-funded-procurements/FTAFundedProcurementsManual.pdf>

40.0 EXHIBITS:

- 40.1 Exhibit I – Vehicle Specifications for Medium Duty Cutaway Bus, 40 passenger
- 40.2 Exhibit II – Vehicle Specifications for Medium Duty Cutaway Bus, 32 passenger
- 40.3 Exhibit III – Vehicle Specifications for Full Size ADA Van, 12 passenger
- 40.4 Exhibit IV – Diagram for Technology Equipment
- 40.5 Exhibit V – Delivery & Acceptance Inspection Checklist
- 40.6 Exhibit VI – Pricing Sheets
- 40.7 Exhibit VII – Federal Clauses

Request for Taxpayer Identification Number and Certification

**Give Form to the
 requester. Do not
 send to the IRS.**

Print or type See Specific Instructions on page 2.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶	
	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>	
	5 Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
	6 City, state, and ZIP code	
	7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number											
				-			-				
or											
Employer identification number											
				-							

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note. ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note. You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.ssa.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/businesses and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor ²
4. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee ¹ The actual owner ¹
5. Sole proprietorship or disregarded entity owned by an individual	The owner ³
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	Give name and EIN of:
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity ⁴
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

*Note. Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: spam@uce.gov or contact them at www.ftc.gov/idtheft or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

Attachment A

Request for Change or Approved Equal

Please submit a separate form for each request for change/approved equal.

PROPOSER#:	DATE:
PROPOSER:	PHONE: ()
PROPOSER SECTION / PAGE#:	
CHANGE REQUESTED:	
AGENCY RESPONSE	
Reviewed By:	Date:
Approved <input type="checkbox"/>	See Comment Below <input type="checkbox"/>
Denied <input type="checkbox"/>	
COMMENT:	

Attachment B

WARRANTY CERTIFICATION

The name and address of the Texas servicing dealer nearest the FOB point that will perform the warranty work for the chassis:

FIRM NAME	
FIRM ADDRESS	
FIRM TELEPHONE	
PRINT BIDDER'S NAME	BIDDER'S SIGNATURE
NAME OF INDIVIDUAL TO CONTACT FOR WARRANTY	

The agency may contact the vendor below for assistance in warranty administration.

FIRM NAME OF BIDDER
ADDRESS
TELEPHONE
BIDDER'S SIGNATURE
PRINT BIDDER'S NAME
DATE

Attachment C

TRANSIT VEHICLE MANUFACTURERS CERTIFICATION OF COMPLIANCE WITH 49 CFR PART 26.49

This procurement is subject to the provisions of 49 CFR, Part 26.49. Accordingly, as a condition of permission to propose, the following certification must be completed and submitted with the RFP along **with a current copy of the manufacturer's TVM DBE Goal Concurrence/Certification Letter from FTA.**

TRANSIT VEHICLE MANUFACTURER CERTIFICATION

_____, a TVM, hereby certifies that it has complied with
(Name of Manufacturer)

the requirements of 49 CFR Part 26.49 by submitting a current DBE goal to FTA. The goals apply to Federal Fiscal Year ____, October 1, ____ to September 30, ____ and have been approved or not disapproved by FTA.

OR

_____, hereby certifies that the Manufacturer of the transit vehicle to
(Name of Dealer/Distributor)

be supplied, _____, has complied with the above-referenced
(Name of Manufacturer)

requirement of 49 CFR Part 26.49.

SIGNATURE _____

NAME _____

TITLE _____

COMPANY _____

DATE _____

Attachment D

PRE-AWARD and POST DELIVERY AUDIT REQUIREMENTS CERTIFICATION

Pre-Award and Post-Delivery Audit Requirements - The Proposer 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:

1. Buy America Requirements: The Proposer shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Proposer 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. (Attachment E)
2. Solicitation Specification Requirements: The Proposer shall submit evidence that it will be capable of meeting the RFP specifications. (Attachment F)
3. Federal Motor Vehicle Safety Standards (FMVSS): The Proposer shall submit 1) manufacturer's FMVSS self-certification that the vehicle(s) comply with all applicable FMVSS or 2) manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations. (Attachment G)

SIGNATURE _____

NAME _____

TITLE _____

COMPANY _____

DATE _____

Attachment E

**CERTIFICATE OF COMPLIANCE
WITH BUY AMERICA ROLLING STOCK REQUIREMENTS**

The Proposer hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(2)(C), Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and the regulations at 49 C.F.R. Part 661.11.

The Proposer **must submit with this** RFP 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.

SIGNATURE _____

NAME _____

TITLE _____

COMPANY _____

DATE _____

OR

**CERTIFICATE OF NON-COMPLIANCE
WITH BUY AMERICA ROLLING STOCK REQUIREMENTS**

The Proposer hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, but may qualify for an exception to the requirements consistent with 49 U.S.C. 5323(j)(2)(B) or (j)(2)(D), Sections 165(b)(2) or (b)(4) of the Surface Transportation Assistance Act, as amended, and regulations in 49 C.F.R. 661.7.

SIGNATURE _____

NAME _____

TITLE _____

COMPANY _____

DATE _____

Attachment F

PROPOSER SELF CERTIFICATION

- 1.) The Proposer certifies that the manufactured good(s) furnished will meet or exceed the specifications, and/or that the services rendered will comply with the terms of the solicitation or contract.
- 2.) The Proposer certifies that it has read all of the RFP, proposal, or contract documents and agrees to abide by the terms, certifications, and conditions thereof.

Description of Commodity or Service _____

SIGNATURE _____

NAME _____

TITLE _____

COMPANY _____

DATE _____

Attachment G

FMVSS (FEDERAL MOTOR VEHICLE SAFETY STANDARDS) CERTIFICATION

All vehicles provided by the vendor must comply with all applicable FMVSS. The Proposer shall **submit with this** RFP:

- 1) Manufacturer's self-certification that the vehicle(s) will comply with all applicable Federal Motor Vehicle Safety Standards (FMVSS) for each proposed vehicle model

or

- 2) Manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

SIGNATURE _____

NAME _____

TITLE _____

COMPANY _____

DATE _____

**CERTIFICATE OF COMPLIANCE
WITH FTA'S BUS TESTING REQUIREMENTS**

The Proposer certifies that the vehicle(s) offered in this procurement comply with 49 U.S.C. § 5323(c) and FTA's implementing regulation at 49 CFR Part 665, and any amendments thereto, according to one of the following three alternatives.

(Indicate with an "X" only one of the following statements.)

1. ___ The vehicles offered have been tested in accordance with 49 CFR Part 665.
The vehicles being sold should have the identical configuration and major components as the vehicle in **the test report(s), which must be submitted with this RFP**. If the configuration or components are not identical, the manufacturer shall provide with its RFP a description of the change and the manufacturer's basis for concluding that it is not a major change requiring additional testing.

2. ___ The vehicles offered are a new model, or with a major change in configuration or components to be acquired, and will be tested and the full bus testing report(s) and any applicable partial testing report(s) will be submitted to the Purchaser before final acceptance of the first vehicle .

3. ___ The vehicles offered have been "grandfathered" (has been used in mass transit service in the United States before October 1, 1998, and is currently being produced without a major change in configuration or components), and submits with the RFP the name and address of the recipient of such a vehicle and the details of that vehicle's configuration and major components.

The Proposer 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.

Funds will not be released until the purchasing agency gets a copy of the bus test (Altoona) reports, as appropriate, per 49 CFR 665.

SIGNATURE _____

NAME _____

TITLE _____

COMPANY _____

DATE _____

Attachment I

**CERTIFICATION
OF
RESTRICTIONS ON LOBBYING**
(Required for contracts over \$100,000.)

I, _____, _____, hereby certify on behalf of
(Name) (Title)
the _____, that:
(Company Name)

- (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 any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress, regarding the award of Federal assistance, or the extension, continuation, renewal, amendment, or modification of any Federal assistance agreement, 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 influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any application for Federal assistance, federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL: "Disclosure of Form to Report Lobbying," including information required by the instructions accompanying the form, which form may be amended to omit such information as authorized by 49 CFR Part 20.110.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

The undersigned understands that this certification is a material representation of fact upon which reliance is placed and that submission of this certification is a prerequisite for providing Federal assistance for a transaction covered by 49 CFR Part 20.110. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Executed this _____ day of _____, 20__.

Signed: _____

Printed Name: _____

Company Name: _____

Attachment J

Approved by OMB
0348-0046

Disclosure of Lobbying Activities

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See following page for public burden disclosure)

1. Type of Federal Action: a. contract _____ b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal Action: a. bid/offer/application _____ b. initial award c. post-award	3. Report Type: a. initial filing _____ b. material change For material change only: Year _____ quarter _____ Date of last report _____
4. Name and Address of Reporting Entity: _____ Prime _____ Subawardee Tier _____, if Known: Congressional District, if known:	5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: Congressional District, if known:	
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, if applicable: _____	
8. Federal Action Number, if known:	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Registrant <i>(if individual, last name, first name, MI):</i>	b. Individuals Performing Services <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i>	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
Federal Use Only	Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)	

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity 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 a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitations for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Included prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503

Attachment K

CERTIFICATION REGARDING GOVERNMENT-WIDE DEBARMENT AND SUSPENSION

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the Bidder/Offeror is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The Bidder/Offeror is required to 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 bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by Fort Bend County. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to Fort Bend County, 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 49 CFR 29, 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.

DATE _____

SIGNATURE _____

COMPANY _____

NAME _____

TITLE _____



Consolidated Certification Form

Form PTN-130
(Rev. 6/21)
Page 1 of 18

This form is to assist subrecipients with managing the federal and state clauses related to the procurement they're interested in completing. This document complies with all pertinent federal and state regulations for each procurement type.

To begin, select the procurement's funding source. If TxDOT is the pass-through entity (Direct Recipient), both Federal and State must be checked.

Federal and State State Only

Federal Clauses – Procurement Types Summary:

All FTA-Assisted Third-Party Contracts and Subcontracts

1. No Federal Government Obligations to Third Parties
2. Access to Third Party Contract Records
3. Changes to Federal Requirements
4. Civil Rights (EEO, Title VI & ADA)
5. Incorporation of FTA Terms
6. Energy Conservation
7. Veterans Preference
8. False or Fraudulent Statements or Claims
9. Disadvantaged Business Enterprises (DBE)
10. Fly America
11. ADA Access
12. Special Notification Requirements for States

Award Exceeding \$10,000

13. Terminating the Contract

Award Exceeding \$25,000

14. Debarment and Suspension

Award Exceeding \$50,000

15. Contracting with the Enemy

Award Exceeding \$100,000

16. Resolution of Disputes, Breaches, or Other Litigation

17. Lobbying Restrictions

Award Exceeding \$150,000

18. Environmental Protection (Clean Air and Water Pollution Control)

All FTA-ASSISTED THIRD-PARTY CONTRACTS AND SUBCONTRACTS

1. No Federal Government Commitment or Liability to Third Parties

Except as the Federal Government expressly consents in writing, the Recipient agrees that:

- A. The Federal Government does not and shall not have any commitment or liability related to the Underlying Agreement, to any Third-Party Participant at any tier, or to any other person or entity that is not a party (FTA or the Recipient) to the Underlying Agreement; and
- B. Notwithstanding that the Federal Government may have concurred in or approved any Solicitation or Third-Party Agreement at any tier that may affect the Underlying Agreement, the Federal Government does not and shall not have any commitment or liability to any Third-Party Participant or other entity or person that is not a party (FTA or the Recipient) to the Underlying Agreement.

2. Access to Third-Party Contract Records

The Recipient agrees to require, and assures that each of its Subrecipients will require, its Third-Party Contractors at each tier to provide:

- A. The U.S. Secretary of Transportation and the Comptroller General of the United States, the state, or their duly authorized representatives, access to all Third-Party Contract records (at any tier) as required under 49 U.S.C. § 5325(g); and
- B. Sufficient access to all Third-Party Contract records (at any tier) as needed for compliance with applicable federal laws, regulations, and requirements or to assure.

3. Changes to Federal Requirements

The Recipient agrees to include notice in each Third-Party Agreement that:

- A. 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
- B. Applicable changes to those federal requirements will apply to each Third-Party Agreement and parties thereto at any tier.

4. Civil Rights

The following Federal Civil Rights laws and regulations apply to all contracts.

- A. 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.
- B. 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.
- C. 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.

- D. 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.
- E. 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.
- I. 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.
- II. 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.
- III. 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.
- IV. 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.
- V. 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.

5. 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.

6. Energy Conservation

The Recipient agrees to, and assures that its Subrecipients will, comply with the mandatory energy standards and policies of its state energy conservation plans under the Energy Policy and Conservation Act, as amended, 42 U.S.C. § 6321 et seq., and perform

an energy assessment for any building constructed, reconstructed, or modified with federal assistance required under FTA regulations, "Requirements for Energy Assessments," 49 C.F.R. part 622, subpart C.

7. Veterans Preference

As provided in 49 U.S.C. § 5325(k), to the extent practicable, the Recipient agrees and assures that each of its Subrecipients:

- A. Will give a hiring preference to veterans, as defined in 5 U.S.C. § 2108, who have the skills and abilities required to perform construction work required under a Third-Party Contract in connection with a Capital Project supported with federal assistance appropriated or made available for 49 U.S.C. chapter 53; and
- B. Will not 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.

8. False or Fraudulent Statements or Claims

A. Civil Fraud. The Recipient acknowledges and agrees that:

- I. Federal laws, regulations, and requirements apply to itself and its Underlying Agreement, including 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.
- II. By executing the Underlying Agreement, the Recipient certifies and affirms to the Federal Government the truthfulness and accuracy of any claim, statement, submission, certification, assurance, affirmation, or representation that the Recipient provides to the Federal Government.
- III. The Federal Government may impose the penalties of the Program Fraud Civil Remedies Act of 1986, as amended, and other applicable penalties if the Recipient presents, submits, or makes available any false, fictitious, or fraudulent information.

B. Criminal Fraud. The Recipient acknowledges that 49 U.S.C. § 5323(l)(1) authorizes the Federal Government to impose the penalties under 18 U.S.C. § 1001 if the Recipient provides a false, fictitious, or fraudulent claim, statement, submission, certification, assurance, or representation in connection with a federal public transportation program under 49 U.S.C. chapter 53 or any other applicable federal law.

9. Disadvantaged Business Enterprises

The recipient must include assurances that third party contractors will comply with the DBE program requirements of 49 C.F.R. part 26, when applicable. The following contract clause is required in all DOT-assisted prime and subcontracts:

The contractor, subrecipient 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 recipient deems appropriate, which may include, but is not limited to:

- A. Withholding monthly progress payments;
- B. Assessing sanctions;
- C. Liquidated damages; and/or
- D. Disqualifying the contractor from future bidding as non-responsible. 49 C.F.R. §26.13(b).

Further, recipients must establish a contract clause to require prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment the recipient 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 recipient's written

consent; and that, unless the recipient'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).

10. Fly America

The recipient agrees to comply with the air transportation requirements of Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974, as amended, 49 U.S.C. § 40118, and U.S. General Services Administration (U.S. GSA) regulations, "Use of United States Flag Air Carriers," 41 C.F.R. §§ 301-10.131 – 301-10.143.

11. ADA Access

The Recipient agrees to comply with the following federal prohibitions against discrimination based on disability:

A. Federal laws, including:

- I. Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination based on disability in the administration of federally assisted Programs, Projects, or activities;
- II. 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 individuals with disabilities:
 - a. For FTA Recipients generally, Titles I, II, and III of the ADA apply; but
 - b. For Indian Tribes, Titles II and III of the ADA apply, but Title I of the ADA does not apply because it exempts Indian Tribes from the definition of "employer;"
- III. 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 individuals with disabilities;
- IV. Federal transit law, specifically 49 U.S.C. § 5332, which now includes disability as a prohibited basis for discrimination; and
- V. Other applicable federal laws, regulations, and requirements pertaining to access for seniors or individuals with disabilities.

B. Federal regulations and guidance, including:

- I. U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. part 37;
- II. U.S. DOT regulations, "Nondiscrimination on the Basis of Disability in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. part 27;
- III. Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB) and U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. part 1192 and 49 C.F.R. part 38;
- IV. U.S. DOT regulations, "Transportation for Individuals with Disabilities: Passenger Vessels," 49 C.F.R. part 39;
- V. U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. part 35;
- VI. U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. part 36;
- VII. U.S. EEOC, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. part 1630;
- VIII. U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for Persons with Disabilities," 47 C.F.R. part 64, subpart F;
- IX. U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. part 1194;
- X. FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. part 609;
- XI. FTA Circular 4710.1, "Americans with Disabilities Act: Guidance;" and
- XII. Other applicable federal civil rights and nondiscrimination regulations and guidance.

12. Special Notification Requirements for States

- A. Types of Information. To the extent required under federal law, the State, as the Recipient, agrees to provide the following information about federal assistance awarded for its State Program, Project, or related activities:
- I. The Identification of FTA as the federal agency providing the federal assistance for a State Program or Project;
 - II. The Catalog of Federal Domestic Assistance Number of the program from which the federal assistance for a State Program or Project is authorized; and
 - III. The amount of federal assistance FTA has provided for a State Program or Project.
- B. Documents. The State agrees to provide the information required under this provision in the following documents: (1) applications for federal assistance, (2) requests for proposals or solicitations, (3) forms, (4) notifications, (5) press releases, and (6) other publications.

Awards Exceeding \$10,000

13. Termination

All contracts in excess of \$10,000 must address termination for cause by the non-federal entity including the manner by which it will be effected and the basis for settlement.

Awards Exceeding \$25,000

14. Debarment and Suspension

The Recipient agrees to the following:

- A. It will comply with the following requirements of 2 C.F.R. part 180, subpart C, as adopted and supplemented by U.S. DOT regulations at 2 C.F.R. part 1200.
- B. It will not enter into any "covered transaction" (as that phrase is defined at 2 C.F.R. §§ 180.220 and 1200.220) with any Third-Party Participant that is, or whose principal is, suspended, debarred, or otherwise excluded from participating in covered transactions, except as authorized by—
 - I. U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. part 1200;
 - II. U.S. OMB regulatory guidance, "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 C.F.R. part 180; and
 - III. Other applicable federal laws, regulations, or requirements regarding participation with debarred or suspended Recipients or Third-Party Participants.
- C. It will review the U.S. GSA "System for Award Management – Lists of Parties Excluded from Federal Procurement and Nonprocurement Programs," if required by U.S. DOT regulations, 2 C.F.R. part 1200.
- D. It will ensure that its Third-Party Agreements contain provisions necessary to flow down these suspension and debarment provisions to all lower tier covered transactions.
- E. If the Recipient suspends, debars, or takes any similar action against a Third-Party Participant or individual, the Recipient will provide immediate written notice to the:
 - I. FTA Regional Counsel for the Region in which the Recipient is located or implements the Underlying Agreement;
 - II. FTA Headquarters Manager that administers the Grant or Cooperative Agreement; or
 - III. FTA Chief Counsel.

Awards Exceeding \$50,000

15. Never Contract with the Enemy

The Recipient agrees to the regulations implementing Never Contract with the Enemy in 2 CFR part 183. The regulations in 2 CFR part 183 affect covered contracts, grants and cooperative agreements that are expected to exceed \$50,000 within the period of performance, are performed outside the United States and its territories, and are in support of a contingency operation in which members of the Armed Forces are actively engaged in hostilities.

Awards Exceeding \$100,000

16. Resolution of Disputes, Breaches, or Other Litigation

A. FTA Interest

FTA has a vested interest in the settlement of any violation of federal law, regulation, or requirement, or any disagreement involving the Award, the accompanying Underlying Agreement, and any Amendments thereto including, but not limited to, a default, breach, major dispute, or litigation, and FTA reserves the right to concur in any settlement or compromise.

B. Notification to FTA; Flow Down Requirement

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 sub-agreements at every tier, for any agreement that is a "covered transaction" according to 2 C.F.R. §§ 180.220 and 1200.220.

- I. 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.
- II. 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.
- III. Additional Notice to U.S. DOT Inspector General. 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, bid rigging, misappropriation or embezzlement, bribery, gratuity, or similar misconduct involving federal assistance. 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. In this paragraph, "promptly" means to refer information without delay and without change. This notification provision applies to all divisions of the Recipient, including divisions tasked with law enforcement or investigatory functions.

C. Federal Interest in Recovery

The Federal Government retains the right to a proportionate share of any proceeds recovered from any third party, based on the percentage of the federal share for the Underlying Agreement. Notwithstanding the preceding sentence, the Recipient may return all liquidated damages it receives to its Award Budget for its Underlying Agreement rather than return the federal share of those liquidated damages to the Federal Government, provided that the Recipient receives FTA's prior written concurrence.

D. Enforcement

The Recipient must pursue its legal rights and remedies available under any Third-Party Agreement or any federal, state, or local law or regulation.

E. Agency Process

*Vendors may view the dispute resolution process here:

<https://www.fortbendcountytexas.gov/government/departments/financial-administration/purchasing-agent/fta-funded-procurements> in the FTA Funded Procurements Guidelines document.

17. Lobbying Restrictions.

The Recipient agrees that neither it nor any Third-Party Participant will use federal assistance to influence any officer or employee of a federal agency, member of Congress or an employee of a member of Congress, or officer or employee of Congress on matters that involve the Underlying Agreement, including any extension or modification, according to the following:

A. Laws, Regulations, Requirements, and Guidance. This includes:

- I. The Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352, as amended;
- II. U.S. DOT regulations, "New Restrictions on Lobbying," 49 C.F.R. part 20, to the extent consistent with 31 U.S.C. § 1352, as amended; and
- III. Other applicable federal laws, regulations, requirements, and guidance prohibiting the use of federal assistance for any activity concerning legislation or appropriations designed to influence the U.S. Congress or a state legislature; and

B. Exception. If permitted by applicable federal law, regulations, requirements, or guidance, such lobbying activities described above may be undertaken through the Recipient's or Subrecipient's proper official channels.

C. Political Activity. The Recipient agrees to comply with:

- I. The Hatch Act, 5 U.S.C. chapter 15, which limits the political activities of state and local government agencies supported in whole or in part with federal assistance, including the political activities of state and local government officers and employees whose principal governmental employment activities are supported in whole or in part with federal assistance;
- II. U.S. Office of Personnel Management regulations, "Political Activity of State or Local Officers or Employees," 5 C.F.R. part 151; and
- III. 49 U.S.C. § 5323(l)(2) and 23 U.S.C. § 142(g), which limits the applicability of the Hatch Act, as follows:
 - a. The Hatch Act does not apply to nonsupervisory employees of a public transportation system, or any other agency or entity performing related functions, based upon the Award of federal assistance under 49 U.S.C. chapter 53 or 23 U.S.C. § 142(a)(2); but
 - b. Notwithstanding the preceding section 4(e)(3)(ii) of this Master Agreement, the Hatch Act does apply to a nonsupervisory employee if imposed for a reason other than the Award of federal assistance to its employer under 49 U.S.C. chapter 53 or 23 U.S.C. § 142(a)(2).

D. Lobbying and Disclosure Certification

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.

The undersigned certifies or affirms the truthfulness and accuracy of the contents of the statements submitted on or with this certification and understands that the provisions of 31 U.S.C. Section 3801, et seq., are applicable thereto.

Name of Company	Printed Name of Person Completing Form
Date	Signature

Awards Exceeding \$150,000

18. Environmental Protection (Clean Air and Clean Water)

The Recipient agrees to comply with the regulations within the Clean Air Act (42 U.S.C. §§ 7401 - 7671q.) and the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 - 1388), as amended. Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-federal award to agree 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 - 1388). Violations must be reported to the 64 Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

State of Texas Procurement Contract Clauses

State of Texas - Procurement Types Summary:

All Texas-Assisted Third-Party Contracts and Subcontracts

1. Debarment
2. Family Code Child Support Obligation Certification
3. Debts and Delinquencies Affirmations
4. Disaster Recovery Plan
5. Disclosure of Prior State Employment
6. Entities that Boycott Israel
7. Federal Executive Order 13224 Excluded Parties
8. False Statements
9. Financial Participation Prohibited Affirmation
10. Foreign Terrorist Organizations
11. Disaster Relief Contract Violation
12. Public Information Act
13. Signature Authority
14. State Auditor's Right to Audit
15. Suspension and Debarment
16. Assignment
17. Contracting Information Responsibilities
18. Human Trafficking Prohibition

1. 34 TAC §20.585 Debarment

The Recipient agrees that The State of Texas, in order to protect the interests of the state may:

- A. Conduct an investigation upon a complaint regarding a contractor's acts and omissions in procurement or performance of that contract where the complaint may constitute cause for debarment;
- B. Cancel one or more of the contractor's active or pending contracts upon a complaint regarding the contractor's acts and omissions in procurement or performance of that contract where the complaint may constitute cause for debarment;
- C. Assess actual damages and costs incurred due to contractor's failure to perform as specified in the contract;
- D. Debar a contractor for a specified period of time; and
- E. Take any other action authorized by law.

2. §231.006 Family Code Child Support Obligation Certification

Under Section 231.006(d) of the Texas Family Code, the Sub-recipient certifies that the individual or business entity named in this Agreement is not ineligible to receive the specified GRANT and acknowledges that this Agreement may be terminated and payment or grant funds may be withheld if this certification is inaccurate.

3. §2252.903 Gov't Code Debts and Delinquencies Affirmations

Sub-recipient agrees that any payments due it under the Agreement shall be applied toward any debt or delinquency that is

owed to the State of Texas.

4. §444.190 Gov't Code Disaster Recovery Plan

In accordance with 13 TAC (Texas Administrative Code) §6.94(a)(9), Sub-recipient shall provide descriptions of its business continuity and disaster recovery plans

5. §2254.033 Gov't Code Disclosure of Prior State Employment

In accordance with Section 2254.033 of the Texas Government Code, relating to consulting services, RESPONDENT certifies that it does not employ an individual who has been employed by TxDOT or another agency at any time during the two years preceding the submission of the Response or, in the alternative, RESPONDENT has disclosed in its Response the following:

- A. The nature of the previous employment with TxDOT or the other agency;
- B. The date the employment was terminated; and
- C. The annual rate of compensation for the employment at the time of its termination.

6. §2271.001 Gov't Code Entities that Boycott Israel

Pursuant to Section 2271.001 of the Texas Government Code, Sub-recipient certifies that either:

- A. It meets an exception criterion under Section 2271.002, or
- B. It does not boycott Israel and will not boycott Israel during the term of this Agreement. Sub-recipient shall in a writing to TxDOT state any fact(s) that make it exempt from the boycott certification.

7. Federal Executive Order 13224 Excluded Parties

Sub-recipient certifies that it is not listed on the prohibited vendors list authorized by Executive Order 13224, Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism", published by the United States Department of the Treasury, Office of Foreign Assets Control.

8. §2155.077(a)(2) Gov't Code False Statements

Sub-recipient represents and warrants that all statements and information prepared and submitted in this document are current, complete, true and accurate. Submitting a false statement or material misrepresentation made during the performance of a contract is a material breach of contract and may void this agreement.

9. §2155.004 Gov't Code Financial Participation Prohibited Affirmation

Under Section 2155.004(b) of the Texas Government Code, Sub-recipient certifies that the individual or business entity named in this Agreement is not ineligible to receive the specified agreement/GRANT and acknowledges that this agreement may be terminated, and payment withheld if this certification is inaccurate.

10. §2252.152 Gov't Code Foreign Terrorist Organizations

Sub-recipient represents and warrants that is not engaged in business with Iran, Sudan, or a foreign terrorist organization as prohibited by Section 2252.152 of the Texas Government Code.

11. §2155.006 and 2261.053 Gov't Code Prior Disaster Relief Contract Violation

Under Sections 2155.006 and 2261.053 of the Texas Government Code, the Sub-recipient certifies that the individual or business entity named in this Agreement is not ineligible to receive the specified agreement/GRANT and acknowledges that this agreement may be terminated and payment withheld if this certification is inaccurate.

12. Chapter 552, Gov't Code and §2252.907 Gov't Code Public Information Act

Information, documentation, and other material in connection with this Agreement may be subject to public disclosure pursuant to Chapter 552 of the Texas Government Code (the "Public Information Act"). In accordance with Section 2252.907 of the Texas Government Code, the Sub-recipient is required to make any information created or exchanged with the State pursuant to the Agreement and not otherwise excepted from disclosure under the Texas Public Information Act, available in a format that is accessible by the public at no additional charge to the State.

13. §2252.0012 Gov't Code Signature Authority

The Sub-recipient represents and warrants that the individual executing this Agreement is authorized to sign this Agreement on behalf of the Sub-recipient and to bind the Sub-recipient.

14. §2262.154 Gov't Code State Auditor's Right to Audit

The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. The acceptance of funds directly under the contract or indirectly through a subcontract under the contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. Under the direction of the legislative audit committee, an entity that is the subject of an audit or investigation by the state auditor must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

15. §2155.077 Gov't Code Suspension and Debarment

Sub-recipient certifies that it and its principals are not suspended or debarred from doing business with the State of Texas or federal government as listed on the State of Texas Debarred Vendor List as maintained by the Texas Comptroller of Public Accounts and the System for Award Management (SAM) maintained by the General Services Administration.

16. §2262.056 (b) Gov't Code Assignment

Sub-recipient shall not assign its rights under the Agreement or delegate the performance of its duties under the Agreement without prior written approval from the TxDOT. Any attempted assignment in violation of this provision is void and without effect.

17. §552.372 Gov't Code Contracting Information Responsibilities

In accordance with Section 552.372 of the Texas Government Code, Sub-recipient agrees to:

- A. preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to TxDOT for the duration of the Agreement,
- B. promptly provide to TxDOT any contracting information related to the Agreement that is in the custody or possession of the Sub-recipient on request of TxDOT, and
- C. on termination or expiration of the contract, either provide at no cost to TxDOT all contracting information related to the Agreement that is in the custody or possession of the Sub-recipient or preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to TxDOT. Except as provided by Section 552.374(c) of the Texas Government Code, the requirements of Subchapter J, Chapter 552, Government Code, may apply to the Agreement and the Sub-recipient agrees that the Agreement can be terminated if the Sub-recipient knowingly or intentionally fails to comply with a requirement of that subchapter.

18. §2155.0061 Gov't Code Human Trafficking Prohibition

Under Section 2155.0061 of the Texas Government Code, the Sub-recipient certifies that the individual or business entity named in the Agreement is not ineligible to receive the specified Agreement/GRANT and acknowledges that this Agreement may be terminated and payment withheld if this certification is inaccurate.

Certification to Purchaser

1. The undersigned vendor certifies that the manufactured good(s) furnished will meet or exceed the specifications, and/or that services rendered will comply with the terms of the solicitation or contract.
2. The undersigned vendor certifies that it has read all of the bid, proposal, or contract documents and agrees to abide by the terms, certifications, and conditions thereof.

Name of Company:

Address:

Telephone:

SS# or Tax ID#:

Printed Name of Person Completing Form:

Signature

Date:

Description of Commodity Service:

Disadvantaged Business Enterprise Information

Type of Organization (check the application type of organization)

- Sole Proprietorship General Proprietorship Corporation Limited Partnership Limited Proprietorship

Is your firm a DBE? Yes No

If yes, what type?

Third Party Procurement Contract Provisions

Third Party Procurement Contracting Provisions

Select the additional third-party procurement contracting provisions based on the type of solicitation you're procuring:

**Procurements cannot be combined. Example: Construction procurement and Rolling Stock procurement, use separate PTN 130s for each.*

- 1. Construction Related Clauses**
 - Federal and State
 - State Clauses

- 2. Rolling Stock Related Clauses**
 - Federal and State
 - State Clauses

- 3. Professional Services / Architectural Engineering**
 - Federal and State
 - State Clauses

- 4. Materials & Supplies Related Clauses**
 - Federal and State
 - State Clauses

- 5. Operations / Management Related Clauses**
 - Federal and State
 - State Clauses

2a. Federal Rolling Stock Related Clauses

- A. Cargo Preference
- B. Bus Testing Certification
- C. TVM Certifications
- D. Pre-Award and Post-Delivery Audits
- E. Federal Motor Vehicle Safety Standards (FMVSS)
 - Awards Exceeding \$100,000
- F. Contract work Hours and Safety Standards Act (contracts only over 100K)
 - Awards Exceeding \$150,000
- G. Buy America \$150,000

A. Cargo Preference

The Recipient agrees to comply with the shipping requirements of 46 U.S.C. § 55305, and U.S. Maritime Administration regulations, "Cargo Preference – U.S.-Flag Vessels," 46 C.F.R. part 381.

B. Bus Testing Certification

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

- I. 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 recipient at a point in the procurement process specified by the recipient which will be prior to the recipient's final acceptance of the first vehicle.
- II. 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.
- III. 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 the recipient prior to recipient'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.
- IV. 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.

Altoona Test Certification (Check one of the following):

- The vehicle has been Altoona tested, report number: _____
- The vehicle is exempt from testing IAW 49 CFR 665.
- The vehicle is currently being tested at Altoona.

Funds will not be released until the purchasing agency receives a copy of the Altoona test report, as appropriate, per 49 CFR 665.

C. TVM Certification

The vendor will provide products compliant with 49 CFR 26.49 by submitting a Disadvantaged Business Enterprises (DBE) Certification certifying the vehicle manufacturer complied with all DBE program requirements listed under 49 CFR 26.

Name of manufacturer of vehicle(s) to be delivered:

D. Pre-Award and Post-Delivery Audits

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.

E. Federal Motor Vehicle Safety Standards (FMVSS) Certification

Any vehicles provided by the vendor will comply with all applicable FMVSS certification. The vendor shall submit:

- I. Manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS; or
- II. Manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

FMVSS Certification	
Name of Company	Printed Name of Person Completing Form
Date	Signature

Awards Exceeding \$100,000

F. Contract work Hours

The Recipient agrees that 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 (29 C.F.R. part 5). Under 40 U.S.C. § 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer based on 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. 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.

Awards Exceeding \$150,000

G. Buy America

Except as the Federal Government determines otherwise in writing, the Recipient agrees to comply with FTA's U.S. domestic preference requirements and follow federal guidance of 49 U.S.C. § 5323(j), and FTA regulations, "Buy America Requirements," 49 C.F.R. part 661, to the extent consistent with 49 U.S.C. § 5323(j);

Buy America (Check where Applicable):

- The vendor or offeror hereby certifies it will comply with the requirements of 49 USC 5323(j) and the applicable regulations in 49 CFR 661, providing Buy America compliant manufactured goods or rolling stock.
- The vendor or offeror cannot comply with the requirements 49 USC 5323(j), but may qualify for an exception to the requirement pursuant to the regulations in 49 CFR 661.

Buy America Certification	
Name of Company	Printed Name of Person Completing Form
Date	Signature

Rolling Stock Certification

The undersigned vendor certifies to abide by these clauses and include the following clauses in each subcontract financed in whole or in part with Federal Transit Administration (FTA) funds. Vendors are certifying by reference the entire list FTA's current fiscal year Certifications and Assurances (for fiscal year 2021), and shall download at:

<https://www.transit.dot.gov/funding/grantee-resources/certifications-and-assurances/certifications-assurances>.

Name of Company	Printed Name of Person Completing Form
Date	Signature

2b. State of Texas Required Clauses: Rolling Stock

- A. Dispute Resolution
- B. Sale or Lease of Motor Vehicles

A. §2260.004 Gov't Code Dispute Resolution

The Recipient agrees to the dispute resolution process provided for in Chapter 2260 of the Texas Government Code must be used to attempt to resolve any dispute under this Agreement.

B. Occupations Code, Chapter 2301 – Sale or Lease of Motor Vehicles §2301.252

- I. A person may not engage in the business of buying, selling, or exchanging new motor vehicles unless the person:
 - a. Holds a franchised dealer's license issued under this chapter for the make of new motor vehicle being bought, sold, or exchanged; or
 - b. Is a bona fide employee of the holder of a franchised dealer's license.
- II. For purposes of this section:
 - a. The make of a conversion is that of the chassis manufacturer;
 - b. The make of a motor home is that of the motor home manufacturer;
 - c. The make of an ambulance is that of the ambulance manufacturer; and
 - d. The make of a fire-fighting vehicle is that of the fire-fighting vehicle manufacturer.

Rolling Stock Certification

The undersigned vendor certifies to abide by these clauses and include the following clauses in each subcontract financed in whole or in part with State of Texas funds.

Name of Company	Printed Name of Person Completing Form
Date	Signature



Fort Bend County Public Transportation
INTENT TO PERFORM AS A DBE CONTRACTOR OR DBE SUBCONTRACTOR/SUBVENDOR

A separate form should be completed for each DBE firm. (Offeror/Prime Contractor and/or Subcontractor/Subvendor)

Name of Offeror/Prime Contractor: _____

Name of Subcontractor/Subvendor: *(if applicable)* _____

Project Name: _____

IFB/RFP/RFQ Number: _____

1. The **DBE Offeror/Prime Contractor or DBE Subcontractor/Subvendor** *(whichever is applicable)* named above must be currently certified under the Texas Unified Certification Program (TUCP) as a DBE (or will be certified at the time this solicitation is due), and asserts that said qualification is met with the ethnic code: _____.

Ethnic Codes:			
A) Black American Male	B) Black American Female	C) Hispanic American Male	D) Hispanic American Female
E) Native American Male	F) Native American Female	G) Asian Pacific American Male	H) Asian Pacific American Female
I) SubContinent Asian American Male	J) SubContinent Asian American Female	K) Non Minority Female	

2. The **DBE Offeror/Prime Contractor or DBE Subcontractor/Subvendor** *(whichever is applicable)* named above is prepared to perform the following described work with their own workforce and/or supply the material listed in connection with the above project.

_____ This work will be performed at the following price \$ _____ (and/or _____ % of the total prime contract amount).

(If this form is being completed relative to a Subcontractor/Subvendor, note that this amount should be the same \$/% amount that is completed on the Subcontractor/Subvendor Participation Form.)

Printed Name of Offeror/Prime Contractor Authorized Representative

Signature of Authorized Representative

Date Signed

Name of Firm that is DBE Certified (if different from Offeror/Prime Contractor):

(Subcontractor/Subvendor)

Printed Name of Authorized Representative

Signature of Authorized Representative

Date Signed



Fort Bend County Public Transportation Subcontractor/Subvendor Participation

Instructions: The Offeror/Prime Contractor shall complete this form by listing: Names of **all** subcontractors/subvendors proposed on this project, Status as a DBE or Non-DBE, \$ or % amount of Total Prime Contract, Description of work to be performed/product to be provided, and Contact information. The subcontractors/subvendors listed on this form as DBEs must be currently certified under the Texas Unified Certification Program (TUCP) as a DBE (or will be at the time this solicitation is due). Additionally, for each DBE subcontractor/subvendor listed on this form, the Offeror/Prime Contractor must complete the Intent to Perform as a DBE Contractor or DBE Subcontractor/Subvendor Form agreeing to the information.

Name of Offeror/Prime Contractor: _____

Project Name: _____

IFB/RFP/RFQ Number: _____

1	Name of Subcontractor/Subvendor	Phone Number	\$/% Amt of Total Prime Contract	Work to be performed/product to be provided
2	Contact Person's Name	Email Address	DBE or Non-DBE	Address
3	Name of Subcontractor/Subvendor	Phone Number	\$/% Amt of Total Prime Contract	Work to be performed/product to be provided
4	Contact Person's Name	Email Address	DBE or Non-DBE	Address

Upon execution of a contract with Fort Bend County Public Transportation, the undersigned will enter into a formal agreement with DBE subcontractors/subvendors for work listed in this schedule. The undersigned agrees to the terms of this schedule by signing below and submitting the Intent to Perform as a DBE Contractor form (as completed by the DBE subcontractors/subvendors). If you are a DBE Offeror/Prime Contractor, you also certify that no more than 70% of the work for this project will be subcontracted.

Printed Name of Authorized Representative of Offeror/Prime Contractor
Rev 1/4/2022

Signature

Date Signed

CONTRACTOR PAYMENT REPORT

**Fort Bend County
Public Transportation
3737 Bamore Rd.
Rosenberg, TX 77471
Phone 281-633-7433
Fax 832-471-1843**

1. Contract Number	2. Invoice Number
3. Reporting Period & Invoice Date	4. Invoice Amount \$

Please Return Completed
Form with Invoice to:
Theresa.Tiemann@
fortbendcountytx.gov

All prime contractors are required to complete and submit this report as specified in the contract, or as requested, until final payment of the contract. Failure to comply with Fort Bend County's Disadvantaged Business Enterprise (DBE) provisions may result in delayed payment by Fort Bend County Public Transportation in accordance with the procedures set forth in Fort Bend County's DBE Program. **This report must be submitted with each invoice.** Instructions for completing this report can be found on the following page.

