Invitation for Bid
For

ADA Accessible Heavy-Duty Vehicles for Public Transit

Issued by:

Iowa Department of Transportation, Office of Public Transit
Bid# OPT2018HDB

Publish Date
07/31/18

Letting Date:
9/11/18
Must be submitted no later than 2:00 PM Central Time
Proposals received after this date and time will be rejected

For information about this notice, and during this procurement, interested persons shall contact only:

Ryan Ward, Transit Programs Administrator
800 Lincoln Way
Ames, Iowa 50010
Phone: 515-222-7877
E-Mail: ryan.ward@iowadot.us

This bid is conducted on behalf of Iowa's 35 designated public transit agencies, state of Iowa governmental agencies, state board of regents, and other states' public transit agencies that are in the same metropolitan planning organization as a designated public transit agency

Issued addenda will be posted to internet website:

http://www.iowadot.gov/transit/transit-procurement

Procurement Timetable

The following dates are set forth for informational and planning purposes. However, the Iowa DOT reserves the right to change the dates. All times listed are Central Time.

Event	Date
Issue IFB	07/31/2018
Bidder Requests for Clarifications, Changes, Approved Equals	08/14//2018
DOT Response	09/04//2018
Bid Opening/Proposal Due	09/11/2018
Announcement of Successful Bidders and Intent to Award (Multiple)	09/25/2018
Execution of Contracts	10/09/2018
Contracts Begin	10/09/2018
Contract Length/Renewals	2 years from start date. Renewals for 1 year at 3 years maximum

GENERAL INFORMATION

This bid package includes the proposal, schedule of prices, standard terms and conditions, supplemental terms, specifications, and other information you need to prepare your bid. Submittals must be in an electronic format only mailed or hand delivered to Ryan Ward at Iowa DOT, Office of Public Transit 800 Lincoln Way, Ames, Iowa 50010 on one or more flash drives. Hard copies/binders will not be accepted. Please only provide the required documentation. Please provide a contact email address to ryan.ward@iowadot.us where Mr. Ward will send you a notification your bid was received on time.

PROPOSAL STATEMENT

The entire contents of this Proposal, Addendums to the Proposal, Specifications, Supplemental Terms and Conditions, Standard Terms and Conditions, and Schedule of Prices shall become part of the contract.

We promise to enter into a contract within thirty (30) days after award or forfeit the proposal guaranty furnished herewith.

We promise to furnish all materials, equipment and/or services specified, in the manner and the time prescribed, at prices hereinafter set out.

We certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a bid; that this bid has

been independently arrived at without collusion with any other bidder, competitor, or potential competitor; and that this bid has not been knowingly disclosed prior to the opening of bids to any other bidder or competitor.

We certify that all materials, equipment and/or services proposed meet or exceed the specifications and will be supplied in accordance with the entire contents of this proposal.

We promise to complete the contract within the contract period, or pay any liquidated damages, if stipulated, for each calendar day as set forth in the bid documents.

Signed_____

Company Name_____

Date_____

Iowa Department of Transportation
Schedule of Prices
for Bid No. OPT2018HDB
ADA Accessible Vehicles for Public Transit

*The Iowa Department of Transportation will award by line item. Bidders are not obligated to bid on each line. CNG and Hybrid electric options will be accepted as upgrades to the base unit
*A schedule of all available add or delete options and their costs must be included with this bid.

Description	**Base Price (including delivery)**
ADA Public Transit Heavy-Duty Bus 26-29 ft M.Y. 2018 or newer (must indicate M.Y.)	
ADA Public Transit Heavy-Duty Bus 30-34 ft M.Y. 2018 or newer (must indicate M.Y.)	
ADA Public Transit Heavy-Duty Bus 35-39 ft M.Y. 2018 or newer (must indicate M.Y.)	
ADA Public Transit Heavy-Duty Bus 40-42 ft M.Y. 2018 or newer (must indicate M.Y.)	
ADA Public Transit Heavy-Duty Bus 60 ft articulated M.Y. 2018 or newer (must indicate M.Y.)	
Provide upgrade costs for CNG and hybrid electric as options for each model if available (not required). Full electric buses are not on this bid	

Iowa Department of Transportation Standard Terms and Conditions
For
Submission of Responses to Solicitations
-FORMAL-

Formal is the procurement process required by Iowa law when the estimated, aggregate amount of the purchase equals or exceeds $50,000.

The entire contents of this solicitation shall become a part of a contract or purchase order. In case of a discrepancy between the contents of the solicitation documents, the following items listed by descending order shall prevail:

- Addendums to the solicitation
- Solicitation
- Schedule of Prices
- Specifications
- Plans and Drawings
- Supplemental Terms and Conditions
- Standard Terms and Conditions

(Example - if a statement in the specifications contradicts a statement in the Standard Terms and Conditions, the statement in the specifications shall apply)

Preparation of Solicitation Response: All responses must clearly address all aspects of the solicitation. Responses must be typed or completed in ink and submitted on the forms supplied by the Iowa DOT. Responses must be signed and received prior to the opening date and time indicated on the Solicitation Response page or other specified areas throughout the solicitation document. The Responder's signed, submitted Response shall become the official response to be considered for award.

No email, fax or web link Responses will be accepted. Responses must be signed and uploaded on a flash drive and either delivered in person, by a mail, or by courier that ensures timely delivery.

A. Solicitation

1. Opening: The openings are open to the public and are conducted at the Iowa DOT, Ames complex unless otherwise specified. Responses received after the time of the opening will be returned unopened and considered non-compliant.

2. Communications: Questions concerning this solicitation should be directed to the procurement administrator listed in the IFB. Inquiries must be emailed.

3. Proposal Guaranty: If required, the Solicitation Response page will indicate the fixed percent of the security based on the cost of the Response. Security can be supplied in one of the following ways: (1) Certified check or credit union certified share draft, cashier's check, or bank draft, drawn on a solvent bank or credit union. Certified checks and certified share drafts shall be drawn and endorsed in the amount indicated. Checks or drafts shall be made payable either to the Iowa Department of Transportation (Iowa DOT) or to the Responder. If payable to the Responder, the check or draft shall be endorsed without qualifications to the Iowa DOT by the Responder or an authorized agent. (2) An insurance or surety company may be retained for the purposes of providing a bond as required by the solicitation. If a Bid Bond is chosen