5. Contractor's Name	6. Contact Person	7. Address	8. Phone Number
9. Date of Contract Award	10. Scheduled Date of Completion	11. Original Contract Amount	12. Amended Contract Amount
		\$	\$
13. Total Amount Received to Date	14. Remaining Amount Owed	15. Committed DBE %	16. % Actual DBE Participation to Date
\$	\$		

17. Name of each Subcontractor that this Invoice applies to	18. DBE or Non-DBE	19. Description of Work	20. Invoice Number	21. Invoice Date	22. \$ Amount of Invoice	23. Subcontract Dollars \$	24. \$ Amount Paid to Date	25. % Paid to Date

By completing this form, the contractor acknowledges Fort Bend County's prompt payment policy which requires the contractor to pay all subcontractors within 30 days of receiving payment from Fort Bend County.

Authorized Signature	Date	Printed Name and Title

FORT BEND COUNTY PUBLIC TRANSPORTATION INSTRUCTIONS FOR COMPLETING THE CONTRACTOR PAYMENT REPORT

The Contractor Payment Report is to be filled out by the contractor and submitted with each invoice that the contractor submits to Fort Bend County Public Transportation. Please follow the instructions below, which correspond to each item on the report.

<ol style="list-style-type: none"> 1. <u>Contract Number</u> Fill in the Contract # assigned to your project by Fort Bend County. 2. <u>Invoice Number</u> Fill in the Invoice Number that corresponds with this report. 3. <u>Reporting Period & Invoice Date</u> Fill in the period of time your invoice covers (period of time for which you are invoicing), and the Invoice Date. 4. <u>Invoice Amount</u> Fill in the amount of the Invoice. 5. <u>Contractor's Name</u> Fill in your company's name. 6. <u>Contact Person</u> Fill in the first and last name of the person completing the report. 7. <u>Address</u> Fill in your company's address. 8. <u>Phone Number</u> Fill in your company's phone number. 9. <u>Date of Contract Award</u> Fill in the date the contract was executed by Fort Bend County. 10. <u>Scheduled Date of Completion</u> Fill in the scheduled completion date of the contract as written. 11. <u>Original Contract Amount</u> Fill in the dollar amount of the original contract agreed upon by your Company and Fort Bend County. 12. <u>Amended Contract Amount (if applicable)</u> Calculate: Dollar amount of the original contract plus/minus the dollar amount agreed upon for contract modifications (if applicable). Fill in the amended amount. 13. <u>Total Amount Received to Date</u> Fill in the dollar amount you have received to date from Fort Bend County. 	<ol style="list-style-type: none"> 14. <u>Remaining Amount Owed</u> Calculate: Dollar amount of the contract minus the amount paid to you to date by Fort Bend County. Enter the dollar amount. 15. <u>Committed DBE %</u> Enter the percentage of DBE participation you committed to obtain in the contract. 16. <u>% Actual DBE Participation to date</u> Calculate: Total combined dollar amount paid to the DBEs divided by the dollar amount received from Fort Bend County to date. Enter the percentage. 17. <u>Name of Each Subcontractor That This Invoice Applies To</u> List the name of each subcontractor that submitted an invoice to you in this period. (Ref #3) (Use additional sheets if necessary.) 18. <u>DBE or Non-DBE</u> Fill in accordingly. 19. <u>Description of Work</u> Brief description of the work performed by the subcontractor 20. <u>Invoice Number</u> Fill in the number of the invoice submitted to you by the subcontractor in this period. 21. <u>Invoice Date</u> Fill in the date of the invoice submitted to you by the subcontractor in this period. 22. <u>\$ Amount of Invoice</u> Enter the amount of the invoice submitted to you by the subcontractor in this period. 23. <u>Subcontract Dollars \$</u> Enter the total committed dollar amount to the subcontractor. 24. <u>\$ Amount Paid to Date</u> Enter the total amount you have paid the subcontractor to date. 25. <u>% Paid to Date</u> Calculate: Dollar amount paid to the subcontractor to date divided by the amount committed to them. (Item 23 divided by Item 22). Enter the percentage.
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EXHIBIT I

Vehicle Specifications for Medium Duty Cutaway Bus, Type 11 40 passenger

Whenever a specific trade or product name is used within this specification, the following statement applies: **“or approved equal with the same standards of quality, design, and performance.”**

1 GENERAL REQUIREMENTS

- 1.1 Vehicles shall be of the body on chassis type and will involve the construction of a body on a medium-duty cut-away van or truck chassis. The vehicle body shall be a body manufactured by a body manufacturer for transit application, not converted or modified to a transit vehicle from a sports van, passenger van or wagon, delivery vehicle, school bus, recreational vehicle, or similar vehicle. Body construction shall be a conventional type, panels on structural metal frames, as described later in this document.
- 1.2 The vehicles shall be able to operate daily on all urban, suburban and rural primary and secondary roads within the State of Texas.
- 1.3 The vehicle proposal shall be the chassis manufacturer’s current production year, 2022 Model Year or newer. The basic vehicle, both chassis, and body must be a current year factory production cutaway model that is cataloged by the manufacturer and for which manufacturer's published literature and printed specifications are currently available.
- 1.4 These specifications reflect the County’s preference as to dimensions, materials, and major components. However, the contractor shall not omit any part or detail, which goes to make the vehicle complete and ready for service, even though such part or detail is not mentioned in these specifications.
- 1.5 All units or parts used in the assembly of the final product shall be the manufacturer’s best quality and shall conform in material, design, or workmanship to the best practice known in the transit industry. All parts shall be new and in no case shall be used, reconditioned, or obsolete parts are accepted.
- 1.6 These specifications intend to provide and require a complete vehicle of the type prescribed ready for operation.
- 1.7 In the event that any of the attached specifications deviate from the American’s with Disability Act requirements as published in 49 CFR § 27, 37, and 38 the specifications of the higher standard will apply.
- 1.8 In accordance with Publication 101-592 and 15 CFR § 280, all fasteners utilized in the assembly and construction of coaches, sub-assemblies, or components procured under this Contract shall comply with all applicable Federal, State, and local law ordinance and shall be appropriate for the intended application. The Contractor shall procure and deliver fasteners made in the United States for use in the coach manufacturing process. The steel shall be of high quality and for use in general and critical applications. At a minimum, Grade 8 bolts, nuts, flat, and lock washers shall be utilized in all critical applications, including but not limited to: steering, suspension, axle assemblies, undercarriage, propulsion system, wheelchair occupant restraints, seating, etc. Standard hardware installed by the chassis manufacturer will be accepted. All items covered by these specifications shall

conform to applicable SAE, U.S.S., or Metric Standards and shall be of U.S. manufacture. No counterfeit fasteners shall be permitted. Should the County find the Vendor or their suppliers providing counterfeit fasteners of any type, the Vendor may be declared in default in accordance with the Contract Documents. Fastener materials shall be compatible with materials being fastened. Where self-tapping fasteners are used, body panels shall be reinforced with steel backing, aluminum backing, or stainless-steel backing.

2 VEHICLE CLASS AND OVERALL DIMENSIONS

- 2.1 The following dimensions and characteristics are given to indicate the approximate size and type of vehicle desired. Floor/seating plans of the proposed bus indicating compliance with the overall specified dimensions must be submitted with the proposal documents.
- 2.2 Vehicles shall conform to the requirements of the following table for the Diesel Engine base specification requirements.

VEHICLE CLASS	FORD F650/FREIGHTLINER OR APPROVED EQUAL
Seating Capacity	40
Number of Wheelchair Positions	2
Minimum OEM Gross Vehicle Weight Rating in Lbs.	19,500 - 26,000
Wheel Base (inches)	228 - 330
Width (inches)	96

- 2.3 **Length**: The overall length of the vehicle shall be the minimum necessary to satisfy the specified seating configurations of this proposal while meeting all applicable FMVSS requirements and chassis manufacturer requirements for weight distribution.
- 2.4 **Width**: Exterior 102-inch (maximum). Interior 92-inch (minimum).
- 2.5 **Height Overall**: Standard and Flat floor buses: not to exceed 129-inches.
- 2.6 **Gross Vehicle Weight Rating (GVWR)**: The GVWR shall not exceed the weight of a fully-loaded vehicle. A fully-loaded vehicle equals the weight of the vehicle equipped to meet these specifications, verified by a weight ticket, plus the weight of the passengers (minimum 150 pounds for each ambulatory placement, minimum 250 pounds for each wheelchair placement, depending on wheelbase. Higher pound capacity shall be provided for larger cutaways).
- 2.7 **Wheelbase**: The vehicle wheelbase shall be sufficient to accommodate seating configurations required while meeting applicable Federal/State safety requirements and chassis manufacturer's specifications for weight distribution. Contractor to provide the engineered wheelbase as part of the submitted floorplan diagram. Provide the shortest wheelbase allowable.
- 2.8 **Step Height**: With the vehicle at its curb weight and parked on a level surface the step height as measured from the ground to the top of the first step shall be no more than 12 (+/- .5) inches, unless a flat floor is being provided. Contractors shall specify flat floor first step height if different.
- 2.9 **Wheel Well (Flat Floor Only)**: On flat floor floorplans and specifications, wheel wells are not to protrude above the interior floor of the vehicle. The vehicle must maintain the same interior height as non-flat floor buses.

3 BODY

- 3.1 The vehicle manufacturer shall certify that its latest body design and construction method is furnished under this contract meets FMVSS 220 at a minimum.
- 3.2 The body shall be free of cracks, dents, defects, or physical damage.
- 3.3 All nuts, bolts, clips, washers, clamps, and fasteners, including those that would be exposed to the elements on the exterior and interior of the unit, shall be zinc or cadmium plated, phosphate coated, or stainless steel to prevent corrosion. No metal sheet screws shall be permitted.
- 3.4 Fenders and splash aprons (underskirt) of durable construction shall be provided to provide maximum deflection of the wheel splash. Front and rear mud flaps are required.
- 3.5 Roof gutters shall be installed over the windows and doors. Gutters shall be designed so as not to spill water on driver's exterior mirrors and intermediate drain holes shall not drain water on windows and doors when open or closed.
- 3.6 All components, subassemblies, or partially completed assemblies that are subject to corrosion and/or absorption of moisture shall not be stored in an environment subject to the influences of moisture, wind, etc. without being protected against such environmental influences.
- 3.7 Two (2) rear tow hooks shall be provided, accessible under the rear bumper. The towing devices shall be adequate in design and construction to permit towing the vehicle without distortion or failure.
- 3.8 Fender Wells shall be made of galvanized metal at a minimum.
- 3.9 Resonance: The vehicle body shall be constructed in a manner that minimizes vibrations, rattles, and other body noises during normal use.
- 3.10 License Plates: All brackets, bolts, nuts, and miscellaneous fasteners for attaching front and rear license plates to the vehicles shall be provided by the successful Contractor. Front and rear license plate holders must be mounted/bracketed to the safety bumper by the contractor before delivery to the County. License plate holders for the rear should be illuminated by LED lights.
- 3.11 Body is required to be water tested upon completion at the manufacturer's location to ensure there are no water leaks of exterior seams, roof construction, or overall structure. Testing shall be done with water nozzles appropriately placed to test the entire conversion. Minimum 20-psi water pressure for testing is required for a minimum of 10 minutes.
- 3.12 Undercoating: The entire underside of the body including floor members, side panels below floor level (if metal), and fender wells shall be undercoated, at the time of manufacture, with a non-flammable resin type polyolefin undercoating for bus applications. All openings in the floorboards and firewall shall be sealed. Care shall be taken to prevent overspray of electrical cabling, air, brake, and fuel hoses.

4 STRUCTURE

- 4.1 The vehicle shall have a purpose-built body, which will provide for a minimum floor to ceiling distance of 78-inches at the center aisle. It shall include a minimum 1 ½ inch steel tubing roll cage that is set on a maximum of 24-inch centers or less, for the floor, sidewall, and roof. The floor frame must be welded to the sidewall frame, and the sidewall frame must be welded to the roof frame. Steel roll cage must form a complete unitized body and a steel support cage behind the front and rear cap to prevent flexing. All steel joints must have gussets for additional

strength. All steel parts shall either be galvanized, powder-coated, or primed to prevent rusting. Composite construction is not acceptable. The entire sidewall structure shall be a minimum of 1½ inch steel tubing and vacuum laminated and bonded as an integral unit. The use of double-sided tape during any point of the sidewall construction is not allowed. Shall have a galvanized steel exterior skin with a minimum thickness of .024 inches. Construction methods utilizing double-sided tape to secure sidewall skin will not be accepted. All surfaces and hardware having sharp edges, corners, or angles that could cause injury shall be covered and padded with heavy-duty vinyl-foam type material. The roof will be constructed of the same reinforced materials as the body of the vehicle and of sufficient strength to prevent vibration, drumming, and flexing. Shall have a Galvanized Steel Roof Skin with a minimum thickness of .024 inches. Roof design will prevent ponding of water on the roof. The completed body shall meet the requirements of FMVSS-220 School Bus rollover protection.

- 4.2 The body shall be constructed to provide maximum protection to passengers in case of a rollover accident or a crash accident to the side or rear of the bus.
- 4.3 Front body caps shall be constructed of solid one-piece reinforced molded fiberglass, bonded and sealed to the vehicle body by a minimum of 1-inch overlap to prevent the penetration of moisture into the interior of the vehicle body. Fiberglass caps shall be of the sturdiest construction possible to endure the entire life of the vehicle.

5 ROOF CONSTRUCTION

- 5.1 The roof super-structure shall be constructed of a 1-piece seamless FRP or 3-piece galvanized metal construction. The roof panel shall lap side panels by a minimum of 1-inch. The overlapping panel construction is to preclude water leakage into the vehicle. Panels shall be riveted, bonded, or welded to the superstructure. The roof construction shall be of sufficient strength to prevent vibration, drumming, or flexing. The roof is to be designed and installed in a professional manner that is smooth and without bumps, waves, or has an imperfection due to installation or material that will not allow the pooling of water.

6 DOOR CONSTRUCTION

- 6.1 **Passenger Door.** The front passenger entrance door must be an electrically operated transit-type door, located in the coach body. Operating controls should be located within easy reach of the driver. Door Opening: Minimum height 80-inches from the top of the first step to entrance header; minimum width 30-inch clear opening.
Wheelchair Lift Doors. A double door entrance shall be provided on the right (curb) side of the vehicle in front of the vehicle's rear wheels. The door opening shall be of sufficient width and height to accommodate a wheelchair lift as specified in Section 22.

7 INTERIOR AND FLOORING

- 7.1 **Interior.** All interior panels shall be vinyl-coated metal or equal in durability and cleaning ease. The contractor shall provide a list of available colors at their quoted price and may also include a list of colors available at additional cost. The Interior shall be trimmed with attractive molding, covering all seams. All surfaces and items or hardware in the passenger compartment having sharp edges, corners, or

angles that could cause injury shall be passed with heavy-duty vinyl-covered foam-type material. The door and instrument panel is to be painted or otherwise finished to match the overall tones of the interior panel.

- 7.2 **Floor Assembly.** The floor shall consist of ¾ inch 7-Ply marine tech grade plywood construction of sufficient strength and supports to not allow flexing of the finished or surface floor. The chassis, body, and flooring shall be attached in such a manner as to act as one (1) unit without any movement or flexing at the joints.

8 EXTERIOR SEAMS

- 8.1 All exterior seams shall be constructed in such a manner as to shed water and exterior panels shall have lap joints.
- 8.2 In no case shall the sealing of panels be dependent on caulking alone. Zinc chromate caulking, butyl rubber tape, or an approved equal shall protect all exterior joints and seams. No water leaks in the body will be acceptable. All exterior sealants shall be sealed with white sikaflex 505UV or approved equal.

9 INSULATION

- 9.1 Insulation shall be provided on both walls and roof. Adequate insulating properties shall be provided to ensure minimum heat, cold, and noise penetration into the vehicle interior. Insulation may be accomplished through the use of vacuum design or equivalents approved with a minimum R-value of 8, fire-resistant.
- 9.2 Equivalent to 3.81 centimeters (1½ inch) block foam, type of insulation, and method to be defined by the contractor shall be installed in the roof, rear wall, front and rear caps, sidewalls, and extended door sections including lift doors, minimum value R8 or above. If additional insulation is necessary to meet the requirement, the insulation shall be glued to the chassis body to prevent sagging.
- 9.3 The insulating material of the body and sidewalls shall be of sufficient thickness to contact the inner and outer walls, ensuring a positive vapor barrier equivalent to 38.1 millimeters (1½ inch) of block foam. Any insulation material used between the inner and outer panels shall be sealed or self-sealing to minimize entry and/or retention of moisture. Insulation properties shall be unimpaired during the service life of the bus. Any insulation material used inside the engine compartment shall not absorb or retain oils or water and shall be designed to prevent casual damage that may occur during maintenance operations.
- 9.4 Insulation shall comply with all federal requirements and shall pass the testing requirements specified in the Federal Transit Administration (FTA) recommended Fire Safety Practices for Transit Bus and Van Materials Selection. The combination of inner and outer panels on the sides, roof, wheel wells, and ends of the bus, and any material used between these panels shall provide thermal insulation sufficient to meet the interior temperature requirements of these specifications.
- 9.5 The bus body shall be thoroughly sealed so that the operator or passengers cannot feel drafts during normal operations with the passenger doors closed.

10 DIESEL ENGINE

The following chassis requirements are based upon the County's current requirements. Any chassis with proven service history is acceptable to the County. Alternate configurations shall be evaluated.

- 10.1 **Engine**
 - 10.1.1 6.8L diesel engine, turbo-charged, per OEM specifications. Largest HP rating available.
 - 10.2.1 Fuel line water separator.

- 10.2 **Transmission**
 - 10.2.1 Automatic transmission with overdrive, latest model available. Specify speed.
 - 10.2.1 A chassis manufacturer's heavy-duty auxiliary transmission oil cooler shall be provided if it is available from the chassis manufacturer. Aftermarket oil cooler shall not be accepted.
 - 10.2.1 Oil pan with magnetic drain plug and re-usable gasket if it is available from the chassis manufacturer. Aftermarket oil pan shall not be accepted.
 - 10.2.1 The vehicle shall be equipped with an audible warning device in compliance with SAEJ994b that is activated when the vehicle transmission is engaged in reverse and continues as the vehicle is being backed up. This should be located behind the rear axle of the vehicle and all wires should be enclosed and secured. The dBA sound measurement shall be a minimum of 87 dBA +/-3 dBA. The dBA sound measurement shall be measured from 3 feet above the ground and 2 feet behind the rear bumper at the StreetSide rear corner of the vehicle.

- 10.3 **Power Steering**
 - 10.3.1 Power steering is required.
 - 10.3.2 Chassis manufacturer's tilt and energy-absorbing steering column and steering wheel.
 - 10.3.3 Steering shall incorporate an OEM factory-installed tilt wheel feature.
 - 10.3.4 OEM factory-installed cruise control.

- 10.4 **Emission**
 - 10.4.1 Contractors are required to meet all current Diesel Emissions Environmental Protection Agency (EPA) requirements and technology should be modified per any federal change in the law during the procurement and/or contract period. This must include all Diesel Exhaust Fluid (DEF) provisions and storage requirements.
 - 10.4.2 The vehicle shall be equipped with a heavy-duty, corrosion-resistant exhaust system that meets or exceeds FMVSS and EPA noise level and exhaust emission (smoke and noxious gas) requirements, including all State of Texas requirements, whichever requirements are more stringent.
 - 10.4.3 Heavy-duty exhaust hangers shall be standard equipment and shall be bolted to the frame. All hanger U-bolt thread orientation must be directed sideways. All exhaust system modifications shall use the exact type, size, and gauge material as the OEM exhaust system. The use of flex pipe for exhaust modification will not be permitted. At a minimum, there should be three (3) tailpipe hangers.
 - 10.4.4 The exhaust pipe discharge shall be at the rear street-side corner of the vehicle (behind the rear axle) not to interfere with the lift operation,

depending on lift configuration. The exhaust pipe is to be routed perpendicular to frame rails, 12-inches behind the fuel tank with a 90-degree bend from the OEM exhaust pipe, attached to both frame rails with no more than 3-inches of space between the bottom of frame rails and top of the exhaust pipe. Street side exhaust shall protrude 1-inch beyond the lower body panel with a maximum clearance of 2-inches between the top of the exhaust pipe and the bottom of the lower body panel.

10.5 **Fuel Tank**

- 10.5.1 DEF tank fill shall be OEM style, separate from the diesel fuel fill door with a locking cover located on the driver's side of the vehicle.
- 10.5.2 Fuel tanks shall have the maximum capacity as offered by the manufacturer. Contractor shall specify capacity with the proposal.
- 10.5.3 The chassis OEM fuel system shall not be modified. Any fuel tank breached during modification shall be removed and replaced with a new fuel tank. Repair of the breached tank by any means will not be acceptable. Access to the fuel tank from the vehicle exterior must consist of a locked, enclosed area via a metal locking fuel door, exposed fuel tank caps are not acceptable. The fuel tank must contain a full tank of fuel upon delivery to the final destination.

10.6 **Final Drive**

- 10.6.1 A differential ratio, appropriate for maintaining legal highway speeds without excessive strain on the engine and transmission, yet capable of providing adequate, safe exhaust from a stop, shall be provided.
- 10.6.2 The driveshaft, bearing and U-joint shall be the OEM's standard for the GVWR specified. One (1) or more protective metal guards for the drive shaft are required to prevent any section of the shaft from entering the vehicle or striking the ground in case of failure, in accordance with 49 CFR § 393.89. Guards shall be 3/16-inch thickness steel (minimum) bolted to the frame.

10.7 **Suspension**

- 10.7.1 Front axle shall be the manufacturer's standard. It must be load-rated for the GVWR of the size bus involved.
- 10.7.2 Coil Springs or leaf springs may be provided in the front. Springs shall be progressive to give an acceptable ride under various load conditions.
- 10.7.3 Front shock absorbers shall be heavy-duty double acting gas-filled, and load rated, capable of controlling the ride when the vehicle is empty, as well as when loaded to the GVWR. Highest rating available from OEM.
- 10.7.4 The rear suspension system must include OEM Load Leveling Suspension (SER) to maintain a level position once loaded to full capacity without affecting the ride quality. Front and rear stabilizer bar shall be provided, if available from the original chassis manufacturer. The rear suspension must be equipped with Air Ride

utilizing two (2) rear airbags, leveling valves, and heavy-duty shock absorbers.

10.7.5 Frame Height should be equal on both sides of the vehicle, requiring additional springs to compensate for lift weight, regardless of lift position.

10.8 **Tires**

10.8.1 Vehicles shall be equipped with seven (6 + 1 spare) premium tubeless, steel-belted, black sidewall, all-weather radial tires, the largest size available from the OEM for GVWR specified.

10.8.2 All tires shall be electronically spin balanced to a minimum speed of 65 MPH.

10.8.3 The inside dual tires mounted on the rear axle shall have air valve extensions.

10.8.4 One (1) appropriate size jack will be provided with the spare tire in the vehicle.

10.9 **Wheels**

10.9.1 Vehicles shall be equipped with the heaviest duty 19 ½ inches (minimum), 1-piece ventilated steel wheels recommended for the GVWR, and tires specified. All wheels shall be interchangeable.

10.9.2 One (1) spare wheel, matching the wheels on the bus with an identical tire shall be supplied per bus.

10.9.3 The chassis manufacturer's lug nut indicators if available from the chassis manufacturer shall be installed on all wheels.

10.10 **Brakes**

10.10.1 Services brakes shall be full air drum brakes with ABS all-wheel anti-lock braking system, if available for the selected vehicle. Hydraulic self-adjusting power front and rear discs with an anti-lock ABS are acceptable if air brakes are not an option. The braking system shall comply with FMVSS 105 and FMVSS 106.

10.10.2 The braking system shall be heavy-duty and the largest offered by the manufacturer for the GVWR specified.

10.10.3 Brakes shall conform to all Federal and Texas Motor Vehicle Safety Standards.

10.10.4 Parking brake shall be standard manufacturer's mechanical type, independent of the vehicle's service brake system. It may be a heavy-duty hand or foot-operated parking brake with a warning light on the dashboard.

10.10.5 If four-wheel disc brakes are supplied, specify the type and the location of the parking brake.

10.10.6 The parking brake shall be factory installed in the rear braking system and not lock on the driveline.

10.10.7 The brakes shall be free of objectionable noise or squeal when applied.

10.11 **Electrical System**

10.11.1 The vehicle shall be supplied with an alternator-powered 12-volt electrical system. The vehicle is to be equipped with an OEM or

approved equal 225 extra heavy-duty amp alternator with an integral voltage regulator and easily accessible for maintenance and repair. Dual alternator systems will be allowed but must be identified in the proposal for consideration.

- 10.11.2 All controls and instrumentation necessary for safely operating the vehicle shall be located within easy reach of a fifth (5th) percentile female through to a ninety-fifth (95th) percentile male driver seated in the driver's seat with the driver's seat belt fastened.

10.12 **Battery**

- 10.12.1 Two (2) heavy-duty 12-volt batteries, with a combined 1400 CCA minimum for diesel engines. The batteries shall be lead acid premium construction and maintenance-free. The positive (+) and negative (-) terminals shall be of different sizes on the same battery to prevent incorrect cable installation. All battery terminals shall be coated with an anti-corrosion and sealant protector.
- 10.12.2 Both batteries shall be located in a lockable box mounted on the curbside of the bus unless the Chassis manufacturer requires otherwise. This battery box shall include a slide-out tray that securely locks in the stowed position. The slide-out tray shall be made of galvanized metal or stainless steel. Box location should be no lower than the bottom of the entry door.
- 10.12.3 The battery tray slides shall have the ability to carry twice the weight of the bus batteries. The battery tray shall have adequate drain holes (a minimum of two (2)). The battery box shall also be equipped with two (2) drain holes preferably adjacent to the two (2) battery tray drain holes when the tray is in the stowed position. The tray shall have the ability to extend 3-inches (minimum) beyond the opening of the battery compartment. Drain holes to be closely aligned when the battery tray is in the stowed position. Battery hold-downs should be properly sized and prevent the battery from shifting or moving in the battery tray which may require shift blocks made of an insulating material to prevent corrosion. All battery securement devices and securement hardware, including slides and tray shall be stainless steel and be self-locking or tension retaining hardware. Battery box must be designed with full support under the tray. Battery trays that are built without structural support underneath will not be accepted.
- 10.12.4 One (1) thumb-release latch and one (1) locking latch that will rotate 180 degrees from the closed position shall secure the battery compartment door. A chrome retractable latch shall hold the door in the open position. A diagram showing the configuration of the battery cable installation shall be installed to the inside of the battery compartment. Cables shall be long enough to allow specified pull-out extension and shall be protected and flexible enough to fold away when stowed without shorting or damaging the cables. Battery cables installed in place of chassis manufacturer's battery cables must be heavy-duty, continuous run, and sized to match the electrical systems maximum draw.

10.12.5 Access to the battery tray shall be from outside the bus. The access door to the battery box shall swing up at a minimum of 60 degrees to the horizontal plane. With the compartment door lock not in the locked position, the door shall remain in the closed position when the bus is traveling at any safe speed or making any safe type of turning maneuver. The battery box shall be sealed to prevent road debris, dust, rain, snow, or other forms of precipitation from entering the box, but shall not be airtight for safety reasons.

10.13 **Wiring**

10.13.1 Original manufacturer's vehicle wiring shall remain unchanged to the greatest extent practicable consistent with the requirements of these specifications. All add-on electrical components controlling the power to the bus body electrical circuits shall be located in a separate electrical junction box. The junction box shall be easily accessible through a hinged lockable door. The junction box shall be suitably sized to allow for ease of maintenance, repair, and ten (10) percent additional space for the installation of future electrical components. The junction box shall be located within accessible reach of the driver. All body harnesses shall join on a terminal strip made of high-strength dielectric material. All circuits shall be protected by manual reset circuit breakers, in lieu of fuses. Circuit breakers shall be numbered and sized to provide proper overload protection for each circuit.

10.13.2 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 currents without significant voltage drops.

10.13.3 All wiring, including chassis manufacturer's, shall be enclosed in non-metallic loom meeting current SAE Standard J762a and be adequately supported by fully insulated pinch clamps with a minimum spacing of every 24-inches and routed for protection from heat, moisture, solvents, corrosion, road debris, abrasion, and tension. Tie wrap shall be used minimally in the securement of electrical harnesses and wiring.

10.13.4 All non-OEM wiring connections greater than 10-gauge shall be properly crimped, soldered, and sealed with heat shrink tubing. Crimping by hydraulic crimper or electrical crimper that fuses the connector and the wiring is acceptable in lieu of soldering. Contractor to supply a sample of crimped connector greater than 10-gauge.

10.13.5 The bend radii of all installed electrical wires and cables shall not exceed the manufacturer's recommended minimum bend radii. All parts of the wiring system and electrical components shall be protected from corrosion. All connectors installed on the underside of the vehicle and/or exposed to any outside element and/or have a 20 amp and high circuit breaker within its electrical circuit shall be double insulated.

10.13.6 There shall be no exposed or loose wiring in the driver or passenger compartment. Any bus body wiring harnesses containing exposed excess lengths shall have the excess length neatly gathered and secured to a rigid bus body or chassis frame member.

10.13.7 Wiring shall be of sufficient length to permit positioning, as well as replacement of terminals, twice, without excessive tension.

- 10.13.8 Protective grommets shall be provided at points where wiring penetrates metal or other material.
- 10.13.9 Three (3) added grounds shall be installed on the vehicle; all shall be # 0-gauge cable. One (1) ground shall be installed between the engine and the OEM frame. The second ground between the Cutaway Body frame and the OEM frame, and a third between the lift pump housing and the side battery, grounds must be continuous, without splices. For all ground connections, paint or foreign material must be removed and a coating of dielectric material applied to the cleaned surface where each ground attaches.
- 10.13.10 All wires shall be color-coded or numbered every 6-inch maximum to correspond with the wiring diagram for ease of service and identification.
- 10.13.11 Complete “as-built” wiring schematics shall be provided with each vehicle, specifically matching the vehicle provided with all options included. General wiring diagrams will not be accepted.
- 10.13.12 Farebox shall be mounted with the trip handle toward the driver. It shall be mounted on a stanchion, adequately braced, located near the driver, and easily accessible to passengers entering the bus. An amber or indirect fare box light shall be connected to the dash instrument lights. Two (2) interchangeable lockable fare box vaults and farebox, keyed alike with a double set of keys for each lock shall be supplied. Vault and farebox exteriors shall be marked with key references. The farebox shall be constructed with heavy-duty stainless steel. The window shall be scratch and breakage-resistant Lexan material. The farebox dimensions shall be 6.5 inches wide x 5.5 inches deep x 16.75 inches high. The total unit weight shall be 17.5 lbs. The County is currently using Diamond XV Rectangular Fare boxes or approved equal.

11 CLIMATE CONTROL

All-climate control system controls shall be located within easy reach of the operator and shall be located on a control panel.

11.1 Heating/Air Conditioning/Defrosting Requirements

- 11.1.1 Chassis manufacturer’s in-dash deluxe heater and defroster, maximum BTU rating available, shall be provided.
- 11.1.2 All vehicles require an integral front air conditioner OEM chassis manufacturer rated at 15,000 BTU minimum as installed with factory dual compressor.
- 11.1.3 Auxiliary rear air conditioner capable of producing a minimum of 74,000 BTU with 665 CFM diffused airflow equal at a minimal. The system must be adequate for the size of the bus proposed and must meet the Houston Pull Down Test.
- 11.1.4 Cooling shall be specified in BTU at 100°F, ambient temperature.
- 11.1.5 The condenser for the air conditioner shall be mounted in the body skirt and shall have a minimum of three (3) .25-m (10-inch) fans cooling the condenser with automatic reset.
- 11.1.6 The evaporator shall be mounted at the wall ceiling junction at the rear of the bus and shall not reduce the headroom to less than 1.52-m (59-

- inch) and not extend outward from the rear wall more than .6096-m (24-inch) into the passenger compartment area.
- 11.1.7 Evaporator drain shall run downhill from the evaporator housing. Elbow, or turn down, shall be a minimum of ½ inch below the outlet on the housing. Drains must be installed to prevent puddles of water from being retained in the system.
- 11.1.8 The refrigerant lines to the evaporator must be adequately supported between the wall of the bus and the evaporator.
- 11.1.9 All refrigeration, heater, and drain lines that enter the passenger compartment shall be encased in a rigid material, fiberglass, aluminum, etc. that harmonizes with the interior to prevent injury to passengers in the event of line eruption.
- 11.1.10 The air conditioning system shall use environmentally friendly refrigerant R134A or approved equal. The entire air conditioning system, including add-ons, shall utilize the same type of refrigerant supplied by the chassis manufacturer
- 11.1.11 A label must be placed in the engine compartment-detailing manufacturer's name, refrigerant type and quantity, compressor oil type, and quantity.
- 11.1.12 The evaporator and condenser must be matched to the compressor as per the manufacturer's recommended installation instructions.
- 11.1.13 Refrigerant hoses shall be SAEJ2064, double braided Barrier type Goodyear, Aeroquip, or approved equal and shall be completely enclosed in loom over the entire length to prevent chaffing. The refrigerant hoses shall be supported at a minimum of every 24-inches with fully insulated "P" clamps.
- 11.1.14 Refrigerant fittings shall be ATCO, Aeroquip, or approved equal. These fittings may be "O" ring types. In addition, a complete set of the refrigerant fitting shall be supplied to the County upon delivery of the vehicle. A complete set constitutes enough fittings to replace the entire system.
- 11.1.15 Protective grommets shall be provided at points where refrigeration, heater, and drain hoses penetrate metal or other materials.
- 11.1.16 All HVAC system hoses and wires that pass within 12-inches of the exhaust system shall be shielded in a manner to prevent heat damage to them. All hoses must be a minimum of 6-inches away from the catalytic converter and 4-inches away from exhaust pipes and muffler.
- 11.1.17 Each vehicle shall have a front-mounted integral high output heater and a rear output auxiliary heater mounted either to the floor or to the ceiling above the rear exit door. Rear heater location to be determined individually for each bus purchase by the County. The front heater and defroster shall be an OEM chassis manufacturer.
- 11.1.18 The rear heater shall be equipped with an electric operated heater control valve to be activated by the heater on/off switch. The total output of the auxiliary heater system shall not be less than 65,000 BTU.
- 11.1.19 Heater booster circulator pumps may be required to force air up and assist in the proper circulation of air to the rear of the bus. Booster pumps are to be activated by the heater on/off switch. If booster pumps are not required, the contractor is to explain why.

- 11.1.20 All heater water coils will be heavy-duty copper or aluminum. Heavy-duty quarter turns to shut-off valves shall be located in the supply and return lines to the heater. These valves shall be readily accessible.
- 11.1.21 Heaters are to be controlled by two (2) individual three-position switches (off, low, and high).
- 11.1.22 All hoses, drains, and wiring must be covered and adequately supported with plastic/rubber-coated steel clamps secured at a minimum of two-foot intervals. All heater hoses are to be silicone, with clamps designed for use with silicone hoses. Combustion heaters are not acceptable. Shutoffs shall be on all hoses.
- 11.1.23 Heater and associated hardware shall meet SAE-recommended standards and practices and shall meet the applicable criteria of 49 CFR 393.77.
- 11.1.24 The inside air system, when running at its lowest settings, shall filter air at a rate of 15 cubic feet per minute per passenger. The HVAC system shall be equipped with a HEPA-14 filtration system or equivalent that contains a Minimum Efficiency Reporting Value (MERV) of 16 or better.

11.2Roof Hatch

- 11.2.1 Vehicles shall be equipped with one (1) Transpec Model 1000 or approved equal, roof ventilation/escape hatch nominally centered in the vehicle roof. Roof ventilation/escape hatch features shall include five-position ventilation (minimum), a rubber gasket to prevent leaks, and emergency exit capability.

12 INTERIOR TRIM

- 12.1 Sidewall rear wall and ceiling trim panels shall be melamine, ABS plastic, FRP, smooth fiberglass gel coat, vinyl, polypropylene fiber, or an approved equal, applied in one (1) or more sections. Trim molding of stainless steel, anodized aluminum, FRP, or ABS plastic shall be used to cover seams. The trim molding shall be continuous except at the door openings, wheel well, and fuel intake line covers and run the entire length of each seam covered.
- 12.2 Panels shall be supported to prevent, buckles, vibration, drumming, or flexing and particular care shall be exercised to keep the body light fixtures from weaving or bouncing when the coach is in service. The ceiling panels shall be supported to prevent sagging.
- 12.3 All interior panels, materials, and treatments shall be flame retardant in conformance with FMVSS 302 and treated to be easily cleaned.
- 12.4 The interior of the driver's area shall be padded with 1/4-inch foam and covered with vinyl to aid in noise reduction. Other materials such as "recycled Green" may be used with the County's approval. Color selection to be in accordance with Section 13.
- 12.5 All ceiling and sidewall panels shall be scuff and scratch-resistant.
- 12.6 All sharp corners, edges, and protruding hazardous surfaces shall be eliminated. There shall be no open seams between trim panels.
- 12.7 All panels shall be the same color and coordinated with the interior colors of the vehicle.

13 SEATING

13.1 General

13.1.1 All seating, including the driver, shall meet or exceed the Federal Transit Administration recommended Fire Safety Practices for Transit Bus and Van Materials Selection.

13.2 Driver Seating

13.2.1 A power deluxe driver's seat (OEM driver's seat will be considered however approved equals can be submitted if the item is FMVSS compliant) shall be provided with forward and rearward adjustment, right-side armrest, lumbar support, reclining feature, and high back. The seat shall be upholstered in the fabric chosen by the County consistent with Section 13.3.12 and match the predominant color of the passenger seats, chosen by the County.

13.2.2 Driver's shoulder seatbelt must be vertically adjustable.

13.3 Passenger Seating

13.3.1 All passenger seating shall be a minimum of Freedman Level 5 or approved equal and meet the following requirements.

13.3.2 Seats shall have full individual spring suspension for each passenger as well as contoured full lower back (lumbar) support. Passenger seat frame shall be constructed of steel and meet FMVSS 210.

13.3.3 Seat installation shall meet FMVSS 207 standards.

13.3.4 Energy-absorbing padded grab handle shall be provided at the top of each forward-facing seat position and be as wide as practical, depending on seating configuration. Perimeter seating floorplans with not have grab handles. The diameter of the grab handle shall be no less than 3.175-centimeter (1¼ inch) and no greater than 3.8 centimeters (1½ inch).

13.3.5 Seats shall be mounted on adjustable seat track mounting or approved equal. This mounting shall allow for repositioning of seats by loosening mounting bolts and sliding the seat along a track to the desired position. This type of seat mounting shall meet all applicable FMVSS requirements, specifically FMVSS 207. The trim shall be nominally flush with the floor covering to prevent a tripping hazard. A one-piece filler/cover shall be provided in tracking between fixed seat placements on the floor and wall tracks. Floor track will not be installed in any area not covered by a fixed seat. Track can extend 6-inches to the rear of the fixed seat area to allow for seat adjustment by end-user to better accommodate their needs. Delete seat track at wheelchair tie-down space.

13.3.6 Pedestals shall be placed a minimum of 15.24 centimeters (6-inches) from the seat edge to provide toe clearance. The pedestals shall be anchored to the floor of the bus with minimum Grade 5 bolts.

13.3.7 Seat Dimensions

13.3.7.1 Seat width per person: 17½ inches minimum

13.3.7.2 Seat depth: 17-inches minimum

- 13.3.7.3 Seatback: 21¹ inches minimum
- 13.3.7.4 25² inches minimum as measured from the top of the
 seat bottom to the top of the seatback.
- 13.3.8 Seatback angle: 10 to 15 degrees
- 13.3.9 Hip to knee room: 28-inches nominal (maximum available)
- 13.3.10 Aisle width: 16³ inches nominal (maximum available)
- 13.3.11 Seat upholstery both back and bottom cushion, shall be vertical or
 combination vertical and horizontal quilting. In addition, the front of
 the bottom cushion shall be rolled. Foam shall be contoured, dense,
 transit-grade polyurethane with a minimum thickness of 1½ inches.
- 13.3.12 All seats shall be covered with Freedman Level 5 fabric or approved
 equal. The seat color shall be coordinated with the interior vehicle
 color; the County will have the option to choose a color within the
 guidelines of the material type.
- 13.3.13 Back of permanent ambulatory passenger seats to exclude rear seats
 against the back of the bus should be covered with a plastic protective
 cover.
- 13.3.14 All metal surfaces shall be chemically cleaned and coated with a
 corrosion preventative material to provide a rugged, long-lasting, rust-
 resistant surface.
- 13.3.15 Seat covering and padding shall cover the seat frame and meet FMVSS
 302, flammability of interior material. Cushions and seat cover shall be
 of the slip covering type, removable and replaceable without removing
 the entire seat. All seat cushions shall be interchangeable within the
 vehicle.
- 13.3.16 Each seat position shall be equipped with a passenger restraint system,
 which meets current FMVSS requirements, intended to hold passengers
 in a secure seated position during normal operations. Seat belts shall be
 anchored through the floor structure, independent of the seat, or bolted
 to the seat frame assembly (preferred). Each restraint belt and
 installation shall meet all applicable FMVSS standards including 208,
 209, and 210. The installation of the seat belts shall have no twisting,
 binding, or bunching of the seat belt web material.
- 13.3.17 All seat belts shall be the Freedman USR (Under Seat Retractor) or
 approved equal. Seat belts shall meet or exceed FMVSS 207/209 (seat
 belt assemblies, performance, and strength) and FMVSS 210 (seat belt
 mounting certification.) The passenger seats, frames, and seat belts
 should operate as a complete system. All two-point seat belts must be
 permanently mounted on the seat frame. Seat belts attached to the floor
 track or wall tracks are not acceptable. All seat belt retractors must be
 permanently located under or behind the seating position. All seat belts
 must be user-friendly, easy to operate, lightweight, and durable with
 metal buckles. Three (3) 24-inch belt extenders shall be provided with
 each vehicle. Shoulder Belts for wheelchair positions shall be provided.

1 To be measured at seated passenger hip height.

2 To be measured at seated passenger hip height.

3 To be measured at seated passenger hip height.

- 13.3.18 Foldaway seats shall be Freedman model foldaway seats or approved equal. Actual seat types will be identified and priced by the contractor in the Passenger Seating Option price sheet section. Foldaway seats must meet or exceed all applicable Federal Motor Vehicle Safety Standards including FMVSS 207, 210, and 225 seat belt certification testing. Seat must be cantilevered and tested to support 500 lbs. per passenger weight. Folding seat will not use an aisle leg or tether for support.

The foldaway seat operation shall require no more than two (2) steps to store or deploy. A cylinder shock must be provided to assist in the controlled storing or deployment of the seat. Seat shall include a self-locking mechanism for security. The underneath area of the seat shall appear finished without exposed seat springs or seating material and include a seat instruction plate. Passenger seat frames and seat belts should perform as a complete system. Two-point seat belts will be permanently mounted on the seat frame. Under the seat belt, retractors will be permanently located under or behind the seating position. Seat belts shall meet or exceed FMVSS 209 and 210. The design of the flip seat shall complement the standard passenger seats and be from the same manufacturer or approved equal.

Folding seats must be installed so that rubbing/chaffing does not occur during fold operation. Seat cover must not touch sidewall or structure during fold/unfold. Folding seats must be mounted to a steel structure that is an integral part of the final stage builder's underfloor structure, minimum thickness 1/8 inch. Steel plating for seat securement must be designed into the floor, added steel plating similar to large washers would not be accepted. All Seat mount bolts and wheelchair shoulder harness mount bolts that are not fastened to the seat track will be mounted to the above required structural steel members. No fasteners will be allowed within 1½ inches of any flat steel components edge. This requirement does not apply to fasteners through box beam type of structure.

- 13.3.19 Armrests to be provided for aisle seats.

14 FLOOR AND FLOOR COVERING

- 14.1 The subfloor shall be ¾ inch thick (minimum) 7-Ply marine-grade plywood or approved equal, with moisture-sealed edges. Sub-flooring must be installed to create a smooth surface to lay the floor rubber.
- 14.2 Subfloor structure shall be designed and assembled for a minimum trouble-free service life of 7 years. The sub-floor structural members shall be made from steel with a minimum yield strength of 36,000 psi or approved equal. Subfloor frame shall be mounted to OEM alternate frame spacers. Additionally, wheelhouse assemblies shall be made of corrosion-resistant 12-gauge (minimum) steel construction and fully welded to the floor and side framework. Ample clearance under load and all positions of the suspension and steering geometry shall be provided between the wheel housing and tires.

- 14.3 Subfloor assembly shall be mounted to vehicle chassis utilizing a minimum of 8 rubber grommets or pads to help reduce the amount of road shock being transferred into the vehicle body.
- 14.4 Wheelhouses shall be covered with a plastic molded cover or metal. No screws shall protrude into the underside of the wheel well.
- 14.5 An access panel for ease in maintenance of the fuel pump shall be provided.
- 14.6 The floor surface shall be covered with wall-to-wall, slip-resistant, minimum 2.2-millimeter Altro Transflor Meta or approved equal. Flooring edges shall be edge welded to provide a completely sealed floor. The floor covering shall not shrink during the service life of the vehicle. The floor material shall be securely bonded to the under structure and rolled smooth. The adhesive used to bond the floor material must be backed by a manufacturer's warranty of no less than five (5) years for installation and adhesive. The method and procedure used to fasten the floor covering to the under structure shall be approved by the floor covering manufacturer. Color to be selected in accordance with trim levels.
- 14.7 The flooring shall be 1/8-inch (minimum) smooth under the passenger seats and over the remainder of the floor and step treads. All step edges shall have Altro T36T Aluminum Step edge or Altro yellow nosing with a band of 2½ inches of bright yellow Altro or approved equal, inserted into the step edge using contact adhesive running the full width of each step. An aisle width standee line of at least 2-inches in width of bright yellow contrasting color shall be in the aisle just behind stepwell. The tread and step edge shall be bonded into one (1) piece.
- 14.8 All mating edges of the flooring, step tread, and step nosing materials shall be weather-sealed and heat welded to prevent water penetration. The height of the sealant bead shall be consistent with the flooring, step tread, and step nosing base thickness.
- 14.9 Flooring cover color to be specified by the County from Altro standard stock selection.
- 14.10 There shall be molded plastic, fiberglass, hard rubber, aluminum, or FRP cove molding between sidewalls and floor for ease of cleaning. The cove molding shall be one (1) continuous piece along each wall except when interrupted by such items as wheel well, fuel line, mobility lift door, and interior corner covers and door openings. Molding shall be covered up the side 10inch to the run-up to the sidewall.

15 STEP AND STEPWELL

- 15.1 **Step.** Step height from the ground (no-load) shall be ADA compliant or 13 (+/- 1) inches maximum whichever is less. Individual risers shall be 9½ inches maximum in height and case of more than one (1) riser; all step risers shall be the same height, except in the case of the flat floor option. Contractor will provide step height if a flat floor floorplan is provided. Step tread depth shall be 8½ inches minimum, depending on the floor plan.
- 15.2 **Stepwell.** The stepwell shall be a modular design, 14 gauge (minimum) galvanized or stainless steel (treated to prevent the effects of corrosion over the life cycle of the vehicle) smoothly and continuously welded into the bus body structure. Two (2) steps shall be covered with ribbed, molded rubber (RCA Transit Flor or approved equal), maximum 12-inches +/- .5-inch (30.48 centimeters), minimum 10-inches (25.4 centimeters) from ground to the first step, 9-inches (22.86 centimeters) riser, Tread depth minimum 8½ inch (21.5900). Stepwell shall be adequately reinforced to prevent permanent deformation or elastic deflection of no

more than .12 inches when either step is loaded over the center half with a 300-pound static load. Stepwell shall be completely enclosed and weathertight when the passenger doors are in the closed position. Stepwell light is operated automatically by door control. All steps to get up to floor level must be in the stepwell area.

16 PASSENGER DOORS

16.1 General

- 16.1.1 Four (4) sets of keys and locks for all doors shall be supplied. All vehicles on the same purchase order shall be keyed alike for chassis and exterior doors. If the key contains an electronic chip, Fort Bend Transit may choose to forego this requirement.
- 16.1.2 All doors shall be properly sealed to prevent the entry of air drafts and water into the vehicle interior including spray from commercial vehicle wash equipment and driving rain.
- 16.1.3 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.

16.2 Front Entrance

- 16.2.1 The vehicle shall be equipped with an electric, double leaf, outward opening “transit style” door with a center molded, overlapping, safety seal. Door is to have an electric door opener and operating mechanism. A&M door system or approved equal is acceptable door assembly. The front doors shall be located opposite the driver. The front doors shall be equipped with an interior safety release mechanism, permitting the doors to be mechanically opened in the case of an emergency.
- 16.2.2 A rocker switch located in the driver’s area shall activate the front door mechanism. Drivers shall be able to operate the door without leaving their seats. Entry door shall not be operable unless the vehicle is in park.
- 16.2.3 The front doors shall have an exterior weatherproof electrical keyed lock that can open and close the doors.
- 16.2.4 The front doors shall be double sealed equipped with Two (2) inches of elastomeric material on each section that overlaps a minimum of 1.5inch to form a tight seal to prevent water from entering the bus. The seals shall be of automotive quality that does not degrade or crack with aging. The seals shall be mounted in a groove that allows for easy replacement if necessary. The overlapping center door seals shall be a flexible material that exerts no more than a ten (10) pound force on a one (1) square inch of any passenger struck by a closing door.
- 16.2.5 The front doors shall have a clear opening width of 27-inches (minimum) with the ability to go as high as 36-inches, depending on the floor plan and vehicle size, as measured from the inside edge of the doorframe, and full height of 87-inches (maximum) clear “walk-in” headroom as measured from the top of the front step to the underside of the front doorframe header.
- 16.2.6 Each door leaf shall have a single pane, tinted, and tempered safety glass that conforms to all applicable Federal and State Motor Vehicle Safety Standards.

- 16.2.7 The entrance doors shall be equipped with windows of adequate size and placed to allow the driver to see and judge curb locations when stopping.
- 16.2.8 The front doorframe(s) shall be constructed with a standard interlocking minimum.
- 16.2.9 .125-inch extruded satin anodized 204R1 rated, aluminum, stainless steel, or zinc plated steel extruded frames with a high-quality anodized finish.
- 16.2.10 Suitable padding to protect the heads of boarding or exiting passengers shall be installed on the lintel of the front service entrance doorway.
- 16.2.11 A thick rubber threshold seal or brush comb shall seal any gap between the lowest part of the door and the mating step surface greater than 3/8 inch.

16.3 **Mobility Lift Door**

- 16.3.1 The mobility lift door shall be two (2) entry doors.
- 16.3.2 Mobility lift door(s) shall be located in the front of the vehicle next to the front passenger door, depending on seating plans and details provided by the contractor.
- 16.3.3 Mobility lift door(s) shall provide 68-inches (minimum) of clear walk-in headroom as measured when the lift is in a fully raised usable position. The lift door shall have a clear opening width adequate for the ease of operating the mobility lift being supplied with this vehicle. Door fasteners or hardware, etc. shall not protrude into the door opening.
- 16.3.4 Lift door(s) shall be constructed utilizing a stainless steel or aluminum subframe. Wood framing shall not be acceptable. Door opening frame will be powder coated to match the vehicle interior. Door shall be designed for long life/heavy use and a minimum of 14 gauge, 1-inch tubular steel around the perimeter.
- 16.3.5 A positive factory-installed gas shock at top of the doors to assist in maintaining an open or closed position of the door shall be installed to ensure the lift doors stay open when the lift is in use. An additional door tether shall be installed that will prevent the doors from opening past 100 degrees.
- 16.3.6 Lift door(s) shall have a glazed window that is viewable from the wheelchair positions inside the vehicle and meets all applicable Federal and State Motor Vehicle Safety Standards and Americans with Disabilities Act (ADA) requirements.
- 16.3.7 Padding shall be installed inside of vehicle over mobility lift doorframe header.
- 16.3.8 The door(s) shall have a “door ajar” light and alarm, which will alert the operator when the door is not securely closed and latched. The light shall be a red indicator light identified as “LIFT DOOR AJAR” and shall be located on the operator’s dash panel easily seen by the seated operator.

16.4 **Rear Emergency Exit Door**

- 16.4.1 The rear emergency exit door shall be 32-inches wide by 54-inches high (nominal) and shall have stationary windows in the upper and lower

halves of the door. The emergency door shall have upper and lower glazing and include one (1) 11-inch x 14-inch static cling 'fish eye' wide-angle rear window lens. The lower window shall have a see-through mechanism to prevent contact with mobility devices.

- 16.4.2 Rear emergency door shall be equipped with a securement device to hold the door safely in the fully open position. Cord, rope, or strap securement devices will not be accepted. Door hold-open spring system shall be bolted to both the rear door and the door header with a heavy strength bolt (s), minimum Grade 5 bolt(s), not rivets.
- 16.4.3 The door shall have a "door ajar" light and alarm, which will alert the operator when the door is not securely closed and latched. The light shall be a red indicator light identified as "REAR DOOR AJAR" and shall be located on the operator's dash panel easily seen by the seated operator.
- 16.4.4 An exterior door latch will be included.

16.5 **Service Compartment and Access Doors**

- 16.5.1 Access for maintenance and replacement of equipment shall be provided through panels and doors that appear to be an integral part of the vehicle.
- 16.5.2 Access opening or doors in the floor of the vehicle interior shall be properly secured and sealed to prevent the entry of fumes and water into the vehicle interior. Method of sealing shall provide for removal and replacement of access doors without damage to sealing requirements.
- 16.5.3 An access door shall be made to access the overhead compartment for all ITS equipment and made large enough to install and remove equipment as needed.
- 16.5.4 Access doors shall be provided, where necessary, to service transmission, engine, radiator, lift, batteries, and/or air-conditioning components.
- 16.5.5 A lockable driver's storage compartment shall be provided. The size and location shall be approved by the County.

17 **WINDSHIELD AND WINDOWS**

- 17.1 The windshield and driver door shall be OEM glazed with laminated glass and uniformly tinted. Windshield shall have a heavier tint band above eye level, if available from the factory. The windshield will be equipped with two-speed electric windshield wipers with an intermittent feature.
- 17.2 Side windows shall be a flat black, aluminum frame, egress transit type, or top T-sliding panel type that meets all applicable Federal and State Motor Vehicle Safety Standards. The T-sliders shall be located at the top of the window. Minimum passenger window size shall be 36½ inches wide by 32-inches high with 20% light transmitting tint. Minimum passenger window sizes are 22½ inch or 20½ inch wide x 32½ inch high fixed style window. A smaller 'filler' window may be allowed to accommodate certain configurations to maximize visibility from the passenger compartment.
- 17.3 Passenger window glazing shall be Lucite SAR Bronze BZ-2412 or tinted to permit 20% light transmission (maximum) bronze or grey tint or approved equal.

- 17.4 For vehicles with a 158 inch or longer wheelbase, there shall be a minimum of two (2) emergency exit windows on each side of the vehicle. The windows shall be top-hinged and meet the specifications described in Section 18.2. Decals with instructions as to their use shall be provided and shall be permanently fastened on the inside of the vehicle, located over or beside the emergency windows. The emergency exit windows shall comply with FMVSS requirements.
- 17.5 All emergency exits shall have clear unobstructed openings and be noticeably labeled.
- 17.6 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 driving rain. Materials used for weather seals shall be designed to withstand varying temperature extremes, road splash, and salt, and other exterior elements without cracking, leaking, loosening, or deteriorating. Caulking around the windows shall only be used as a seal, not to make up for body defects or out-of-tolerance window openings.
- 17.7 Drain holes shall be incorporated in the window sash frame to allow interior condensation to drain to the exterior. Body and sash construction shall be such that the sash drain shall prevent entrance or backup of water into the vehicle.
- 17.8 The installed windows shall have no sharp edges or protrusions.
- 17.9 All glazing shall meet all applicable Federal and State Motor Vehicle Safety Standards.
- 17.10 Windshield and windows shall meet all applicable Federal and State Motor Vehicle Safety Standards.
- 17.11 A full window shall be provided in the transition panel between the windshield and the ambulatory passenger door(s) to eliminate the blind spot created by the transition panel and enable the driver to view the curb from the driver's seat. The body panel partition between the transition window and entrance doors shall be as narrow as possible to maximize the driver's view of the area around the entrance doors.

18 LIGHTING

18.1 Interior

- 18.1.1 Interior Dome Lights shall adequately illuminate the passenger area. Dome lights shall be illuminated whenever the entry doors are open.
- 18.1.2 Interior shall be illuminated with LED low profile strip lighting to provide a minimum of 12 foot-candles of illumination measured at 36-inches above the floor.
- 18.1.3 Driver courtesy light shall light when the driver door is opened. All other interior lights shall operate only when the ignition is in the "ON" position. Stepwell and exterior front door lights shall operate only when the front passenger door is opened. A driver-controlled override rocker switch shall be provided to allow operation of all interior passenger courtesy lights when the passenger front doors are open or closed.
- 18.1.4 LED stepwell lights shall be provided to illuminate the stepwell at the front passenger door(s). Lights shall be mounted as to not create a hazard for passengers boarding and egressing. This lighting shall not be lit with doors closed.

- 18.1.5 Exterior LED lights at the front and lift door areas shall be provided and shall comply with the Americans with Disabilities Act. These lights will activate only when the doors are open.
- 18.1.6 Wheelchair lift lights, which illuminate the lift device in a 4-foot radius outside at ground level of the door opening, shall be provided in an LED design. The light shall be wired to light automatically when the lift door is opened. Lift lights shall be mounted internally in the lift area above the lift in the lift door headlining.
- 18.1.7 Under hood light should be provided.

18.2 Exterior

- 18.2.1 All exterior lights shall conform to the State of Texas and U.S. Department of Transportation requirements and meet the requirements of FMVSS/DOT specifications.
- 18.2.2 All rear exterior light configurations shall be LED and include red brake lights (standard and center-mounted), amber turn signals, and clear reverse lights. Rear Center High-Mounted Stop Lamps (CHMSL) to be an 18inch LED red strip light, low profile surface mount, or approved equal. Rear exterior light configuration shall be submitted with a proposal package for approval by the County.
- 18.2.3 Amber roof marker lights at the front and red at the rear, one (1) at each corner, shall be provided and be either flush mounted or surface mounted, protected with a brush guard, or by the bus body.
- 18.2.4 Marker lights, three (3) lamp clusters, amber at the front, and a red lens at the rear shall be provided and protected with a brush guard or by the bus body.
- 18.2.5 All exterior rear and marker bus body lights to be voltage regulated light-emitting diode LED with direct termination and come with protective lens coating for protection against scratching, UV degradation.
- 18.2.6 License plate holder at the rear shall be illuminated by an LED light.
- 18.2.7 Daytime Running Lights (DRL) are to be provided.

19 FINISH AND COLOR

- 19.1 All exterior surfaces shall be smooth and free of visible fasteners, wrinkles, and dents. 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 paint for the service life of the vehicle. Paint shall be applied smoothly and evenly with a finished surface free of dirt, runs, and other imperfections. Painted surfaces shall be impervious to diesel fuel, gasoline, corrosive atmospheres, and commercial cleaning agents.
- 19.2 The contractor shall, as a minimum, provide a low VOC coating system that meets the following minimum requirements.
 - 19.2.1 Primer: Corrosion-resistant primer that is compatible with the Basecoat/Clear-Coat System.
 - 19.2.2 Basecoat/Clear-Coat System
 - 19.2.2.1 Two-part system basecoat/clearcoat, low VOC, air dry, stain-resistant polyurethane enamel that is ultraviolet light-resistant.

- 19.2.2.2 The system shall have hardness, abrasion resistance, gloss retention, flexibility, chip resistance, and good adhesion characteristics.
- 19.2.3 Interior finish in the driver's area shall be a non-reflective material and/or flat grey color.
- 19.2.4 Exterior finish shall be Standard Fleet White.
- 19.2.5 Steel wheels shall be painted white.

20 STANCHIONS, GRAB RAIL, AND MODESTY PANELS

- 20.1 All stanchions and grab rails shall be 1 - 1/4-inch stainless steel. Vertical stanchions shall be secured top and bottom with bolts to ceiling and floor metal framing to prevent twisting. All stanchions shall be mounted at floor and ceiling into the structural metal body member or metal plate.
- 20.2 There shall be a stanchion, grab rail, and padded modesty panel located at the rear of the entrance door.
- 20.3 30 inch (minimum) angled grab rails shall be installed at both sides of the entrance door, within easy reach from the ground, to assist passengers in both boarding and egressing. Grab rails shall be mounted to stanchions and structural metal members or metal plates in the sidewalls. Grab handles must not affect the clear entry door width.
- 20.4 There shall be a vertical stanchion, grab rail, and padded modesty panel located behind the driver's seat. There shall be a smoked, shatterproof, plexiglass 3/8-inch-thick panel filling the area from the ceiling to the grab rail and the stanchion to the wall, shock-mounted to prevent rattle. The purpose of this panel is to protect the driver from being hit by objects from behind. Panel must not impair driver's seat adjustments.
- 20.5 There shall be a vertical stanchion, grab rail, and modesty panel located between the lift and forward most curbside stationary ambulatory passenger seat. There shall be a shatterproof, plexiglass panel filling the area from the ceiling to the grab rail and the stanchion to the wall.
- 20.6 Overhead rails required by ADA provisions shall be at a height of 71-inches to the top of the handrails from the vehicle floor. The rails shall be fastened into structural metal body members or metal plates.
- 20.7 Overhead handrails shall be provided that shall be continuous including the wheelchair areas, except for a gap at the rear or front doorway.
- 20.8 All modesty panels shall harmonize with the interior, both in color and design, and shall not provide a hazard to the passengers. Modesty panels are to be "through-bolted". Standard screws are not allowable.

21 MIRRORS

- 21.1 Two (2) power remote control, adjustable, heated side-mounted exterior rearview mirrors. The exterior rear-view mirrors shall be firmly supported and set to give a clear view past the left and right corners of the vehicle. The exterior mirror supports must be of sufficient length to allow a clear view along the entire side of the vehicle. The size of each mirror shall be at least 152 mm (6-inches) by at least 228 mm (9-inches). In addition, a 76 mm (3-inches) minimum diameter convex mirror shall be mounted above or below the other mirrors on both sides of the vehicle. Mirror

- frames and supports shall have a corrosion-resistant finish. Mirrors shall meet SAE-recommended standards and 49 CFR 393.80 as appropriate.
- 21.2 A standard chassis manufacturer's rear vision mirror with a non-glare, day-night feature shall be provided. An aftermarket rearview mirror is acceptable if it is not available from the OEM with approval from the County.
 - 21.3 One (1) 4 x 13 or 6 x 16-inch interior passenger-viewing mirror shall be provided and mounted in such a way to allow the driver to easily view passenger activity in the vehicle from the driver's seat.

22 MOBILITY LIFT

- 22.1 Wheelchair lifts shall be commercial type, Braun Ability Century 2 1,000lb capacity or approved equivalent, meeting ADA and FMVSS 403 and 404 requirements, and meeting the following listed requirements.
- 22.2 All attachments of the lift assembly to the vehicle shall be done through structural support members. Bolting any part of the lift assembly directly to the vehicle sheet metal walls will not be acceptable.
- 22.3 The wheelchair lift shall be electro-hydraulically and mechanically operated, mounted on the curbside of the vehicle, and accessible via access doors.
- 22.4 The wheelchair lift shall be interlocked with the transmission and emergency brake in such a manner as to prevent the vehicle from moving with the wheelchair lift door in the open position and prevent the wheelchair lift from being operated until the transmission is in park and the emergency brake is completely set. A dash-mounted, indicator light will come on to show the system is activated.
- 22.5 Lift shall incorporate a power-fold mechanism for the platform. The lift shall incorporate a positive locking mechanism to prevent drifting from the stowed position.
- 22.6 The lift platform shall be secure and stationary when it is in the stowed position. No lift part shall intrude into the vehicle's body more than 18½ inches when in a stowed position.
- 22.7 The lift assembly shall safely accommodate a minimum load of 1000 pounds. All power units, operating joints, linkage, and mounting points to the body shall be certified by the manufacturer as being adequate for the minimum load requirements.
- 22.8 Lift shall be power-up and power or gravity-down.
- 22.9 There shall be a pressure relief built into the hydraulic system to prevent "jacking" of the vehicle should the power remain on once the lift touches the ground.
- 22.10 The lift platform shall have an automatic stop-and-hold mechanism to prevent the platform from free-falling or folding any faster than 30.48-centimeter/second (12 inches/second) in the event of a power failure or equipment failure during the raising and lowering modes.
- 22.11 An automatic safety barrier shall be provided at front of the platform. An automatic or manual release of the barrier at ground level is required.
- 22.12 Lift shall be equipped with a manual override to permit the lift to be raised or lowered manually in event of power failure or emergency.
- 22.13 Handheld lift control shall be provided with a minimum 5-foot cord attached so the lift may be operated from inside or outside of a vehicle.
- 22.14 A passenger handrail shall be provided on both sides of the lift platform
- 22.15 Adequate provisions for safely storing the lift controls, when not in use, shall be provided inside the vehicle.

- 22.16 All pulleys, chains, cables, hydraulic cylinders, etc., when provided, shall be fully enclosed.
- 22.17 A complete set of operating instructions, schematics, and a troubleshooting guide shall be included with each lift.
- 22.18 Lift platform shall be a minimum of 32-inches wide, as measured from the inside edge to the inside edge of the platform.
- 22.19 Control box shall be lightweight and weatherproof. Additionally, controls shall have a sequence interlock to prevent folding of the lift platform before it is in a fully raised position.
- 22.20 A safety device shall be provided that shall render the lift inoperable when the lift door is closed.
- 22.21 A red warning light/audible alarm shall be located on the driver's instrument panel and shall activate when the mobility lift door is not secure. The warning light shall be labeled "Door Ajar".
- 22.22 A safety lift belt, Access-Arize or approved equal, shall be provided to help prevent accidents. The belt is to be 35-inches in length from end to end, made with: elongated webbing 1¾ inches wide, 2-inches of Kevlar material sewn on each end of the webbing, a metal seat belt buckle in the middle of the belt, 9.5 mil grommet ¾ inch to center of Kevlar, and Kevlar is abrade resistant.

23 WHEELCHAIR SECUREMENT SYSTEM

- 23.1 Wheelchair Securement system shall be Sure-Lok or Q'Straint or approved equal. Actual Sure-Lok or Q'Straint models of securement and anchor systems will be identified and priced by the contractor in the Wheelchair Securement System price sheet section.
- 23.2 Wheelchair securement system shall consist of four (4) floor attachment points per location for the chair. The strap configuration shall consist of a minimum of four (4) fully automatic heavy-duty retractors that can be quickly fastened to the floor attachment points and the wheelchair. The wheelchair securement system shall consist of self-tensioning and self-locking features. The retractors shall have the maximum amount of 7000-pound webbing attached to "J" hooks. Each retractor shall be equipped with a male pin connector for attachment of the occupant restraint system. Tie-downs shall utilize grade 8 fasteners of the size required by the securement system's OEM. The tie-down fastener shall include, as a minimum, SAE grade 8 cap screws, SAE grade 8 hexagon nuts, and harden washers. All four (4) retractors shall be the same in design, size, and shape to avoid confusion in placement and be interchangeable and thus can be used in front, back, left or right.
- 23.3 Floor anchorage points shall be Sure-Lok or Q'Straint or approved equal, utilizing corrosion-resistant steel or aluminum and usable for front or rear tie-downs or shared by both. Actual Sure-Lok or Q'Straint models of securement and anchor systems will be identified and priced by the contractor in the Wheelchair Securement System price sheet section. All anchorage points shall be recessed and nominally flush with the floor to prevent a tripping hazard. Recessed area shall be sealed prior to anchorage point installation to prevent the intrusion of water. Anchorage points shall be secured in accordance with FMVSS 207 AND FMVSS 208.
- 23.4 Occupant and wheelchair securement shall use an integrated system and be securely fastened. For each mobility aid securement system installed in the vehicle, a corresponding occupant restraint system shall also be provided. Occupant restraint

system shall meet ADA requirements and all applicable FMVSS 403 and 404 requirements. Lap belt, included as part of the occupant restraint system, shall be 108-inches. If a fixed wall mount system for shoulder belts is used, this system should not obscure the use of the emergency exit window.

- 23.5 Successful Contractor shall certify that wheelchair securement has met or exceeds all applicable Federal and State Motor Vehicle Safety Standards.
- 23.6 Any device that could damage the wheels of the wheelchair shall not be used.
- 23.7 A storage box or approved equal shall be mounted under a seat to safely and securely store tie-down straps when not in use. Location of the storage box and type of storage box shall be approved by the County prior to installation on the vehicle.

24 TECHNOLOGY EQUIPMENT

The following section is focused on the intelligent transit technology systems that are required for the overall bus system. Please refer to Exhibit IV for the placement of ITS systems within the bus interior and exterior.

24.1 Camera Surveillance System

The purpose of the camera surveillance system shall be to record all activity that occurs on-board the vehicle. The components of the camera surveillance system are as follows:

24.1.1 Network Video Recorder (Hybrid)

- 24.1.1.1 System features, technical ability, and environmental standards must meet those of Safefleet TH-6 Hybrid DVR or approved equal.
- 24.1.1.2 The network video recorder shall be installed in the overhead compartment above the driver.
- 24.1.1.3 Ability to record video at 30 FPS at 1080p resolution
- 24.1.1.4 Support six (6) cameras. User shall be able to configure settings for each camera through the NVR
- 24.1.1.5 Hybrid System: Support both analog and IP cameras (minimum of two (2) IP cameras)
- 24.1.1.6 Two (2) video streams at a minimum; one (1) for recording video and one (1) for live streaming.
- 24.1.1.7 System Administrator shall have the capability of adjusting image quality and FPS for each stream (typically the live video stream would be at a lower resolution and FPS than the recorded video stream)
- 24.1.1.8 Minimum of one (1) TB of storage space for recording video
- 24.1.1.9 Automatic overwrite of the video when storage reaches capacity (use FIFO method)
- 24.1.1.10 Panic button input: Automatically earmark video for retrieval and download when the button is activated. System shall mark a video that is 10 minutes before and after the event.
- 24.1.1.11 System shall also be able to automatically queue video for live viewing when the panic button is activated.

- 24.1.1.12 System shall record and store the following data and synch with the video data: bus number, location, time, date, and camera input.
- 24.1.1.13 Ability to interface with existing GPS to provide location data or use stand-alone GPS antenna.
- 24.1.1.14 Built-in POE network switch for assigning IP addresses to cameras and powering cameras.
- 24.1.1.15 Ability to get to camera setting via NVR.
- 24.1.1.16 System must be able to interface with third-party VSaaS systems using the NVR to send data to the application through cellular or Wi-Fi data communication.
- 24.1.1.17 System shall also be able to send system health and video metadata to VSaaS as this system shall be the primary software for all video viewing storage, diagnostics, analytics, and forensics
- 24.1.1.18 Ability to integrate driver cam video into NVR for recording and live streaming
- 24.1.1.19 NTSC / PAL Auto-Detection
- 24.1.1.20 Ruggedized for Transit Environment
- 24.1.1.21 If GPS is provided, GPS must be 12-port
- 24.1.1.22 Three (3) Ethernet ports at a minimum
- 24.1.1.23 Able to support four (4) analog cameras and two (2) IP cameras
- 24.1.1.24 Built-in inputs for the panic button, and turn signal
- 24.1.1.25 Protect from video loss if the vehicle experiences intermittent power issues (voltage fluctuations, accidents, etc.).
- 24.1.1.26 NVR cannot weigh more than 10 pounds, not including cameras.
- 24.1.1.27 Must operate under a 12 Volt power system.

24.1.2 **IP and Analog Cameras**

- 24.1.2.1 System features, technical ability, and environmental standards meet those of Safefleet HD 1Q (Analog Cameras), Safefleet CHQ8PD (IP camera), or approved equals.
- 24.1.2.2 Cameras shall consist of 1 IP cameras and 3 analog cameras (4 total)
- 24.1.2.3 One (1) IP camera shall be installed on the driver dash facing outward to the street
- 24.1.2.4 One (1) Analog camera installed behind the driver facing the bus entry doors
- 24.1.2.5 One (1) Analog camera installed behind the entry doors facing toward the seating area
- 24.1.2.6 One (1) Analog camera installed in the back of the bus (past the last seat) facing the seating area and walkway
- 24.1.2.7 Day / Night Mode (Auto-Detection)
- 24.1.2.8 Ability to automatically adjust to brightness and contrast
- 24.1.2.9 IR illumination

- 24.1.2.10 Maximum output resolution 720p with a minimum 0.9 megapixel
- 24.1.2.11 Ability to record audio with video
- 24.1.2.12 Three (3) Analog High Definition Cameras (not IP-based cameras)
- 24.1.2.13 Vandal-resistant domes for each camera
- 24.1.2.14 2.5 mm to 2.9 mm lens range
- 24.1.2.15 Standard BNC cable connection (able to connect to NVR)
- 24.1.2.16 Must operate under a 12 Volt power system

24.2 **Digital Display/ Infotainment System**

Infotainment system features, technical ability, and environmental standards must meet those of Safefleet MVQ-DS215-KIT, MVQ-DS215-COVR, or approved equal.

- 24.2.1 The digital display shall be installed behind the driver seat on the bulkhead.
- 24.2.2 The infotainment system shall provide location-based route and stop information as well as advertising still images and video, the content of which can be triggered by the location of the vehicle.
- 24.2.3 Support one (1) display per vehicle at a minimum
- 24.2.4 On-board display shall include:
 - 24.2.4.1 the current route number and destination name
 - 24.2.4.2 list of upcoming stops, and indicate when a stop has been requested
- 24.2.5 The system shall support custom digital media based upon specific routes, stops, locations, and time of day
- 24.2.6 Support up to six (6) camera inputs
- 24.2.7 Ability to display including but not limited to:
 - 24.2.7.1 video from the camera system
 - 24.2.7.2 next stop information
 - 24.2.7.3 media content
 - 24.2.7.4 marketing advertisement
 - 24.2.7.5 emergency messages via banner or other methods
 - 24.2.7.6 public service announcements
 - 24.2.7.7 service changes
- 24.2.8 Automatic power on when bus ignition is activated
- 24.2.9 Hot-swappable
- 24.2.10 Ability to run multiple contents at one time via queuing or via scheduling
- 24.2.11 Ability to add content
- 24.2.12 Manually via USB
- 24.2.13 Automatically when connected to Wi-Fi or Cellular Network
- 24.2.14 Ability to upload content via software/server to one (1) display, a group of displays, or all displays
- 24.2.15 The display shall not interfere with mirror line of sight, security camera views, or inhibit passenger or operator visibility
- 24.2.16 The system shall feature a media database tool that is compatible with WINDOWS 10, or later

- 24.2.17 The system shall feature optional integration to the AVL system via J1708, or Ethernet to allow automated selection of the Trip ID via the AVL system log-on. The system shall utilize the GTFS Trip ID to display appropriate stop information and identify when a vehicle is off-route
- 24.2.18 Displays shall utilize LCD technology
- 24.2.19 Optional audio output shall provide audible announcements and advertising
- 24.2.20 Video Inputs at a minimum (1xHDMI, 1xVGA, 1x Analog)
- 24.2.21 Resolution up to (1920x1080) or better
- 24.2.22 Protective cover to reduce screen cracking or damage
- 24.2.23 Ability to support:
 - 24.2.23.1 MP4 and .avi video formats
 - 24.2.23.2 .pdf file format
 - 24.2.23.3 .jpeg and .png, .gif formats
- 24.2.24 Mounting bracket must be included
- 24.2.25 Minimum display size is 21-inches (measured vertically)
- 24.2.26 Minimum Viewing Angle 178 degrees horizontal x 178 degrees vertical
- 24.2.27 Maximum power usage 50W or lower
- 24.2.28 Install display in the landscape orientation
- 24.2.29 Support both landscape and portrait orientation (ability to switch modes).
- 24.2.30 Must operate under a 12 Volt power system

24.3 **Cellular/WI-FI Modem**

Modem features, technical ability, and environmental standards must meet those of Safefleet SRC-ROUTER-3 or approved equal. The modem shall act as the central communication system to transmit messages to and from connected ITS systems.

- 24.3.1 The modem shall be in the overhead compartment above the driver's dash. The installation must allow for easy installation and removal of the cellular sim card.
- 24.3.2 Support both cellular and Wi-Fi data communication
- 24.3.3 Real-Time Connectivity and Data Speeds (Up to 300 Mbps)
- 24.3.4 Ability to operate using VPN (Virtual Private Network)
- 24.3.5 Ability to report location using GPS
- 24.3.6 Advanced Authentication Framework (AAF) for security administration
- 24.3.7 Ruggedized for Transit Environment
- 24.3.8 Supports CDMA, GPRS cellular technology
- 24.3.9 Supports Wi-Fi technology (minimum 8.02.11n)
- 24.3.10 Low power consumption (less than 3 watts at idle)
- 24.3.11 4G cellular speed at a minimum
- 24.3.12 Minimum of four (4) Ethernet (RJ45) ports to connect devices to the modem
- 24.3.13 Minimum of one (1) USB port
- 24.3.14 GPS antenna (12 channel)
- 24.3.15 Form factor no larger than 5.5 in x 3 in x 4 in (4.70in including connectors)

24.3.16 Must operate under a 12 Volt power system

24.4 **Destination Sign Control and Voice Annunciation System**

The purpose of the destination signs and voice annunciation system shall be to display and audibly announce transit information to include destination, public announcement, and safety messages in compliance with ADA regulations. The components of the system are as follows:

24.4.1 **Destination Signs**

The purpose of the front and side destination sign is to provide a visual and audible indicator to the customers on the outside of the bus that the vehicle has arrived at the stop. Sign features, technical ability, and environmental standards must meet those of Luminator/Horizontal SMT Signs or approved equal.

24.4.1.1 Ability to display including but not limited to:

24.4.1.1.1 the final destination of the route

24.4.1.1.2 public announcement messages

24.4.1.1.3 safety or emergency messages

24.4.1.2 The destination messages shall be readable by a person with 20/20 vision from a distance of 250 feet

24.4.1.3 The displays shall have equal readability of 65 degrees on either side of the line perpendicular to the center of the mean plane of the display

24.4.1.4 Tempered glass for Transit Environment with ¼ inch thick Lexan® Polycarbonate overlay

24.4.1.5 Use LED technology for sign display

24.4.1.6 The display shall feature the option for rotating horizontally to enable interior access to the destination display glass.

24.4.1.7 The display shall be accessible to allow maintenance of the sign and cleaning of the vehicle side window.

24.4.1.8 Front Destination Sign

24.4.1.8.1 The sign shall be installed in front of the bus above the windshield

24.4.1.8.2 The display shall feature the option for rotating horizontally to enable interior access to the destination display glass.

24.4.1.9 Side Destination Sign

24.4.1.9.1 The sign shall be installed on the passenger loading side of the bus above the windows

24.4.1.10 Must operate under a 12 Volt power system

24.4.2 **Multi-System Controller & Destination Sign Control**

The purpose of this module is to control the destination and voice annunciation system to ensure the system announces and displays the correct information and the appropriate time. Control systems, technical ability, and environmental standards must meet those of Luminator

MCU for SMT Signs and GEN4 Infotainment System or approved equal.

24.4.2.1 **Multi-System Controller**

- 24.4.2.1.1 The control unit shall be installed in-between driver's dash and the front overhead compartment, easily accessible to the driver (within 1- 2 feet of the driver's area)
- 24.4.2.1.2 Shall be supplied, to provide onboard updates of display messages.
- 24.4.2.1.3 Shall feature a multiple function keyboard with a tactile response, providing feedback to the operator that the key was pressed.
- 24.4.2.1.4 Shall utilize programmable multi-function keys for basic operation; touchscreen for more advanced operations and shall include a full query keyboard.
- 24.4.2.1.5 Shall provide audible feedback to alert the operator to view the display for a message, indicators when a key is pressed.
- 24.4.2.1.6 Shall feature a color LCD touchscreen display. The minimum size of this display is 4.3inch inches (measured diagonally). The maximum size of this display is 6½ inch inches (measured diagonally)
- 24.4.2.1.7 Minimum of one (1) USB port for programming
- 24.4.2.1.8 Shall be designed for durability in transit applications and tested to a minimum of one (1) million button presses.
- 24.4.2.1.9 Shall be designed and manufactured to withstand vibration and shock of transit applications and be IP67 rated.
- 24.4.2.1.10The Controller shall continuously display the complete message associated with the selected destination code, confirming that the message is displayed properly.

24.4.3 **Destination Sign Control and Programming**

- 24.4.3.1 All system control and drive PC boards shall be enclosed in either the display housing or the Multi-system Controller. No external boxes shall be required. Destination displays shall be programmed to display

- either a common message or each display shall be programmed to display independent messages.
- 24.4.3.2 Destination displays shall feature a sequential display of two (2) pre-selected destination messages and a custom (typically public service) message.
 - 24.4.3.3 The operator shall be able to quickly change between pre-selected destination messages without re-entering a message code.
 - 24.4.3.4 The system shall support the display of public relations messages alternately with the regular destination.
 - 24.4.3.5 The message programming software shall feature adjustable message duration from one (1) second to twenty-five (25) seconds in duration.
 - 24.4.3.6 The system shall support the display of a blank frame to separate the beginning and end of a message. A frame or blank retention period can be configured for each destination code.
 - 24.4.3.7 The master coach run switch shall control power to the display systems. The display system shall operate in all positions of this switch except when it is OFF.
 - 24.4.3.8 Ability to program destination sign through controller device and/ or remotely using back-end software.
 - 24.4.3.9 Ability to upload changes to sign manual through controller device or remotely using cellular or Wi-Fi data communication.
 - 24.4.3.10 Software with the ability to identify issues with announcements while the bus in operation (using cellular Wi-Fi communication).
 - 24.4.3.11 Software with the ability to configure signage and push configuration settings out to the buses (using cellular or Wi-Fi communication).
 - 24.4.3.12 The displays shall be internally protected against voltage transients and RFI interference to ensure proper operation in transit applications.
 - 24.4.3.13 Must operate under a 12 Volt power system.