as the method of security, the Iowa DOT's Bid Bond form 131084 must be used and submitted with the solicitation response to be considered for award. No other forms will be accepted.
4. Pricing and Discount: Unit prices shown in the response shall be quoted as the price per unit (e.g., gal., case, each, etc.) as requested in the solicitation. If there is a discrepancy between the unit prices, extended price, or total amount of response, the unit prices shall prevail. Unless otherwise indicated, prices shall be firm for the duration of the contract or purchase order. Discounts for early payment are allowed, but not considered in award of the contract.
5. Acceptance/Rejection: The Iowa DOT reserves the right to accept or reject any or all responses and to waive irregularities or technicalities, provided such waiver does not substantially change the offer or provide a competitive advantage to any supplier(s) or provider. The Iowa DOT also reserves the right to accept that response or responses which is deemed to be in the best interests of the state. Any unauthorized changes, additions, or conditional response including any ties to another response or any reservations about accepting an award or entering into a contract, may result in rejection of the response. Responses must remain available for award for thirty (30) days from opening date and time.
6. Results & Disclosure: Results will be posted on the Iowa DOT website at www.iowadot.gov/transt under the "Procurement" link referencing the proposal number with an award recommendation indicated. At the conclusion of the selection process, the contents of all received responses will be placed in the public domain and be open to inspection by interested parties, according to state law. Trade secrets or proprietary information that are recognized as such and are protected by law may be withheld if clearly identified as such in the Response.
7. Quality of Goods: All material shall be new and of first quality. Items which are used, demonstrators, refurbished, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the Iowa DOT.
8. Recycled Content: The Iowa Code encourages purchase of products and materials with recycled content, including but not limited to paper products, oils, plastic products, compost materials, aggregate, solvents, and rubber products. Recycled items or alternatives must be noted in the Solicitation Response, if known.
9. Shipping Terms: Deliveries shall be F.O.B. Destination unless otherwise specified. All deliveries shall be accompanied by a packing slip indicating the Supplier, quantities shipped, and the purchase order number(s). All delivery charges shall be included in the base price bid. No collect C.O.D. deliveries shall be accepted. When entering into a contract, the Supplier shall notify the freight company that all freight and delivery charges are to be prepaid by the Supplier. Goods delivered to the Iowa DOT Distribution Center at 931 S. 4th Street, Ames, IA shall be received between the hours of 7:00 a.m. and 3:00 p.m. on any day except Saturday, Sunday, or a holiday. For deliveries to other Iowa DOT locations, the Supplier may contact the destination location for available times to deliver as not all Iowa DOT locations have the same business hours. The Iowa DOT will not be liable for any freight claims or unpaid freight bills arising from contract or purchase order issues.

B. Award
The binding agreement (award) may be issued in the form a purchase order or contract or both depending on the requirements and complexity of the agreement.
1. Method of Award: Award shall be made to the responsible, responsive responder(s) whose response meets the requirements of the solicitation and is the most advantageous to the Iowa DOT. An Iowa company or individual will be given preference over an out-of-state company or individual when responses are equal in all aspects and are tied in price by virtue of statutory authority preference will be given to products and

provisions grown and coal produced within the State of Iowa. (* Note…projects funded with non-state of Iowa funds, i.e. FTA vehicle funds, no preference will be given to Iowa products or Iowa companies in accordance with federal regulations).

2. Award Protests: Protests of award recommendations are to be addressed to the procurement administrator of the Iowa DOT Office of Public Transit.

3. Contracts: Successful Contractor(s) may be sent either a formal Contract, Notification of Award or Purchase Order as confirmation of acceptance and award. Any of these binding agreements shall be for the term stated in the solicitation or on a purchase order and may be renewed for additional period(s) under the same terms and conditions upon mutual agreement. The successful Contractor may not assign a contract to another party without written authorization from the Iowa DOT Purchasing Section. The Iowa DOT may offer a contract extension to the Contractor when a scheduled target date cannot be met.

4. Consumer Price Index (CPI-U): A CPI may be allowed as specified in the terms of the solicitation and at the discretion of the Iowa DOT based on currently posted CPI-U, US City Average, All Items – non-seasonally adjusted (NSA) unless otherwise specified. This applies each of any subsequent renewals, extensions, amendments issued under the contract for the duration of the contract.

5. Service Animals: Any contract or purchase order awarded to a contractor that employs persons that utilize service animals shall certify the following:

1. The service animal has had all legally required shots and immunizations, including, but not limited to, rabies vaccinations and necessary boosters;

2. The service animal has not ever bitten or otherwise attacked any individual. The animal is not aggressive towards others, and has not shown any aggressive tendencies towards others;

3. The service animal will be leashed or otherwise restrained at all times while present on Iowa DOT owned property;

4. The insurance coverage shall include coverage for service animal bites or other injuries caused by such animals;

5. Indemnification provisions shall hold the Iowa DOT harmless against any claims arising out of or relating in any way to service animal bites or other injuries caused by animals.

6. Payment Terms (if applicable) : The Iowa DOT typically pays properly submitted invoices within thirty (30) days of receipt, providing goods and/or services have been successfully delivered, installed or inspected (if required), and accepted. Invoices presented for payment must be only for quantities received by the Iowa DOT and must reference the purchase order number or contract number to be submitted for processing.

7. Default (Supplier): Failure of the Supplier to adhere to specified delivery schedules or to promptly replace rejected materials shall render the Supplier liable for all costs in excess of the Response price when alternate procurement is necessary. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the binding agreement.

8. Default (Contractor): Failure of a Contractor other than a Supplier to meet any specified project completion deadline shall render the Contractor liable for all costs incurred by the Iowa DOT that were: a) necessary to meet said deadline; or b) necessary to complete said project after said deadline. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the agreement.

C. General

1. Administrative Rules: For additional details on the rules governing the actions of the Iowa DOT Purchasing Section, refer to 761 IAC, Chapter 20, Iowa Administrative Code, entitled “Procurement of Equipment, Materials, Supplies and Services”.

2. Affirmative Action: The Contractor (and also subcontractor, vendor, service provider or supplier) is prohibited from engaging in discriminatory employment practices forbidden by federal and state law, executive orders and rules of the Iowa Department of Management, pertaining to equal employment opportunity and affirmative action. Contractor may be required to have on file a copy of their affirmative action program, containing goal and time specifications. Contractors doing business with Iowa in excess of $5,000 annually and employing 50 or more full time employees may be required to file with the Iowa Department of Management a copy of their affirmative action plan. Failure to fulfill these non-discrimination requirements may cause the contract to be canceled and the contractor declared ineligible for future state contracts or subject to other sanctions as provided by law or rule.
3. Applicable Law: The contract shall be governed under the laws of the State of Iowa. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of a contract and which in any manner affect the work or its conduct. Any legal action relating to a contract shall only be commenced in the Story County, Iowa, District Court or the United States District Court for the Southern District of Iowa.
4. Conflict of Interest: No state or county official or employee, elective or appointive shall be directly or indirectly interested in any contract issued by the Iowa DOT, see Code of Iowa 314.2.
5. Debarment and Vendor Suspension: By submitting a response, the contractor is certifying that it and its principals and/or subcontractors are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by the State of Iowa or any Federal department or agency.
6. Equal Opportunity: Responders to the solicitation must be an “Equal Opportunity Employer” as defined in the Civil Rights Act of 1964 and in Iowa Executive Order Number Thirty-four.
7. Indemnification-Goods: To the extent the goods are not manufactured in accordance with Iowa DOT’s designs, Supplier shall defend, indemnify and hold harmless Iowa DOT, its assignees, and other users of the goods from and against any claim of infringement of any letters patent, trade names, trademarks, copyright or trade secrets by reason of sale or use of any articles purchased. Iowa DOT shall promptly notify Supplier of any such claim.
8. Indemnification-Services: The Supplier of services identified herein shall defend, indemnify and hold harmless Iowa DOT, the State of Iowa, its employees, agents and officials, from and against all claims of any kind arising out of or relating in any way to the services provided to Iowa DOT by said Supplier of services. Iowa DOT shall promptly notify Supplier of any such claim.
9. Infringement: Goods shall be delivered free of the rightful claim of any third party by way of infringement. Contractor shall indemnify and save harmless the State of Iowa and the Iowa DOT against all claims for infringement of, and/or royalties claimed under, patents or copyrights on materials and equipment furnished under this solicitation.
10. Iowa Open Records Law: All Solicitation Responses are subject to terms and provisions of Iowa Code Chapter 22 Examination of Public Records (Open Records), specifically 22.7- Confidential Records.
11. Records Audit: The contractor agrees that the Auditor of the State of Iowa or any authorized representative of the state, and where federal funds are involved, the Comptroller General of the U.S. Government, shall have access to and the right to examine, audit, excerpt, and transcribe any directly pertinent books, documents, papers, and records of the contractor relating to orders, invoices, or payments of a contract or purchase order.
12. Targeted Small Businesses: The Iowa DOT seeks to provide opportunities for women and/or minority small business enterprises. To apply for certification as an Iowa Targeted Small Business, contact the Iowa Department of Inspection and Appeals (515-281-5796). Contractors shall take documented steps to

encourage participation from Targeted Small Businesses for the purpose of subcontracting and supplying of goods or services or both.

13. Taxes: Prices quoted shall not include state or federal taxes from which the state is exempt. Exemption certificates will be furnished upon request.

14. Termination:

• Termination Due to Lack of Funds or Change in Law

The Iowa DOT shall have the right to terminate this Contract without penalty by giving thirty (30) days written notice to the vendor as a result of any of the following:

• Adequate funds are not appropriated or granted to allow the Iowa DOT to operate as required and to fulfill its obligations under contract.

• Funds are de-appropriated or not allocated or if funds needed by the Iowa DOT, at the Iowa DOT's sole discretion, are insufficient for any reason.

• The Iowa DOT's authorization to operate is withdrawn or there is a material alteration in the programs administered by the Iowa DOT.

• The Iowa DOT's duties are substantially modified.

Following a 30-day written notice, the Iowa DOT may terminate a binding agreement in whole or in part without the payment of any penalty or incurring any further obligation to the Responder. Following termination upon notice, the Responder shall be entitled to compensation upon submission of invoices and proper proof

Table of Contents

1.1 Purpose & Overview of the IFB Process

The purpose of this Invitation for Bid (IFB) is to solicit bids from responsible bidders to provide the goods and/or services identified on the IFB cover sheet and described further in Section 3 of this IFB to the Iowa Department of Transportation (Iowa DOT). The Iowa DOT intends to award a contract(s) beginning on the contract date listed on page 2 and ending two years from that start date. The Iowa DOT may extend the contract(s) for up to the number of annual extensions identified on the IFB cover sheet at the sole discretion of the Iowa DOT. Any contract(s) resulting from the IFB shall not be an exclusive contract.

Bidders will be required to submit their bids on flash drives and either mail, hand deliver, or send via delivery company to the designated procurement officer (Ryan Ward) in the Office of Public Transit. It is the intention of the Iowa DOT to evaluate proposals from all responsible bidders that submit timely responsive bid proposals, and award the contract(s) in accordance with Section 5, Evaluation and Selection.

1.2 Definitions

The terms used in individual sections of this document are intended to be consistent with those commonly used in the application field in question. When responding, use the terms and acronyms used in this document, and define any terms or conditions that require further clarification.

1.2.1 “Bid Proposal” means the bidder’s bid or proposal submitted in response to the IFB.

1.2.2 “Contract” or “Resulting Contract” means the contract(s) entered into with the successful Contractor(s) as described in section 6.1.

1.2.3 “Bidder or Supplier” means suppliers submitting Bid Proposals in response to this IFB.

1.2.4 “Iowa DOT,” means the Iowa Department of Transportation identified on the IFB cover sheet as issuer of the IFB. The Iowa DOT will also execute the Resulting Contract.

1.2.5 “Participating Agency” or “Participating Agencies” means the agency or agencies identified on the IFB cover sheet as Participating Agencies and any other agency that decides to utilize the Resulting Contract.

1.2.6 “Procurement Timetable” *(on the page immediately following the IFB cover)* provide timeline, event and date information.

1.2.7 “Purchase Instrument” means the documentation issued by the State to the Contractor for a purchase of goods and/or services in accordance with the terms and conditions of the Contract. It may include an identification of the items to be purchased, the delivery date and location, the address where the Contractor should submit the invoices, and any other requirements deemed necessary by the State. Any preprinted contract terms and conditions included on Contractor’s forms or invoices shall be null and void.

1.2.8 “Responsible Contractor” means a Contractor that has the capability in all respects to perform the requirements of the Resulting Contract. In determining whether a Contractor is a Responsible Contractor, the Iowa DOT may consider various factors including, but not limited to, the Contractor’s competence and qualifications to provide the goods or services

requested, the Contractor's integrity and reliability, the past performance of the Contractor relative to the quality of the goods or services offered by the Contractor, the proposed terms of delivery, and the best interest of the Iowa DOT and Participating Agencies.

1.2.9 "Responsive Bid Proposal" means a Bid Proposal that complies with the material provisions of this IFB.

1.2.10 "IFB" means this Invitation for Bid and any attachments, exhibits, schedules or addenda hereto.

1.2.11 "State" means the Iowa DOT, State of Iowa, and Participating Agencies identified on the Declarations & Execution Page(s), and all state agencies, boards, and commissions, and any political subdivisions making purchases off of the Resulting Contract as permitted by this IFB.

2.1 Issuing Officer

The State of Iowa Issuing Officer (procurement administrator), identified on the cover page is the sole point of contact regarding the IFB from the date of issuance until the notice of intent to award is issued (selection of the successful bidder).

2.2 Restriction on Communication

From the issue date of this IFB until the notice of intent to award is issued (announcement of the successful bidder), bidders may contact only the Issuing Officer.

The Issuing Officer will respond only to questions regarding the procurement process. Questions related to the interpretation of this IFB must be submitted in writing via email to the Issuing Officer by the deadline found in the Procurement Timetable listed immediately after the cover sheet. Verbal questions related to the interpretation of this IFB will not be accepted. Questions related to the interpretation of this IFB must be submitted as provided in section 2.5. bidders may be disqualified if they contact any state employee other than the issuing officer. Exception: bidders may contact the State Targeted Small Business Office on issues related to the preference for Targeted Small Businesses. See section 2.32.

In NO CASE shall verbal communication override written communications. Only written communications are binding on the State.

The Iowa DOT assumes no responsibility for representations concerning conditions made by its officers or employees prior to the execution of a contract, unless such representations are specifically incorporated into this IFB. Verbal discussions pertaining to modifications or clarifications of this IFB shall not be considered part of the IFB unless confirmed in writing. All such requests for clarification shall be submitted in writing. Any information provided by the bidder verbally shall not be considered part of that Bidder's proposal. Only written communications from the Bidder and received by the Department shall be accepted.

With the exception of the written proposal which must be submitted by Bidders in accordance with Sections 4 and 5 herein, communications between the purchasing officer and Bidders may be conducted by email only.

2.3 Downloading the IFB from the Internet

The IFB and all addendums will be posted on the Department's home page at

www.iowadot.gov/transit/transit-procurement. The bidder is advised to check the Iowa DOT's Office of Public Transit Procurement page for addendums to this IFB. It is the Bidder's sole responsibility to check for Addenda to posted documents.
Note: If you download the IFB from the internet, you must email the procurement administrator (ryan.ward@iowadot.us) This email must state that the IFB has been downloaded and the contact information of the downloading agency. The dates listed in the Procurement Timetable (on the page immediately following the IFB cover) are set forth for informational and planning purposes; however, the Iowa DOT reserves the right to change the dates. If a change is made to any of the deadlines for Bidder submission, the Iowa DOT will issue an addendum to the IFB. All times listed are Central Times.