24.4.4 **Audio/PA System (Hardware and Integration into Destination and Voice Annunciation System)**

System features, technical ability, and environmental standards shall meet those of Luminator GEN 4 or approved equal.

- 24.4.4.1 The main control unit for the PA and Voice Announcement System shall be installed in the overhead compartment in the front of the bus. The installation shall allow for easy removal of cables, as well as, uploading and downloading software and configuration changes via USB stick or flash drive.
- 24.4.4.2 System shall include interior speakers, exterior speakers, and a microphone for the operator.

- 24.4.4.3 The infotainment / digital display shall be tied into internal speakers for audible announcements.
- 24.4.4.4 The audio subsystem shall feature the ability to pre-define the priority of audible announcements, so safety messages can be prioritized.
- 24.4.4.5 The audio subsystem shall feature automatic gain adjustments.
- 24.4.4.6 The speakers and operator microphone shall be provided by the bus manufacturer, with the minimum requirements:
 - 24.4.4.6.1 Interior amplifier and speakers – up to ten (10) speakers, arranged in series-parallel to present 4-8 ohms to the amplifier output terminals
 - 24.4.4.6.2 Exterior amplifier and speakers – up to two (2) speakers, arranged in series parallel to present 4-8 ohms to the amplifier output terminals.
 - 24.4.4.6.3 Dynamic (not passive) operator microphone.

24.4.5 **Operation of Destination and Voice Annunciation System**

- 24.4.5.1 The system shall have the ability to announce stops based on location and time parameters. It shall ignore if the bus is on route or off-route (i.e. if the destination is within 300 feet of stop location AND is within 10 minutes of the stop time point; then announce the stop).
- 24.4.5.2 If the time and/or location parameters are not met, the system shall not announce the stop, however, this shall be evaluated on a stop-by-stop basis for the route, not the route as a whole (i.e. if the entire route is late by over ten (10) minutes, but the next stop is within the time and location parameters, the system shall announce the stop).

24.5 **Transit Environment Requirements**

The following requirements apply to all technology components described in the Technology Equipment sections:

- 24.5.1 Operating Temperature - 32 F to 110 F
- 24.5.2 Storage Temperature - 20 F to 130 F
- 24.5.3 Voltage Range - 8 to 32 VDC
- 24.5.4 Vibration: Tested against SAE -1455 and MIL-STD810 F specifications
- 24.5.5 Operating Humidity: 15% to 85%, RH non-condensing
- 24.5.6 Storage Humidity: 15% to 85%, noncondensing

24.6 **Other Requirements**

- 24.6.1 All components listed above must include all necessary cables, connectors, harnesses, mounts, screws, special tools, and any other equipment needed to ensure proper operation and securement.

- 24.6.2 The Contractor shall be responsible for all installation and initial testing to ensure equipment is fully operational before receipt and approval by the County.

25 ADDITIONAL SPECIFICATIONS

25.1 **Bike Racks**

- 25.1.1 Sportworks DL2 or approved equal bike rack mounted on the front bumper.
- 25.1.2 The bike rack must be easily removed for towing.
- 25.1.3 Capable of carrying two (2) bicycles.
- 25.1.4 Not be greater than 27 inches deep nor more than 65 inches wide.
- 25.1.5 Shall accommodate bicycles with wheel sizes ranging from 20 inches to 29 inches, excluding tandems and recumbent bicycles.
- 25.1.6 Shall accommodate bicycles with a wheelbase dimension up to 44 inches.
- 25.1.7 Shall secure bicycles up to 55 lbs. per wheel tray while the vehicle is moving. Additionally, the bicycle rack shall support a 250 lb. maximum centrally located static load when it is deployed and the vehicle is not moving.
- 25.1.8 The carrier, when stowed allows the safe operation of the coach by locking in place via the latch pin in the pivot plate assembly quadrant.
- 25.1.9 Finish on mild steel parts is powder coated and/or stainless steel to resist corrosion.
- 25.1.10 Continuous support shall be provided for the rear wheel of the bicycle allowing it to be rolled into the position closest to the bus without lifting.
- 25.1.11 Shall be mounted to the front of the bus and shall have a deployed and a stowed position. This increases rack and bicycle visibility for the operator and allows the bus to retain its maneuverability when in the stowed position.
- 25.1.12 Shall latch securely in both the stowed and deployed positions.
- 25.1.13 Shall contact the bicycles tires only. No contact shall be made with the frame of the bicycle.
- 25.1.14 All outside corners of the bicycle rack shall be rounded.
- 25.1.15 Shall not require the use of straps or cords.
- 25.1.16 When in use, shall not interfere with bus access panels or windshield wipers.
- 25.1.17 Support arm shall be self-storing and retained by a magnet, requiring no action from the bicycle rider for proper stowage.
- 25.1.18 Shall be compatible with a mounting bracket that can be completely removed from the bus in less than 10 seconds.
- 25.1.19 Maintenance shall not require the use of any surface lubrication.
- 25.1.20 Shall be designed specifically for commercial transit use and not for consumer use.
- 25.1.21 Shall be able to be loaded and unloaded independent of each other.
- 25.1.22 Lifting weight to stow the bicycle rack shall be less than 30 lbs.
- 25.1.23 Shall be clearly marked with easy to follow instructions for operation.

25.2 **Automatic Hand Sanitizer Dispenser and Face Mask Dispenser**

- 25.2.1 Refillable hand sanitizer and face mask dispensers shall be mounted at the entrance to the vehicle for easy access by boarding passengers.
- 25.2.2 Automatic Hand Sanitizer should be battery operated made of polymer composite; able to be mounted on pole of any shape - round, square or oval with tension making the clamp adapt to any pole size; the mounting bracket should withstand 6-g force; refillable where sanitizing product can be poured directly into the dispenser and does not require any specific solution bag; works with any hand sanitizer; and must be designed for use in high traffic, public areas, with heavy-duty housing, reducing the risk of vandalism damage. Dispenser has locking mechanism with technology to respond to the presence of hand for automatic dispensing of 1 ml of product. Overall dimensions should be approximately 16.75 inches height, 6.75 inches wide, 6 inches depth with a capacity of 37 ounces.
- 25.2.3 Face Mask Dispenser should be transparent acrylic container; keyhole wall mounting; holding 2-3 boxes of disposable earloop masks in bulk. It should feature a top loading locking lid with a pivot hinge; bottom dispensing product; approximately 4.5 inches depth, 8.5 inches width, 10 inches height, 1.35 lbs. weight; or approved equal.

25.3 **Driver Shield**

- 25.3.1 Driver shield to be installed that provides driver protection against airborne contamination that may be emitted by the rear passengers during transportation.
- 25.3.2 This shield shall be constructed of materials that are NHTSA-approved polycarbonate AR2 or better, impact-resistant, shatterproof in accordance with ANSI Z26.1.
- 25.3.3 Safety Glazing Materials for Motor Vehicles, and reflective to minimize operator glare.
- 25.3.4 Shield must be able to swing 180 degrees open and include emergency egress release mechanisms.

25.4 **Passenger Stop Requests**

- 25.4.1 Controls shall be provided adjacent to the wheelchair securement locations and seats for requesting stops and which alerts the driver that a passenger wishes to disembark.
- 25.4.2 This shall include both audible (chime) and visual (stop request) systems.
 - 25.4.2.1 For ambulatory passengers, the audible controls shall be mounted at a height easily accessible for the passengers to use.
 - 25.4.2.2 For mobility-impaired passengers, the controls shall be mounted no higher than 48-inches and no lower than 15-inches above the floor.
- 25.4.3 All controls shall be operable with one (1) hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate the controls shall be no greater than 5-foot pounds.

25.5 **Painting**

25.5.1 All vehicles shall be painted, Fleet Standard White.

25.6 **Decals**

25.6.1 Safety decals to include necessary warnings and precautions for emergency exits, steps, wheelchair lift, etc.

25.6.2 All signs required by State and federal law regarding safety and operating procedures shall be affixed to each vehicle's exterior and interior.

25.6.3 The manufacturer shall place two (2) international symbols of accessibility, at least 15.24-centimeter square (6-inches), to be placed, by the manufacturer, on the vehicle in concurrence with ADA regulations.

25.6.4 Decals must be 3M premium grade vinyl or equivalent. Final placement to be approved by County.

<i>INTERIOR</i>	
Quantity	Type of Sign
2	NO SMOKING
2	WATCH YOUR STEP
2	FIRE EXTINGUISHER
2	Do Not Stand Forward of the Yellow Line
2	Please Remain Seated While Bus is in Motion
1	Priority Seating Signs and other required notices as required by the ADA
1	Law Prohibits the Operation of this Vehicle While Anyone is Standing in FRONT of the Yellow Line
1	NOTICE: Security Cameras and Audio Recording in Use
<i>EXTERIOR</i>	
1	Caution – Children May Be Exiting

25.7 **Other**

25.7.1 Maximum (heavy-duty) radiator size and cooling fan available shall be provided. Radiator shall be equipped with a surge tank (if available from the chassis manufacturer).

25.7.2 The instrument panel shall have lamps sufficient to illuminate all instruments. All instruments shall be accessible for maintenance and repair and shall be mounted so that each instrument and all indicator lights are clearly labeled and visible to the driver. "Tell-Tale" lights in lieu of the listed gauges will not be acceptable. Decals or Dymo Labels are not acceptable. Each vehicle instrument panel shall be equipped with at least the following:

25.7.2.1 Voltmeter: Of proper size to accurately read (without overloading) additional charge to the electrical system when wheelchair lift, and/or auxiliary air conditioning units are being used.

25.7.2.2 Oil Pressure Gauge: Provided by the chassis manufacturer.

- 25.7.2.3 Engine Temperature Gauge: Provided by the chassis manufacturer.
- 25.7.2.4 Fuel Tank Level Gauge: Provided by the chassis manufacturer.
- 25.7.2.5 Speedometer with Trip Odometer: Provided by the chassis manufacturer.
- 25.7.2.6 Hourmeter: Provided by the chassis manufacturer.
- 25.7.3 Visible and audible warning devices shall be installed to inform following vehicles and pedestrians of reverse operations. Devices should be connected with backup lights to produce an intermittent sound to warn others while bus movement is in reverse, equal to ECCO 530 or 575.
- 25.7.4 OEM horns shall be provided.
- 25.7.5 Driver's sun visor shall be provided.
- 25.7.6 Driver's coat hook and retaining strap shall be provided in the driver's area.
- 25.7.7 Vehicle shall be equipped with front and rear mud flaps.
- 25.7.8 Vehicle shall be equipped with a driver's side running board. Running board shall be a minimum of 9-inches deep, a maximum of 12-inches. This will be measured from the OEM body at the flange at the bottom of the rocker panel. Running Board shall extend from the front edge of the front door opening to the rear of the OEM cab. Running board must be designed to hold 300 pounds without permanently changing shape, and be slip-resistant diamond plated aluminum, or approved equal. Driver entry area shall include a steel-reinforced molded plastic grab handle, mounted to the rear of the door opening on the outside on the B pillar. Handle shall be a minimum of 6inch grab area, durable, corrosion-proof, and have no sharp edges. Installation with self-taping screws will not be accepted, must include bolts into threaded inserts and be able to support 250 pounds pull force.
- 25.7.9 A minimum of five (5) pound dry powder type fire extinguisher, with gauge and hose, U.L. approval shall be provided. A bracket to securely hold fire extinguisher inside of vehicle shall be provided and the contractor shall mount this bracket to a location in the vehicle. Type of bracket used, and location shall be approved by the County prior to installation.
- 25.7.10 A three (3) triangle reflector kit shall be provided and securely mounted in an easily accessible location. Location shall be approved by the County prior to installation.
- 25.7.11 At a minimum, a sixteen (16) unit first aid kit, shall be provided and securely mounted in an easily accessible location. Location shall be approved by the County prior to installation.
- 25.7.12 Body Fluid Cleanup Kit shall be provided and securely mounted (location shall be approved by County prior to installation) to include at a minimum:
 - 25.7.12.1 One (1) pair of Latex gloves,
 - 25.7.12.2 One (1) package of absorbent powder,
 - 25.7.12.3 One (1) package of antiseptic BZK towelettes,
 - 25.7.12.4 One (1) bag 24-inch x 24-inch Bio-Hazard white w/tie,

- 25.7.12.5 One (1) bag plastic brown w/tie,
- 25.7.12.6 Certi-Green surface cleaner towelette or approved equal,
- 25.7.12.7 Face mask,
- 25.7.12.8 Infection control,
- 25.7.12.9 One (1) SBB-2 scoop bag w/handle scraper,
- 25.7.12.10 Two (2) towels, and
- 25.7.12.11 Paper crepe
- 25.7.13 Vehicles shall come equipped with, and have containers for:
 - 25.7.13.1 Seat belt cutter secured by Velcro in a location chosen by the County.
 - 25.7.13.2 Working flashlight
 - 25.7.13.3 Reflective vest
 - 25.7.13.4 Chock blocks (2)
- 25.7.14 Chassis OEM manufacturer's AM/FM Stereo Radio with public address system input, plus four (4) speakers, two (2) in front and two (2) in rear shall be provided. The use of aftermarket radios of equal or superior quality may be used only if a radio is not available from the OEM chassis manufacturer to comply with the specification.
- 25.7.15 Vehicle shall be equipped with emergency flashers that operate even if the brake pedal is depressed.
- 25.7.16 Front bumper should be OEM standard chrome or approved equal.
- 25.7.17 Rear "Help" energy absorbing type bumper or approved equal, based on OEM chassis type.
- 25.7.18 Reflective marking tape should be installed on the rear of the bus per FMVSS 108 standards.

EXHIBIT II

Vehicle Specifications for Medium Duty Cutaway Bus, Type 11 32 passenger

Whenever a specific trade or product name is used within this specification, the following statement applies: **“or approved equal with the same standards of quality, design, and performance.”**

1 GENERAL REQUIREMENTS

- 1.1 Vehicles shall be of the body on chassis type and will involve the construction of a body on a medium-duty cut-away van or truck chassis. The vehicle body shall be a body manufactured by a body manufacturer for transit application, not converted or modified to a transit vehicle from a sports van, passenger van or wagon, delivery vehicle, school bus, recreational vehicle, or similar vehicle. Body construction shall be a conventional type, panels on structural metal frames, as described later in this document.
- 1.2 The vehicles shall be able to operate daily on all urban, suburban and rural primary and secondary roads within the State of Texas.
- 1.3 The vehicle proposal shall be the chassis manufacturer’s current production year, 2022 Model Year or newer. The basic vehicle, both chassis, and body must be a current year factory production cutaway model that is cataloged by the manufacturer and for which manufacturer's published literature and printed specifications are currently available.
- 1.4 These specifications reflect the County’s preference as to dimensions, materials, and major components. However, the contractor shall not omit any part or detail, which goes to make the vehicle complete and ready for service, even though such part or detail is not mentioned in these specifications.
- 1.5 All units or parts used in the assembly of the final product shall be the manufacturer’s best quality and shall conform in material, design, or workmanship to the best practice known in the transit industry. All parts shall be new and in no case shall be used, reconditioned, or obsolete parts are accepted.
- 1.6 These specifications intend to provide and require a complete vehicle of the type prescribed ready for operation.
- 1.7 In the event that any of the attached specifications deviate from the American’s with Disability Act requirements as published in 49 CFR § 27, 37, and 38 the specifications of the higher standard will apply.
- 1.8 In accordance with Publication 101-592 and 15 CFR § 280, all fasteners utilized in the assembly and construction of coaches, sub-assemblies, or components procured under this Contract shall comply with all applicable Federal, State, and local law ordinance and shall be appropriate for the intended application. The Contractor shall procure and deliver fasteners made in the United States for use in the coach manufacturing process. The steel shall be of high quality and for use in general and critical applications. At a minimum, Grade 8 bolts, nuts, flat, and lock washers shall be utilized in all critical applications, including but not limited to: steering,

suspension, axle assemblies, undercarriage, propulsion system, wheelchair occupant restraints, seating, etc. Standard hardware installed by the chassis manufacturer will be accepted. All items covered by these specifications shall conform to applicable SAE, U.S.S., or Metric Standards and shall be of U.S. manufacture. No counterfeit fasteners shall be permitted. Should the County find the Vendor or their suppliers providing counterfeit fasteners of any type, the Vendor may be declared in default in accordance with the Contract Documents. Fastener materials shall be compatible with materials being fastened. Where self-tapping fasteners are used, body panels shall be reinforced with steel backing, aluminum backing, or stainless-steel backing.

2 VEHICLE CLASS AND OVERALL DIMENSIONS

- 2.1 The following dimensions and characteristics are given to indicate the approximate size and type of vehicle desired. Floor/seating plans of the proposed bus indicating compliance with the overall specified dimensions must be submitted with the proposal documents.
- 2.2 Vehicles shall conform to the requirements of the following table for the Diesel Engine base specification requirements.

VEHICLE CLASS	FORD F550/FREIGHTLINER OR APPROVED EQUAL
Seating Capacity	32
Number of Wheelchair Positions	2
Minimum OEM Gross Vehicle Weight Rating in Lbs.	19,500 - 26,000
Wheel Base (inches)	228 - 330
Width (inches)	96

- 2.3 **Length:** The overall length of the vehicle shall be the minimum necessary to satisfy the specified seating configurations of this proposal while meeting all applicable FMVSS requirements and chassis manufacturer requirements for weight distribution.
- 2.4 **Width:** Exterior 102-inch (maximum). Interior 92-inch (minimum).
- 2.5 **Height Overall:** Standard and Flat floor buses: not to exceed 129-inches.
- 2.6 **Gross Vehicle Weight Rating (GVWR):** The GVWR shall not exceed the weight of a fully-loaded vehicle. A fully-loaded vehicle equals the weight of the vehicle equipped to meet these specifications, verified by a weight ticket, plus the weight of the passengers (minimum 150 pounds for each ambulatory placement, minimum 250 pounds for each wheelchair placement, depending on wheelbase. Higher pound capacity shall be provided for larger cutaways).
- 2.7 **Wheelbase:** The vehicle wheelbase shall be sufficient to accommodate seating configurations required while meeting applicable Federal/State safety requirements and chassis manufacturer’s specifications for weight distribution. Contractor to provide the engineered wheelbase as part of the submitted floorplan diagram. Provide the shortest wheelbase allowable.
- 2.8 **Step Height:** With the vehicle at its curb weight and parked on a level surface the step height as measured from the ground to the top of the first step shall be no more

than 12 (+/- .5) inches, unless a flat floor is being provided. Contractors shall specify flat floor first step height if different.

- 2.9 **Wheel Well (Flat Floor Only)**: On flat floor floorplans and specifications, wheel wells are not to protrude above the interior floor of the vehicle. The vehicle must maintain the same interior height as non-flat floor buses.

3 BODY

- 3.1 The vehicle manufacturer shall certify that its latest body design and construction method is furnished under this contract meets FMVSS 220 at a minimum.
- 3.2 The body shall be free of cracks, dents, defects, or physical damage.
- 3.3 All nuts, bolts, clips, washers, clamps, and fasteners, including those that would be exposed to the elements on the exterior and interior of the unit, shall be zinc or cadmium plated, phosphate coated, or stainless steel to prevent corrosion. No metal sheet screws shall be permitted.
- 3.4 Fenders and splash aprons (underskirt) of durable construction shall be provided to provide maximum deflection of the wheel splash. Front and rear mud flaps are required.
- 3.5 Roof gutters shall be installed over the windows and doors. Gutters shall be designed so as not to spill water on driver's exterior mirrors and intermediate drain holes shall not drain water on windows and doors when open or closed.
- 3.6 All components, subassemblies, or partially completed assemblies that are subject to corrosion and/or absorption of moisture shall not be stored in an environment subject to the influences of moisture, wind, etc. without being protected against such environmental influences.
- 3.7 Two (2) rear tow hooks shall be provided, accessible under the rear bumper. The towing devices shall be adequate in design and construction to permit towing the vehicle without distortion or failure.
- 3.8 Fender Wells shall be made of galvanized metal at a minimum.
- 3.9 Resonance: The vehicle body shall be constructed in a manner that minimizes vibrations, rattles, and other body noises during normal use.
- 3.10 License Plates: All brackets, bolts, nuts, and miscellaneous fasteners for attaching front and rear license plates to the vehicles shall be provided by the successful Contractor. Front and rear license plate holders must be mounted/bracketed to the safety bumper by the contractor before delivery to the County. License plate holders for the rear should be illuminated by LED lights.
- 3.11 Body is required to be water tested upon completion at the manufacturer's location to ensure there are no water leaks of exterior seams, roof construction, or overall structure. Testing shall be done with water nozzles appropriately placed to test the entire conversion. Minimum 20-psi water pressure for testing is required for a minimum of 10 minutes.
- 3.12 Undercoating: The entire underside of the body including floor members, side panels below floor level (if metal), and fender wells shall be undercoated, at the time of manufacture, with a non-flammable resin type polyolefin undercoating for bus applications. All openings in the floorboards and firewall shall be sealed. Care shall be taken to prevent overspray of electrical cabling, air, brake, and fuel hoses.

4 STRUCTURE

- 4.1 The vehicle shall have a purpose-built body, which will provide for a minimum floor to ceiling distance of 78-inches at the center aisle. It shall include a minimum 1 ½ inch steel tubing roll cage that is set on a maximum of 24-inch centers or less, for the floor, sidewall, and roof. The floor frame must be welded to the sidewall frame, and the sidewall frame must be welded to the roof frame. Steel roll cage must form a complete unitized body and a steel support cage behind the front and rear cap to prevent flexing. All steel joints must have gussets for additional strength. All steel parts shall either be galvanized, powder-coated, or primed to prevent rusting. Composite construction is not acceptable. The entire sidewall structure shall be a minimum of 1½ inch steel tubing and vacuum laminated and bonded as an integral unit. The use of double-sided tape during any point of the sidewall construction is not allowed. Shall have a galvanized steel exterior skin with a minimum thickness of .024 inches. Construction methods utilizing double-sided tape to secure sidewall skin will not be accepted. All surfaces and hardware having sharp edges, corners, or angles that could cause injury shall be covered and padded with heavy-duty vinyl-foam type material. The roof will be constructed of the same reinforced materials as the body of the vehicle and of sufficient strength to prevent vibration, drumming, and flexing. Shall have a Galvanized Steel Roof Skin with a minimum thickness of .024 inches. Roof design will prevent ponding of water on the roof. The completed body shall meet the requirements of FMVSS-220 School Bus rollover protection.
- 4.2 The body shall be constructed to provide maximum protection to passengers in case of a rollover accident or a crash accident to the side or rear of the bus.
- 4.3 Front body caps shall be constructed of solid one-piece reinforced molded fiberglass, bonded and sealed to the vehicle body by a minimum of 1-inch overlap to prevent the penetration of moisture into the interior of the vehicle body. Fiberglass caps shall be of the sturdiest construction possible to endure the entire life of the vehicle.

5 ROOF CONSTRUCTION

- 5.1 The roof super-structure shall be constructed of a 1-piece seamless FRP or 3-piece galvanized metal construction. The roof panel shall lap side panels by a minimum of 1-inch. The overlapping panel construction is to preclude water leakage into the vehicle. Panels shall be riveted, bonded, or welded to the superstructure. The roof construction shall be of sufficient strength to prevent vibration, drumming, or flexing. The roof is to be designed and installed in a professional manner that is smooth and without bumps, waves, or has an imperfection due to installation or material that will not allow the pooling of water.

6 DOOR CONSTRUCTION

- 6.1 **Passenger Door.** The front passenger entrance door must be an electrically operated transit-type door, located in the coach body. Operating controls should be located within easy reach of the driver. Door Opening: Minimum height 80-inches from the top of the first step to entrance header; minimum width 30-inch clear opening.

Wheelchair Lift Doors. A double door entrance shall be provided on the right (curb) side of the vehicle in front of the vehicle's rear wheels. The door opening shall be of sufficient width and height to accommodate a wheelchair lift as specified in Section 22.

7 INTERIOR AND FLOORING

- 7.1 **Interior.** All interior panels shall be vinyl-coated metal or equal in durability and cleaning ease. The contractor shall provide a list of available colors at their quoted price and may also include a list of colors available at additional cost. The Interior shall be trimmed with attractive molding, covering all seams. All surfaces and items or hardware in the passenger compartment having sharp edges, corners, or angles that could cause injury shall be passed with heavy-duty vinyl-covered foam-type material. The door and instrument panel is to be painted or otherwise finished to match the overall tones of the interior panel.
- 7.2 **Floor Assembly.** The floor shall consist of ¾ inch 7-Ply marine tech grade plywood construction of sufficient strength and supports to not allow flexing of the finished or surface floor. The chassis, body, and flooring shall be attached in such a manner as to act as one (1) unit without any movement or flexing at the joints.

8 EXTERIOR SEAMS

- 8.1 All exterior seams shall be constructed in such a manner as to shed water and exterior panels shall have lap joints.
- 8.2 In no case shall the sealing of panels be dependent on caulking alone. Zinc chromate caulking, butyl rubber tape, or an approved equal shall protect all exterior joints and seams. No water leaks in the body will be acceptable. All exterior sealants shall be sealed with white sikaflex 505UV or approved equal.

9 INSULATION

- 9.1 Insulation shall be provided on both walls and roof. Adequate insulating properties shall be provided to ensure minimum heat, cold, and noise penetration into the vehicle interior. Insulation may be accomplished through the use of vacuum design or equivalents approved with a minimum R-value of 8, fire-resistant.
- 9.2 Equivalent to 3.81 centimeters (1½ inch) block foam, type of insulation, and method to be defined by the contractor shall be installed in the roof, rear wall, front and rear caps, sidewalls, and extended door sections including lift doors, minimum value R8 or above. If additional insulation is necessary to meet the requirement, the insulation shall be glued to the chassis body to prevent sagging.
- 9.3 The insulating material of the body and sidewalls shall be of sufficient thickness to contact the inner and outer walls, ensuring a positive vapor barrier equivalent to 38.1 millimeters (1½ inch) of block foam. Any insulation material used between the inner and outer panels shall be sealed or self-sealing to minimize entry and/or retention of moisture. Insulation properties shall be unimpaired during the service life of the bus. Any insulation material used inside the engine compartment shall not absorb or retain oils or water and shall be designed to prevent casual damage that may occur during maintenance operations.
- 9.4 Insulation shall comply with all federal requirements and shall pass the testing requirements specified in the Federal Transit Administration (FTA) recommended

Fire Safety Practices for Transit Bus and Van Materials Selection. The combination of inner and outer panels on the sides, roof, wheel wells, and ends of the bus, and any material used between these panels shall provide thermal insulation sufficient to meet the interior temperature requirements of these specifications.

- 9.5 The bus body shall be thoroughly sealed so that the operator or passengers cannot feel drafts during normal operations with the passenger doors closed.

10 DIESEL ENGINE

The following chassis requirements are based upon the County's current requirements. Any chassis with proven service history is acceptable to the County. Alternate configurations shall be evaluated.

10.1 Engine

- 10.1.1 6.8L diesel engine, turbo-charged, per OEM specifications. Largest HP rating available.
- 10.2.1 Fuel line water separator.

10.2 Transmission

- 10.2.1 Automatic transmission with overdrive, latest model available. Specify speed.
- 10.2.1 A chassis manufacturer's heavy-duty auxiliary transmission oil cooler shall be provided if it is available from the chassis manufacturer. Aftermarket oil cooler shall not be accepted.
- 10.2.1 Oil pan with magnetic drain plug and re-usable gasket if it is available from the chassis manufacturer. Aftermarket oil pan shall not be accepted.
- 10.2.1 The vehicle shall be equipped with an audible warning device in compliance with SAEJ994b that is activated when the vehicle transmission is engaged in reverse and continues as the vehicle is being backed up. This should be located behind the rear axle of the vehicle and all wires should be enclosed and secured. The dBA sound measurement shall be a minimum of 87 dBA +/-3 dBA. The dBA sound measurement shall be measured from 3 feet above the ground and 2 feet behind the rear bumper at the StreetSide rear corner of the vehicle.

10.3 Power Steering

- 10.3.1 Power steering is required.
- 10.3.2 Chassis manufacturer's tilt and energy-absorbing steering column and steering wheel.
- 10.3.3 Steering shall incorporate an OEM factory-installed tilt wheel feature.
- 10.3.4 OEM factory-installed cruise control.

10.4 Emission

- 10.4.1 Contractors are required to meet all current Diesel Emissions Environmental Protection Agency (EPA) requirements and technology should be modified per any federal change in the law during the

procurement and/or contract period. This must include all Diesel Exhaust Fluid (DEF) provisions and storage requirements.

- 10.4.2 The vehicle shall be equipped with a heavy-duty, corrosion-resistant exhaust system that meets or exceeds FMVSS and EPA noise level and exhaust emission (smoke and noxious gas) requirements, including all State of Texas requirements, whichever requirements are more stringent.
- 10.4.3 Heavy-duty exhaust hangers shall be standard equipment and shall be bolted to the frame. All hanger U-bolt thread orientation must be directed sideways. All exhaust system modifications shall use the exact type, size, and gauge material as the OEM exhaust system. The use of flex pipe for exhaust modification will not be permitted. At a minimum, there should be three (3) tailpipe hangers.
- 10.4.4 The exhaust pipe discharge shall be at the rear street-side corner of the vehicle (behind the rear axle) not to interfere with the lift operation, depending on lift configuration. The exhaust pipe is to be routed perpendicular to frame rails, 12-inches behind the fuel tank with a 90-degree bend from the OEM exhaust pipe, attached to both frame rails with no more than 3-inches of space between the bottom of frame rails and top of the exhaust pipe. Street side exhaust shall protrude 1-inch beyond the lower body panel with a maximum clearance of 2-inches between the top of the exhaust pipe and the bottom of the lower body panel.

10.5 **Fuel Tank**

- 10.5.1 DEF tank fill shall be OEM style, separate from the diesel fuel fill door with a locking cover located on the driver's side of the vehicle.
- 10.5.2 Fuel tanks shall have the maximum capacity as offered by the manufacturer. Contractor shall specify capacity with the proposal.
- 10.5.3 The chassis OEM fuel system shall not be modified. Any fuel tank breached during modification shall be removed and replaced with a new fuel tank. Repair of the breached tank by any means will not be acceptable. Access to the fuel tank from the vehicle exterior must consist of a locked, enclosed area via a metal locking fuel door, exposed fuel tank caps are not acceptable. The fuel tank must contain a full tank of fuel upon delivery to the final destination.

10.6 **Final Drive**

- 10.6.1 A differential ratio, appropriate for maintaining legal highway speeds without excessive strain on the engine and transmission, yet capable of providing adequate, safe exhaust from a stop, shall be provided.
- 10.6.2 The driveshaft, bearing and U-joint shall be the OEM's standard for the GVWR specified. One (1) or more protective metal guards for the drive shaft are required to prevent any section of the shaft from entering the vehicle or striking the ground in case of failure, in accordance with 49

CFR § 393.89. Guards shall be 3/16-inch thickness steel (minimum) bolted to the frame.

10.7 **Suspension**

- 10.7.1 Front axle shall be the manufacturer's standard. It must be load-rated for the GVWR of the size bus involved.
- 10.7.2 Coil Springs or leaf springs may be provided in the front. Springs shall be progressive to give an acceptable ride under various load conditions.
- 10.7.3 Front shock absorbers shall be heavy-duty double acting gas-filled, and load rated, capable of controlling the ride when the vehicle is empty, as well as when loaded to the GVWR. Highest rating available from OEM.
- 10.7.4 The rear suspension system must include OEM Load Leveling Suspension (SER) to maintain a level position once loaded to full capacity without affecting the ride quality. Front and rear stabilizer bar shall be provided, if available from the original chassis manufacturer. The rear suspension must be equipped with Air Ride utilizing two (2) rear airbags, leveling valves, and heavy-duty shock absorbers.
- 10.7.5 Frame Height should be equal on both sides of the vehicle, requiring additional springs to compensate for lift weight, regardless of lift position.

10.8 **Tires**

- 10.8.1 Vehicles shall be equipped with seven (6 + 1 spare) premium tubeless, steel-belted, black sidewall, all-weather radial tires, the largest size available from the OEM for GVWR specified.
- 10.8.2 All tires shall be electronically spin balanced to a minimum speed of 65 MPH.
- 10.8.3 The inside dual tires mounted on the rear axle shall have air valve extensions.
- 10.8.4 One (1) appropriate size jack will be provided with the spare tire in the vehicle.

10.9 **Wheels**

- 10.9.1 Vehicles shall be equipped with the heaviest duty 19 ½ inches (minimum), 1-piece ventilated steel wheels recommended for the GVWR, and tires specified. All wheels shall be interchangeable.
- 10.9.2 One (1) spare wheel, matching the wheels on the bus with an identical tire shall be supplied per bus.
- 10.9.3 The chassis manufacturer's lug nut indicators if available from the chassis manufacturer shall be installed on all wheels.

10.10 **Brakes**

- 10.10.1 Services brakes shall be full air drum brakes with ABS all-wheel anti-lock braking system, if available for the selected vehicle. Hydraulic self-adjusting power front and rear discs with an anti-lock ABS are acceptable if air brakes are not an option. The braking system shall comply with FMVSS 105 and FMVSS 106.
- 10.10.2 The braking system shall be heavy-duty and the largest offered by the manufacturer for the GVWR specified.
- 10.10.3 Brakes shall conform to all Federal and Texas Motor Vehicle Safety Standards.
- 10.10.4 Parking brake shall be standard manufacturer's mechanical type, independent of the vehicle's service brake system. It may be a heavy-duty hand or foot-operated parking brake with a warning light on the dashboard.
- 10.10.5 If four-wheel disc brakes are supplied, specify the type and the location of the parking brake.
- 10.10.6 The parking brake shall be factory installed in the rear braking system and not lock on the driveline.
- 10.10.7 The brakes shall be free of objectionable noise or squeal when applied.

10.11 **Electrical System**

- 10.11.1 The vehicle shall be supplied with an alternator-powered 12-volt electrical system. The vehicle is to be equipped with an OEM or approved equal 225 extra heavy-duty amp alternator with an integral voltage regulator and easily accessible for maintenance and repair. Dual alternator systems will be allowed but must be identified in the proposal for consideration.
- 10.11.2 All controls and instrumentation necessary for safely operating the vehicle shall be located within easy reach of a fifth (5th) percentile female through to a ninety-fifth (95th) percentile male driver seated in the driver's seat with the driver's seat belt fastened.

10.12 **Battery**

- 10.12.1 Two (2) heavy-duty 12-volt batteries, with a combined 1400 CCA minimum for diesel engines. The batteries shall be lead acid premium construction and maintenance-free. The positive (+) and negative (-) terminals shall be of different sizes on the same battery to prevent incorrect cable installation. All battery terminals shall be coated with an anti-corrosion and sealant protector.
- 10.12.2 Both batteries shall be located in a lockable box mounted on the curbside of the bus unless the Chassis manufacturer requires otherwise. This battery box shall include a slide-out tray that securely locks in the stowed position. The slide-out tray shall be made of galvanized metal or stainless steel. Box location should be no lower than the bottom of the entry door.
- 10.12.3 The battery tray slides shall have the ability to carry twice the weight of the bus batteries. The battery tray shall have adequate drain holes (a

minimum of two (2)). The battery box shall also be equipped with two (2) drain holes preferably adjacent to the two (2) battery tray drain holes when the tray is in the stowed position. The tray shall have the ability to extend 3-inches (minimum) beyond the opening of the battery compartment. Drain holes to be closely aligned when the battery tray is in the stowed position. Battery hold-downs should be properly sized and prevent the battery from shifting or moving in the battery tray which may require shift blocks made of an insulating material to prevent corrosion. All battery securement devices and securement hardware, including slides and tray shall be stainless steel and be self-locking or tension retaining hardware. Battery box must be designed with full support under the tray. Battery trays that are built without structural support underneath will not be accepted.

10.12.4 One (1) thumb-release latch and one (1) locking latch that will rotate 180 degrees from the closed position shall secure the battery compartment door. A chrome retractable latch shall hold the door in the open position. A diagram showing the configuration of the battery cable installation shall be installed to the inside of the battery compartment. Cables shall be long enough to allow specified pull-out extension and shall be protected and flexible enough to fold away when stowed without shorting or damaging the cables. Battery cables installed in place of chassis manufacturer's battery cables must be heavy-duty, continuous run, and sized to match the electrical systems maximum draw.

10.12.5 Access to the battery tray shall be from outside the bus. The access door to the battery box shall swing up at a minimum of 60 degrees to the horizontal plane. With the compartment door lock not in the locked position, the door shall remain in the closed position when the bus is traveling at any safe speed or making any safe type of turning maneuver. The battery box shall be sealed to prevent road debris, dust, rain, snow, or other forms of precipitation from entering the box, but shall not be airtight for safety reasons.

10.13 **Wiring**

10.13.1 Original manufacturer's vehicle wiring shall remain unchanged to the greatest extent practicable consistent with the requirements of these specifications. All add-on electrical components controlling the power to the bus body electrical circuits shall be located in a separate electrical junction box. The junction box shall be easily accessible through a hinged lockable door. The junction box shall be suitably sized to allow for ease of maintenance, repair, and ten (10) percent additional space for the installation of future electrical components. The junction box shall be located within accessible reach of the driver. All body harnesses shall join on a terminal strip made of high-strength dielectric material. All circuits shall be protected by manual reset circuit breakers,

- in lieu of fuses. Circuit breakers shall be numbered and sized to provide proper overload protection for each circuit.
- 10.13.2 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 currents without significant voltage drops.
- 10.13.3 All wiring, including chassis manufacturer's, shall be enclosed in non-metallic loom meeting current SAE Standard J762a and be adequately supported by fully insulated pinch clamps with a minimum spacing of every 24-inches and routed for protection from heat, moisture, solvents, corrosion, road debris, abrasion, and tension. Tie wrap shall be used minimally in the securement of electrical harnesses and wiring.
- 10.13.4 All non-OEM wiring connections greater than 10-gauge shall be properly crimped, soldered, and sealed with heat shrink tubing. Crimping by hydraulic crimper or electrical crimper that fuses the connector and the wiring is acceptable in lieu of soldering. Contractor to supply a sample of crimped connector greater than 10-gauge.
- 10.13.5 The bend radii of all installed electrical wires and cables shall not exceed the manufacturer's recommended minimum bend radii. All parts of the wiring system and electrical components shall be protected from corrosion. All connectors installed on the underside of the vehicle and/or exposed to any outside element and/or have a 20 amp and high circuit breaker within its electrical circuit shall be double insulated.
- 10.13.6 There shall be no exposed or loose wiring in the driver or passenger compartment. Any bus body wiring harnesses containing exposed excess lengths shall have the excess length neatly gathered and secured to a rigid bus body or chassis frame member.
- 10.13.7 Wiring shall be of sufficient length to permit positioning, as well as replacement of terminals, twice, without excessive tension.
- 10.13.8 Protective grommets shall be provided at points where wiring penetrates metal or other material.
- 10.13.9 Three (3) added grounds shall be installed on the vehicle; all shall be # 0-gauge cable. One (1) ground shall be installed between the engine and the OEM frame. The second ground between the Cutaway Body frame and the OEM frame, and a third between the lift pump housing and the side battery, grounds must be continuous, without splices. For all ground connections, paint or foreign material must be removed and a coating of dielectric material applied to the cleaned surface where each ground attaches.
- 10.13.10 All wires shall be color-coded or numbered every 6-inch maximum to correspond with the wiring diagram for ease of service and identification.
- 10.13.11 Complete "as-built" wiring schematics shall be provided with each vehicle, specifically matching the vehicle provided with all options included. General wiring diagrams will not be accepted.
- 10.13.12 Farebox shall be mounted with the trip handle toward the driver. It shall be mounted on a stanchion, adequately braced, located near the driver,

and easily accessible to passengers entering the bus. An amber or indirect fare box light shall be connected to the dash instrument lights. Two (2) interchangeable lockable fare box vaults and farebox, keyed alike with a double set of keys for each lock shall be supplied. Vault and farebox exteriors shall be marked with key references. The farebox shall be constructed with heavy-duty stainless steel. The window shall be scratch and breakage-resistant Lexan material. The farebox dimensions shall be 6.5 inches wide x 5.5 inches deep x 16.75 inches high. The total unit weight shall be 17.5 lbs. The County is currently using Diamond XV Rectangular Fare boxes or approved equal.