2.4 Questions, Requests for Clarification, and Suggested Changes

Bidders are invited to submit written questions, requests for clarifications, and requests for approved equals regarding the IFB via email to the procurement administrator. The questions, requests for clarifications, or approved equals must be in **excel format** then emailed and received by the procurement administrator on or before the deadline stated in the Procurement Timetable *(on the page immediately following the IFB cover).* Oral questions will not be permitted. If the questions, requests for clarifications, or suggestions pertain to a specific section of the IFB, the page and section number(s) must be referenced. (**NOTE: If you sent in requests for approved equals/clarifications in regard to the same specification on the same vehicle class on the previous bus bid, and that was approved, consider that pre-approved. This will in no way impact awards to those bidders that did not bid on previous procurement**)

Written responses to questions, requests for clarifications, or requests for approved equals will be sent on or before the deadline stated in the Procurement Timetable *(on the page immediately following the IFB cover)* to bidders who received IFB's. The Iowa DOT's written responses will be considered part of the IFB. If the Iowa DOT decides to adopt a change, the Iowa DOT will issue an addendum to the IFB.

The Iowa DOT assumes no responsibility for verbal representations made by its officers or employees unless such representations are confirmed in writing and incorporated into the IFB.

Each bidder must inform themselves fully of the conditions relating to the proposal. Failure to do so will not relieve a successful bidder of their obligation to furnish all services required to carry out the provisions of his contract. Insofar, as possible, the Contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of, or interference with the work of any other contractor.

If a bidder discovers any significant ambiguity, error, conflict, discrepancy, omission, or other deficiency in this IFB, the bidder should immediately notify Purchasing Officer in writing of such error and request modification or clarification of the IFB document.

2.5 Amendment to the IFB and Bidder Bid Proposal and Withdrawal of Bid Proposal

The Iowa DOT reserves the right to amend the IFB at any time. The bidder shall acknowledge receipt of an addendum in its proposal. If the amendment occurs after the closing date for receipt of bid proposals, the Iowa DOT may, in its sole discretion, allow bidders to amend their bid proposals in response to the Iowa DOT's amendment if necessary.

Amendment by Bidder

The bidder may amend its bid proposal. The amendment must be in writing, signed by the bidder and received by time set for the receipt of proposals. Only amendments via email will accepted.

Bidders who submit proposals in advance of the deadline may withdraw, modify, and resubmit proposals at any time prior to the deadline for submitting proposals. Bidders must notify the procurement officer in writing via email if they wish to withdraw their proposals. A Bidder shall not withdraw its Proposal or its prices prior to the end of the one hundred and eighty (180) day period immediately following the notice of intent to award a contract.

2.6 Submission of Bid Proposals (electronic on flash drive only)

The Department must receive the bid proposal at the Iowa Department of Transportation, Office of Public Transit, 800 Lincoln Way, Ames, Iowa 50010 before the deadline stated in the Procurement Timetable *(on the page immediately following the IFB cover).* This is a mandatory requirement and will not be waived by the Iowa DOT. Any bid proposal received after this deadline will be rejected.

Bidders mailing bid proposals must allow ample mail delivery time to ensure timely receipt of their bid proposals. It is the bidder's responsibility to ensure that the bid proposal is received prior to the deadline. Postmarking by the due date will not substitute for actual receipt of the bid proposal. Electronic mail and faxed bid proposals will not be accepted.

Bidders must furnish all information necessary to evaluate the bid proposal. Bid proposals that fail to meet the mandatory requirements of the IFB may be disqualified. Verbal information provided by the bidder shall not be considered part of the bidder's proposal.

2.7 Bid Proposal Opening

The bid proposals will remain confidential until the procurement administrator (and/or any additional required staff and public transit representatives) has reviewed all of the bid proposals submitted in response to this IFB and the Iowa DOT has announced a notice of intent to award a contract. See Iowa Code Section 72.3.

The names of the Bidders who submit proposals within the time frame permitted will be supplied to any person who requests such information after the proposal due date (opening). The announcement of names of Bidders who submitted a proposal does not mean that an individual proposal has been deemed technically compliant or that it has been accepted for evaluation.

2.8 Costs of Preparing the Bid Proposal

The costs of preparation and delivery of the bid proposal are solely the responsibility of the bidder.

No payments shall be made by the State to cover costs incurred by any Bidder in the preparation of or the submission of this IFB or any other associated costs.

2.9 Reasonable Accommodations

The Iowa DOT will provide reasonable accommodations, including the provision of informational material in an alternative format, for qualified individuals with disabilities upon request. If accommodations are required at time of a bid opening, contact the issuing officer designated on the cover page.

2.10 Rejection of Bid Proposals

The Iowa DOT reserves the right to reject any or all bid proposals, in whole and in part, received in response to this IFB at any time prior to the execution of a written contract. Issuance of this IFB in no way constitutes a commitment by the Iowa DOT to award a contract. This IFB is designed to provide bidders with the information necessary to prepare a competitive bid proposal. This IFB process is for the Iowa DOT benefit and is intended to provide the Iowa DOT with competitive information to assist in the selection of a bidder to provide services.

It is not intended to be comprehensive and each bidder is responsible for determining all factors necessary for submission of a comprehensive bid proposal.

The Iowa DOT reserves the right to negotiate the terms of the contract, including the award amount, with the selected Bidder prior to entering into a contract (if applicable).

2.11 Disqualification

The Iowa DOT may reject outright and shall not evaluate proposals for any one of the following reasons:

2.11.1 The bidder fails to deliver the bid proposal by the due date and time.

2.11.2 The bidder fails to deliver the cost proposal in a separate envelope (if applicable)

2.11.3 The bidder states that a requirement of the IFB cannot be met.

2.11.4 The Bidder's Bid Proposal materially changes a requirement of the IFB or the Bid Proposal is not compliant with the requirements of the IFB.

2.11.5 The bidder’s response limits the rights of the Department.

2.11.6 The bidder fails to include information necessary to substantiate that it will be able to meet a service requirement. A response of "will comply"
or merely repeating the requirement is not sufficient. Responses must indicate present capability; representations that future developments will satisfy the requirement are not sufficient.

2.11.7 The bidder fails to respond to the Department's request for information, documents, or references.

2.11.8 The bidder fails to include a proposal guaranty, also known as bid bond or bid security, *if required.* See Bid Response and Section 4.2.14.

2.11.9 The bidder fails to include any signature, certification, authorization, stipulation, disclosure or guarantee requested in section 4 of this IFB.

2.11.10 The bidder presents the information requested by this IFB in a format inconsistent with the instructions of the IFB or otherwise fails to comply with the requirements of this IFB.

2.11.11 The bidder initiates unauthorized contact regarding the IFB with state employees.

2.11.12 The bidder provides misleading or inaccurate responses.

2.11.13 The bidder fails to attend the mandatory Bidders Conference.

2.11.14 The bidder's Bid Proposal is materially unbalanced.

2.11.15 There is insufficient evidence (including evidence submitted by the bidder and evidence obtained by the Department from other sources) to satisfy the Department that the bidder is a Responsible Contractor.

2.11.16 The bidder alters the language in:

Attachment 1, Certification Letter
Attachment 2, Authorization to Release Information letter.

2.12 Nonmaterial and Material Variances

The Iowa DOT reserves the right to waive or permit cure of nonmaterial variances in the bid proposal if, in the judgment of the Iowa DOT, it is in the Iowa DOT best interest to do so. Nonmaterial variances include minor informalities that do not affect responsiveness; that are merely a matter of form or format; that do not change the relative standing or otherwise prejudice other bidders; that do not change the meaning or scope of the IFB; or that do not reflect a material change in the services. In the event the Iowa DOT waives or permits cure of nonmaterial variances; such waiver or cure will not modify the IFB requirements or excuse the bidder from full compliance with IFB specifications or other contract requirements if the bidder is awarded the contract. The determination of materiality is in the sole discretion of the Iowa DOT.

2.13 Reference Checks

The Iowa DOT reserves the right to contact any reference to assist in the evaluation of the bid proposal, to verify information contained in the bid proposal and to discuss the bidder's qualifications and the qualifications of any subcontractor identified in the bid proposal.

2.14 Information from Other Sources

The Iowa DOT reserves the right to obtain and consider information from other sources concerning a bidder, such as the bidder's capability and performance under other contracts, the qualifications of any subcontractor identified in the Bid Proposal, the bidder's financial stability, past or pending litigation, and publicly available information.

2.16 Verification of Bid Proposal Contents

The content of a bid proposal submitted by a bidder is subject to verification. Misleading or inaccurate responses shall result in disqualification and rejection of the bid proposal.

2.17 Criminal History and Background Investigation

The bidder hereby explicitly authorized the Iowa DOT to conduct criminal history and/or other background investigation(s) of the bidder, its officers, directors, shareholders, or partners and managerial and supervisory personnel retained by the bidder for the performance of the contract.

2.18 Bid Proposal Clarification Process

The Iowa DOT reserves the right to contact a bidder after the submission of bid proposals for the purpose of clarifying a bid proposal to ensure mutual understanding. This contact may include written questions, interviews, site visits, a review of past performance if the bidder has provided goods or services to the Iowa DOT or any other political subdivision wherever located, or requests for corrective pages in the bidder's bid proposal. The Iowa DOT will not consider information received if the information materially alters the content of the bid proposal or alters the type of goods and services the bidder is offering to the Iowa DOT. An individual authorized to legally bind the bidder shall sign responses to any request for clarification. Responses shall be submitted to the Iowa DOT within the time specified in the Iowa DOT request. Failure to comply with requests for additional information may result in rejection of the bid proposal as non-compliant.

2.19 Disposition of Bid Proposals

All proposals become the property of the Iowa DOT and shall not be returned to the bidder. In the event the Iowa DOT terminates this IFB, the Iowa DOT will destroy the bid proposals. Otherwise, at the conclusion of the selection process, the contents of all bid proposals will be in the public domain and be open to inspection by interested parties except for information for which bidder properly requests confidential treatment or is subject to exceptions provided in Iowa Code Chapter 22 or other applicable law.

2.20 Public Records and Requests for Confidential Treatment

The Iowa DOT may treat all information submitted by a bidder as public information following the conclusion of the selection process unless the bidder properly requests that information be treated as confidential at the time of submitting the bid proposal. The Iowa DOT release of information is governed by Iowa Code chapter 22. Bidders are encouraged to familiarize themselves with chapter 22 before submitting a proposal. The Iowa DOT will copy and produce public records as required to comply with the public records laws.

Any request for confidential treatment of specific information must be included in the transmittal letter with the bidder's Bid Proposal. In addition, the bidder must enumerate the specific grounds in Iowa Code Chapter 22 or other applicable law which support treatment of the material as confidential and explain why disclosure is not in the best interest of the public. Pricing information cannot be considered confidential information. The request for confidential treatment of information must also include the name, address, and telephone number of the person authorized by the bidder to respond to any inquiries by the Iowa DOT concerning the confidential status of the materials.

Any bid proposal submitted which contains confidential information must be conspicuously marked on each page of the document containing confidential information (watermark). Failure to properly identify specific confidential information shall relieve the Iowa DOT or State personnel from any responsibility if confidential information is viewed by the public, or a competitor, or is in any way accidentally released. Identification of the entire bid proposal as confidential may be deemed

non-responsive and disqualify the bidder.

If the bidder designates any portion of the IFB as confidential, the bidder must submit one copy of the bid proposal from which the confidential information has been excised. This excised copy is in addition to the number of copies requested in section 4 of this IFB. The confidential material must be excised in such a way as to allow the public to determine the general nature of the material removed and to retain as much of the bid proposal as possible.

The Iowa DOT will treat the information marked confidential as confidential information to the extent such information is determined confidential under Iowa Code Chapter 22 or other applicable law by a court of competent jurisdiction. In the event the Iowa DOT receives a request for information marked confidential, written notice shall be given to the bidder seven calendar days prior to the release of the information to allow the bidder to seek injunctive relief pursuant to Section 22.8 of the Iowa Code. The Iowa DOT will release the information marked confidential in response to a request for public record records unless a court of competent jurisdiction determines the information is confidential under Iowa Code Chapter 22 or other applicable law.

The bidder's failure to request confidential treatment of material will be deemed by the Iowa DOT as a waiver of any right to confidentiality, which the bidder may have had.

2.21 Copyrights

By submitting a bid proposal, the bidder agrees that the Iowa DOT may copy the bid proposal for purposes of facilitating the evaluation of the bid proposal or to respond to requests for public records. The bidder consents to such copying by submitting a bid proposal and warrants that such copying will not violate the rights of any third party. The Iowa DOT shall have the right to use ideas or adaptations of ideas that are presented in the bid proposals.

2.22 Release of Claims

By submitting a bid proposal, the bidder agrees that it will not bring any claim or cause of action against the Iowa DOT based on any misunderstanding concerning the information provided herein or concerning the Iowa DOT failure, negligent or otherwise, to provide the bidder with pertinent information as intended by this IFB.

2.23 Evaluation of Bid Proposals Submitted

Bid proposals that are timely submitted and are not subject to disqualification will be reviewed in accordance with Section 5 of the IFB. The Iowa DOT will not necessarily award any contracts resulting from this IFB to the bidder(s) offering the lowest cost to the Iowa DOT Instead, the Iowa DOT will award the contract(s) to the compliant bidder(s) that are responsive and responsible. The intent is to award to multiple per category, but this is at the discretion of the procurement administrator. In the event that more than 5 responsible and responsive vendors per category have been evaluated, the procurement administrator may determine 5 qualified vendors based on the lowest bid base price (options prices will not be evaluated) and award contracts to those bidders. It may be determined that the public transit agencies needs are met with fewer than 5 therefor fewer will be awarded contracts as well. If multiple makes/models are bid from different vendors, the award will go to lowest base price vendor. Vendors may also be removed in any one or all sections if the base bid(s) is outside of a fair competitive range determined by the procurement administrator.

The evaluation and selection of a contractor or contractors will be based on; the information submitted

in the proposal and references and required presentations and demonstrations (if applicable). Failure to respond completely may be the basis for rejecting a proposal. Elaborate proposals (e.g. expensive artwork) beyond that sufficient to present a complete and effective proposal, are not necessary or desired.

2.24 Award Notice and Acceptance Period

Notice of intent to award the contract(s) will be sent to all bidders submitting a timely bid proposal. Negotiation and execution of the contract(s) shall be completed no later than thirty (30) days from the date of the Notice of Intent to Award or such other time as designated by the Iowa DOT. If the successful Contractor(s) fails to negotiate and deliver an executed contract by that date, the Iowa DOT in its sole discretion, may cancel the award and award the contract to the next highest ranked bidder the Iowa DOT believes will provide the best value to the State.

After notification of the intent to award is made, and under the supervision of Iowa DOT staff, copies of proposals will be available for public inspection on the Office of Public Transit website.

Proposals containing propriety information must have the specific information considered proprietary clearly marked. All information included in the proposal not indicated as proprietary will be open for inspection. All proposals become property of the Iowa DOT.