11 CLIMATE CONTROL

All-climate control system controls shall be located within easy reach of the operator and shall be located on a control panel.

11.1 Heating/Air Conditioning/Defrosting Requirements

- 11.1.1 Chassis manufacturer's in-dash deluxe heater and defroster, maximum BTU rating available, shall be provided.
- 11.1.2 All vehicles require an integral front air conditioner OEM chassis manufacturer rated at 15,000 BTU minimum as installed with factory dual compressor.
- 11.1.3 Auxiliary rear air conditioner capable of producing a minimum of 74,000 BTU with 665 CFM diffused airflow equal at a minimal. The system must be adequate for the size of the bus proposed and must meet the Houston Pull Down Test.
- 11.1.4 Cooling shall be specified in BTU at 100°F, ambient temperature.
- 11.1.5 The condenser for the air conditioner shall be mounted in the body skirt and shall have a minimum of three (3) .25-m (10-inch) fans cooling the condenser with automatic reset.
- 11.1.6 The evaporator shall be mounted at the wall ceiling junction at the rear of the bus and shall not reduce the headroom to less than 1.52-m (59-inch) and not extend outward from the rear wall more than .6096-m (24-inch) into the passenger compartment area.
- 11.1.7 Evaporator drain shall run downhill from the evaporator housing. Elbow, or turn down, shall be a minimum of ½ inch below the outlet on the housing. Drains must be installed to prevent puddles of water from being retained in the system.
- 11.1.8 The refrigerant lines to the evaporator must be adequately supported between the wall of the bus and the evaporator.
- 11.1.9 All refrigeration, heater, and drain lines that enter the passenger compartment shall be encased in a rigid material, fiberglass, aluminum, etc. that harmonizes with the interior to prevent injury to passengers in the event of line eruption.
- 11.1.10 The air conditioning system shall use environmentally friendly refrigerant R134A or approved equal. The entire air conditioning

- system, including add-ons, shall utilize the same type of refrigerant supplied by the chassis manufacturer
- 11.1.11 A label must be placed in the engine compartment-detailing manufacturer's name, refrigerant type and quantity, compressor oil type, and quantity.
 - 11.1.12 The evaporator and condenser must be matched to the compressor as per the manufacturer's recommended installation instructions.
 - 11.1.13 Refrigerant hoses shall be SAEJ2064, double braided Barrier type Goodyear, Aeroquip, or approved equal and shall be completely enclosed in loom over the entire length to prevent chaffing. The refrigerant hoses shall be supported at a minimum of every 24-inches with fully insulated "P" clamps.
 - 11.1.14 Refrigerant fittings shall be ATCO, Aeroquip, or approved equal. These fittings may be "O" ring types. In addition, a complete set of the refrigerant fitting shall be supplied to the County upon delivery of the vehicle. A complete set constitutes enough fittings to replace the entire system.
 - 11.1.15 Protective grommets shall be provided at points where refrigeration, heater, and drain hoses penetrate metal or other materials.
 - 11.1.16 All HVAC system hoses and wires that pass within 12-inches of the exhaust system shall be shielded in a manner to prevent heat damage to them. All hoses must be a minimum of 6-inches away from the catalytic converter and 4-inches away from exhaust pipes and muffler.
 - 11.1.17 Each vehicle shall have a front-mounted integral high output heater and a rear output auxiliary heater mounted either to the floor or to the ceiling above the rear exit door. Rear heater location to be determined individually for each bus purchase by the County. The front heater and defroster shall be an OEM chassis manufacturer.
 - 11.1.18 The rear heater shall be equipped with an electric operated heater control valve to be activated by the heater on/off switch. The total output of the auxiliary heater system shall not be less than 65,000 BTU.
 - 11.1.19 Heater booster circulator pumps may be required to force air up and assist in the proper circulation of air to the rear of the bus. Booster pumpers are to be activated by the heater on/off switch. If booster pumps are not required, the contractor is to explain why.
 - 11.1.20 All heater water coils will be heavy-duty copper or aluminum. Heavy-duty quarter turns to shut-off valves shall be located in the supply and return lines to the heater. These valves shall be readily accessible.
 - 11.1.21 Heaters are to be controlled by two (2) individual three-position switches (off, low, and high).
 - 11.1.22 All hoses, drains, and wiring must be covered and adequately supported with plastic/rubber-coated steel clamps secured at a minimum of two-foot intervals. All heater hoses are to be silicone, with clamps designed for use with silicone hoses. Combustion heaters are not acceptable. Shutoffs shall be on all hoses.

- 11.1.23 Heater and associated hardware shall meet SAE-recommended standards and practices and shall meet the applicable criteria of 49 CFR 393.77.
- 11.1.24 The inside air system, when running at its lowest settings, shall filter air at a rate of 15 cubic feet per minute per passenger. The HVAC system shall be equipped with a HEPA-14 filtration system or equivalent that contains a Minimum Efficiency Reporting Value (MERV) of 16 or better.

11.2 **Roof Hatch**

- 11.2.1 Vehicles shall be equipped with one (1) Transpec Model 1000 or approved equal, roof ventilation/escape hatch nominally centered in the vehicle roof. Roof ventilation/escape hatch features shall include five-position ventilation (minimum), a rubber gasket to prevent leaks, and emergency exit capability.

12 **INTERIOR TRIM**

- 12.1 Sidewall rear wall and ceiling trim panels shall be melamine, ABS plastic, FRP, smooth fiberglass gel coat, vinyl, polypropylene fiber, or an approved equal, applied in one (1) or more sections. Trim molding of stainless steel, anodized aluminum, FRP, or ABS plastic shall be used to cover seams. The trim molding shall be continuous except at the door openings, wheel well, and fuel intake line covers and run the entire length of each seam covered.
- 12.2 Panels shall be supported to prevent, buckles, vibration, drumming, or flexing and particular care shall be exercised to keep the body light fixtures from weaving or bouncing when the coach is in service. The ceiling panels shall be supported to prevent sagging.
- 12.3 All interior panels, materials, and treatments shall be flame retardant in conformance with FMVSS 302 and treated to be easily cleaned.
- 12.4 All ceiling and sidewall panels shall be scuff and scratch-resistant.
- 12.5 All sharp corners, edges, and protruding hazardous surfaces shall be eliminated. There shall be no open seams between trim panels.
- 12.6 All panels shall be the same color and coordinated with the interior colors of the vehicle.

13 **SEATING**

13.1 **General**

- 13.1.1 All seating, including the driver, shall meet or exceed the Federal Transit Administration recommended Fire Safety Practices for Transit Bus and Van Materials Selection.

13.2 **Driver Seating**

- 13.2.1 A power deluxe driver's seat (OEM driver's seat will be considered however approved equals can be submitted if the item is FMVSS compliant) shall be provided with forward and rearward adjustment, right-side armrest, lumbar support, reclining feature, and high back.

The seat shall be upholstered in the fabric chosen by the County consistent with Section 13.3.12 and match the predominant color of the passenger seats, chosen by the County.

13.2.2 Driver's shoulder seatbelt must be vertically adjustable.

13.3 **Passenger Seating**

13.3.1 All passenger seating shall be a minimum of Freedman Level 5 or approved equal and meet the following requirements.

13.3.2 Seats shall have full individual spring suspension for each passenger as well as contoured full lower back (lumbar) support. Passenger seat frame shall be constructed of steel and meet FMVSS 210.

13.3.3 Seat installation shall meet FMVSS 207 standards.

13.3.4 Energy-absorbing padded grab handle shall be provided at the top of each forward-facing seat position and be as wide as practical, depending on seating configuration. Perimeter seating floorplans with not have grab handles. The diameter of the grab handle shall be no less than 3.175-centimeter (1¼ inch) and no greater than 3.8 centimeters (1½ inch).

13.3.5 Seats shall be mounted on adjustable seat track mounting or approved equal. This mounting shall allow for repositioning of seats by loosening mounting bolts and sliding the seat along a track to the desired position. This type of seat mounting shall meet all applicable FMVSS requirements, specifically FMVSS 207. The trim shall be nominally flush with the floor covering to prevent a tripping hazard. A one-piece filler/cover shall be provided in tracking between fixed seat placements on the floor and wall tracks. Floor track will not be installed in any area not covered by a fixed seat. Track can extend 6-inches to the rear of the fixed seat area to allow for seat adjustment by end-user to better accommodate their needs. Delete seat track at wheelchair tie-down space.

13.3.6 Pedestals shall be placed a minimum of 15.24 centimeters (6-inches) from the seat edge to provide toe clearance. The pedestals shall be anchored to the floor of the bus with minimum Grade 5 bolts.

13.3.7 Seat Dimensions

13.3.7.1 Seat width per person: 17½ inches minimum

13.3.7.2 Seat depth: 17-inches minimum

13.3.7.3 Seatback: 21¹ inches minimum

13.3.7.4 25² inches minimum as measured from the top of the seat bottom to the top of the seatback.

13.3.8 Seatback angle: 10 to 15 degrees

13.3.9 Hip to knee room: 28-inches nominal (maximum available)

13.3.10 Aisle width: 16³ inches nominal (maximum available)

1 To be measured at seated passenger hip height.

2 To be measured at seated passenger hip height.

3 To be measured at seated passenger hip height.

- 13.3.11 Seat upholstery both back and bottom cushion, shall be vertical or combination vertical and horizontal quilting. In addition, the front of the bottom cushion shall be rolled. Foam shall be contoured, dense, transit-grade polyurethane with a minimum thickness of 1½ inches.
- 13.3.12 All seats shall be covered with Freedman Level 5 fabric or approved equal. The seat color shall be coordinated with the interior vehicle color; the County will have the option to choose a color within the guidelines of the material type.
- 13.3.13 Back of permanent ambulatory passenger seats to exclude rear seats against the back of the bus should be covered with a plastic protective cover.
- 13.3.14 All metal surfaces shall be chemically cleaned and coated with a corrosion preventative material to provide a rugged, long-lasting, rust-resistant surface.
- 13.3.15 Seat covering and padding shall cover the seat frame and meet FMVSS 302, flammability of interior material. Cushions and seat cover shall be of the slip covering type, removable and replaceable without removing the entire seat. All seat cushions shall be interchangeable within the vehicle.
- 13.3.16 Each seat position shall be equipped with a passenger restraint system, which meets current FMVSS requirements, intended to hold passengers in a secure seated position during normal operations. Seat belts shall be anchored through the floor structure, independent of the seat, or bolted to the seat frame assembly (preferred). Each restraint belt and installation shall meet all applicable FMVSS standards including 208, 209, and 210. The installation of the seat belts shall have no twisting, binding, or bunching of the seat belt web material.
- 13.3.17 All seat belts shall be the Freedman USR (Under Seat Retractor) or approved equal. Seat belts shall meet or exceed FMVSS 207/209 (seat belt assemblies, performance, and strength) and FMVSS 210 (seat belt mounting certification.) The passenger seats, frames, and seat belts should operate as a complete system. All two-point seat belts must be permanently mounted on the seat frame. Seat belts attached to the floor track or wall tracks are not acceptable. All seat belt retractors must be permanently located under or behind the seating position. All seat belts must be user-friendly, easy to operate, lightweight, and durable with metal buckles. Three (3) 24-inch belt extenders shall be provided with each vehicle. Shoulder Belts for wheelchair positions shall be provided.
- 13.3.18 Foldaway seats shall be Freedman model foldaway seats or approved equal. Actual seat types will be identified and priced by the contractor in the Passenger Seating Option price sheet section. Foldaway seats must meet or exceed all applicable Federal Motor Vehicle Safety Standards including FMVSS 207, 210, and 225 seat belt certification testing. Seat must be cantilevered and tested to support 500 lbs. per passenger weight. Folding seat will not use an aisle leg or tether for support.

The foldaway seat operation shall require no more than two (2) steps to store or deploy. A cylinder shock must be provided to assist in the controlled storing or deployment of the seat. Seat shall include a self-locking mechanism for security. The underneath area of the seat shall appear finished without exposed seat springs or seating material and include a seat instruction plate. Passenger seat frames and seat belts should perform as a complete system. Two-point seat belts will be permanently mounted on the seat frame. Under the seat belt, retractors will be permanently located under or behind the seating position. Seat belts shall meet or exceed FMVSS 209 and 210. The design of the flip seat shall complement the standard passenger seats and be from the same manufacturer or approved equal.

Folding seats must be installed so that rubbing/chaffing does not occur during fold operation. Seat cover must not touch sidewall or structure during fold/unfold. Folding seats must be mounted to a steel structure that is an integral part of the final stage builder's underfloor structure, minimum thickness 1/8 inch. Steel plating for seat securement must be designed into the floor, added steel plating similar to large washers would not be accepted. All Seat mount bolts and wheelchair shoulder harness mount bolts that are not fastened to the seat track will be mounted to the above required structural steel members. No fasteners will be allowed within 1½ inches of any flat steel components edge. This requirement does not apply to fasteners through box beam type of structure.

13.3.19 Armrests to be provided for aisle seats.

14 FLOOR AND FLOOR COVERING

- 14.1 The subfloor shall be ¾ inch thick (minimum) 7-Ply marine-grade plywood or approved equal, with moisture-sealed edges. Sub-flooring must be installed to create a smooth surface to lay the floor rubber.
- 14.2 Subfloor structure shall be designed and assembled for a minimum trouble-free service life of 7 years. The sub-floor structural members shall be made from steel with a minimum yield strength of 36,000 psi or approved equal. Subfloor frame shall be mounted to OEM alternate frame spacers. Additionally, wheelhouse assemblies shall be made of corrosion-resistant 12-gauge (minimum) steel construction and fully welded to the floor and side framework. Ample clearance under load and all positions of the suspension and steering geometry shall be provided between the wheel housing and tires.
- 14.3 Subfloor assembly shall be mounted to vehicle chassis utilizing a minimum of 8 rubber grommets or pads to help reduce the amount of road shock being transferred into the vehicle body.
- 14.4 Wheelhouses shall be covered with a plastic molded cover or metal. No screws shall protrude into the underside of the wheel well.
- 14.5 An access panel for ease in maintenance of the fuel pump shall be provided.

- 14.6 The floor surface shall be covered with wall-to-wall, slip-resistant, minimum 2.2-millimeter Altro Transflor Meta or approved equal. Flooring edges shall be edge welded to provide a completely sealed floor. The floor covering shall not shrink during the service life of the vehicle. The floor material shall be securely bonded to the under structure and rolled smooth. The adhesive used to bond the floor material must be backed by a manufacturer's warranty of no less than five (5) years for installation and adhesive. The method and procedure used to fasten the floor covering to the under structure shall be approved by the floor covering manufacturer. Color to be selected in accordance with trim levels.
- 14.7 The flooring shall be 1/8-inch (minimum) smooth under the passenger seats and over the remainder of the floor and step treads. All step edges shall have Altro T36T Aluminum Step edge or Altro yellow nosing with a band of 2½ inches of bright yellow Altro or approved equal, inserted into the step edge using contact adhesive running the full width of each step. An aisle width standee line of at least 2-inches in width of bright yellow contrasting color shall be in the aisle just behind stepwell. The tread and step edge shall be bonded into one (1) piece.
- 14.8 All mating edges of the flooring, step tread, and step nosing materials shall be weather-sealed and heat welded to prevent water penetration. The height of the sealant bead shall be consistent with the flooring, step tread, and step nosing base thickness.
- 14.9 Flooring cover color to be specified by the County from Altro standard stock selection.
- 14.10 There shall be molded plastic, fiberglass, hard rubber, aluminum, or FRP cove molding between sidewalls and floor for ease of cleaning. The cove molding shall be one (1) continuous piece along each wall except when interrupted by such items as wheel well, fuel line, mobility lift door, and interior corner covers and door openings. Molding shall be covered up the side 10inch to the run-up to the sidewall.

15 STEP AND STEPWELL

- 15.1 **Step.** Step height from the ground (no-load) shall be ADA compliant or 13 (+/- 1) inches maximum whichever is less. Individual risers shall be 9½ inches maximum in height and case of more than one (1) riser; all step risers shall be the same height, except in the case of the flat floor option. Contractor will provide step height if a flat floor floorplan is provided. Step tread depth shall be 8½ inches minimum, depending on the floor plan.
- 15.2 **Stepwell.** The stepwell shall be a modular design, 14 gauge (minimum) galvanized or stainless steel (treated to prevent the effects of corrosion over the life cycle of the vehicle) smoothly and continuously welded into the bus body structure. Two (2) steps shall be covered with ribbed, molded rubber (RCA Transit Flor or approved equal), maximum 12-inches +/- .5-inch (30.48 centimeters), minimum 10-inches (25.4 centimeters) from ground to the first step, 9-inches (22.86 centimeters) riser, Tread depth minimum 8½ inch (21.5900). Stepwell shall be adequately reinforced to prevent permanent deformation or elastic deflection of no more than .12 inches when either step is loaded over the center half with a 300-pound static load. Stepwell shall be completely enclosed and weathertight when the

passenger doors are in the closed position. Stepwell light is operated automatically by door control. All steps to get up to floor level must be in the stepwell area.

16 PASSENGER DOORS

16.1 General

- 16.1.1 Four (4) sets of keys and locks for all doors shall be supplied. All vehicles on the same purchase order shall be keyed alike for chassis and exterior doors. If the key contains an electronic chip, Fort Bend Transit may choose to forego this requirement.
- 16.1.2 All doors shall be properly sealed to prevent the entry of air drafts and water into the vehicle interior including spray from commercial vehicle wash equipment and driving rain.
- 16.1.3 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.

16.2 Front Entrance

- 16.2.1 The vehicle shall be equipped with an electric, double leaf, outward opening “transit style” door with a center molded, overlapping, safety seal. Door is to have an electric door opener and operating mechanism. A&M door system or approved equal is acceptable door assembly. The front doors shall be located opposite the driver. The front doors shall be equipped with an interior safety release mechanism, permitting the doors to be mechanically opened in the case of an emergency.
- 16.2.2 A rocker switch located in the driver’s area shall activate the front door mechanism. Drivers shall be able to operate the door without leaving their seats. Entry door shall not be operable unless the vehicle is in park.
- 16.2.3 The front doors shall have an exterior weatherproof electrical keyed lock that can open and close the doors.
- 16.2.4 The front doors shall be double sealed equipped with Two (2) inches of elastomeric material on each section that overlaps a minimum of 1.5inch to form a tight seal to prevent water from entering the bus. The seals shall be of automotive quality that does not degrade or crack with aging. The seals shall be mounted in a groove that allows for easy replacement if necessary. The overlapping center door seals shall be a flexible material that exerts no more than a ten (10) pound force on a one (1) square inch of any passenger struck by a closing door.
- 16.2.5 The front doors shall have a clear opening width of 27-inches (minimum) with the ability to go as high as 36-inches, depending on the floor plan and vehicle size, as measured from the inside edge of the doorframe, and full height of 87-inches (maximum) clear “walk-in” headroom as measured from the top of the front step to the underside of the front doorframe header.
- 16.2.6 Each door leaf shall have a single pane, tinted, and tempered safety glass that conforms to all applicable Federal and State Motor Vehicle Safety Standards.

- 16.2.7 The entrance doors shall be equipped with windows of adequate size and placed to allow the driver to see and judge curb locations when stopping.
- 16.2.8 The front doorframe(s) shall be constructed with a standard interlocking minimum.
- 16.2.9 .125-inch extruded satin anodized 204R1 rated, aluminum, stainless steel, or zinc plated steel extruded frames with a high-quality anodized finish.
- 16.2.10 Suitable padding to protect the heads of boarding or exiting passengers shall be installed on the lintel of the front service entrance doorway.
- 16.2.11 A thick rubber threshold seal or brush comb shall seal any gap between the lowest part of the door and the mating step surface greater than 3/8 inch.

16.3 **Mobility Lift Door**

- 16.3.1 The mobility lift door shall be two (2) entry doors.
- 16.3.2 Mobility lift door(s) shall be located in the front of the vehicle next to the front passenger door, depending on seating plans and details provided by the contractor.
- 16.3.3 Mobility lift door(s) shall provide 68-inches (minimum) of clear walk-in headroom as measured when the lift is in a fully raised usable position. The lift door shall have a clear opening width adequate for the ease of operating the mobility lift being supplied with this vehicle. Door fasteners or hardware, etc. shall not protrude into the door opening.
- 16.3.4 Lift door(s) shall be constructed utilizing a stainless steel or aluminum subframe. Wood framing shall not be acceptable. Door opening frame will be powder coated to match the vehicle interior. Door shall be designed for long life/heavy use and a minimum of 14 gauge, 1-inch tubular steel around the perimeter.
- 16.3.5 A positive factory-installed gas shock at top of the doors to assist in maintaining an open or closed position of the door shall be installed to ensure the lift doors stay open when the lift is in use. An additional door tether shall be installed that will prevent the doors from opening past 100 degrees.
- 16.3.6 Lift door(s) shall have a glazed window that is viewable from the wheelchair positions inside the vehicle and meets all applicable Federal and State Motor Vehicle Safety Standards and Americans with Disabilities Act (ADA) requirements.
- 16.3.7 Padding shall be installed inside of vehicle over mobility lift doorframe header.
- 16.3.8 The door(s) shall have a “door ajar” light and alarm, which will alert the operator when the door is not securely closed and latched. The light shall be a red indicator light identified as “LIFT DOOR AJAR” and shall be located on the operator’s dash panel easily seen by the seated operator.

16.4 **Rear Emergency Exit Door**

- 16.4.1 The rear emergency exit door shall be 32-inches wide by 54-inches high (nominal) and shall have stationary windows in the upper and lower halves of the door. The emergency door shall have upper and lower glazing and include one (1) 11-inch x 14-inch static cling ‘fish eye’ wide-angle rear window lens. The lower window shall have a see-through mechanism to prevent contact with mobility devices.
- 16.4.2 Rear emergency door shall be equipped with a securement device to hold the door safely in the fully open position. Cord, rope, or strap securement devices will not be accepted. Door hold-open spring system shall be bolted to both the rear door and the door header with a heavy strength bolt (s), minimum Grade 5 bolt(s), not rivets.
- 16.4.3 The door shall have a “door ajar” light and alarm, which will alert the operator when the door is not securely closed and latched. The light shall be a red indicator light identified as “REAR DOOR AJAR” and shall be located on the operator’s dash panel easily seen by the seated operator.
- 16.4.4 An exterior door latch will be included.

16.5 **Service Compartment and Access Doors**

- 16.5.1 Access for maintenance and replacement of equipment shall be provided through panels and doors that appear to be an integral part of the vehicle.
- 16.5.2 Access opening or doors in the floor of the vehicle interior shall be properly secured and sealed to prevent the entry of fumes and water into the vehicle interior. Method of sealing shall provide for removal and replacement of access doors without damage to sealing requirements.
- 16.5.3 An access door shall be made to access the overhead compartment for all ITS equipment and made large enough to install and remove equipment as needed.
- 16.5.4 Access doors shall be provided, where necessary, to service transmission, engine, radiator, lift, batteries, and/or air-conditioning components.
- 16.5.5 A lockable driver’s storage compartment shall be provided. The size and location shall be approved by the County.

17 WINDSHIELD AND WINDOWS

- 17.1 The windshield and driver door shall be OEM glazed with laminated glass and uniformly tinted. Windshield shall have a heavier tint band above eye level, if available from the factory. The windshield will be equipped with two-speed electric windshield wipers with an intermittent feature.
- 17.2 Side windows shall be a flat black, aluminum frame, egress transit type, or top T-sliding panel type that meets all applicable Federal and State Motor Vehicle Safety Standards. The T-sliders shall be located at the top of the window. Minimum passenger window size shall be 36½ inches wide by 32-inches high with 20% light transmitting tint. Minimum passenger window sizes are 22½ inch or 20½ inch wide

- x 32½ inch high fixed style window. A smaller ‘filler’ window may be allowed to accommodate certain configurations to maximize visibility from the passenger compartment.
- 17.3 Passenger window glazing shall be Lucite SAR Bronze BZ-2412 or tinted to permit 20% light transmission (maximum) bronze or grey tint or approved equal.
 - 17.4 For vehicles with a 158 inch or longer wheelbase, there shall be a minimum of two (2) emergency exit windows on each side of the vehicle. The windows shall be top-hinged and meet the specifications described in Section 18.2. Decals with instructions as to their use shall be provided and shall be permanently fastened on the inside of the vehicle, located over or beside the emergency windows. The emergency exit windows shall comply with FMVSS requirements.
 - 17.5 All emergency exits shall have clear unobstructed openings and be noticeably labeled.
 - 17.6 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 driving rain. Materials used for weather seals shall be designed to withstand varying temperature extremes, road splash, and salt, and other exterior elements without cracking, leaking, loosening, or deteriorating. Caulking around the windows shall only be used as a seal, not to make up for body defects or out-of-tolerance window openings.
 - 17.7 Drain holes shall be incorporated in the window sash frame to allow interior condensation to drain to the exterior. Body and sash construction shall be such that the sash drain shall prevent entrance or backup of water into the vehicle.
 - 17.8 The installed windows shall have no sharp edges or protrusions.
 - 17.9 All glazing shall meet all applicable Federal and State Motor Vehicle Safety Standards.
 - 17.10 Windshield and windows shall meet all applicable Federal and State Motor Vehicle Safety Standards.
 - 17.11 A full window shall be provided in the transition panel between the windshield and the ambulatory passenger door(s) to eliminate the blind spot created by the transition panel and enable the driver to view the curb from the driver’s seat. The body panel partition between the transition window and entrance doors shall be as narrow as possible to maximize the driver’s view of the area around the entrance doors.

18 LIGHTING

18.1 Interior

- 18.1.1 Interior Dome Lights shall adequately illuminate the passenger area. Dome lights shall be illuminated whenever the entry doors are open.
- 18.1.2 Interior shall be illuminated with LED low profile strip lighting to provide a minimum of 12 foot-candles of illumination measured at 36-inches above the floor.
- 18.1.3 Driver courtesy light shall light when the driver door is opened. All other interior lights shall operate only when the ignition is in the “ON” position. Stepwell and exterior front door lights shall operate only when the front passenger door is opened. A driver-controlled override rocker

- switch shall be provided to allow operation of all interior passenger courtesy lights when the passenger front doors are open or closed.
- 18.1.4 LED stepwell lights shall be provided to illuminate the stepwell at the front passenger door(s). Lights shall be mounted as to not create a hazard for passengers boarding and egressing. This lighting shall not be lit with doors closed.
 - 18.1.5 Exterior LED lights at the front and lift door areas shall be provided and shall comply with the Americans with Disabilities Act. These lights will activate only when the doors are open.
 - 18.1.6 Wheelchair lift lights, which illuminate the lift device in a 4-foot radius outside at ground level of the door opening, shall be provided in an LED design. The light shall be wired to light automatically when the lift door is opened. Lift lights shall be mounted internally in the lift area above the lift in the lift door headlining.
 - 18.1.7 Under hood light should be provided.

18.2 Exterior

- 18.2.1 All exterior lights shall conform to the State of Texas and U.S. Department of Transportation requirements and meet the requirements of FMVSS/DOT specifications.
- 18.2.2 All rear exterior light configurations shall be LED and include red brake lights (standard and center-mounted), amber turn signals, and clear reverse lights. Rear Center High-Mounted Stop Lamps (CHMSL) to be an 18inch LED red strip light, low profile surface mount, or approved equal. Rear exterior light configuration shall be submitted with a proposal package for approval by the County.
- 18.2.3 Amber roof marker lights at the front and red at the rear, one (1) at each corner, shall be provided and be either flush mounted or surface mounted, protected with a brush guard, or by the bus body.
- 18.2.4 Marker lights, three (3) lamp clusters, amber at the front, and a red lens at the rear shall be provided and protected with a brush guard or by the bus body.
- 18.2.5 All exterior rear and marker bus body lights to be voltage regulated light-emitting diode LED with direct termination and come with protective lens coating for protection against scratching, UV degradation.
- 18.2.6 License plate holder at the rear shall be illuminated by an LED light.
- 18.2.7 Daytime Running Lights (DRL) are to be provided.

19 FINISH AND COLOR

- 19.1 All exterior surfaces shall be smooth and free of visible fasteners, wrinkles, and dents. 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 paint for the service life of the vehicle. Paint shall be applied smoothly and evenly with a finished surface free of

- dirt, runs, and other imperfections. Painted surfaces shall be impervious to diesel fuel, gasoline, corrosive atmospheres, and commercial cleaning agents.
- 19.2 The contractor shall, as a minimum, provide a low VOC coating system that meets the following minimum requirements.
- 19.2.1 Primer: Corrosion-resistant primer that is compatible with the Basecoat/Clear-Coat System.
 - 19.2.2 Basecoat/Clear-Coat System
 - 19.2.2.1 Two-part system basecoat/clearcoat, low VOC, air dry, stain-resistant polyurethane enamel that is ultraviolet light-resistant.
 - 19.2.2.2 The system shall have hardness, abrasion resistance, gloss retention, flexibility, chip resistance, and good adhesion characteristics.
 - 19.2.3 Interior finish in the driver's area shall be a non-reflective material and/or flat grey color.
 - 19.2.4 Exterior finish shall be Standard Fleet White.
 - 19.2.5 Steel wheels shall be painted white.

20 STANCHIONS, GRAB RAIL, AND MODESTY PANELS

- 20.1 All stanchions and grab rails shall be 1 - 1/4-inch stainless steel. Vertical stanchions shall be secured top and bottom with bolts to ceiling and floor metal framing to prevent twisting. All stanchions shall be mounted at floor and ceiling into the structural metal body member or metal plate.
- 20.2 There shall be a stanchion, grab rail, and padded modesty panel located at the rear of the entrance door.
- 20.3 30 inch (minimum) angled grab rails shall be installed at both sides of the entrance door, within easy reach from the ground, to assist passengers in both boarding and egressing. Grab rails shall be mounted to stanchions and structural metal members or metal plates in the sidewalls. Grab handles must not affect the clear entry door width.
- 20.4 There shall be a vertical stanchion, grab rail, and padded modesty panel located behind the driver's seat. There shall be a smoked, shatterproof, plexiglass 3/8-inch-thick panel filling the area from the ceiling to the grab rail and the stanchion to the wall, shock-mounted to prevent rattle. The purpose of this panel is to protect the driver from being hit by objects from behind. Panel must not impair driver's seat adjustments.
- 20.5 There shall be a vertical stanchion, grab rail, and modesty panel located between the lift and forward most curbside stationary ambulatory passenger seat. There shall be a shatterproof, plexiglass panel filling the area from the ceiling to the grab rail and the stanchion to the wall.
- 20.6 Overhead rails required by ADA provisions shall be at a height of 71-inches to the top of the handrails from the vehicle floor. The rails shall be fastened into structural metal body members or metal plates.
- 20.7 Overhead handrails shall be provided that shall be continuous including the wheelchair areas, except for a gap at the rear or front doorway.

- 20.8 All modesty panels shall harmonize with the interior, both in color and design, and shall not provide a hazard to the passengers. Modesty panels are to be “through-bolted”. Standard screws are not allowable.

21 MIRRORS

- 21.1 Two (2) power remote control, adjustable, heated side-mounted exterior rearview mirrors. The exterior rear-view mirrors shall be firmly supported and set to give a clear view past the left and right corners of the vehicle. The exterior mirror supports must be of sufficient length to allow a clear view along the entire side of the vehicle. The size of each mirror shall be at least 152 mm (6-inches) by at least 228 mm (9-inches). In addition, a 76 mm (3-inches) minimum diameter convex mirror shall be mounted above or below the other mirrors on both sides of the vehicle. Mirror frames and supports shall have a corrosion-resistant finish. Mirrors shall meet SAE-recommended standards and 49 CFR 393.80 as appropriate.
- 21.2 A standard chassis manufacturer’s rear vision mirror with a non-glare, day-night feature shall be provided. An aftermarket rearview mirror is acceptable if it is not available from the OEM with approval from the County.
- 21.3 One (1) 4 x 13 or 6 x 16-inch interior passenger-viewing mirror shall be provided and mounted in such a way to allow the driver to easily view passenger activity in the vehicle from the driver’s seat.

22 MOBILITY LIFT

- 22.1 Wheelchair lifts shall be commercial type, Braun Ability Century 2 1,000lb capacity or approved equivalent, meeting ADA and FMVSS 403 and 404 requirements, and meeting the following listed requirements.
- 22.2 All attachments of the lift assembly to the vehicle shall be done through structural support members. Bolting any part of the lift assembly directly to the vehicle sheet metal walls will not be acceptable.
- 22.3 The wheelchair lift shall be electro-hydraulically and mechanically operated, mounted on the curbside of the vehicle, and accessible via access doors.
- 22.4 The wheelchair lift shall be interlocked with the transmission and emergency brake in such a manner as to prevent the vehicle from moving with the wheelchair lift door in the open position and prevent the wheelchair lift from being operated until the transmission is in park and the emergency brake is completely set. A dash-mounted, indicator light will come on to show the system is activated.
- 22.5 Lift shall incorporate a power-fold mechanism for the platform. The lift shall incorporate a positive locking mechanism to prevent drifting from the stowed position.
- 22.6 The lift platform shall be secure and stationary when it is in the stowed position. No lift part shall intrude into the vehicle’s body more than 18½ inches when in a stowed position.
- 22.7 The lift assembly shall safely accommodate a minimum load of 1000 pounds. All power units, operating joints, linkage, and mounting points to the body shall be certified by the manufacturer as being adequate for the minimum load requirements.
- 22.8 Lift shall be power-up and power or gravity-down.

- 22.9 There shall be a pressure relief built into the hydraulic system to prevent “jacking” of the vehicle should the power remain on once the lift touches the ground.
- 22.10 The lift platform shall have an automatic stop-and-hold mechanism to prevent the platform from free-falling or folding any faster than 30.48-centimeter/second (12 inches/second) in the event of a power failure or equipment failure during the raising and lowering modes.
- 22.11 An automatic safety barrier shall be provided at front of the platform. An automatic or manual release of the barrier at ground level is required.
- 22.12 Lift shall be equipped with a manual override to permit the lift to be raised or lowered manually in event of power failure or emergency.
- 22.13 Handheld lift control shall be provided with a minimum 5-foot cord attached so the lift may be operated from inside or outside of a vehicle.
- 22.14 A passenger handrail shall be provided on both sides of the lift platform
- 22.15 Adequate provisions for safely storing the lift controls, when not in use, shall be provided inside the vehicle.
- 22.16 All pulleys, chains, cables, hydraulic cylinders, etc., when provided, shall be fully enclosed.
- 22.17 A complete set of operating instructions, schematics, and a troubleshooting guide shall be included with each lift.
- 22.18 Lift platform shall be a minimum of 32-inches wide, as measured from the inside edge to the inside edge of the platform.
- 22.19 Control box shall be lightweight and weatherproof. Additionally, controls shall have a sequence interlock to prevent folding of the lift platform before it is in a fully raised position.
- 22.20 A safety device shall be provided that shall render the lift inoperable when the lift door is closed.
- 22.21 A red warning light/audible alarm shall be located on the driver’s instrument panel and shall activate when the mobility lift door is not secure. The warning light shall be labeled “Door Ajar”.
- 22.22 A safety lift belt, Access-Arize or approved equal, shall be provided to help prevent accidents. The belt is to be 35-inches in length from end to end, made with: elongated webbing 1¾ inches wide, 2-inches of Kevlar material sewn on each end of the webbing, a metal seat belt buckle in the middle of the belt, 9.5 mil grommet ¾ inch to center of Kevlar, and Kevlar is abrade resistant.

23 WHEELCHAIR SECUREMENT SYSTEM

- 23.1 Wheelchair Securement system shall be Sure-Lok or Q’Straint or approved equal. Actual Sure-Lok or Q’Straint models of securement and anchor systems will be identified and priced by the contractor in the Wheelchair Securement System price sheet section.
- 23.2 Wheelchair securement system shall consist of four (4) floor attachment points per location for the chair. The strap configuration shall consist of a minimum of four (4) fully automatic heavy-duty retractors that can be quickly fastened to the floor attachment points and the wheelchair. The wheelchair securement system shall consist of self-tensioning and self-locking features. The retractors shall have the maximum amount of 7000-pound webbing attached to “J” hooks. Each retractor

- shall be equipped with a male pin connector for attachment of the occupant restraint system. Tie-downs shall utilize grade 8 fasteners of the size required by the securement system's OEM. The tie-down fastener shall include, as a minimum, SAE grade 8 cap screws, SAE grade 8 hexagon nuts, and harden washers. All four (4) retractors shall be the same in design, size, and shape to avoid confusion in placement and be interchangeable and thus can be used in front, back, left or right.
- 23.3 Floor anchorage points shall be Sure-Lok or Q'Straint or approved equal, utilizing corrosion-resistant steel or aluminum and usable for front or rear tie-downs or shared by both. Actual Sure-Lok or Q'Straint models of securement and anchor systems will be identified and priced by the contractor in the Wheelchair Securement System price sheet section. All anchorage points shall be recessed and nominally flush with the floor to prevent a tripping hazard. Recessed area shall be sealed prior to anchorage point installation to prevent the intrusion of water. Anchorage points shall be secured in accordance with FMVSS 207 AND FMVSS 208.
- 23.4 Occupant and wheelchair securement shall use an integrated system and be securely fastened. For each mobility aid securement system installed in the vehicle, a corresponding occupant restraint system shall also be provided. Occupant restraint system shall meet ADA requirements and all applicable FMVSS 403 and 404 requirements. Lap belt, included as part of the occupant restraint system, shall be 108-inches. If a fixed wall mount system for shoulder belts is used, this system should not obscure the use of the emergency exit window.
- 23.5 Successful Contractor shall certify that wheelchair securement has met or exceeds all applicable Federal and State Motor Vehicle Safety Standards.
- 23.6 Any device that could damage the wheels of the wheelchair shall not be used.
- 23.7 A storage box or approved equal shall be mounted under a seat to safely and securely store tie-down straps when not in use. Location of the storage box and type of storage box shall be approved by the County prior to installation on the vehicle.

24 TECHNOLOGY EQUIPMENT

The following section is focused on the intelligent transit technology systems that are required for the overall bus system. Please refer to Exhibit IV for the placement of ITS systems within the bus interior and exterior.

24.1 Camera Surveillance System

The purpose of the camera surveillance system shall be to record all activity that occurs on-board the vehicle. The components of the camera surveillance system are as follows:

24.1.1 Network Video Recorder (Hybrid)

- 24.1.1.1 System features, technical ability, and environmental standards must meet those of Safefleet TH-6 Hybrid DVR or approved equal.
- 24.1.1.2 The network video recorder shall be installed in the overhead compartment above the driver.
- 24.1.1.3 Ability to record video at 30 FPS at 1080p resolution

- 24.1.1.4 Support six (6) cameras. User shall be able to configure settings for each camera through the NVR
- 24.1.1.5 Hybrid System: Support both analog and IP cameras (minimum of two (2) IP cameras)
- 24.1.1.6 Two (2) video streams at a minimum; one (1) for recording video and one (1) for live streaming.
- 24.1.1.7 System Administrator shall have the capability of adjusting image quality and FPS for each stream (typically the live video stream would be at a lower resolution and FPS than the recorded video stream)
- 24.1.1.8 Minimum of one (1) TB of storage space for recording video
- 24.1.1.9 Automatic overwrite of the video when storage reaches capacity (use FIFO method)
- 24.1.1.10 Panic button input: Automatically earmark video for retrieval and download when the button is activated. System shall mark a video that is 10 minutes before and after the event.
- 24.1.1.11 System shall also be able to automatically queue video for live viewing when the panic button is activated.
- 24.1.1.12 System shall record and store the following data and synch with the video data: bus number, location, time, date, and camera input.
- 24.1.1.13 Ability to interface with existing GPS to provide location data or use stand-alone GPS antenna.
- 24.1.1.14 Built-in POE network switch for assigning IP addresses to cameras and powering cameras.
- 24.1.1.15 Ability to get to camera setting via NVR.
- 24.1.1.16 System must be able to interface with third-party VSaaS systems using the NVR to send data to the application through cellular or Wi-Fi data communication.
- 24.1.1.17 System shall also be able to send system health and video metadata to VSaaS as this system shall be the primary software for all video viewing storage, diagnostics, analytics, and forensics
- 24.1.1.18 Ability to integrate driver cam video into NVR for recording and live streaming
- 24.1.1.19 NTSC / PAL Auto-Detection
- 24.1.1.20 Ruggedized for Transit Environment
- 24.1.1.21 If GPS is provided, GPS must be 12-port
- 24.1.1.22 Three (3) Ethernet ports at a minimum
- 24.1.1.23 Able to support four (4) analog cameras and two (2) IP cameras
- 24.1.1.24 Built-in inputs for the panic button, and turn signal

- 24.1.1.25 Protect from video loss if the vehicle experiences intermittent power issues (voltage fluctuations, accidents, etc.).
- 24.1.1.26 NVR cannot weigh more than 10 pounds, not including cameras.
- 24.1.1.27 Must operate under a 12 Volt power system.