2.24.1 Award

It is the intent of the Iowa DOT to award the contract to the responsible bidder(s) whose submitted quotation is the most advantageous to the Iowa DOT, costs and other factors considered. Other factors include, but are not limited to: meeting or exceeding mandatory requirements, proposed staffing, and meeting required time schedule. The Iowa DOT will award by line item with in each group of vehicles. The Iowa DOT reserves the right to reject any or all bids, to waive formalities, and to accept the proposal(s) deemed to be best in accordance with federal procurement guidelines. Bidders should note that items priced are subject to a financial assistance contract(s) between the Iowa DOT and Iowa Public Transit Systems funded by grants from the FTA and/or State of Iowa. Any unauthorized changes or omissions to the proposal forms will be considered sufficient grounds for rejection of bid(s)/proposal(s) and shall be considered non-responsive.

An evaluation team comprised of the Iowa DOT's Transit Programs Administrators and staff from Iowa public transit systems may be used to determine the awards of this IFB. The procurement administrator or designee may accept or reject the recommendation of the evaluation team. The final award decision will be made by the procurement administrator of the Iowa DOT Office of Public Transit.

2.25 No Contract Rights until Execution

The full execution of a written contract shall constitute the making of a contract for services and no bidder shall acquire any legal or equitable rights relative to the contract services until the contract has been fully executed by the successful bidder and the Iowa DOT.

2.26 Choice of Law and Forum

This IFB and the resulting contract are to be governed by the regulations of the Federal Transit Administration and the laws of the State of Iowa. Changes in applicable laws and rules may affect the award process or the resulting contract. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of this contract and which in any manner affect the work or its conduct. Bidders are responsible for ascertaining pertinent legal requirements and restrictions.

Any and all litigation or actions commenced in connection with this IFB shall be brought in the

appropriate Iowa forum. Any legal action relating to the contract shall only be commenced in the Story County, Iowa, District Court or the United States District Court for the Southern District of Iowa.

2.27 Restrictions on Gifts and Activities

Iowa Code Chapter 68B restricts gifts which may be given or received by state employees and requires certain individuals to disclose information concerning their activities with state government. Bidders are responsible to determine the applicability of this Chapter to their activities and to comply with the requirements. In addition, pursuant to Iowa Code section 722.1, it is a felony offense to bribe or attempt to bribe a public official. The laws of Iowa provide that it is a felony to offer, promise, or give anything of value or benefit to a state employee with the intent to influence that employee's acts, opinion, judgment or exercise of discretion with respect to that employee's duties. Evidence of violations of this statute will be submitted to the proper prosecuting attorney.

2.28 No Minimum Guaranteed

The Iowa DOT anticipates that the selected bidder(s) will provide services as requested by the approved purchasing agencies. The Iowa DOT will not guarantee any minimum compensation will be paid to any bidder or any minimum usage of the bidder's services/products. No minimum or maximum number of buses are required to be stated as the bid is conducted by a state agency (per FTA rules). Bus purchases are to be determined by funding levels awarded by the FTA from year to year and are outside the control of the Iowa DOT and the individual transit agencies, therefore stating numbers to be purchased is not possible.

2.29 Conflicts Between Terms

The Iowa DOT reserves the right to accept or reject any exception taken by the Bidder to the terms and conditions contained in this IFB. Should the Bidder take exception to the terms and conditions required by the Iowa DOT, the Bidder's exceptions may be rejected and the entire proposal declared nonresponsive. The Iowa DOT may elect to negotiate with the Bidder regarding contract terms that do not materially alter the substantive requirements of the request for proposals or the contents of the Bidder's proposal.

2.30 Licenses, Permits and Inspections

The Bidder shall give all notices and comply with all codes, laws, ordinances, rules and regulations of any public authority having jurisdiction that bears on the performance of its work. The Bidder shall pay for all licenses, permits and inspection fees required for its work. The Bidder must furnish copies of all approved inspection certificates and approvals from authorities having jurisdiction in a timely fashion upon completion of the work.

2.31 News Releases

News releases or other materials made available to the media or the public, the Bidder's clients or potential clients pertaining to this procurement or any part of the proposal shall not be made without the prior written approval of the Iowa DOT.

2.32 Targeted Small Business Program

The 1986 Iowa Legislature enacted legislation relating to procurement from Iowa

Targeted Small Businesses. (Iowa Code, Chapter 73 and Iowa Administrative Code rules 820--[01,B] Chapter 2). It is hereby agreed that when entering into a contract with the State of Iowa, the bidder will take documented steps to encourage participation from TSB's for the purpose of subcontracting and supplying of materials.

A list of Targeted Small Business Contractors is available on the Internet at https://dia.iowa.gov/tsb and *click on* Search Targeted Small Businesses.

2.33 Bidders' Conference (Pre-Bid)

A pre-bid conference will not be held for this IFB

2.34 Presentation and Demonstrations

There are no presentations or demonstrations planned for this IFB

3.1 Overview

This Invitation for Bid (IFB) describes a relationship to be established between the State and a responder to provide 2018 or newer model year heavy-duty ADA accessible transit buses. The IFB also specifies contractual conditions and details the basis for the responses, the subsequent review, and the final selection process.
The Iowa DOT, Office of Public Transit is soliciting proposals for new buses for the 2018 or newer model years on behalf of the multiple transit providers in the state of Iowa, state regents, any state of Iowa department, and/or transit agencies from other states that share a designated metropolitan planning area with a designated Iowa public transit agency for vehicles to be funded through Federal Sections 5310, 5311, and 5339 programs (as well as any FTA program re opened or new), other government programs, and State funds. The State will select the successful responders based on criteria set forth in Section 3, Evaluation Criteria. Participating agencies will select a vehicle and options available from the proposals only. Additional models/manufacturers the vendor may acquire within the contract years and subsequent extensions will not be allowed.
Additional options may be selected by each agency; however, the Office of Public Transit will only reimburse up to the ceiling in that fiscal year's program guidance. Any costs above that ceiling will be paid at the purchasing system at their own expense.

Rural and urban public transit systems funded through state and Federal funds administered by the Office of Public Transit (as well as any other approved agency) will individually issue purchase orders through an approval process at the Office of Public Transit. Payment for vehicles will be made to the Contract Bidder by each approved system upon inspection and approval of the vehicle and submittal or all required documentation by the vendor to the purchasing agency.

Responses will only be accepted from manufacturers, or their authorized dealers. Manufacturer's or their authorized dealers must have authorized repair and service centers and be able to take possession of a recipient purchased vehicle within five (5) hours from service request by recipient. Responders should briefly outline their company's experience and qualifications as a provider of public transit buses. The state reserves the right to inspect any dealer location to verify the accuracy of the information provided. All decisions of the state will be final.

All of the equipment furnished with the vehicles shall be completely installed and all adjustments shall be made that are required to prepare the vehicle and its equipment for immediate and continuous operation upon delivery. Any equipment that is delivered which fails to meet specifications will be replaced or brought up to specification at no additional expense to the state or the public transit system. All equipment must comply with all state and federal regulations in effect on the date of manufacture that govern the construction of and relating to mass transportation bus equipment.

3.2 Project Purpose

Seeking responsive and responsible bidders to provide up to 35 designated public transit systems and other stated agencies with ADA accessible heavy-duty buses. Selected bidders will only be those that have competitive prices and complete all required aspects of this IFB and can meet all FTA and ADA requirements including but not limited to Buy America standards. Determination of allowable vehicle classification will be at the discretion of the procurement administrator. For example; a vehicle that is typically seen as being a "medium-duty bus" but the vendor bids as a "heavy-duty" bus may not be accepted due to allowable vehicle cost ceilings per class as listed on the Office of Public transit vehicle programming

guidance and any other reason at the discretion of the procurement administrator.