24.1.2 **IP and Analog Cameras**

- 24.1.2.1 System features, technical ability, and environmental standards meet those of Safefleet HD 1Q (Analog Cameras) and Safefleet CHQ8PD (IP camera), or approved equals.
- 24.1.2.2 Cameras shall consist of 1 IP cameras and 3 analog cameras (4 total)
- 24.1.2.3 One (1) IP camera shall be installed on the driver dash facing outward to the street
- 24.1.2.4 One (1) Analog camera installed behind the driver facing the bus entry doors
- 24.1.2.5 One (1) Analog camera installed behind the entry doors facing toward the seating area
- 24.1.2.6 One (1) Analog camera installed in the back of the bus (past the last seat) facing the seating area and walkway
- 24.1.2.7 Day / Night Mode (Auto-Detection)
- 24.1.2.8 Ability to automatically adjust to brightness and contrast
- 24.1.2.9 IR illumination
- 24.1.2.10 Maximum output resolution 720p with a minimum 0.9 megapixel
- 24.1.2.11 Ability to record audio with video
- 24.1.2.12 Three (3) Analog High Definition Cameras (not IP-based cameras)
- 24.1.2.13 Vandal-resistant domes for each camera
- 24.1.2.14 2.5 mm to 2.9 mm lens range
- 24.1.2.15 Standard BNC cable connection (able to connect to NVR)
- 24.1.2.16 Must operate under a 12 Volt power system

24.2 **Digital Display/ Infotainment System**

Infotainment system features, technical ability, and environmental standards must meet those of Safefleet MVQ-DS215-KIT, MVQ-DS215-COVR, or approved equal.

- 24.2.1 The digital display shall be installed behind the driver seat on the bulkhead.
- 24.2.2 The infotainment system shall provide location-based route and stop information as well as advertising still images and video, the content of which can be triggered by the location of the vehicle.
- 24.2.3 Support one (1) display per vehicle at a minimum

- 24.2.4 On-board display shall include:
 - 24.2.4.1 the current route number and destination name
 - 24.2.4.2 list of upcoming stops, and indicate when a stop has been requested
- 24.2.5 The system shall support custom digital media based upon specific routes, stops, locations, and time of day
- 24.2.6 Support up to six (6) camera inputs
- 24.2.7 Ability to display including but not limited to:
 - 24.2.7.1 video from the camera system
 - 24.2.7.2 next stop information
 - 24.2.7.3 media content
 - 24.2.7.4 marketing advertisement
 - 24.2.7.5 emergency messages via banner or other methods
 - 24.2.7.6 public service announcements
 - 24.2.7.7 service changes
- 24.2.8 Automatic power on when bus ignition is activated
- 24.2.9 Hot-swappable
- 24.2.10 Ability to run multiple contents at one time via queuing or via scheduling
- 24.2.11 Ability to add content
- 24.2.12 Manually via USB
- 24.2.13 Automatically when connected to Wi-Fi or Cellular Network
- 24.2.14 Ability to upload content via software/server to one (1) display, a group of displays, or all displays
- 24.2.15 The display shall not interfere with mirror line of sight, security camera views, or inhibit passenger or operator visibility
- 24.2.16 The system shall feature a media database tool that is compatible with WINDOWS 10, or later
- 24.2.17 The system shall feature optional integration to the AVL system via J1708, or Ethernet to allow automated selection of the Trip ID via the AVL system log-on. The system shall utilize the GTFS Trip ID to display appropriate stop information and identify when a vehicle is off-route
- 24.2.18 Displays shall utilize LCD technology
- 24.2.19 Optional audio output shall provide audible announcements and advertising
- 24.2.20 Video Inputs at a minimum (1xHDMI, 1xVGA, 1x Analog)
- 24.2.21 Resolution up to (1920x1080) or better
- 24.2.22 Protective cover to reduce screen cracking or damage
- 24.2.23 Ability to support:
 - 24.2.23.1 MP4 and .avi video formats
 - 24.2.23.2 .pdf file format
 - 24.2.23.3 .jpeg and .png, .gif formats
- 24.2.24 Mounting bracket must be included
- 24.2.25 Minimum display size is 21-inches (measured vertically)
- 24.2.26 Minimum Viewing Angle 178 degrees horizontal x 178 degrees vertical

- 24.2.27 Maximum power usage 50W or lower
- 24.2.28 Install display in the landscape orientation
- 24.2.29 Support both landscape and portrait orientation (ability to switch modes).
- 24.2.30 Must operate under a 12 Volt power system

24.3 **Cellular/WI-FI Modem**

Modem features, technical ability, and environmental standards must meet those of Safefleet SRC-ROUTER-3 or approved equal. The modem shall act as the central communication system to transmit messages to and from connected ITS systems.

- 24.3.1 The modem shall be in the overhead compartment above the driver's dash. The installation must allow for easy installation and removal of the cellular sim card.
- 24.3.2 Support both cellular and Wi-Fi data communication
- 24.3.3 Real-Time Connectivity and Data Speeds (Up to 300 Mbps)
- 24.3.4 Ability to operate using VPN (Virtual Private Network)
- 24.3.5 Ability to report location using GPS
- 24.3.6 Advanced Authentication Framework (AAF) for security administration
- 24.3.7 Ruggedized for Transit Environment
- 24.3.8 Supports CDMA, GPRS cellular technology
- 24.3.9 Supports Wi-Fi technology (minimum 8.02.11n)
- 24.3.10 Low power consumption (less than 3 watts at idle)
- 24.3.11 4G cellular speed at a minimum
- 24.3.12 Minimum of four (4) Ethernet (RJ45) ports to connect devices to the modem
- 24.3.13 Minimum of one (1) USB port
- 24.3.14 GPS antenna (12 channel)
- 24.3.15 Form factor no larger than 5.5 in x 3 in x 4 in (4.70in including connectors)
- 24.3.16 Must operate under a 12 Volt power system

24.4 **Destination Sign Control and Voice Annunciation System**

The purpose of the destination signs and voice annunciation system shall be to display and audibly announce transit information to include destination, public announcement, and safety messages in compliance with ADA regulations. The components of the system are as follows:

24.4.1 **Destination Signs**

The purpose of the front and side destination sign is to provide a visual and audible indicator to the customers on the outside of the bus that the vehicle has arrived at the stop. Sign features, technical ability, and environmental standards must meet those of Luminator/Horizontal SMT Signs or approved equal.

- 24.4.1.1 Ability to display including but not limited to:

- 24.4.1.1.1 the final destination of the route
- 24.4.1.1.2 public announcement messages
- 24.4.1.1.3 safety or emergency messages
- 24.4.1.2 The destination messages shall be readable by a person with 20/20 vision from a distance of 250 feet
- 24.4.1.3 The displays shall have equal readability of 65 degrees on either side of the line perpendicular to the center of the mean plane of the display
- 24.4.1.4 Tempered glass for Transit Environment with ¼ inch thick Lexan® Polycarbonate overlay
- 24.4.1.5 Use LED technology for sign display
- 24.4.1.6 The display shall feature the option for rotating horizontally to enable interior access to the destination display glass.
- 24.4.1.7 The display shall be accessible to allow maintenance of the sign and cleaning of the vehicle side window.
- 24.4.1.8 Front Destination Sign
 - 24.4.1.8.1 The sign shall be installed in front of the bus above the windshield
 - 24.4.1.8.2 The display shall feature the option for rotating horizontally to enable interior access to the destination display glass.
- 24.4.1.9 Side Destination Sign
 - 24.4.1.9.1 The sign shall be installed on the passenger loading side of the bus above the windows
- 24.4.1.10 Must operate under a 12 Volt power system

24.4.2 **Multi-System Controller & Destination Sign Control**

The purpose of this module is to control the destination and voice annunciation system to ensure the system announces and displays the correct information and the appropriate time. Control systems, technical ability, and environmental standards must meet those of Luminator MCU for SMT Signs and GEN4 Infotainment System or approved equal.

24.4.2.1 **Multi-System Controller**

- 24.4.2.1.1 The control unit shall be installed in-between driver's dash and the front overhead compartment, easily accessible to the driver (within 1- 2 feet of the driver's area)
- 24.4.2.1.2 Shall be supplied, to provide onboard updates of display messages.
- 24.4.2.1.3 Shall feature a multiple function keyboard with a tactile response,

providing feedback to the operator that the key was pressed.

- 24.4.2.1.4 Shall utilize programmable multi-function keys for basic operation; touchscreen for more advanced operations and shall include a full query keyboard.
- 24.4.2.1.5 Shall provide audible feedback to alert the operator to view the display for a message, indicators when a key is pressed.
- 24.4.2.1.6 Shall feature a color LCD touchscreen display. The minimum size of this display is 4.3inch inches (measured diagonally). The maximum size of this display is 6½ inch inches (measured diagonally)
- 24.4.2.1.7 Minimum of one (1) USB port for programming
- 24.4.2.1.8 Shall be designed for durability in transit applications and tested to a minimum of one (1) million button presses.
- 24.4.2.1.9 Shall be designed and manufactured to withstand vibration and shock of transit applications and be IP67 rated.
- 24.4.2.1.10The Controller shall continuously display the complete message associated with the selected destination code, confirming that the message is displayed properly.

24.4.3 **Destination Sign Control and Programming**

- 24.4.3.1 All system control and drive PC boards shall be enclosed in either the display housing or the Multi-system Controller. No external boxes shall be required. Destination displays shall be programmed to display either a common message or each display shall be programmed to display independent messages.
- 24.4.3.2 Destination displays shall feature a sequential display of two (2) pre-selected destination messages and a custom (typically public service) message.
- 24.4.3.3 The operator shall be able to quickly change between pre-selected destination messages without re-entering a message code.
- 24.4.3.4 The system shall support the display of public relations messages alternately with the regular destination.

- 24.4.3.5 The message programming software shall feature adjustable message duration from one (1) second to twenty-five (25) seconds in duration.
- 24.4.3.6 The system shall support the display of a blank frame to separate the beginning and end of a message. A frame or blank retention period can be configured for each destination code.
- 24.4.3.7 The master coach run switch shall control power to the display systems. The display system shall operate in all positions of this switch except when it is OFF.
- 24.4.3.8 Ability to program destination sign through controller device and/ or remotely using back-end software.
- 24.4.3.9 Ability to upload changes to sign manual through controller device or remotely using cellular or Wi-Fi data communication.
- 24.4.3.10 Software with the ability to identify issues with announcements while the bus in operation (using cellular or Wi-Fi communication).
- 24.4.3.11 Software with the ability to configure signage and push configuration settings out to the buses (using cellular or Wi-Fi communication).
- 24.4.3.12 The displays shall be internally protected against voltage transients and RFI interference to ensure proper operation in transit applications.
- 24.4.3.13 Must operate under a 12 Volt power system.

24.4.4 **Audio/PA System (Hardware and Integration into Destination and Voice Annunciation System)**

System features, technical ability, and environmental standards shall meet those of Luminator GEN 4 or approved equal.

- 24.4.4.1 The main control unit for the PA and Voice Announcement System shall be installed in the overhead compartment in the front of the bus. The installation shall allow for easy removal of cables, as well as, uploading and downloading software and configuration changes via USB stick or flash drive.
- 24.4.4.2 System shall include interior speakers, exterior speakers, and a microphone for the operator.
- 24.4.4.3 The infotainment / digital display shall be tied into internal speakers for audible announcements.
- 24.4.4.4 The audio subsystem shall feature the ability to pre-define the priority of audible announcements, so safety messages can be prioritized.
- 24.4.4.5 The audio subsystem shall feature automatic gain adjustments.

24.4.4.6 The speakers and operator microphone shall be provided by the bus manufacturer, with the minimum requirements:

24.4.4.6.1 Interior amplifier and speakers – up to ten (10) speakers, arranged in series-parallel to present 4-8 ohms to the amplifier output terminals

24.4.4.6.2 Exterior amplifier and speakers – up to two (2) speakers, arranged in series parallel to present 4-8 ohms to the amplifier output terminals.

24.4.4.6.3 Dynamic (not passive) operator microphone.

24.4.5 **Operation of Destination and Voice Annunciation System**

24.4.5.1 The system shall have the ability to announce stops based on location and time parameters. It shall ignore if the bus is on route or off-route (i.e. if the destination is within 300 feet of stop location AND is within 10 minutes of the stop time point; then announce the stop).

24.4.5.2 If the time and/or location parameters are not met, the system shall not announce the stop, however, this shall be evaluated on a stop-by-stop basis for the route, not the route as a whole (i.e. if the entire route is late by over ten (10) minutes, but the next stop is within the time and location parameters, the system shall announce the stop).

24.5 **Transit Environment Requirements**

The following requirements apply to all technology components described in the Technology Equipment sections:

24.5.1 Operating Temperature - 32 F to 110 F

24.5.2 Storage Temperature - 20 F to 130 F

24.5.3 Voltage Range - 8 to 32 VDC

24.5.4 Vibration: Tested against SAE -1455 and MIL-STD810 F specifications

24.5.5 Operating Humidity: 15% to 85%, RH non-condensing

24.5.6 Storage Humidity: 15% to 85%, noncondensing

24.6 **Other Requirements**

24.6.1 All components listed above must include all necessary cables, connectors, harnesses, mounts, screws, special tools, and any other equipment needed to ensure proper operation and securement.

24.6.2 The Contractor shall be responsible for all installation and initial testing to ensure equipment is fully operational before receipt and approval by the County.

25 **ADDITIONAL SPECIFICATIONS**

25.1 **Bike Racks**

- 25.1.1 Sportworks DL2 or approved equal bike rack mounted on the front bumper.
- 25.1.2 The bike rack must be easily removed for towing.
- 25.1.3 Capable of carrying two (2) bicycles.
- 25.1.4 Not be greater than 27 inches deep nor more than 65 inches wide.
- 25.1.5 Shall accommodate bicycles with wheel sizes ranging from 20 inches to 29 inches, excluding tandems and recumbent bicycles.
- 25.1.6 Shall accommodate bicycles with a wheelbase dimension up to 44 inches.
- 25.1.7 Shall secure bicycles up to 55 lbs. per wheel tray while the vehicle is moving. Additionally, the bicycle rack shall support a 250 lb. maximum centrally located static load when it is deployed and the vehicle is not moving.
- 25.1.8 The carrier, when stowed allows the safe operation of the coach by locking in place via the latch pin in the pivot plate assembly quadrant.
- 25.1.9 Finish on mild steel parts is powder coated and/or stainless steel to resist corrosion.
- 25.1.10 Continuous support shall be provided for the rear wheel of the bicycle allowing it to be rolled into the position closest to the bus without lifting.
- 25.1.11 Shall be mounted to the front of the bus and shall have a deployed and a stowed position. This increases rack and bicycle visibility for the operator and allows the bus to retain its maneuverability when in the stowed position.
- 25.1.12 Shall latch securely in both the stowed and deployed positions.
- 25.1.13 Shall contact the bicycles tires only. No contact shall be made with the frame of the bicycle.
- 25.1.14 All outside corners of the bicycle rack shall be rounded.
- 25.1.15 Shall not require the use of straps or cords.
- 25.1.16 When in use, shall not interfere with bus access panels or windshield wipers.
- 25.1.17 Support arm shall be self-storing and retained by a magnet, requiring no action from the bicycle rider for proper stowage.
- 25.1.18 Shall be compatible with a mounting bracket that can be completely removed from the bus in less than 10 seconds.
- 25.1.19 Maintenance shall not require the use of any surface lubrication.
- 25.1.20 Shall be designed specifically for commercial transit use and not for consumer use.
- 25.1.21 Shall be able to be loaded and unloaded independent of each other.
- 25.1.22 Lifting weight to stow the bicycle rack shall be less than 30 lbs.
- 25.1.23 Shall be clearly marked with easy to follow instructions for operation.

25.2 **Automatic Hand Sanitizer Dispenser and Face Mask Dispenser**

- 25.2.1 Refillable hand sanitizer and face mask dispensers shall be mounted at the entrance to the vehicle for easy access by boarding passengers.

- 25.2.2 Automatic Hand Sanitizer should be battery operated made of polymer composite; able to be mounted on pole of any shape - round, square or oval with tension making the clamp adapt to any pole size; the mounting bracket should withstand 6-g force; refillable where sanitizing product can be poured directly into the dispenser and does not require any specific solution bag; works with any hand sanitizer; and must be designed for use in high traffic, public areas, with heavy-duty housing, reducing the risk of vandalism damage. Dispenser has locking mechanism with technology to respond to the presence of hand for automatic dispensing of 1 ml of product. Overall dimensions should be approximately 16.75 inches height, 6.75 inches wide, 6 inches depth with a capacity of 37 ounces.
- 25.2.3 Face Mask Dispenser should be transparent acrylic container; keyhole wall mounting; holding 2-3 boxes of disposable earloop masks in bulk. It should feature a top loading locking lid with a pivot hinge; bottom dispensing product; approximately 4.5 inches depth, 8.5 inches width, 10 inches height, 1.35 lbs. weight; or approved equal.

25.3 **Driver Shield**

- 25.3.1 Driver shield to be installed that provides driver protection against airborne contamination that may be emitted by the rear passengers during transportation.
- 25.3.2 This shield shall be constructed of materials that are NHTSA-approved polycarbonate AR2 or better, impact-resistant, shatterproof in accordance with ANSI Z26.1.
- 25.3.3 Safety Glazing Materials for Motor Vehicles, and reflective to minimize operator glare.
- 25.3.4 Shield must be able to swing 180 degrees open and include emergency egress release mechanisms.

25.4 **Passenger Stop Requests**

- 25.4.1 Controls shall be provided adjacent to the wheelchair securement locations and seats for requesting stops and which alerts the driver that a passenger wishes to disembark.
- 25.4.2 This shall include both audible (chime) and visual (stop request) systems.
 - 25.4.2.1 For ambulatory passengers, the audible controls shall be mounted at a height easily accessible for the passengers to use.
 - 25.4.2.2 For mobility-impaired passengers, the controls shall be mounted no higher than 48-inches and no lower than 15-inches above the floor.
 - 25.4.3 All controls shall be operable with one (1) hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate the controls shall be no greater than 5-foot pounds.

25.5 **Painting**

25.5.1 All vehicles shall be painted, Fleet Standard White.

25.6 **Decals**

25.6.1 Safety decals to include necessary warnings and precautions for emergency exits, steps, wheelchair lift, etc.

25.6.2 All signs required by State and federal law regarding safety and operating procedures shall be affixed to each vehicle's exterior and interior.

25.6.3 The manufacturer shall place two (2) international symbols of accessibility, at least 15.24-centimeter square (6-inches), to be placed, by the manufacturer, on the vehicle in concurrence with ADA regulations.

25.6.4 Decals must be 3M premium grade vinyl or equivalent. Final placement to be approved by County.

<i>INTERIOR</i>	
<u>Quantity</u>	<u>Type of Sign</u>
2	NO SMOKING
2	WATCH YOUR STEP
2	FIRE EXTINGUISHER
2	Do Not Stand Forward of the Yellow Line
2	Please Remain Seated While Bus is in Motion
1	Priority Seating Signs and other required notices as required by the ADA
1	Law Prohibits the Operation of this Vehicle While Anyone is Standing in FRONT of the Yellow Line
1	NOTICE: Security Cameras and Audio Recording in Use
<i>EXTERIOR</i>	
1	Caution – Children May Be Exiting

25.7 **Other**

25.7.1 Maximum (heavy-duty) radiator size and cooling fan available shall be provided. Radiator shall be equipped with a surge tank (if available from the chassis manufacturer).

25.7.2 The instrument panel shall have lamps sufficient to illuminate all instruments. All instruments shall be accessible for maintenance and repair and shall be mounted so that each instrument and all indicator lights are clearly labeled and visible to the driver. "Tell-Tale" lights in lieu of the listed gauges will not be acceptable. Decals or Dymo Labels are not acceptable. Each vehicle instrument panel shall be equipped with at least the following:

25.7.2.1 Voltmeter: Of proper size to accurately read (without overloading) additional charge to the electrical system

when wheelchair lift, and/or auxiliary air conditioning units are being used.

- 25.7.2.2 Oil Pressure Gauge: Provided by the chassis manufacturer.
- 25.7.2.3 Engine Temperature Gauge: Provided by the chassis manufacturer.
- 25.7.2.4 Fuel Tank Level Gauge: Provided by the chassis manufacturer.
- 25.7.2.5 Speedometer with Trip Odometer: Provided by the chassis manufacturer.
- 25.7.2.6 Hourmeter: Provided by the chassis manufacturer.
- 25.7.3 Visible and audible warning devices shall be installed to inform following vehicles and pedestrians of reverse operations. Devices should be connected with backup lights to produce an intermittent sound to warn others while bus movement is in reverse, equal to ECCO 530 or 575.
- 25.7.4 OEM horns shall be provided.
- 25.7.5 Driver's sun visor shall be provided.
- 25.7.6 Driver's coat hook and retaining strap shall be provided in the driver's area.
- 25.7.7 Vehicle shall be equipped with front and rear mud flaps.
- 25.7.8 Vehicle shall be equipped with a driver's side running board. Running board shall be a minimum of 9-inches deep, a maximum of 12-inches. This will be measured from the OEM body at the flange at the bottom of the rocker panel. Running Board shall extend from the front edge of the front door opening to the rear of the OEM cab. Running board must be designed to hold 300 pounds without permanently changing shape, and be slip-resistant diamond plated aluminum, or approved equal. Driver entry area shall include a steel-reinforced molded plastic grab handle, mounted to the rear of the door opening on the outside on the B pillar. Handle shall be a minimum of 6inch grab area, durable, corrosion-proof, and have no sharp edges. Installation with self-taping screws will not be accepted, must include bolts into threaded inserts and be able to support 250 pounds pull force.
- 25.7.9 A minimum of five (5) pound dry powder type fire extinguisher, with gauge and hose, U.L. approval shall be provided. A bracket to securely hold fire extinguisher inside of vehicle shall be provided and the contractor shall mount this bracket to a location in the vehicle. Type of bracket used, and location shall be approved by the County prior to installation.
- 25.7.10 A three (3) triangle reflector kit shall be provided and securely mounted in an easily accessible location. Location shall be approved by the County prior to installation.
- 25.7.11 At a minimum, a sixteen (16) unit first aid kit, shall be provided and securely mounted in an easily accessible location. Location shall be approved by the County prior to installation.

- 25.7.12 Body Fluid Cleanup Kit shall be provided and securely mounted (location shall be approved by County prior to installation) to include at a minimum:
 - 25.7.12.1 One (1) pair of Latex gloves,
 - 25.7.12.2 One (1) package of absorbent powder,
 - 25.7.12.3 One (1) package of antiseptic BZK towelettes,
 - 25.7.12.4 One (1) bag 24-inch x 24-inch Bio-Hazard white w/tie,
 - 25.7.12.5 One (1) bag plastic brown w/tie,
 - 25.7.12.6 Certi-Green surface cleaner towelette or approved equal,
 - 25.7.12.7 Face mask,
 - 25.7.12.8 Infection control,
 - 25.7.12.9 One (1) SBB-2 scoop bag w/handle scraper,
 - 25.7.12.10 Two (2) towels, and
 - 25.7.12.11 Paper crepe
- 25.7.13 Vehicles shall come equipped with, and have containers for:
 - 25.7.13.1 Seat belt cutter secured by Velcro in a location chosen by the County.
 - 25.7.13.2 Working flashlight
 - 25.7.13.3 Reflective vest
 - 25.7.13.4 Chock blocks (2)
- 25.7.14 Chassis OEM manufacturer's AM/FM Stereo Radio with public address system input, plus four (4) speakers, two (2) in front and two (2) in rear shall be provided. The use of aftermarket radios of equal or superior quality may be used only if a radio is not available from the OEM chassis manufacturer to comply with the specification.
- 25.7.15 Vehicle shall be equipped with emergency flashers that operate even if the brake pedal is depressed.
- 25.7.16 Front bumper should be OEM standard chrome or approved equal.
- 25.7.17 Rear "Help" energy absorbing type bumper or approved equal, based on OEM chassis type.
- 25.7.18 Reflective marking tape should be installed on the rear of the bus per FMVSS 108 standards.

EXHIBIT III

Vehicle Specifications for Full Size ADA Van, Type 1 12 passenger

Whenever a specific trade or product name is used within this specification, the following statement applies: **“or approved equal with the same standards of quality, design, and performance.”**

1 GENERAL REQUIREMENTS

- 1.1 Vehicles shall be a full size of XL van capable of transporting a minimum of twelve (12) ambulatory forward-facing passengers. The vehicle is convertible to at least four (4) ambulatory adult forward-facing seated passengers and two (2) passengers seated in mobility aids, in addition to the driver and/or at least six (6) ambulatory passengers, plus the driver with two (2) fold down jump seats. This van shall be ADA compliant without modification to meet a minimum ADA door opening height requirements of 56 inches.
- 1.2 Vehicles proposed may be purpose built for light transit or converted to a transit vehicle from a sports van or passenger van.
- 1.3 The vehicles shall be able to operate daily on all urban, suburban and rural primary and secondary roads within the State of Texas.
- 1.4 The vehicle proposal shall be the manufacturer’s current production year, 2022 Model Year or newer. The basic vehicle, must be a current year factory production model that is cataloged by the manufacturer and for which manufacturer's published literature and printed specifications are currently available.
- 1.5 These specifications reflect the County’s preference as to dimensions, materials, and major components. However, the contractor shall not omit any part or detail, which goes to make the vehicle complete and ready for service, even though such part or detail is not mentioned in these specifications.
- 1.6 All units or parts used in the assembly of the final product shall be the manufacturer’s best quality and shall conform in material, design, or workmanship to the best practice known in the transit industry. All parts shall be new and in no case shall be used, reconditioned, or obsolete parts are accepted.
- 1.7 These specifications intend to provide and require a complete vehicle of the type prescribed ready for operation.
- 1.8 In the event that any of the attached specifications deviate from the American’s with Disability Act requirements as published in 49 CFR § 27, 37, and 38 the specifications of the higher standard will apply.
- 1.9 In accordance with Publication 101-592 and 15 CFR § 280, all fasteners utilized in the assembly and construction of coaches, sub-assemblies, or components procured under this Contract shall comply with all applicable Federal, State, and local law ordinance and shall be appropriate for the intended application. The Contractor shall procure and deliver fasteners made in the United States for use in the coach manufacturing process. The steel shall be of high quality and for use in general and critical applications. At a minimum, Grade 8 bolts, nuts, flat, and lock washers

shall be utilized in all critical applications, including but not limited to: steering, suspension, axle assemblies, undercarriage, propulsion system, wheelchair occupant restraints, seating, etc. Standard hardware installed by the chassis manufacturer will be accepted. All items covered by these specifications shall conform to applicable SAE, U.S.S., or Metric Standards and shall be of U.S. manufacture. No counterfeit fasteners shall be permitted. Should the County find the Vendor or their suppliers providing counterfeit fasteners of any type, the Vendor may be declared in default in accordance with the Contract Documents. Fastener materials shall be compatible with materials being fastened. Where self-tapping fasteners are used, body panels shall be reinforced with steel backing, aluminum backing, or stainless-steel backing.

2 VEHICLE CLASS AND OVERALL DIMENSIONS

- 2.1 The following dimensions and characteristics are given to indicate the approximate size and type of vehicle desired. Floor/seating plans of the proposed bus indicating compliance with the overall specified dimensions must be submitted with the proposal documents.
- 2.2 Vehicles shall conform to the requirements of the following table

VEHICLE CLASS	FORD TRANSIT OR APPROVED EQUAL
Seating Capacity	4, 6 or 12
Number of Wheelchair Positions	2, 2 or 0
Minimum OEM Gross Vehicle Weight Rating in Lbs.	10, 360
Wheel Base (inches)	148 min
Width (inches)	98

- 2.3 **Length:** The overall length of the vehicle shall be the minimum necessary to satisfy the specified seating configurations of this proposal while meeting all applicable FMVSS requirements and chassis manufacturer requirements for weight distribution.
- 2.4 **Width:** Exterior 98-inch.
- 2.5 **Height Overall:** Standard not to exceed 112-inches
- 2.6 **Interior Height:** Minimum clearance of 67 inches at the vehicle center of the interior roof.
- 2.7 **Gross Vehicle Weight Rating (GVWR):** The GVWR shall not exceed the weight of a fully-loaded vehicle. A fully-loaded vehicle equals the weight of the vehicle equipped to meet these specifications, verified by a weight ticket, plus the weight of the passengers (minimum 150 pounds for each ambulatory placement, minimum 250 pounds for each wheelchair placement, depending on wheelbase. Higher pound capacity shall be provided for larger cutaways).
- 2.8 **Wheel Well (Flat Floor Only):** On flat floor floorplans and specifications, wheel wells are not to protrude above the interior floor of the vehicle. The vehicle must maintain the same interior height as non-flat floor buses.

3 BODY

- 3.1 All metal components that are added shall be welded by qualified operators and made corrosion resistant through a commercial primer application or the use of stainless steel material.
- 3.2 The vehicle manufacturer shall certify that its latest body design and construction method is furnished under this contract meets FMVSS 220 at a minimum.
- 3.3 The body shall be free of cracks, dents, defects, or physical damage.
- 3.4 All nuts, bolts, clips, washers, clamps, and fasteners, including those that would be exposed to the elements on the exterior and interior of the unit, shall be zinc or cadmium plated, phosphate coated, or stainless steel to prevent corrosion. No metal sheet screws shall be permitted.
- 3.5 Fenders and splash aprons (underskirt) of durable construction shall be provided to provide maximum deflection of the wheel splash.
- ~~*3.6 Roof gutters shall be installed over the windows and doors. Gutters shall be designed so as not to spill water on driver's exterior mirrors and intermediate drain holes shall not drain water on windows and doors when open or closed.~~
- 3.7 All components, subassemblies, or partially completed assemblies that are subject to corrosion and/or absorption of moisture shall not be stored in an environment subject to the influences of moisture, wind, etc. without being protected against such environmental influences.
- 3.8 Fender Wells shall be made of galvanized metal at a minimum.
- 3.9 Resonance: The vehicle body shall be constructed in a manner that minimizes vibrations, rattles, and other body noises during normal use.
- *3.10 License Plates: All brackets, bolts, nuts, and miscellaneous fasteners for attaching front and rear license plates to the vehicles shall be provided by the successful Contractor. Front and rear license plate holders must be mounted/bracketed to the safety bumper by the contractor before delivery to the County. License plate holders for the rear should be illuminated by **LED** lights.
- 3.11 Body is required to be water tested upon completion at the manufacturer's location to ensure there are no water leaks of exterior seams, roof construction, or overall structure. Testing shall be done with water nozzles appropriately placed to test the entire conversion. Minimum 20-psi water pressure for testing is required for a minimum of 10 minutes.
- 3.12 Undercoating: The entire underside of the body including floor members, side panels below floor level (if metal), and fender wells shall be undercoated, at the time of manufacture, with a non-flammable resin type polyolefin. All openings in the floorboards and firewall shall be sealed. Care shall be taken to prevent overspray of electrical cabling, air, brake, and fuel hoses.
- 3.13 **FINISH AND COLOR**
 - 3.13.1 All exterior surfaces shall be smooth and free of visible fasteners, wrinkles, and dents. 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 paint for the service life of the vehicle. Paint shall be applied smoothly and evenly with a finished surface free of dirt, runs, and other imperfections. Painted surfaces shall be impervious to diesel fuel, gasoline, corrosive atmospheres, and commercial cleaning agents.

- 3.13.2 The contractor shall, as a minimum, provide a low VOC coating system that meets the following minimum requirements.
- 3.13.3 Primer: Corrosion-resistant primer that is compatible with the Basecoat/Clear-Coat System.
- 3.13.4 Basecoat/Clear-Coat System
- 3.13.5 Two-part system basecoat/clearcoat, low VOC, air dry, stain-resistant polyurethane enamel that is ultraviolet light-resistant.
- 3.13.6 The system shall have hardness, abrasion resistance, gloss retention, flexibility, chip resistance, and good adhesion characteristics.
- 3.13.7 Exterior finish shall be Standard Fleet White.

4 CHASSIS

The following chassis requirements are based upon the County's current requirements. Any chassis with proven service history is acceptable to the County. Alternate configurations shall be evaluated.

- 4.1 **Engine** - 3.5L V-6 gasoline engine with electronic fuel injection.
- 4.2 **Transmission** - 6 speed automatic transmission electronically controlled with overdrive, latest model available.
- 4.3 **Power Steering** – This vehicle shall be equipped with an OEM tilt steering wheel, cruise control and OEM power steering.
- 4.4 **Emissions** - Contractors are required to meet all current Environmental Protection Agency (EPA) requirements and technology should be modified per any federal change in the law during the procurement and/or contract period.
- 4.5 **Fuel Tank** - The fuel tank shall be OEM with OEM capacity of 25 gallons minimum. The tank, fuel lines, and hardware must meet all current FMVSS, including FMVSS 301, as well as all current CARB and EPA requirements and must be OEM equivalent in connection types. The use of worm clamps is limited to that of the OEM. The fuel tank shall be calibrated with the OEM dash fuel gauge.
- 4.6 **Suspension** - The rear suspension shall incorporate a hydraulic suspension system capable of providing load leveling and height control to meet ADA requirements and for improved ground clearance. Spacers may be added to front and new coil spring added to rear suspension to maintain ground clearance and ADA requirements. The rear suspension shall be retained as supplied by OEM chassis manufacturer with minimal modifications. There must be a minimum of five (5) inches clearance between the break-over angle position of the vehicle exhaust pipe and level ground when loaded with 1100 lbs. maximum. Vertical damping of the suspension shall be accomplished by OEM shock absorbers that shall maintain their effectiveness for at least standard OEM warranty period without repairs in normal service. Front and rear suspension systems shall be the heaviest duty OEM equipment available. Suspension system components shall be matched and tuned to provide maximum load capacity, ride quality, stability, and desirable steering and handling characteristics. The vehicle shall be tested to FMVSS 126 Electronic Stability Control Test.
- 4.7 **Tires** - Vehicles shall be equipped with steel belted radial tires, as provided by the OEM for the chassis specified. Tire changing equipment, as provided by the OEM,

shall include a jack of sufficient strength/capacity, and other tools necessary for changing the mounted tires, shall be stored in a compartment/container within the vehicle.

- *4.8 **Wheels** - The van shall be equipped with six (6) Stamped Steel wheels with Painted Bolt-on Wheel Covers, 16” minimum, and an OEM full size spare.
- 4.9 **Brakes** - The vehicle shall be equipped with 4-wheel disc brakes. The braking system shall comply with FMVSS 105 and FMVSS 106. Brakes shall conform to all Federal and Texas Motor Vehicle Safety Standards. Parking brake shall be standard manufacturer’s mechanical type, independent of the vehicle’s service brake system. It may be a heavy-duty hand or foot-operated parking brake with a warning light on the dashboard. If four-wheel disc brakes are supplied, specify the type and the location of the parking brake.
- 4.10 **Climate Control** - All-climate control system controls shall be located within easy reach of the operator and shall be located on a control panel.
- 4.11 **Heating/Air Conditioning/Defrosting Requirements**
 - 4.11.1 All vehicles require an integral front and rear OEM air conditioner rated at 15,000 BTU minimum.
 - 4.11.2 Cooling shall be specified in BTU at 100°F, ambient temperature.
 - 4.11.3 The refrigerant lines to the evaporator must be adequately supported between the wall of the bus and the evaporator.
 - 4.11.4 All refrigeration, heater, and drain lines that enter the passenger compartment shall be encased in a rigid material, fiberglass, aluminum, etc. that harmonizes with the interior to prevent injury to passengers in the event of line eruption.
 - 4.11.5 The air conditioning system shall use environmentally friendly refrigerant R134A or approved equal. The entire air conditioning system, including add-ons, shall utilize the same type of refrigerant supplied by the chassis manufacturer.
 - 4.11.6 A label must be placed in the engine compartment detailing manufacturer’s name, refrigerant type and quantity, compressor oil type, and quantity.
 - 4.11.7 The evaporator and condenser must be matched to the compressor as per the manufacturer’s recommended installation instructions.
 - 4.11.8 Refrigerant hoses shall be SAEJ2064, double braided Barrier type Goodyear, Aeroquip, or approved equal and shall be completely enclosed in loom over the entire length to prevent chaffing. The refrigerant hoses shall be supported at a minimum of every 18-inches with fully insulated “P” clamps.
 - 4.11.9 Refrigerant fittings shall be ATCO, Aeroquip, or approved equal. These fittings may be “O” ring types. In addition, a complete set of the refrigerant fitting shall be supplied to the County upon delivery of the vehicle. A complete set constitutes enough fittings to replace the entire system.
 - 4.11.10 Protective grommets shall be provided at points where refrigeration, heater, and drain hoses penetrate metal or other materials.

- 4.11.11 Air conditioner and heaters are to be controlled by individual three-position switches (off, low, and high).
 - 4.11.12 All hoses, drains, and wiring must be covered and adequately supported with plastic/rubber-coated steel clamps secured at a minimum of two-foot intervals. All heater hoses are to be silicone, with clamps designed for use with silicone hoses. Heater and associated hardware shall meet SAE-recommended standards and practices and shall meet the applicable criteria of 49 CFR 393.77.
 - 4.11.13 The inside air system, when running at its lowest settings, shall filter air at a rate of 15 cubic feet per minute per passenger. The HVAC system shall be equipped with a HEPA-14 filtration system or equivalent that contains a Minimum Efficiency Reporting Value (MERV) of 16 or better.
- 4.12 **Stereo** - Chassis OEM manufacturer's AM/FM Stereo Radio with public address system input, plus four (4) speakers, two (2) in front and two (2) in rear shall be provided. The use of aftermarket radios of equal or superior quality may be used only if a radio is not available from the OEM chassis manufacturer to comply with the specification.

5 DOORS

- 5.1 **General** - Four (4) sets of keys and locks for all doors shall be supplied. All vehicles on the same purchase order shall be keyed alike for chassis and exterior doors. If the key contains an electronic chip, Fort Bend Transit may choose to forego this requirement.
- 5.1.1 All doors shall be properly sealed to prevent the entry of air drafts and water into the vehicle interior including spray from commercial vehicle wash equipment and driving rain.
 - 5.1.2 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.
- 5.2 **Passenger Door.** The van shall have standard OEM driver and front passenger doors; one manual sliding door and one manual mobility aid accessible rear door. The rear mobility aid accessible entry door shall offer a minimum opening height of 56", a minimum usable ramp width of 30", and a maximum of 12" floor-to-ground height.
- 5.3 **Door Locks.** Power with child-protection door locks for rear doors.
- 5.4 **Rear Door Emergency Exit.** The rear cargo door shall be provided with a quick release, manual override for opening the door from inside the vehicle, capable of opening the door even if the door is locked. The vehicles override device shall be spring loaded and mounted on the inside of the rear door to prevent accidental release. A decal shall be provided showing operating instructions
- 5.5 **Roof Hatch** - Vehicles shall be equipped with one (1) Transpec Model 1000 or approved equal, roof ventilation/escape hatch nominally centered in the vehicle roof. Roof ventilation/escape hatch features shall include five-position ventilation (minimum), a rubber gasket to prevent leaks, and emergency exit capability.

*5.6 **Control Interlock.** The lift door shall be interlocked with the vehicle transmission to ensure the vehicle cannot be shifted out of park while the rear door is ajar. 5.7

Mobility Lift Door(s) – Mobility lift door(s) shall be located in the rear of the vehicle depending on seating plans and details provided by the contractor.

5.7.1 The mobility lift door (s) shall provide 68-inches (minimum) of clear walk-in headroom as measured when the lift is in a fully raised usable position. The lift door shall have a clear opening width adequate for the ease of operating the mobility lift being supplied with this vehicle. Door fasteners or hardware, etc. shall not protrude into the door opening.

5.7.2 Lift door(s) shall be constructed utilizing a stainless steel or aluminum subframe. Wood framing shall not be acceptable. Door opening frame will be powder coated to match the vehicle interior. Door shall be designed for long life/heavy use and a minimum of 14 gauge, 1-inch tubular steel around the perimeter.

5.7.3 A positive factory-installed gas shock at top of the doors to assist in maintaining an open or closed position of the door shall be installed to ensure the lift doors stay open when the lift is in use. An additional door tether shall be installed that will prevent the doors from opening past 100 degrees.

5.7.4 Lift door(s) shall have a glazed window that is viewable from the wheelchair positions inside the vehicle and meets all applicable Federal and State Motor Vehicle Safety Standards and Americans with Disabilities Act (ADA) requirements.

5.7.5 Padding shall be installed inside of vehicle over mobility lift doorframe header.

5.7.6 The door(s) shall have a “door ajar” light and alarm, which will alert the operator when the door is not securely closed and latched. The light shall be a red indicator light identified as “LIFT DOOR AJAR” and shall be located on the operator’s dash panel easily seen by the seated operator.

6 ELECTRICAL

6.1 **Electrical System** Each vehicle shall have a 12-volt electrical charging system as supplied from the OEM. All electrical wiring shall be automotive stranded copper, of sufficient gauge to handle the load, color-coded to match the OEM. All harnesses that are modified or added to the vehicle will be secured to the frame/body at a maximum of two feet intervals with insulated clamps, or adhesive tape, etc. All exposed terminals and wiring shall be protected from the elements using sealed terminals or heat shrink where necessary. Exposed wires will be wrapped or loomed in corrosion/moisture resistant material. All controls and instrumentation necessary for safely operating the vehicle shall be located within easy reach of a fifth (5th) percentile female through to a ninety-fifth (95th) percentile male driver seated in the driver’s seat with the driver’s seat belt fastened.

*6.2 **Battery** - Vehicle shall have the heaviest-duty available factory installed dual battery. Battery cables and connectors shall be OEM (600 cca, 12 volt maintenance free for each). If located in the cabin, AGM batteries are required.

6.3 **Alternator** - Alternator shall be factory installed, heaviest duty available (220 amp minimum).

6.4 **Wiring** - Original manufacturer's vehicle wiring shall remain unchanged to the greatest extent practicable consistent with the requirements of these specifications. All add-on electrical components controlling the power to the bus body electrical circuits shall be located in a separate electrical junction box. The junction box shall be easily accessible through a hinged lockable door. The junction box shall be suitably sized to allow for ease of maintenance, repair, and ten (10) percent additional space for the installation of future electrical components. The junction box shall be located within accessible reach of the driver. All body harnesses shall join on a terminal strip made of high-strength dielectric material. All circuits shall be protected by manual reset circuit breakers, in lieu of fuses. Circuit breakers shall be numbered and sized to provide proper overload protection for each circuit. 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 currents without significant voltage drops. All wiring, including chassis manufacturer's, shall be enclosed in non-metallic loom meeting current SAE Standard J762a and be adequately supported by fully insulated pinch clamps with a minimum spacing of every 24-inches and routed for protection from heat, moisture, solvents, corrosion, road debris, abrasion, and tension. Tie wrap shall be used minimally in the securement of electrical harnesses and wiring. All non-OEM wiring connections greater than 10-gauge shall be properly crimped, soldered, and sealed with heat shrink tubing. Crimping by hydraulic crimper or electrical crimper that fuses the connector and the wiring is acceptable in lieu of soldering. Contractor to supply a sample of crimped connector greater than 10-gauge. The bend radii of all installed electrical wires and cables shall not exceed the manufacturer's recommended minimum bend radii. All parts of the wiring system and electrical components shall be protected from corrosion. All connectors installed on the underside of the vehicle and/or exposed to any outside element and/or have a 20 amp and high circuit breaker within its electrical circuit shall be double insulated. There shall be no exposed or loose wiring in the driver or passenger compartment. Any bus body wiring harnesses containing exposed excess lengths shall have the excess length neatly gathered and secured to a rigid bus body or chassis frame member. Wiring shall be of sufficient length to permit positioning, as well as replacement of terminals, twice, without excessive tension. Protective grommets shall be provided at points where wiring penetrates metal or other material. Complete "as-built" wiring schematics shall be provided with each vehicle, specifically matching the vehicle provided with all options included. General wiring diagrams will not be accepted.

6.5 **Farebox** - Farebox shall be mounted with the trip handle toward the driver. It shall be mounted on a stanchion, adequately braced, located near the driver, and easily accessible to passengers entering the bus. An amber or indirect fare box light shall be connected to the dash instrument lights. Two (2) interchangeable lockable fare box vaults and farebox, keyed alike with a double set of keys for each lock shall be supplied. Vault and farebox exteriors shall be marked with key references. The farebox shall be constructed with heavy-duty stainless steel. The window shall be scratch and breakage-resistant Lexan material. The farebox dimensions shall be 6.5

inches wide x 5.5 inches deep x 16.75 inches high. The total unit weight shall be 17.5 lbs. The County is currently using Diamond XV Rectangular Fare boxes or approved equal.

7 FLOORING

- 7.1 **Sub Floor.** Altro Transflor 3/8 inch sound damping and heat transfer insulation or approved equivalent.
- 7.2 **Floor Covering Material.** 2.2mm thick commercial grade vinyl transit floor covering shall cover the entire floor surface. Flooring shall possess anti-skid properties.
- 7.3 **Floor Assembly.** The lowered floor shall be constructed of 11 ga. steel. The frame rails shall be reinforced with 11 ga. formed channel cross ribs. The use of any type of plywood material in the subfloor will not be accepted. The floor shall be lowered from the front firewall to just before the rear axle. The width of the floor shall extend from side doorsill to side doorsill. Mobility aid restraint tracks and seat locks shall be beveled, with no sharp edges and will protrude no more than ¼ inch above the floor surface. All exposed floor seams shall be sealed with an industrial grade butyl sealant or equivalent which conforms to ASTM C920. The entire surface of exterior lowered floor shall have a rust inhibiting coating, such as an epoxy primer base, applied to cover all welded areas, and then a fresh application of undercoating over the entire surface. Undercoating shall comply with current Federal and State flammability standards.

8 FUEL TANK

Fuel tank shall be OEM with OEM capacity of (25) gallons minimum. Tank, fuel lines, and hardware must meet all current FMVSS, including FMVSS 301, as well as all current CARB and EPA requirements and must be OEM equivalent in connection types, etc. The use of worm clamps is limited to that of the OEM. Tank shall be calibrated with the OEM dash fuel gauge.

9 SEATS

All seating, including the driver, shall meet or exceed the Federal Transit Administration recommended Fire Safety Practices for Transit Bus and Van Materials. All seats shall be OEM vinyl and the County will have the option to choose specific colors at the time when each order is placed.

- 9.1 **Drivers Seat** - A power deluxe driver's seat shall be provided with forward and rearward adjustment, right-side armrest, lumbar support, reclining feature.
- 9.2 **Front Passenger Seat** - The front passenger seat shall be OEM, matching the driver's seat.
- 9.3 **Rear Passenger Seat** - The rearmost passenger seats shall be foldaway seats storable for wheelchair transport.
- 9.4 **Foldaway Seats** - shall be Freedman model foldaway seats or approved equal. Actual seat types will be identified and priced by the contractor in the Passenger Seating Option price sheet section. Foldaway seats must meet or exceed all applicable Federal Motor Vehicle Safety Standards including FMVSS 207, 210, and 225 seat belt certification testing. Seat must be cantilevered and tested to support 500 lbs. per passenger weight. Folding seat will not use an aisle leg or tether for support. The foldaway seat operation shall require no more than two (2) steps to

store or deploy. A cylinder shock must be provided to assist in the controlled storing or deployment of the seat. Seat shall include a self-locking mechanism for security. The underneath area of the seat shall appear finished without exposed seat springs or seating material and include a seat instruction plate. Passenger seat frames and seat belts should perform as a complete system. Two-point seat belts will be permanently mounted on the seat frame. Under the seat belt, retractors will be permanently located under or behind the seating position. Seat belts shall meet or exceed FMVSS 209 and 210. The design of the flip seat shall complement the standard passenger seats and be from the same manufacturer or approved equal. Folding seats must be installed so that rubbing/chaffing does not occur during fold operation. Seat cover must not touch sidewall or structure during fold/unfold. Folding seats must be mounted to a steel structure that is an integral part of the final stage builder's underfloor structure, minimum thickness 1/8 inch. Steel plating for seat securement must be designed into the floor, added steel plating similar to large washers would not be accepted. All Seat mount bolts and wheelchair shoulder harness mount bolts that are not fastened to the seat track will be mounted to the above required structural steel members. No fasteners will be allowed within 1½ inches of any flat steel components edge. This requirement does not apply to fasteners through box beam type of structure.

- 9.5 **Grab Handles** - Grab handles shall be installed, OEM are acceptable. All seats and restraints in the vehicle as specified must comply with current FMVSS standards.
- 9.6 **Passenger Restraints**: Restraints shall be furnished for all passengers, consisting of shoulder seatbelts and/or lap belts. Each belt shall be equipped with an automatic retractor. Securement devices, both for ambulatory and mobility aid passengers, shall meet all State and Federal Standards. A minimum of two (2) seat belt extenders shall be provided with each vehicle.

10 LIGHTING

- 10.1 **Interior Lighting** - Overhead and lower lighting shall be installed in the interior center seat row of the vehicle that provides not less than two foot-candles of illumination at the entrance area. This system shall illuminate automatically when the vehicle front or side doors are open. All accessory vehicle lighting shall conform to ADA 49 CFR, Part 38, Subpart B.
- 10.2 **Wheelchair lift lights** - Shall illuminate the lift device in a 4-foot radius outside at ground level of the door opening, shall be provided in an LED design. The light shall be wired to light automatically when the lift door is opened. Lift lights shall be mounted internally in the lift area above the lift in the lift door headlining.
- 10.3 **Under hood Lights** - Under hood light shall be provided.
- 10.4 **Exterior Lighting** –
- 10.4.1 All exterior lights shall conform to the State of Texas and U.S. Department of Transportation requirements and meet the requirements of FMVSS/DOT specifications.
- 10.4.2 All rear exterior light configurations shall be LED and include red brake lights (standard and center-mounted), amber turn signals, and clear reverse lights. Rear Center High-Mounted Stop Lamps (CHMSL) to be an 18inch LED red strip light, low profile surface mount, or approved equal. Rear

exterior light configuration shall be submitted with a proposal package for approval by the County.

10.4.3 License plate holder at the rear shall be illuminated by an LED light.

10.4.4 Daytime Running Lights (DRL) are to be provided.

11 LICENCE PLATES

All brackets, bolts, nuts and miscellaneous fasteners for attaching front and rear license plates to the vehicles shall be provided by the successful Vendor. Front and rear license plates holders must be mounted/bracketed to safety bumper by vendor prior to delivery to the County.

12 LINE PROTECTION

All metal, plastic, and rubber fluid lines beneath the vehicle that are altered or exposed as a result of floor modification shall be secure and reasonably protected from road damage. Any fuel and brake line modification/alteration must be of OEM equivalent material or workmanship. Straightening and re-bending OEM brake or fuel lines is strictly prohibited.

13 INTERIOR PANELS

All interior panels shall be OEM or OEM equivalent. Panel fastening devices shall match the color of the panels. The interior shall provide a pleasant atmosphere, be aesthetically pleasing, and contain smooth finishes without any unprotected sharp edges. The basic vehicle interior shall be gray. All interior panels shall meet FMVSS 302.

14 MOBILITY AIDS

- 14.1 Wheelchair lifts shall be commercial type, Braun Ability Century 2 1,000lb capacity or approved equivalent, meeting ADA and FMVSS 403 and 404 requirements, and meeting the following listed requirements.
- 14.2 All attachments of the lift assembly to the vehicle shall be done through structural support members. Bolting any part of the lift assembly directly to the vehicle sheet metal walls will not be acceptable.
- 14.3 The wheelchair lift shall be electro-hydraulically and mechanically operated, mounted on the curbside of the vehicle, and accessible via access doors.
- 14.4 The wheelchair lift shall be interlocked with the transmission and emergency brake in such a manner as to prevent the vehicle from moving with the wheelchair lift door in the open position and prevent the wheelchair lift from being operated until the transmission is in park and the emergency brake is completely set. A dash-mounted, indicator light will come on to show the system is activated.
- 14.5 Lift shall incorporate a power-fold mechanism for the platform. The lift shall incorporate a positive locking mechanism to prevent drifting from the stowed position.
- 14.6 The lift platform shall be secure and stationary when it is in the stowed position. No lift part shall intrude into the vehicle's body more than 18½ inches when in a stowed position.
- 14.7 The lift assembly shall safely accommodate a minimum load of 1000 pounds. All power units, operating joints, linkage, and mounting points to the body shall be

certified by the manufacturer as being adequate for the minimum load requirements.

- 14.8 Lift shall be power-up and power or gravity-down.
- 14.9 There shall be a pressure relief built into the hydraulic system to prevent “jacking” of the vehicle should the power remain on once the lift touches the ground.
- 14.10 The lift platform shall have an automatic stop-and-hold mechanism to prevent the platform from free-falling or folding any faster than 30.48-centimeter/second (12 inches/second) in the event of a power failure or equipment failure during the raising and lowering modes.
- 14.11 An automatic safety barrier shall be provided at front of the platform. An automatic or manual release of the barrier at ground level is required.
- 14.12 Lift shall be equipped with a manual override to permit the lift to be raised or lowered manually in event of power failure or emergency.
- 14.13 Handheld lift control shall be provided with a minimum 5-foot cord attached so the lift may be operated from inside or outside of a vehicle.
- 14.14 A passenger handrail shall be provided on both sides of the lift platform
- 14.15 Adequate provisions for safely storing the lift controls, when not in use, shall be provided inside the vehicle.
- 14.16 All pulleys, chains, cables, hydraulic cylinders, etc., when provided, shall be fully enclosed.
- 14.17 A complete set of operating instructions, schematics, and a troubleshooting guide shall be included with each lift.
- 14.18 Lift platform shall be a minimum of 32-inches wide, as measured from the inside edge to the inside edge of the platform.
- 14.19 Control box shall be lightweight and weatherproof. Additionally, controls shall have a sequence interlock to prevent folding of the lift platform before it is in a fully raised position.
- 14.20 A safety device shall be provided that shall render the lift inoperable when the lift door is closed.
- 14.21 A red warning light/audible alarm shall be located on the driver’s instrument panel and shall activate when the mobility lift door is not secure. The warning light shall be labeled “Door Ajar”.
- 14.22 A safety lift belt, Access-Arize or approved equal, shall be provided to help prevent accidents. The belt is to be 35-inches in length from end to end, made with: elongated webbing 1¾ inches wide, 2-inches of Kevlar material sewn on each end of the webbing, a metal seat belt buckle in the middle of the belt, 9.5 mil grommet ¾ inch to center of Kevlar, and Kevlar is abrade resistant.

15 WHEELCHAIR SECUREMENT SYSTEM

- 15.1 Wheelchair Securement system shall be Sure-Lok or Q’Straint or approved equal. Actual Sure-Lok or Q’Straint models of securement and anchor systems will be identified and priced by the contractor in the Wheelchair Securement System price sheet section.
- 15.2 Wheelchair securement system shall consist of four (4) floor attachment points per location for the chair. The strap configuration shall consist of a minimum of four (4) fully automatic heavy-duty retractors that can be quickly fastened to the floor

attachment points and the wheelchair. The wheelchair securement system shall consist of self-tensioning and self-locking features. The retractors shall have the maximum amount of 7000-pound webbing attached to “J” hooks. Each retractor shall be equipped with a male pin connector for attachment of the occupant restraint system. Tie-downs shall utilize grade 8 fasteners of the size required by the securement system’s OEM. The tie-down fastener shall include, as a minimum, SAE grade 8 cap screws, SAE grade 8 hexagon nuts, and harden washers. All four (4) retractors shall be the same in design, size, and shape to avoid confusion in placement and be interchangeable and thus can be used in front, back, left or right.

- 15.3 Floor anchorage points shall be Sure-Lok or Q’Straint or approved equal, utilizing corrosion-resistant steel or aluminum and usable for front or rear tie-downs or shared by both. Actual Sure-Lok or Q’Straint models of securement and anchor systems will be identified and priced by the contractor in the Wheelchair Securement System price sheet section. All anchorage points shall be recessed and nominally flush with the floor to prevent a tripping hazard. Recessed area shall be sealed prior to anchorage point installation to prevent the intrusion of water. Anchorage points shall be secured in accordance with FMVSS 207 AND FMVSS 208.
- 15.4 Occupant and wheelchair securement shall use an integrated system and be securely fastened. For each mobility aid securement system installed in the vehicle, a corresponding occupant restraint system shall also be provided. Occupant restraint system shall meet ADA requirements and all applicable FMVSS 403 and 404 requirements. Lap belt, included as part of the occupant restraint system, shall be 108-inches. If a fixed wall mount system for shoulder belts is used, this system should not obscure the use of the emergency exit window.
- 15.5 Successful Contractor shall certify that wheelchair securement has met or exceeds all applicable Federal and State Motor Vehicle Safety Standards.
- 15.6 Any device that could damage the wheels of the wheelchair shall not be used.
- 15.7 A storage box or approved equal shall be mounted under a seat to safely and securely store tie-down straps when not in use. Location of the storage box and type of storage box shall be approved by the County prior to installation on the vehicle.

16 **SUSPENSION**

The rear suspension shall incorporate a hydraulic suspension system capable of providing load leveling and height control to meet ADA requirements and for improved ground clearance. Spacers may be added to front and new coil spring added to rear suspension to maintain ground clearance and ADA requirements; otherwise rear suspension shall be retained as supplied by OEM chassis manufacturer with minimal modifications. There must be a minimum of five (5) inches clearance between the break-over angle position of the vehicle exhaust pipe and level ground when loaded with 1100 lbs. maximum. Vertical damping of the suspension shall be accomplished by OEM shock absorbers that shall maintain their effectiveness for at least standard OEM warranty period without repairs in normal service. Front and rear suspension systems shall be the heaviest duty OEM equipment available. Suspension system components shall be matched and tuned to provide maximum load capacity, ride quality, stability, and desirable steering and handling characteristics. The vehicle shall be tested to FMVSS 126 Electronic Stability Control Test.

17 WINDSHIELD AND WINDOWS

- 17.1 The windshield and driver door shall be OEM glazed with laminated glass and uniformly tinted. Windshield shall have a heavier tint band above eye level, if available from the factory. The windshield will be equipped with two-speed electric windshield wipers with an intermittent feature.
- 17.2 Passenger window glazing shall be Lucite SAR Bronze BZ-2412 or tinted to permit 20% light transmission (maximum) bronze or grey tint or approved equal.
- 17.3 All emergency exits shall have clear unobstructed openings and be noticeably labeled.
- 17.4 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 driving rain. Materials used for weather seals shall be designed to withstand varying temperature extremes, road splash, and salt, and other exterior elements without cracking, leaking, loosening, or deteriorating. Caulking around the windows shall only be used as a seal, not to make up for body defects or out-of-tolerance window openings.
- 17.5 The installed windows shall have no sharp edges or protrusions.
- 17.6 All glazing shall meet all applicable Federal and State Motor Vehicle Safety Standards.
- 17.7 Windshield and windows shall meet all applicable Federal and State Motor Vehicle Safety Standards.

18 MIRRORS

Two (2) power remote control, adjustable, heated side-mounted exterior rearview mirrors. The exterior rear-view mirrors shall be firmly supported and set to give a clear view past the left and right corners of the vehicle. The exterior mirror supports must be of sufficient length to allow a clear view along the entire side of the vehicle. A standard chassis manufacturer's rear vision mirror with a non-glare, day-night feature shall be provided. An aftermarket rearview mirror is acceptable if it is not available from the OEM with approval from the County.

19 TECHNOLOGY EQUIPMENT

The following section is focused on the intelligent transit technology systems that are required for the overall bus system. Please refer to Exhibit IV for the placement of ITS systems within the bus interior and exterior.

19.1 Camera Surveillance System

The purpose of the camera surveillance system shall be to record all activity that occurs on-board the vehicle. The components of the camera surveillance system are as follows:

19.1.1 Network Video Recorder (Hybrid)

System features, technical ability, and environmental standards must meet those of Safefleet TH-6 Hybrid DVR or approved equal.

- 19.1.1.1 The network video recorder shall be installed in the overhead compartment above the driver.

- 19.1.1.2 Ability to record video at 30 FPS at 1080p resolution
- 19.1.1.3 Support six (6) cameras. User shall be able to configure settings for each camera through the NVR
- 19.1.1.4 Hybrid System: Support both analog and IP cameras (minimum of two (2) IP cameras)
- 19.1.1.5 Two (2) video streams at a minimum; one (1) for recording video and one (1) for live streaming.
- 19.1.1.6 System Administrator shall have the capability of adjusting image quality and FPS for each stream (typically the live video stream would be at a lower resolution and FPS than the recorded video stream)
- 19.1.1.7 Minimum of one (1) TB of storage space for recording video
- 19.1.1.8 Automatic overwrite of the video when storage reaches capacity (use FIFO method)
- 19.1.1.9 Panic button input: Automatically earmark video for retrieval and download when the button is activated. System shall mark a video that is 10 minutes before and after the event.
- 19.1.1.10 System shall also be able to automatically queue video for live viewing when the panic button is activated.
- 19.1.1.11 System shall record and store the following data and synch with the video data: bus number, location, time, date, and camera input.
- 19.1.1.12 Ability to interface with existing GPS to provide location data or use stand-alone GPS antenna.
- 19.1.1.13 Built-in POE network switch for assigning IP addresses to cameras and powering cameras.
- 19.1.1.14 Ability to get to camera setting via NVR.
- 19.1.1.15 System must be able to interface with third-party VSaaS systems using the NVR to send data to the application through cellular or Wi-Fi data communication.
- 19.1.1.16 System shall also be able to send system health and video metadata to VSaaS as this system shall be the primary software for all video viewing storage, diagnostics, analytics, and forensics
- 19.1.1.17 Ability to integrate driver cam video into NVR for recording and live streaming
- 19.1.1.18 NTSC / PAL Auto-Detection
- 19.1.1.19 Ruggedized for Transit Environment
- 19.1.1.20 If GPS is provided, GPS must be 12-port
- 19.1.1.21 Three (3) Ethernet ports at a minimum
- 19.1.1.22 Able to support four (4) analog cameras and two (2) IP cameras
- 19.1.1.23 Built-in inputs for the panic button, and turn signal

- 19.1.1.24 Protect from video loss if the vehicle experiences intermittent power issues (voltage fluctuations, accidents, etc.).
- 19.1.1.25 NVR cannot weigh more than 10 pounds, not including cameras.
- 19.1.1.26 Must operate under a 12 Volt power system.

19.1.2 **IP and Analog Cameras**

- 19.1.2.1 System features, technical ability, and environmental standards meet those of Safefleet HD 1Q (Analog Cameras), Safefleet CHQ8PD (IP camera) or approved equals.
- 19.1.2.2 Cameras shall consist of 1 IP cameras and 3 analog cameras (4 total)
- 19.1.2.3 One (1) IP camera shall be installed on the driver dash facing outward to the street
- 19.1.2.4 One (1) Analog camera installed behind the driver facing the bus entry doors
- 19.1.2.5 One (1) Analog camera installed behind the entry doors facing toward the seating area
- 19.1.2.6 One (1) Analog camera installed in the back of the bus (past the last seat) facing the seating area and walkway
- 19.1.2.7 Day / Night Mode (Auto-Detection)
- 19.1.2.8 Ability to automatically adjust to brightness and contrast
- 19.1.2.9 IR illumination
- 19.1.2.10 Maximum output resolution 720p with a minimum 0.9 megapixel
- 19.1.2.11 Ability to record audio with video
- 19.1.2.12 Three (3) Analog High Definition Cameras (not IP-based cameras)
- 19.1.2.13 Vandal-resistant domes for each camera
- 19.1.2.14 2.5 mm to 2.9 mm lens range
- 19.1.2.15 Standard BNC cable connection (able to connect to NVR)
- 19.1.2.16 Must operate under a 12 Volt power system

19.2 **Digital Display/ Infotainment System**

Infotainment system features, technical ability, and environmental standards must meet those of Safefleet MVQ-DS215-KIT, MVQ-DS215-COVR, or approved equal.

- 19.2.1 The digital display shall be installed behind the driver seat on the bulkhead.
- 19.2.2 The infotainment system shall provide location-based route and stop information as well as advertising still images and video, the content of which can be triggered by the location of the vehicle.
- 19.2.3 Support one (1) display per vehicle at a minimum
- 19.2.4 On-board display shall include:

- 19.2.4.1 the current route number and destination name
- 19.2.4.2 list of upcoming stops, and indicate when a stop has been requested
- 19.2.5 The system shall support custom digital media based upon specific routes, stops, locations, and time of day
- 19.2.6 Support up to six (6) camera inputs
- 19.2.7 Ability to display including but not limited to:
 - 19.2.7.1 video from the camera system
 - 19.2.7.2 next stop information
 - 19.2.7.3 media content
 - 19.2.7.4 marketing advertisement
 - 19.2.7.5 emergency messages via banner or other methods
 - 19.2.7.6 public service announcements
 - 19.2.7.7 service changes
- 19.2.8 Automatic power on when bus ignition is activated
- 19.2.9 Hot-swappable
- 19.2.10 Ability to run multiple contents at one time via queuing or via scheduling
- 19.2.11 Ability to add content
- 19.2.12 Manually via USB
- 19.2.13 Automatically when connected to Wi-Fi or Cellular Network
- 19.2.14 Ability to upload content via software/server to one (1) display, a group of displays, or all displays
- 19.2.15 The display shall not interfere with mirror line of sight, security camera views, or inhibit passenger or operator visibility
- 19.2.16 The system shall feature a media database tool that is compatible with WINDOWS 10, or later
- 19.2.17 The system shall feature optional integration to the AVL system via J1708, or Ethernet to allow automated selection of the Trip ID via the AVL system log-on. The system shall utilize the GTFS Trip ID to display appropriate stop information and identify when a vehicle is off-route
- 19.2.18 Displays shall utilize LCD technology
- 19.2.19 Optional audio output shall provide audible announcements and advertising
- 19.2.20 Video Inputs at a minimum (1xHDMI, 1xVGA, 1x Analog)
- 19.2.21 Resolution up to (1920x1080) or better
- 19.2.22 Protective cover to reduce screen cracking or damage
- 19.2.23 Ability to support:
 - 19.2.23.1 MP4 and .avi video formats
 - 19.2.23.2 .pdf file format
 - 19.2.23.3 .jpeg and .png, .gif formats
- 19.2.24 Mounting bracket must be included
- 19.2.25 Minimum display size is 21-inches (measured vertically)
- 19.2.26 Minimum Viewing Angle 178 degrees horizontal x 178 degrees vertical
- 19.2.27 Maximum power usage 50W or lower
- 19.2.28 Install display in the landscape orientation
- 19.2.29 Support both landscape and portrait orientation (ability to switch modes).
- 19.2.30 Must operate under a 12 Volt power system

19.3 **Cellular/WI-FI Modem**

Modem features, technical ability, and environmental standards must meet those of Safefleet SRC-ROUTER-3 or approved equal. The modem shall act as the central communication system to transmit messages to and from connected ITS systems.

- 19.3.1 The modem shall be in the overhead compartment above the driver's dash. The installation must allow for easy installation and removal of the cellular sim card.
- 19.3.2 Support both cellular and Wi-Fi data communication
- 19.3.3 Real-Time Connectivity and Data Speeds (Up to 300 Mbps)
- 19.3.4 Ability to operate using VPN (Virtual Private Network)
- 19.3.5 Ability to report location using GPS
- 19.3.6 Advanced Authentication Framework (AAF) for security administration
- 19.3.7 Ruggedized for Transit Environment
- 19.3.8 Supports CDMA, GPRS cellular technology
- 19.3.9 Supports Wi-Fi technology (minimum 8.02.11n)
- 19.3.10 Low power consumption (less than 3 watts at idle)
- 19.3.11 4G cellular speed at a minimum
- 19.3.12 Minimum of four (4) Ethernet (RJ45) ports to connect devices to the modem
- 19.3.13 Minimum of one (1) USB port
- 19.3.14 GPS antenna (12 channel)
- 19.3.15 Form factor no larger than 5.5 in x 3 in x 4 in (4.70in including connectors)
- 19.3.16 Must operate under a 12 Volt power system

*19.4 **Audio/PA System**

The purpose of the Audio/PA system shall be to audibly announce transit information to include destination, public announcement, and safety messages in compliance with ADA regulations. The components of the system are as follows:

*19.4.1 **Audio/PA System (Hardware and Integration into Destination and Voice Annunciation System)**

System features, technical ability, and environmental standards shall meet those of Luminator GEN 4 or approved equal.

- 19.4.1.1 The main control unit for the PA and Voice Annunciation System shall be installed in the overhead compartment in the front of the bus. The installation shall allow for easy removal of cables, ~~as well as, uploading and downloading software and configuration changes via USB stick or flash drive.~~

- 19.4.1.2 System shall include interior speakers, exterior speakers, and a microphone for the operator.
- 19.4.1.3 The infotainment / digital display shall be tied into internal speakers for audible announcements.
- 19.4.1.4 The audio subsystem shall feature the ability to pre-define the priority of audible announcements, so safety messages can be prioritized.
- 19.4.1.5 The audio subsystem shall feature automatic gain adjustments.
- 19.4.1.6 The speakers and operator microphone shall be provided by the bus manufacturer, with the minimum requirements:
- 19.4.1.7 Interior amplifier and speakers – up to ten (10) speakers, arranged in series-parallel to present 4-8 ohms to the amplifier output terminals
- 19.4.1.8 Exterior amplifier and speakers – up to two (2) speakers, arranged in series parallel to present 4-8 ohms to the amplifier output terminals.
- 19.4.1.9 Dynamic (not passive) operator microphone.

19.4.2 **Operation of Destination and Voice Annunciation System**

- 19.4.2.1 The system shall have the ability to announce stops based on location and time parameters. It shall ignore if the bus is on route or off-route (i.e. if the destination is within 300 feet of stop location AND is within 10 minutes of the stop time point; then announce the stop).
- 19.4.2.2 If the time and/or location parameters are not met, the system shall not announce the stop, however, this shall be evaluated on a stop-by-stop basis for the route, not the route as a whole (i.e. if the entire route is late by over ten (10) minutes, but the next stop is within the time and location parameters, the system shall announce the stop).

19.5 **Transit Environment Requirements**

The following requirements apply to all technology components described in the Technology Equipment sections:

Operating Temperature - 32 F to 110 F

19.5.1 Storage Temperature - 20 F to 130 F

19.5.2 Voltage Range - 8 to 32 VDC

19.5.3 Vibration: Tested against SAE -1455 and MIL-STD810 F specifications

19.5.4 Operating Humidity: 15% to 85%, RH non-condensing

19.5.5 Storage Humidity: 15% to 85%, noncondensing

19.6 **Other Requirements**

19.6.1 All components listed above must include all necessary cables, connectors, harnesses, mounts, screws, special tools, and any other equipment needed to ensure proper operation and securement.

19.6.2 The Contractor shall be responsible for all installation and initial testing to ensure equipment is fully operational before receipt and approval by the County.

20 ADDITIONAL SPECIFICATIONS

20.1 Automatic Hand Sanitizer Dispenser and Face Mask Dispenser

20.1.1 Refillable hand sanitizer and face mask dispensers shall be mounted at the entrance to the vehicle for easy access by boarding passengers.

20.1.2 Automatic Hand Sanitizer should be battery operated made of polymer composite; able to be mounted on pole of any shape - round, square or oval with tension making the clamp adapt to any pole size; the mounting bracket should withstand 6-g force; refillable where sanitizing product can be poured directly into the dispenser and does not require any specific solution bag; works with any hand sanitizer; and must be designed for use in high traffic, public areas, with heavy-duty housing, reducing the risk of vandalism damage. Dispenser has locking mechanism with technology to respond to the presence of hand for automatic dispensing of 1 ml of product. Overall dimensions should be approximately 16.75 inches height, 6.75 inches wide, 6 inches depth with a capacity of 37 ounces.

20.1.3 Face Mask Dispenser should be transparent acrylic container; keyhole wall mounting; holding 2-3 boxes of disposable earloop masks in bulk. It should feature a top loading locking lid with a pivot hinge; bottom dispensing product; approximately 4.5 inches depth, 8.5 inches width, 10 inches height, 1.35 lbs. weight; or approved equal.

20.2 Driver Shield

20.2.1 Driver shield to be installed that provides driver protection against airborne contamination that may be emitted by the rear passengers during transportation.

20.2.2 This shield shall be constructed of materials that are NHTSA-approved polycarbonate AR2 or better, impact-resistant, shatterproof in accordance with ANSI Z26.1.

20.2.3 Safety Glazing Materials for Motor Vehicles, and reflective to minimize operator glare.

20.2.4 Shield must be able to swing 180 degrees open and include emergency egress release mechanisms.

20.3 Passenger Stop Requests

- 20.3.1 Controls shall be provided adjacent to the wheelchair securement locations and seats for requesting stops and which alerts the driver that a passenger wishes to disembark.
- 20.3.2 This shall include both audible (chime) and visual (stop request) systems.
 - 20.3.2.1 For ambulatory passengers, the audible controls shall be mounted at a height easily accessible for the passengers to use.
 - 20.3.2.2 For mobility-impaired passengers, the controls shall be mounted no higher than 48-inches and no lower than 15-inches above the floor.
 - 20.3.2.3 All controls shall be operable with one (1) hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate the controls shall be no greater than 5-foot pounds.

20.4 Painting

- 20.4.1 All vehicles shall be painted, Fleet Standard White.

20.5 Decals

- 20.5.1 Safety decals to include necessary warnings and precautions for emergency exits, steps, wheelchair lift, etc.
- 20.5.2 All signs required by State and federal law regarding safety and operating procedures shall be affixed to each vehicle's exterior and interior.
- 20.5.3 The manufacturer shall place two (2) international symbols of accessibility, at least 15.24-centimeter square (6-inches), to be placed, by the manufacturer, on the vehicle in concurrence with ADA regulations.
- 20.5.4 Decals must be 3M premium grade vinyl or equivalent. Final placement to be approved by County.

INTERIOR	
<u>Quantity</u>	<u>Type of Sign</u>
2	NO SMOKING
2	WATCH YOUR STEP
1	FIRE EXTINGUISHER
2	Please Remain Seated While Bus is in Motion
1	Priority Seating Signs and other required notices as required by the ADA
1	Law Prohibits the Operation of this Vehicle While Anyone is Standing in FRONT of the Yellow Line
1	NOTICE: Security Cameras and Audio Recording in Use
EXTERIOR	

20.6 Other

- 20.6.1 The instrument panel shall have lamps sufficient to illuminate all instruments. All instruments shall be accessible for maintenance and repair and shall be mounted so that each instrument and all indicator lights are clearly labeled and visible to the driver. “Tell-Tale” lights in lieu of the listed gauges will not be acceptable. Decals or Dymo Labels are not acceptable. Each vehicle instrument panel shall be equipped with at least the following:
- 20.6.1.1 Voltmeter: Of proper size to accurately read (without overloading) additional charge to the electrical system when wheelchair lift, and/or auxiliary air conditioning units are being used.
 - 20.6.1.2 Oil Pressure Gauge: Provided by the chassis manufacturer.
 - 20.6.1.3 Engine Temperature Gauge: Provided by the chassis manufacturer.
 - 20.6.1.4 Fuel Tank Level Gauge: Provided by the chassis manufacturer.
 - 20.6.1.5 Speedometer with Trip Odometer: Provided by the chassis manufacturer.
 - 20.6.1.6 Hourmeter: Provided by the chassis manufacturer.
- 20.6.2 Visible and audible warning devices shall be installed to inform following vehicles and pedestrians of reverse operations. Devices should be connected with backup lights to produce an intermittent sound to warn others while bus movement is in reverse, equal to ECCO 530 or 575.
- 20.6.3 OEM horns shall be provided.
- 20.6.4 Driver’s sun visor shall be provided.
- 20.6.5 Vehicle shall be equipped with a driver’s side running board. Running board shall be a minimum of 9-inches deep, a maximum of 12-inches. This will be measured from the OEM body at the flange at the bottom of the rocker panel. Running Board shall extend from the front edge of the front door opening to the rear of the OEM cab. Running board must be designed to hold 300 pounds without permanently changing shape, and be slip-resistant diamond plated aluminum, or approved equal. Driver entry area shall include a steel-reinforced molded plastic grab handle, mounted to the rear of the door opening on the outside on the B pillar. Handle shall be a minimum of 6inch grab area, durable, corrosion-proof, and have no sharp edges. Installation with self-taping screws will not be accepted, must include bolts into threaded inserts and be able to support 250 pounds pull force.
- 20.6.6 A minimum of five (5) pound dry powder type fire extinguisher, with gauge and hose, U.L. approval shall be provided. A bracket to securely

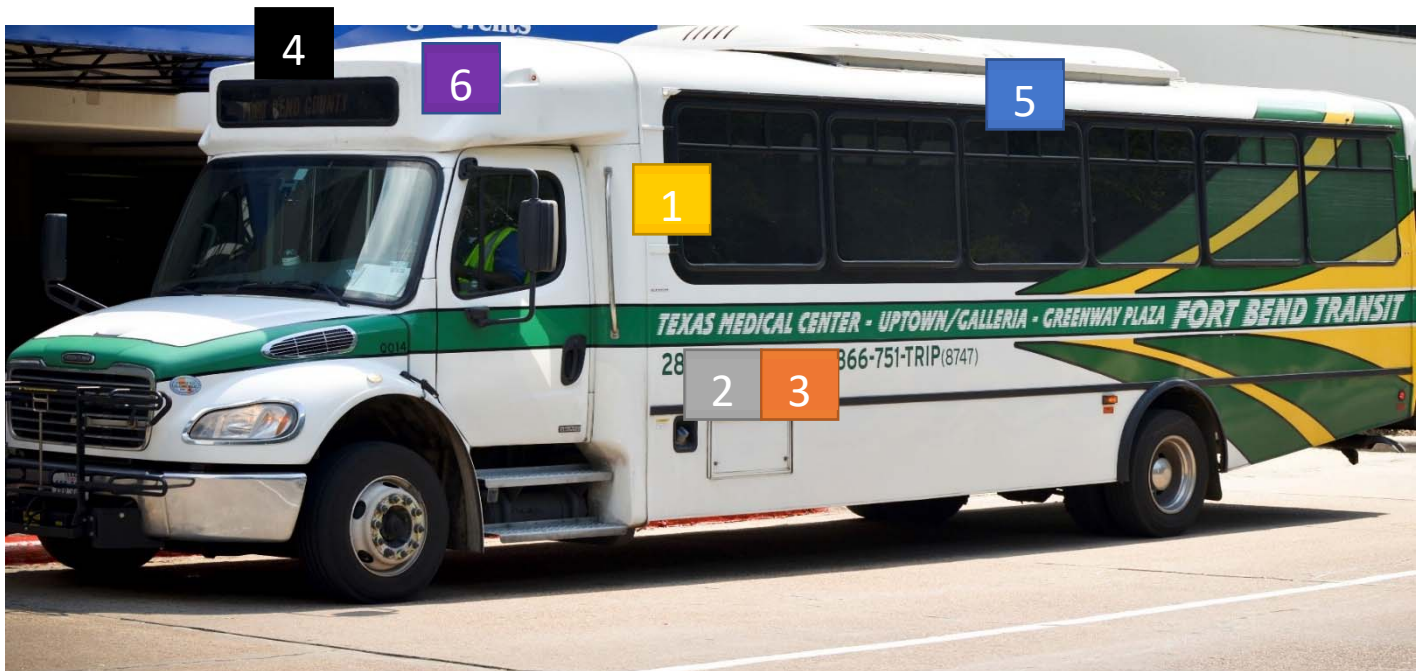
hold fire extinguisher inside of vehicle shall be provided and the contractor shall mount this bracket to a location in the vehicle. Type of bracket used, and location shall be approved by the County prior to installation.

- 20.6.7 A three (3) triangle reflector kit shall be provided and securely mounted in an easily accessible location. Location shall be approved by the County prior to installation.
- 20.6.8 At a minimum, a sixteen (16) unit first aid kit, shall be provided and securely mounted in an easily accessible location. Location shall be approved by the County prior to installation.
- 20.6.9 Body Fluid Cleanup Kit shall be provided and securely mounted (location shall be approved by County prior to installation) to include at a minimum:
 - 20.6.9.1 One (1) pair of Latex gloves,
 - 20.6.9.2 One (1) package of absorbent powder,
 - 20.6.9.3 One (1) package of antiseptic BZK towelettes,
 - 20.6.9.4 One (1) bag 24-inch x 24-inch Bio-Hazard white w/tie,
 - 20.6.9.5 One (1) bag plastic brown w/tie,
 - 20.6.9.6 Certi-Green surface cleaner towelette or approved equal,
 - 20.6.9.7 Face mask,
 - 20.6.9.8 Infection control,
 - 20.6.9.9 One (1) SBB-2 scoop bag w/handle scraper,
 - 20.6.9.10 Two (2) towels, and
 - 20.6.9.11 Paper crepe
- 20.6.10 Vehicles shall come equipped with, and have containers for:
 - 20.6.10.1 Seat belt cutter secured by Velcro in a location chosen by the County.
 - 20.6.10.2 Working flashlight
 - 20.6.10.3 Reflective vest
 - 20.6.10.4 Chock blocks (2)
- 20.6.11 Vehicle shall be equipped with emergency flashers that operate even if the brake pedal is depressed.
- 20.6.12 Front bumper should be OEM standard chrome or approved equal.
- 20.6.13 Rear “Help” energy absorbing type bumper or approved equal, based on OEM chassis type.
- 20.6.14 Reflective marking tape should be installed on the rear of the bus per FMVSS 108 standards.