3.3 Vendor Responsibilities

The Contract Bidder(s) will be required to provide the following:

3.3.1 Upon notification of Contract award, notify procurement administrator of the names and addresses of the suppliers/manufacturers, the locations of the final assembly points for each vehicle make and model, the documentation that shows the percentage of American made components, plus the contact person at said locations. In the event the final assembly of a vehicle process takes place in more than one location, the Contract Bidder shall so notify procurement administrator and describe the final assembly processes to be performed at each location.

3.3.2 If required by FTA Guidelines, make provisions for a Pilot Inspection, at the manufacturing plant before vehicle completion on one of each proposed vehicle type and size. Upon request, the representatives/inspectors will have access to vehicle drawings, material standards, parts list, inspection processing and reports, and records of defects.

3.3.3 Deliver the finished and fully equipped vehicle(s) to a designated audit/inspection site as listed on the Customer Purchase Order. As outlined in 49CFR663, for rural or urbanized areas of 200,000 people or fewer purchasing 20 or fewer vehicles, or large urbanized areas of over 200,000 people purchasing 10 or fewer vehicles, the Customer and Contract Bidder will arrange for one inspection to determine complete compliance of vehicle specifications. All Contract Bidder expenses for the inspection will be borne by the Contract Bidder. As outlined in 49CFR663, for rural or urbanized areas of 200,000 people or fewer purchasing 21 or more, or large urbanized areas of over 200,000 people purchasing 11 or more, appropriate inspections will be conducted to ensure compliance with 49CFR663 - Post-delivery Audits of Rolling Stock. All Customer expenses for in-plant inspections will be borne by the Customer.

3.3.3.1 Make arrangements to correct, or have corrected, any and all vehicle and/or included equipment deviations of specification requirements identified in the inspections. A vehicle will not be accepted until it passes all inspections.

3.3.3.2 All of the equipment furnished with the vehicle shall be completely installed and all adjustments made that are required to prepare the vehicle and its equipment for immediate and continuous operation upon delivery.

3.3.3.3 Each bus shall be delivered to the recipient within a time frame determined by the Responder's offer. Delivery will be in accordance with the delivery process described Section VI of the detailed specifications of this document. An additional 30 days will be permitted for vehicles in excess of twenty (20) ordered at the same time.

3.3.3.4 An estimated schedule for delivery to an inspection site for each vehicle sold that is funded through Iowa DOT's Office of Public Transit shall be submitted to the Iowa DOT Public Transit Office.

3.3.3.5 Each bus shall be complete and ready for service, and all documents required by specifications must be organized in a 3-ring binder, spiral bound, or similar secure format and delivered with the bus. Documents required by specifications are all chassis, body and major components (wheelchair lift and securements, heating and cooling, tires, etc.) operational manuals, warranty coverage and repair locations and contacts, and maintenance schedules. Optional Shop Manuals and Catalogs (Exhibit A & B, Optional

Equipment Section) may be delivered to Customer within 60 days of delivery. The Contract Bidder shall assume all responsibilities and liabilities incident to such delivery.

3.3.3.6 The Contract Bidder shall arrange for the complete correction of all defects occurring prior to acceptance of the vehicle. All defects occurring prior to acceptance of the vehicle shall be the responsibility of the Contract Bidder, and will be fully corrected at the Contract Bidder's expense and/or under applicable warranty, including transportation costs. Substantial corrections may require particular FMVSS recertification and/or extended warranties.

3.3.3.7 Delivery of a vehicle to the Purchaser will include providing information specific to the vehicle. See approved checklist in the appendix section of this IFB.

3.3.3.8 The recipient shall conduct acceptance tests on the delivered bus to identify defects that have become apparent. Receipt of equipment shall not release the Contract Bidder for faulty materials or workmanship appearing even after final payment has been made.

3.3.3.9 The Contract Bidder shall be the single contact through which recipients will arrange warranty work.

3.3.3.10 The Contract Bidder may only accept orders from the State of Iowa's 35 designated public transit agencies, state offices and regents, and non-Iowa agencies part of a metropolitan planning agency area shared by Iowa public transit agencies. Orders from consultants or other bus sales companies may not be accepted or processed.

3.3.3.11 Usage Reports. Not required by the Office of Public Transit. Data is compiled through transit system reimbursements.

3.4 Prices.

Prices shall remain firm for the initial TWO-YEAR contract term. A unit price based on minimum base specifications (which includes all delivery charges) must be stated for each item quoted. In case of an error in the total price, the unit price will prevail. Prices must be quoted in United States currency.

3.4.1 Transportation. All prices shall be FOB Destination, prepaid and allowed (with freight included in the price), to the ordering agency's receiving dock, warehouse, or purchasing agency facility unless otherwise stated in the Special Terms and Conditions. Price reductions must be passed on immediately to the purchasing agency whenever they become effective. In those situations, in which the "deliver-to" address has no receiving dock or agents, the Contract Bidder must be able to deliver to the person specified on the PO.

3.4.2 Price decreases. During the life of the Contract, any or all temporary price reductions, promotional price offers, introductory pricing, or any other offers or promotions that provide prices lower than or discounts higher than those stated in the Contract, must be given immediately to the procurement administrator and entities eligible to purchase from the Contract. Invoices for goods ordered or shipped or services performed during the decrease, or promotion, must immediately reflect such pricing.

3.4.3 Transportation cost. All costs associated with freight charges from the manufacturer to the Contract Bidder should be included in the base price of the bus. All equipment will

be delivered to the Purchaser, FOB Destination, with transportation charges included in the base bid price.
The Purchaser reserves the option to pick up the vehicle at the dealer's location and will advise the Contract Bidder accordingly prior to the scheduled delivery date. The vehicle may be drop shipped to a Contract Bidder's authorized dealership if mutually agreed by the Contract Bidder and the Purchaser. All purchase orders and payments must be made to the Contract Bidder, not the dealership where the vehicle was picked up. The Contract Bidder is solely responsible and the prime contact for all warranty repairs.

Fuel surcharges will only be allowed if the price per gallon of diesel fuel increases more than 20 percent from the diesel fuel prices posted on the day the IFB is due. The index used for the Contract will be the weekly On-Highway Diesel Prices for the Midwest Region as posted each Monday at: http://tonto.eia.doe.gov/oog/info/wohdp/diesel.asp.

All requests for fuel surcharges must be submitted and approved by the procurement administrator before they are put into effect. A copy of the rate schedule will be submitted with the request to add the fuel surcharge. The exact amount of the surcharge and the length of time the surcharge may be added, if any, will be governed by the validity of the documentary evidence submitted. No price increase will be effective until approved by the procurement administrator.

3.4.4 Quantity discounts. Responders may offer discounts to Purchasers that order more than one bus per time. The discount offered, if applicable, will not be a factor in the evaluation process and must be listed in the quote. Responders may select and list options that would not receive the quantity order discount. Use the option number from the specifications to identify these options.

3.4.5 Complete and return. The Quantity Discount Form, regardless if a discount is offered, that is included in Section VI, Required Forms.

3.4.6 Taxes. No taxes should be calculated into the cost of the vehicle being offered. Taxes will be calculated and invoiced, if applicable, as a separate line item on the invoice. For the purposes of this solicitation, motor vehicle means any self-propelled vehicle required to be licensed for road use and any vehicle propelled or drawn by a self-propelled vehicle required to be licensed for road use. It includes vehicles such as cars, vans, pick-ups, trailers, and motorcycles. It does not include snowmobiles or manufactured homes.