EXHIBIT IV

Diagram for Technology Equipment

1	Digital Display/ Infotainment	Inside (behind driver's seat on metal panel)
2	Network Video Recorder (Hybrid)	Inside (on the floor next to or behind the driver's seat)
3	Cellular / Wi-Fi Modem	Inside (on floor next to NVR)
4	Front Destination Sign	Outside (in front of the bus above the windshield)
5	Side Destination Sign	Outside (Passenger Boarding Side)
6	Multi-System Controller & Destination Sign Control	Inside (Driver Overhead Compartment)



**EXHIBIT V
DELIVERY AND ACCEPTANCE INSPECTION CHECKLIST**

Medium Duty Cutaway Bus, Type II - Champion Defender

VIN# _____ **Make** _____ **Model** _____

Manufacturer _____ **Year** _____

Date _____ **Signature** _____

Item	No.	Instruction	Check	Comments/Remarks
WALK AROUND				
General	1	(4) sets of keys and locks for all doors		
	2	All vehicles ordered on the same purchase order should be keyed alike. Exception may be made if ignition keys contain an electronic chip.		
	3	Interior and exterior cleaned and washed		
	4	Visually check for en-route damage such as cracks and dents.		
	5	All lubricant levels checked		
	6	Electrical system inspected		
	7	Braking system inspected		
	8	Suspension system inspected		
Interior Panel Fastening	9	Visually inspect all interior panels and moldings for fit.		
Windshield Wipers	10	Verify windshield wipers and washer are operational. Observe position of parked windshield wiper arms and blades.		
Fuel Group	11	Verify fuel tank is at least 1/4 full.		
	12	Diesel Exhaust Fluid (DEF) tank OEM style, separate or within diesel fuel fill door		
	13	Ultra-low sulfur diesel on driver's side near rear duals		
	14	DEF: locked door with key		
	15	Fuel box key		
Radio	16	Verify both AM and FM are operational.		
Exterior Mirrors	17	Verify mirror head is not less than 6" x 9".		
	18	Verify there are no cracks.		
Lockout System	19	Verify vehicle cannot drive with the wheelchair lift door ajar and the lift deployed.		
Back Up Warning System	20	Verify system is functional (by putting the vehicle in reverse and listening for the buzzer).		
	21	REI Back-up camera working: LED start button		
Driver Controls	22	Ignition & Driver's Door keys		
	23	Place the key in the off position. Verify: all circuits are off, excluding interior lights, stop lights and horn.		
	24	Turn the key on. Verify: all systems are on or may be switched on by the driver.		

Item	No.	Instruction	Check	Comments/Remarks
Exterior Lighting	25	Switch on. Verify: all lamps illuminated according to indications on the switch.		
	26	Verify: When the door is open, lights should illuminate the street surface for a distance of 3' perpendicular to all points on the bottom step tread outer edge. Lights are located below the window level and shielded to protect the eyes of entering and exiting passengers.		
Interior Lighting	27	Switch on all interior lights. Verify: all bulbs are illuminated by appropriate switches.		
	28	Verify lights illuminate.		
	29	Immediately adjacent to driver--Open door shall have 2 foot candles of illumination.		
Exterior Passenger Door	30	Key for exterior passenger door		
	31	Verify electric door opens.		
	32	Operating controls should be located within easy reach of the driver.		
	33	Door Opening: Minimum height 80" from top of first step to entrance header; minimum width 30" clear opening.		
	34	Verify door locks from the outside and/or inside.		
Emergency Exit	35	Verify door opens from either inside or outside.		
	36	Verify warning buzzer is operational when the ignition is on and door is locked.		
	37	The inside operation handle is marked to indicate its location and operation.		
	38	Door opening at a minimum of 4'7" from the top of the floor.		
	39	Door is labeled "EMERGENCY DOOR" with 2" high upper case letters.		
Seat Belts	40	Verify each seat has a lap belt.		
Seating	41	Passenger seating is the same color and material as the driver seat.		
	42	All seats face forward.		
	43	An arm rest is on the aisle end of each passenger seat.		
	44	Track seating (only applicable to some models)		
	45	Passenger seats are removable, or jump seat folds up for wheelchair access		
	46	A handrail is provided along the top of all passenger seats		
Tires/Wheels	47	(7) All-weather radial tires (6 + 1 spare) -- largest available/minimum 19.5"; wheels and lug nut indicators (if available) for all wheels; front and rear mud flaps		
	48	Tires are electronically spin-balanced to minimum 65 mph.		
	49	Vehicle must be aligned upon delivery. (Contractor must review the alignment form upon completion of the alignment.)		
	50	Spare tire with appropriate jack (will be loose inside the vehicle and spare tire is identical to tires on the vehicle)		
Steering	51	Tilt		
Steering	52	Power		

Item	No.	Instruction	Check	Comments/Remarks
HVAC	53	Inside air system shall filter air at a rate of 15 CFM and equipped with a HEPA-14 filtration system with a MERV of 16 or better.		
Air Conditioning	54	Integral front A/C rated at 15,000 BTU		
	55	Auxiliary rear A/C; minimum 74,000 BTU w/665 CFM diffused airflow		
	56	Fast idle switch: mounted out of the way so driver does not hit the switch when entering or leaving the vehicle		
	57	Run A/C at low and high speeds for 5 minutes to ensure that the blower is operational.		
Heater	58	Dash unit standard factory		
	59	Auxiliary; minimum 65,000 BTU located in rear half of passenger area		
	60	Run heater at low and high speeds for 5 minutes to ensure that the blower is operational.		
Roof Ventilator	61	Check to see if adjustable for fresh air ventilation in all directions.		
	62	Release handle permitting emergency exit. Safety vent opens from inside/outside the vehicle		
	63	Verify HEPA Filtration system is functional		
Horn	64	Verify horn functions.		
Emergency Equipment	65	Verify Fire extinguisher is stored on mounting bracket.		
	66	First aid kit		
	67	Body fluid cleanup kit		
	68	Seat belt cutter with velcro securement		
	69	(3) reflective triangle kits		
	70	Working flashlight		
	71	Reflective vest		
	72	(2) Chock blocks		
Handrails	73	All shall be 1-1/4" (minimum) diameter metal tubing and covered with impact absorbing material at least 3/8" thick.		
	74	Entrance handrails are not padded.		
	75	All shall permit sufficient turning and maneuvering space for wheel chairs/mobility aids.		
	76	Check to see that handrails have a minimum of 1-1/2" knuckle clearance from nearest adjacent surface.		
	77	Located along the top of all passenger seats (minimum aisle seats)		
Stanchions	78	Located on interior left side of the front passenger door approximately 14" inside the vehicle. Hand rail between stanchion and right wall approximately 30" above the floor. Modesty panel installed below horizontal handrail.		
	79	Located in the rear of the driver's seat at the edge of the aisle from a handrail and extend from the stanchion to the sidewall of vehicle behind the driver's seat.		

Item	No.	Instruction	Check	Comments/Remarks
Exterior Labeling	80	Handicap sticker: standard ADA compliant, white on blue, 7" square wheelchair symbol, (3)--left side, right side and rear		
	81	Warning sign: "CAUTION, CHILDREN MAY BE EXITING" -- (1) on rear; black letters on yellow background, 14" x 5"		
	82	Warning sign: "NOTICE THIS VEHICLE STOPS AT ALL RAILROAD CROSSINGS" -- (1) on rear; "NOTICE" white letters on blue background, other letters black on white, 10" x 7"		
	83	Letter coloring should contrast with color of the vehicle.		
	84	Check spelling.		
	85	International Disabled Vinyl Decal: 6" x 6" outside bottom of wheelchair lift		
	86	International Disabled Vinyl Decal: 4" x 4" on interior windows designate each wheelchair securement location		
	87	One set of seats is designated as priority seating for disabled.		
	88	Labeling shall be consistent with the background: light-on-dark or dark-on-light		
Wheelchair Lift (Must meet ADA Requirements)	89	Platform size: 32" x 48" (minimum)		
	90	Power unit: 12volt electric-hydraulic operated		
	91	Hand pump for power failure		
	92	Platform: Band of colors running the full width of the edge with contrasts from the lift surface		
	93	1,000 lb. capacity, Ricon Titanium S Series (or approved equal)		
Wheelchair Lift Door	94	Wheelchair lift door keys		
	95	Door locks from outside.		
	96	Each door has a window.		
	97	Top Mounted Gas Shock (no sliding door)		
	98	Lift should be located right curbside with minimum 56" clearance.		
Wheelchair Location	99	Check to see if number of locations match the purchase order.		
	100	Wheelchair location must be forward facing.		
Wheelchair Restraint System	101	4-Point Belt Tie-Down/Track System		
	102	Sure-Lok or Q-Straint (or approved equal)		
	103	Tract sections recessed below floor surface, wall mount for shoulder harness		
	104	Safety Belts: Each wheelchair location is equipped with the pelvic-high lap belt and shoulder harness.		
Engine Heater	105	Location shall be in a manner that the wiring will not contact hot engine parts.		
	106	Verify that the plug-in is located on the outside of the front grill.		
Additional On-Board Equipment	107	(2) Fare box with vault Fare Keys		
	108	Luminator compartment key		
	109	Bike Racks Sportworks DL2: easily removed for towing		
	110	Passenger Stop Request: Mounted no higher than 48" or no lower than 15" from the floor		
	111	Public Address System: 4 interior and 1 exterior weather-proof speakers		

Item	No.	Instruction	Check	Comments/Remarks
Additional On-Board Equipment	112	Luminator Horizon SMT auto-electronic destination signs: front, right and interior; ADA compliant with ODKR controller		
	113	Automatic Voice Annunciation System: ADA compliant		
Battery/Tray	114	Battery box keys		
	115	Secured and polarized wiring		
	116	Access for jump start		
	117	(2) Heavy duty 12volt batteries		
	118	Lockable box on curbside		
	119	Slide out stainless steel tray that securely locks in stowed position		
	120	(1) thumb-release latch and locking latch		
	121	Access to tray from outside the bus		
Electronic Diagnostic Hand Tool	122	Current version of engine or OEM Chassis manufacturers electronic diagnostic hand tool 8008FXLC Star XLC with WebFlash with cabling and diagnostic cards or approved equal		
Driver Shield	123	Verify driver shield opens and closes without binding.		
	124	Verify latching mechanism		
Hand Sanitizer Dispenser	125	Verify dispenser functionality		
Face Mask Dispenser	126	Verify dispenser Functionality		

Item	No.	Instruction	Check	Comments/Remarks
DOCUMENTATION				
Microsoft Excel file and hardcopy listing that includes:	1	Manufacturer Name		
	2	Vehicle Model Name		
	3	Manufacturer Vehicle Identification Number (VIN)		
	4	Engine make, model, and serial number		
	5	Transmission make, model, and serial number		
	6	Differential model and serial number		
	7	Alternator model and serial number		
	8	Regulator model and serial number		
	9	Starter model and serial number		
	10	Air compressor model and serial numbers		
	11	Air conditioning compressor model and serial number		
	12	Front and Rear axle model and serial number		
	13	Catalyst/muffler and/or exhaust after-treatment model and serial number		
	14	Wheelchair ramp/lift model and serial number		
Pdf file and hardcopy of each:	15	Buy America documentation that 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.		
	16	TVM Certificate of Compliance		
	17	Altoona Test Results		
	18	Delivery Receipt		
	19	Warranty Registration form		
	20	Air quality certification - from manufacturer		
	21	Completed Application for Texas Title and/or Registration (form 130U)		
	22	Manufacturer's Certificate of Origin (MCO) for a Vehicle and Chassis		
	23	Odometer Disclosure Statement		
	24	Weight certificate from a state-certified scale showing the four corners unladen weight of the vehicle with a full fuel tank. The State of final builder's location will be accepted for these purposes.		
	25	FMVSS Certification		
	26	Proposer Self-Certification		
	27	Sixty (60) days temporary tags		
	28	Multi-System Controller: Report verifying design was tested to a minimum of one (1) million button presses must be provided upon request.		

Item	No.	Instruction	Check	Comments/Remarks
Pdf file and hardcopy of each:	29	Transit Environment: Certification showing technology equipment can withstand the transit environment as defined in Exhibit I Section 25.		
	30	Certificate of Conformance to show the requirements of Section 11.2 Fastener Specifications have been met.		
	31	Standard Operator's Manual		
	32	Mobility Lift Manual		
	33	Maintenance Manuals: Shall contain Bus Body, OEM chassis, OEM chassis powertrain (engine and transmission), and OEM electrical schematics. Manuals shall contain complete and detailed data required for maintenance of the buses, including general vehicle information, specifications, troubleshooting guide, lubrication, and adjustment requirements, rebuilding procedures, wire, and cable sizes and ratings, wiring, schematic diagrams, engine, transmission and lift data.		
	34	Operating Manuals: The operator manual shall contain all information needed for the operation of the vehicle. The manuals shall be coach-specific. It shall include general vehicle familiarization material, location, function, and operation of all controls, gauges, indicators, and switches; emergency procedures; trouble symptoms and diagnostic methods; safety devices and precautions		
	35	Service and Parts Manuals: Shall contain complete and detailed data for as-built parts, as-built electric schematics, body parts, and OEM chassis parts. Manuals shall be supplied in an electronic format to allow the information to be loaded into the County's maintenance information system.		
	36	Maintenance Schedule: Contractor shall furnish detailed vehicle maintenance and inspection schedule. The maintenance and inspection schedule shall incorporate the required maintenance and inspection of the basic vehicle and its subsystems (e.g. lift) as prescribed by the representative manufacturers.		
	37	Manual Changes and Revisions: Following the issue of each publication, the contractor shall provide revised pages covering any changes, whether required by change of design or procedures or due to error, and the revisions shall be kept current. Manual revisions shall be supplied before or coincidental with the arrival of altered parts or components.		
38	Certification of water test result			

Item	No.	Instruction	Check	Comments/Remarks
ROAD TEST				
General	1	Observe any abnormalities in ride, brake, steering or handling of coach.		
	2	Verify mirrors, visors, and driver's seat maintain adjustment throughout the test.		
Parking Brake	3	Deploy parking brake. Verify that the parking brake indicator functions.		
	4	When the brake is deployed, the vehicle should not move.		
	5	Release the parking brake. The indicator light should go off.		
Door Controls	6	Make sure that the doors open and close smoothly.		
	7	Verify seals around the doors and windows are airtight.		
	8	Verify the locks function.		
Acceleration	9	Verify vehicle smoothly accelerates and decelerates.		
Windshield Wipers and Washers	10	Verify mechanism is operational.		
Cruise Control	11	Verify mechanism is operational.		
Interior Climate Control	12	Verify blower is operational.		
	13	Test both the heater and the air conditioner.		

EXHIBIT VI

**Exhibit I
Pricing Sheet**

**Medium Duty Cutaway Bus, Type 11, 40 Passenger including 2 Wheelchair Positions
Ford F650/Freightliner or Approved Equal**

Delivery Time: _____

Item No.	Item Description	Quantity	Unit Price	Extended Price
1	Medium Duty Cutaway Bus, Type 11 40 Passenger, including 2 wheelchair positions Ford F650/Freightliner (or approved equal)	1		
2	Driver Protective Shield	1		
3	HEPA-14 Filtration System	1		
4	Farebox: Diamond XV Rectangular Farebox (or approved equal)	1		
5	Emergency Kit: DOT Package (5# Fire Ext., 16 Unit F.A.K., Triangle Flare Kit, Body Fluid Clean-up Kit)	1		
6	Security/Surveillance Camera System: SafeFleet TX6 Hybrid DVR (or approved equal)	1		
7	Security/Surveillance Camera System: Seon Wireless Bridge: BA-032-0192 (or approved equal)	1		
8	Security/Surveillance Camera System: Seon Hard-Drive for DVR: TX-H640 (or approved equal)	1		
9	Security/Surveillance Camera System: Dash Camera Non- Infrared: SafeFleet CHQ8PD (or approved equal)	1		
10	Security/Surveillance Camera System: Interior Cameras Infrared: SafeFleet HD 1Q (or approved equal)	3		
11	SafeFleet SRC-Router-3 Cellular/WiFi Modem (or approved equal)	1		
12	12-Volt Accessory Power: Two switched, circuit breaker	1		
13	Bike Racks: Sportworks DL2 (or approved equal)	1		
14	Passenger Stop Request: Control with both audible (chime) and visual (stop request) system	1		
15	Public Address System: Radio System permitting driver to announce stops and provide other passenger information	1		
16	Electronic Destination Signs: Luminator Horizon SMT automatic electronic destination sign system (or approved equal)	1		
17	Infotainment Digital Display System (2 displays/vehicle) (or approved equal)	1		
18	Automatic Voice Annunciation System	1		
19	BraunAbility Century 2 - 1,000 lb Capacity Mobility Lift (or approved equal)	1		
20	Pole Mounted Automatic Hand Sanitizer Dispenser	1		
21	Disposable Mask Dispenser	1		
22	Wheelchair Securement System	1		
GRAND TOTAL PER VEHICLE				

Authorized Signature

Company Name

Name and Title (Print)

Date

**EXHIBIT II
Pricing Sheet**

**Medium Duty Cutaway Bus, Type 11, 32 Passenger including 2 Wheelchair Positions
Ford F550/Freightliner or Approved Equal**

Delivery Time: _____

Item No.	Item Description	Quantity	Unit Price	Extended Price
1	Medium Duty Cutaway Bus, Type 11 32 Passenger, including 2 wheel chair positions Ford F550/Freightliner (or approved equal)	1		
2	Driver Protective Shield	1		
3	HEPA-14 Filtration System	1		
4	Farebox: Diamond XV Rectangular Farebox (or approved equal)	1		
5	Emergency Kit: DOT Package (5# Fire Ext., 16 Unit F.A.K., Triangle Flare Kit, Body Fluid Clean-up Kit)	1		
6	Security/Surveillance Camera System: SafeFleet TX6 Hybrid DVR (or approved equal)	1		
7	Security/Surveillance Camera System: Seon Wireless Bridge: BA- 032-0192 (or approved equal)	1		
8	Security/Surveillance Camera System: Seon Hard-Drive for DVR: TX-H640 (or approved equal)	1		
9	Security/Surveillance Camera System: Dash Camera Non-Infrared: SafeFleet CHQ8PD (or approved equal)	1		
10	Security/Surveillance Camera System: Interior Cameras Infrared: SafeFleet HD 1Q (or approved equal)	3		
11	SafeFleet SRC-Router-3 Cellular/WiFi Modem (or approved equal)	1		
12	12-Volt Accessory Power: Two switched, circuit breaker	1		
13	Bike Racks: Sportworks DL2 (or approved equal)	1		
14	Passenger Stop Request: Control with both audible (chime) and visual (stop request) system	1		
15	Public Address System: Radio System permitting driver to announce stops and provide other passenger information	1		
16	Electronic Destination Signs: Luminator Horizon SMT automatic electronic destination sign system (or approved equal)	1		
17	Infotainment Digital Display System (2 displays/vehicle) (or approved equal)	1		
18	Automatic Voice Annunciation System	1		
19	BraunAbility Century 2 - 1,000 lb Capacity Mobility Lift (or approved equal)	1		
20	Pole Mounted Automatic Hand Sanitizer Dispenser	1		
21	Disposable Mask Dispenser	1		
22	Wheelchair Securement System	1		
GRAND TOTAL PER VEHICLE				

Authorized Signature

Company Name

Name and Title (Print)

Date

**EXHIBIT III
Pricing Sheet**

**Full Size ADA Van, Type 1, 12 Passenger including 2 Wheelchair Positions
Ford Transit or Approved Equal**

Delivery Time: _____

Item No.	Item Description	Quantity	Unit Price	Extended Price
1	Full Size ADA Van, Type 1 12 Passenger, including 2 wheelchair positions Ford Transit (or approved equal)	1		
2	Driver Protective Shield	1		
3	HEPA-14 Filtration System	1		
4	Farebox: Diamond XV Rectangular Farebox (or approved equal)	1		
5	Emergency Kit: DOT Package (5# Fire Ext., 16 Unit F.A.K., Triangle Flare Kit, Body Fluid Clean-up Kit)	1		
6	Security/Surveillance Camera System: SafeFleet TX6 Hybrid DVR (or approved equal)	1		
7	Security/Surveillance Camera System: Seon Wireless Bridge: BA 032-0192 (or approved equal)	1		
8	Security/Surveillance Camera System: Seon Hard-Drive for DVR: TX-H640 (or approved equal)	1		
9	Security/Surveillance Camera System: Dash Camera Non- Infrared: SafeFleet CHQ8PD (or approved equal)	1		
10	Security/Surveillance Camera System: Interior Cameras Infrared: SafeFleet HD 1Q (or approved equal)	3		
11	SafeFleet SRC-Router-3 Cellular/WiFi Modem (or approved equal)	1		
12	12-Volt Accessory Power: Two switched, circuit breaker	1		
13	Passenger Stop Request: Control with both audible (chime) and visual (stop request) system	1		
14	Public Address System: Radio System permitting driver to announce stops and provide other passenger information	1		
15	Electronic Destination Signs: Luminator Horizon SMT automatic electronic destination sign system (or approved equal)	1		
16	Infotainment Digital Display System (1 display/vehicle) (or approved equal)	1		
17	Automatic Voice Annunciation System	1		
18	BraunAbility Century 2 - 1,000 lb Capacity Mobility Lift (or approved equal)	1		
19	Pole Mounted Automatic Hand Sanitizer Dispenser	1		
20	Disposable Mask Dispenser	1		
21	Wheelchair Securement System	1		
GRAND TOTAL PER VEHICLE				

Authorized Signature

Company Name

Name and Title (Print)

Date

FEDERAL AND STATE TERMS AND CONDITIONS:

Contractor understands and acknowledges that this Agreement may be totally or partially funded with federal and or state funds. As a condition of receiving these funds, Contractor represents that it is and will remain in compliance with all federal and or state terms as stated below. These terms flow down to all third party contractors and their subcontracts at every tier, unless a particular award term or condition specifically indicates otherwise. The Contractor shall require that these clauses shall be included in each covered transaction at any tier, unless a particular award term or condition specifically indicates otherwise.

1. Access for Individuals with Disabilities (ADA Access).

The Contractor and any subcontractor agrees to comply with 49 U.S.C. § 5301(d), which states the Federal policy that elderly individuals and individuals with disabilities have the same right as other individuals to use public transportation services and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement transportation accessibility rights for elderly individuals and individuals with disabilities. The Contractor also agrees to comply with all applicable provisions of section 504 of the Rehabilitation Act of 1973, as amended, with 29 U.S.C. § 794, which prohibits discrimination on the basis of disability; 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 individuals with disabilities; 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 individuals with disabilities, and any subsequent amendments to these laws. In addition, the Contractor agrees to comply with applicable implementing Federal regulations and directives and any subsequent amendments thereto, as follows:

- (1) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA), 49 C.F.R. Part 37;
- (2) U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in programs and Activities Receiving or Benefiting from Federal Financial Assistance, 49 C.F.R. Part 27;
- (3) Joint U.S. Architectural and Transportation Barriers Compliance board (U.S. ATBCB)/U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38;
- (4) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;
- (5) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;
- (6) U.S. General Services Administration (U.S. GSA) regulations, "Accommodations for the Physically Handicapped," 41 C.F.R. Subpart 101-19;
- (7) U.S. EEOC, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630;
- (8) U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F; and

- (9) U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. Part 1194; FTA regulations, "Transportation for Elderly and Handicapped Persons", 49 C.F.R. Part 609; and
- (10) U.S. DOT regulations, "Transportation for Individuals with Disabilities: Passenger Vessels," 49 C.F.R. Part 39;
- (11) FTA Circular 4710.1, "Americans with Disabilities Act: Guidance"; and
- (12) Federal civil rights and nondiscrimination directives implementing the foregoing regulations, except to the extent the Federal Government determines otherwise in writing.

2. Access to Records and Reports.

The Contractor agrees to provide County, 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 the Agreement for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

The Contractor agrees to comply and will require all subcontractors of any tier to comply with the record retention requirements in accordance with 2 C.F.R. 200.333. The Contractor agrees to 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, all books, records, accounts, statistics, leases, subcontracts, arrangements other third party arrangements of any type, reports, and supporting materials related to those records required under the Agreement for a period of not less than three years after the date of termination or expiration of the Agreement, except in the event of litigation or settlement of claims arising from the performance of the Agreement, in which case Contractor agrees to maintain same until County, 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.

3. Breaches and Disputes.

The Contractor and the County shall attempt in good faith to resolve promptly any dispute arising out of or relating to the Agreement by negotiation between the parties. Disputes arising in the performance of this Agreement that are not resolved by agreement of the parties shall be decided in writing by the authorized representative of the County. This decision shall be final and conclusive unless within ten [10] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the County. 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 County shall be binding upon the Contractor and the Contractor shall abide by the decision. This clause shall flow-down to all subcontractors.

Performance During Dispute - Unless otherwise directed by County, Contractor shall continue performance under the Agreement while matters in dispute are being resolved.

The requirement to seek mediation may be a condition required before filing an action at law or in equity, unless to do so would prevent either party from seeking relief in a court of law or equity under any applicable statute of limitations.

Claims for Damages - Should either party to the Agreement suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he 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 of damage.

Rights and Remedies - The duties and obligations imposed by the Agreement 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 County or Contractor shall constitute a waiver of any right or duty afforded any of them under the Agreement, 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.

Contractor shall place this clause in all subcontracts for more than the small purchase currently set at \$50,000 by the County, to address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

4. Bus Testing.

The Contractor [Manufacturer] agrees to comply with 49 U.S.C. A 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 recipient at a point in the procurement process specified by the recipient which will be prior to the recipient's final acceptance of the first vehicle;
- (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 the recipient prior to recipient'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
- (4) 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.

5. Buy America.

The following clause only applies to contracts for \$150,000 or more involving rolling stock or materials and supplies.

The Contractor and any subcontractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless 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, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content, subject to the Amendment below.

The FAST Act, effective October 1, 2015 amended the Buy America waiver for rolling stock to provide for a phased increase in the domestic content requirement for rolling stock to more than 65 percent for FY2018 and FY2019 and to more than 70 percent in FY2020 and beyond. The new provisions apply based on the date of delivery of the rolling stock. Domestic content requirement over the phase of the contract period shall be the provision applicable to the year of delivery of rolling stock procured under this contract.

Unlike rolling stock, manufactured goods must be 100-percent produced in the U.S. A manufactured good is considered produced in the United States if: (1) All of the manufacturing processes for the product take place in the United States; and (2) All of the components of the product are of U.S. origin. A component is considered of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents. 49 CFR 661.5(d). FTA has issued a number of Buy America guidance letters discussing manufactured goods.

A bidder or offeror must submit to the FTA recipient the appropriate Buy America certification with all bids or offers on FTA-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

6. Cargo Preference-Use of United States-Flag Vessels.

The following clause only applies to contracts that involve transit by ocean for rolling stock or materials and supplies.

The Contractor and any subcontractor agrees: (a) to use privately owned US -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 pursuant to the Agreement to the extent such vessels are available at fair and

reasonable rates for US-Flag commercial vessels; and (b) to furnish within 20 working days following the date of loading for shipments originating within the US or within 30 working days following the date of loading for shipments originating outside the US, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo 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).

7. Civil Rights Requirements.

The following clauses apply to all contractors and subcontractors.

Nondiscrimination in Federal Public Transportation Programs - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and 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, sexual orientation, gender identity, age, status as a parent or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

Equal Employment Opportunity - The following equal employment opportunity requirements apply to the Agreement:

Race, Color, Creed, National Origin, Sex

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, creed, national origin, disability, age, sexual orientation, gender identity, or status as a parent. 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. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 623 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.

Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

8. Clean Air.

The following clause only applies to contracts of \$150,000 or more.

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. The Contractor agrees to report each violation to the County and understands and agrees that the County will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office. The Contractor agrees it will not use any violating facilities. It will report the use of facilities placed on or likely to be placed on the U.S. EPA "List of Violating Facilities". It will report violations of use of prohibited facilities to FTA.

The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

9. Clean Water.

The following clause only applies to contracts of \$150,000 or more.

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. The Contractor agrees to report each violation to the County and understands and agrees that the County will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office. The Contractor agrees it will not use any violating facilities. It will report the use of facilities placed on or likely to be placed on the U.S. EPA "List of Violating Facilities". It will report violations of use of prohibited facilities to FTA.

The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

10. Contract Work Hours and Safety Standards Act.

The following clause only applies to contracts of \$100,000 or more involving rolling stock.

The Contractor shall comply with the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 3701-3708), as supplemented by the DOL regulations at 29 C.F.R. part 5. Where applicable, 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 (29 C.F.R. part 5).

- (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 therefore shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States 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 or the maximum allowed by law 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 – County 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 paragraphs (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.
- (5) Payrolls and basic records - Payrolls and related basic records shall be maintained by the Contractor during the course of the work and preserved for three years thereafter for all laborers and mechanics working at the worksite (or under the United States Housing Act of 1937 or the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address and social security number of each worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid.

Whenever the Secretary of Labor has found under 29 C.F.R. 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records showing that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and records of the costs anticipated or actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of registration of apprenticeship programs, certification of trainee programs, registration of the apprentices and trainees, and ratios & wage rates prescribed in applicable programs.

- (6) 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. A federally assisted construction contract must exceed \$150,000 before these construction safety requirements apply to that contract.

11. Disadvantaged Business Enterprise (DBE).

The Agreement is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs including 49 C.F.R. Part 26, Section 1101(b) of the FAST Act (23 U.S.C. § 101 note). The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. **A separate contract goal has not been established for this procurement.** Contractor will facilitate, participation by small business concerns owned and controlled by socially and economically disadvantaged individuals, also referred to as “Disadvantaged Business Enterprises” (DBEs).

The Contractor, and each third party subcontractor must not discriminate on the basis of race, color, national origin, or sex in the award and performance of any FTA or U.S. DOT-assisted subagreement, third party contract, and third party subcontract, as applicable, and the administration of its DBE program or the requirements of 49 C.F.R. part 26.

The Contractor and each Third Party Subcontractor must take all necessary and reasonable steps under 49 C.F.R. part 26 to ensure nondiscrimination in the award and administration of U.S.FTA-assisted subagreements, third party contracts, and third party subcontracts, as applicable.

Failure by the Subrecipient and any of its Third Party Contractors or Third Party Subcontractors to carry out the requirements of this subparagraph 12.e(4)(b) is a material breach of this subagreement, third party contract, or third party subcontract, as applicable which may result in the termination of the Agreement or such other remedy as County 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. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 C.F.R. 26.13(b)).

The successful bidder/offeror will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

The Contractor is required to pay its subcontractors performing work related to the Agreement for satisfactory performance of that work no later than 30 days after the Contractor's receipt of payment for that work from County. In addition, the Contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to the Agreement is satisfactorily completed.

The Contractor must promptly notify County whenever a DBE subcontractor performing work related to the Agreement 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 the prior written consent of County.

12. Distracted Driving.

The Contractor and any subcontractors agree 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 Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the Award, or when performing any work for or behalf of the County.

13. Environmental Justice.

The Contractor and any subcontractors agree to, and assures that it will, promote environmental justice by following: (1) Executive Order No. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," February 11, 1994, 42 U.S.C. § 4321 note, as well as facilitating compliance with that Executive Order, (2) U.S. DOT Order 5610.2, "Department of Transportation Actions To Address Environmental Justice in Minority Populations and Low-Income Populations," 62 Fed. Reg. 18377, April 15, 1997, and (3) the most recent edition of FTA Circular 4703.1, "Environmental Justice Policy Guidance for Federal Transit Administration Recipients," August 15, 2012, to the extent consistent with applicable federal laws, regulations, requirements, and guidance.

14. Environmental Protections.

The Contractor and any subcontractors agree to, and assures that it will, comply with all applicable environmental and resource use laws, regulations, and requirements, and follow applicable guidance, now in effect or that may become effective in the future, including state and local laws, ordinances, regulations, and requirements and follow applicable guidance.

15. Notice to Third Party Participants.

Federal requirements that apply to the County may change due to changes in federal law, regulation, other requirements, or guidance, or changes in the Recipient's Award Agreement including any information incorporated by reference and made part of that Award Agreement will apply to the Contractor and any other Third-Party Agreements.

16. Fly America.

The following clause only applies to contracts involving foreign air transportation or travel.

The Contractor and any subcontractors agree to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 C.F.R. Part 301-10, which provide that recipients and sub-recipients of Federal funds and their contractors are required to use U.S. Flag air carriers for U.S Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

17. FTA Interest.

This clause does not flow-down to subcontractors.

Contractor understands and agrees that FTA has a vested interest in the settlement of any violation of federal law, regulation, or disagreement involving federal funds used towards this Agreement, including, but not limited to, a default, breach, major dispute, or litigation, and FTA reserves the right to concur in any settlement or compromise."

18. Government-wide Debarment and Suspension.

The following clause only applies to contracts of \$25,000 or more.

The Contractor and any subcontractors shall comply and facilitate compliance with U.S. FTA regulations, Nonprocurement Suspension and Debarment," 2 C.F.R. part 1200, which adopts and

supplements the U.S. Office of Management and Budget (U.S. OMB) “Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement),” 2 C.F.R. part 180. These provisions apply to each contract at any tier of \$25,000 or more, and to each contract at any tier for a federally required audit (irrespective of the contract amount), and to each contract at any tier that must be approved by an FTA official irrespective of the contract amount. As such, the Contractor shall verify that its principals, affiliates, and subcontractors are eligible to participate in this federally funded contract and are not presently declared by any Federal department or agency to be:

- (1) Debarred from participation in any federally assisted Award;
- (2) Suspended from participation in any federally assisted Award;
- (3) Proposed for debarment from participation in any federally assisted Award;
- (4) Declared ineligible to participate in any federally assisted Award;
- (5) Voluntarily excluded from participation in any federally assisted Award; or
- (6) Disqualified from participation in any federally assisted Award.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

“The Certification in this clause is a material representation of fact relied upon by the County. If it is later determined by the County that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to County, 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. part 180, subpart C, as supplemented by 2 C.F.R. part 1200, 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.”

19. Incorporation of FTA Terms.

The provisions in this Section include, in part, certain Standard Terms and Conditions required by FTA, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by FTA, as set forth in FTA Circular 4220.1E, 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 the Agreement. The Contractor and any subcontractors shall not perform any act, fail to perform any act, or refuse to comply with any County requests which would cause County to be in violation of the FTA terms and conditions.

20. Lobbying.

The following clause must be included in all subcontracts for \$100,000 or more.

Contractors and any subcontractors who apply or bid for an award of \$100,000 or who are awarded a contract for \$100,000 or more shall file the certification required by 49 C.F.R. Part 20, “New Restrictions on Lobbying.” Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting

to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the County.

21. No Government Obligation to Third Parties.

County and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the contract, absent the express written consent by the Federal Government, the Federal Government is not a party to the Agreement and shall not be subject to any obligations or liabilities to County, the Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the contract. The Contractor agrees to include this clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

22. Notification to FTA.

Contractor understands that if a current or prospective legal matter that may affect the Federal Government emerges, the County must promptly notify the FTA Chief Counsel, or FTA Regional Counsel for the Region in which the County is located. (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 federal funds used towards this Agreement, or the Federal Government's administration or enforcement of federal laws, regulations, and requirements.

23. Duty to Report False Claims.

If the County has credible evidence that Contractor or other person has submitted a false claim under the False Claims Act, 31 U.S.C. § 3729 et seq., or has committed a criminal or civil violation of law pertaining to such matters as fraud, conflict of interest, bribery, gratuity, or similar misconduct involving federal assistance, the County must promptly notify the U.S. FTA Inspector General, in addition to the FTA Chief Counsel or Regional Counsel for the Region in which the County is located.

24. Pre-Award and Post Delivery Audit.

Pre-Award and Post-Delivery Audit Requirements - The Contractor and any subcontractors agrees to comply with 49 U.S.C. § 5323(I) 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.

25. Program Fraud and False or Fraudulent Statements and Related Acts.

The Contractor and any subcontractors acknowledge 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 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 Agreement or the FTA assisted project for which the Agreement 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. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) 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.

26. Prompt Payment.

Under this contract, the prime contractor agrees to pay each subcontractor for satisfactory performance of its contract within 30 days from the receipt of each payment the prime contractor receives from the County. The prime contractor further agrees to full payment of retainage to

each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the County. This clause applies to both DBE and non-DBE subcontracts.

27. Resource Recovery.

This clause only applies to procurements of \$10,000 or more per year for items designated by EPA.

The Contractor and any subcontractors agrees to comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

28. Safe Operation of Motor Vehicles (Seat Belt).

Contractor and any subcontractors shall encourage their employees and other personnel that operate company-owned vehicles, company rented-vehicles, or personally operated vehicles to adopt on-the-job seat belt policies and programs.

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 Contractor owns, leases, or rents, or a privately-owned vehicle when performing any work for this Agreement.

29. Termination.

Contractor understands that all contracts in excess of \$10,000, including subcontracts, must address termination for cause and for convenience by the Contractor including the manner by which it will be effected and the basis for settlement.

30. Transit Vehicle Manufacturer.

The Contractor and each third party subcontractor must not discriminate on the basis of race, color, national origin, or sex in the award and performance of any FTA or U.S. DOT-assisted subagreement, third party contract, and third party subcontract, as applicable, and the administration of its DBE program or the requirements of 49 C.F.R. part 26. The Contractor and each Third Party Subcontractor must take all necessary and reasonable steps under 49 C.F.R. part

26 to ensure nondiscrimination in the award and administration of U.S.FTA-assisted subagreements, third party contracts, and third party subcontracts, as applicable. Failure by the Subrecipient and any of its Third Party Contractors or Third Party Subcontractors to carry out the requirements of this subparagraph is a material breach of this subagreement, third party contract, or third party subcontract, as applicable, and the following remedies, or such other remedy as the County deems appropriate, include, but are not limited to, withholding monthly progress payments; assessing sanctions; liquidated damages; and/or disqualifying the Subrecipient, Third Party Contractor, or Third Party Subcontractor from future bidding as non-responsible.

31. Change Orders.

Verbal change orders to the Agreement are not permitted. No changes in the scope, specifications, character, or complexity of work shall be made by the Contractor without first receiving written approval by the Fort Bend County Public Transportation Director or their designee properly defining and limiting any such change. Contractor shall be liable for all costs resulting from and/or for satisfactorily correcting any specification change not properly ordered by written modification to the Contract and signed by the County.

Within 14 calendar days after Contractor's receipt of the written change order request for modification of the Contract, Contractor shall submit to County a detailed price schedule proposal for the work to be performed. This proposal shall be accepted or modified by negotiation between Contractor and the County. At the time both parties shall execute a detailed Contract modification in writing. Disagreements that cannot be resolved within negotiations shall be resolved in accordance with the contract disputes clause.

It is distinctly understood and agreed that no claim for payment for work done or materials furnished by the Contractor outside of these parameters shall be paid by County. Any such services or materials furnished by Contractor without such written order shall be at the risk, cost and expense of the Contractor, and no claim for compensation for any such services or materials shall be made.

All such changes, which are mutually agreed upon by and between all parties, shall be incorporated in written amendments to the Contract. All such amendments shall state any increase or decrease in the amount of the compensation due to County for the change in the scope.

32. Force Majeure

Contractor agrees that neither the County nor Contractor shall be liable or responsible to the other party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement when and to the extent such failure or delay is caused by or results from acts beyond the impacted party's ("Impacted Party") control, including, but not limited to, the following force majeure events ("Force Majeure Events"): (a) acts of God; (b) a natural disaster (fires, explosions, earthquakes, hurricane, flooding, storms, explosions, infestations), epidemic, or pandemic; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot or other civil unrest; (d) government order or law; (e)

actions, embargoes or blockades in effect on or after the date of this Agreement; (f) action by any governmental authority; (g) national or regional emergency; (h) strikes, labor stoppages or slowdowns or other industrial disturbances; and (i) shortage of adequate power or transportation facilities. The Impacted Party shall give notice in writing within three (3) business days of the Force Majeure Event to the other party disclosing the estimated length of the delay and the cause of the delay. The Impacted Party shall use diligent efforts to end the failure or delay and ensure the effects of such Force Majeure Event are minimized. The Impacted Party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. In the event that the Impacted Party's failure or delay remains uncured for a period of ten (10) days following Notice given by it, the other party may thereafter terminate this Agreement upon notice.

33. Federal Tax Liability

Contractor and any subcontractors certifies that they do 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 was not convicted of the felony criminal violation under any Federal law within the preceding 24 months.

34. Domestic Preferences for Procurements.

As appropriate and to the extent consistent with law, Contractor and any subcontractor shall to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products procured with federal funds. For purposes of this clause, (1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. (2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

35. Debt to State.

The State of Texas shall not be responsible for the debts of the Contractor.