3.5 Federal Regulations

3.5.1 FTA Regulatory Compliance. Specific provisions in the Contract article include, in part, certain standard terms and conditions required by the Federal Transit Administration (FTA), as set forth in 49 CFR section 18.36 and FTA Circular 4220.1F, dated November 1, 2008, or current circular, as amended, are hereby incorporated by reference. Notwithstanding anything to the contrary in the contract, all FTA-mandated terms shall be deemed to control in the event of a conflict with other provisions contained in the Contract. The Contract Bidder shall not perform any act, fail to perform any act, or refuse to comply with any State of Iowa requests which would cause the State to be in violation of the FTA terms and conditions. The Contract Bidder shall comply with the required FTA clauses. The Contract Bidder's failure to comply with applicable FTA regulations, policies, procedures, and directives, as they may be amended or promulgated from time to time during the terms of the Contract, shall constitute a material breach of the Contract. All forms required as part of this proposal are included in the Contract by reference.

3.5.2 Lobbying Restrictions: The undersigned certifies, to the best of his or her knowledge and belief, that: No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement. 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 agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions (see attachment for signature page)

3.5.3 Contract Work Hours and Safety Standards Act (construction only)

3.5.3.1 Overtime Requirements. No Contract Bidder 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 to work in excess of 40 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 40 hours in such workweek.

3.5.3.2 Violation; Liability for unpaid wages; Liquidated damages. In the event of any violation of the clause set forth in paragraph (a) of this section, the Contract Bidder and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Contract Bidder 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 (a) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in paragraph (a) of this section.

3.5.3.3 Withholding for Unpaid Wages and Liquidated Damages. The grantee or recipient 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 Contract Bidder 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 (b) of this section.

3.5.3.4 Subcontracts. The Contract Bidder or subcontractor shall insert in any subcontracts the clauses set forth in this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Prime Contract Bidder shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this section.

3.5.3.5 Payrolls and Basic Records. (i) Payrolls and basic records relating thereto shall be maintained by the Contract Bidder during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under 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 such 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 CFR 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 which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

3.5.4 No Government Obligation to Third Parties

3.5.4.1 The Recipient and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to the Recipient, Contractor or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying Contract. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by the FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions. The Contract Bidder agrees to include the above 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.

3.5.5 Program Fraud and False or Fraudulent Statements and Related Acts

3.5.5.1 The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

3.5.5.2 The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. chapter 53, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(l) on the Contractor, to the extent the Federal Government deems appropriate.

3.5.5.3 The Contract Bidder 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.

3.5.6 Civil Rights

3.5.6.1 Nondiscrimination. In accordance with Title VI of the Civil Rights Act, as amended, 42 USC. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 USC. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 USC. § 12132, and Federal transit law at 49 USC. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contract Bidder agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

3.5.6.2 Equal Employment Opportunity. The following equal employment opportunity requirements apply to the underlying contract.

3.5.6.3 Race, Color, Creed, National Origin, Sex. In accordance with Title VII of the Civil Rights Act, as amended, 42 USC. § 2000e, and Federal transit laws at 49 USC. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of US Department of Labor (US DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 CFR Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 USC. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. 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, sex, or age. 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 Contract Bidder agrees to comply with any implementing requirements FTA may issue.

3.5.6.4 Age. In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 USC. § 623 and Federal transit law at 49 USC. § 5332, the Contract Bidder agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contract Bidder agrees to comply with any implementing requirements FTA may issue.

3.5.6.5 Disabilities. The Contract Bidder agrees to comply with all applicable

requirements of the Americans with Disabilities Act of 1990 (ADA) 42 USC 11401 et sec: Section 504 of the Rehabilitation Act of 1973, as amended, 19 USC 792, 49 USC 5301 (d); and the Federal Regulations including any amendments thereto: 49 CFR Part 27, 49 CFR Part 38; 28 CFR Part 35; 28 CFR Part 36; 41 CFR Subpart 101-19; 29 CFR Part 1630; 47 CFR Part 64, Subpart F; and 49 CFR Part 609.

3.5.6.6 The Contract Bidder 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.

3.5.7 Noncollusion Certifications. When included with the IFB, the Responder shall complete and submit the Affidavit of No collusion, which is required on all responses.

3.5.8 Fly America. The Contract Bidder agrees to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR 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 Contract Bidder 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 Contract Bidder agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

3.5.9 Disadvantaged Business Enterprises (DBE). Contracts over $3,000 awarded on the basis of a bid or proposal offering to use DBEs This contract 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. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The recipient's overall goal for DBE participation is listed elsewhere. If a separate contract goal for DBE participation has been established for this procurement, it is listed elsewhere. The contractor 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 CFR Part 26 in the award and administration of this contract. 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 municipal corporation deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).If a separate contract goal has been established, Bidders/offerors are required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53. If no separate contract goal has been established, 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 this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from the recipient. In addition, the contractor may not hold retainage from its subcontractors or must return any retainage payments to those subcontractors within 30 days after the subcontractor's

work related to this contract is satisfactorily completed or must return any retainage payments to those subcontractors within 30 days after incremental acceptance of the subcontractor's work by the recipient and contractor's receipt of the partial retainage payment related to the subcontractor's work. The contractor must promptly notify the recipient whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of the recipient.

3.5.10 Certification of Restrictions on Lobbying; Disclosure. The Contract Bidder certifies that no federal appropriated funds have been paid or will be paid by or on behalf of the Contract Bidder 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 the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement. This certification will be incorporated into the Contract. The Contract Bidder further certifies that, 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 the projects funded by the funds allocated to the Contract Bidder in this agreement, the Contract Bidder shall complete and submit the Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The Contract Bidder will require the language of this certification be included in the award documents for any subcontracts over $100,000.00 under the Contract. All subcontractors shall certify and disclose accordingly to the Contract Bidder. The certifications in this paragraph are material representations of fact upon which the State relies when this Contract is made.

3.5.11 Bus Tests. Fully documented tests shall be conducted on each production vehicle following manufacture to determine its acceptability to the State. These tests shall include pre-delivery inspections and testing by the Contract Bidder, and may include post-delivery acceptance testing by the State, in compliance with 49 USC. Section 5323 and 49 CFR part 663.

3.5.11.1 Pre-delivery Tests. The Contract Bidder shall conduct acceptance tests at its plant on each vehicle following completion of manufacture and before delivery to the State. These predelivery tests shall include visual and measured inspections, as well as testing the total vehicle operation, including safety. The tests shall be conducted and documented in accordance with written test plans. Additional tests may be conducted at the Contract Bidder's discretion to ensure that the completed vehicles have attained the desired quality and safety standards and have met the requirements of the Contract. The pre-delivery tests shall be scheduled and conducted with sufficient notice so that they may be witnessed by the State's inspectors, who may accept or reject the results of the tests. The results of pre-delivery tests, and any other tests, shall be filed with the assembly inspection records for each vehicle. The under-floor equipment shall be made available for inspection by the State's inspectors, using a pit or coach hoist provided by the Contract Bidder. A hoist, scaffold, or elevated platform

shall be provided by the Contract Bidder to easily and safely inspect vehicle roofs. Authorization forms for the release of each vehicle for delivery shall be provided by the Contract Bidder. An executed copy of the authorization shall accompany the delivery of each vehicle.

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

3.5.11.3 Total Vehicle Operation. The Contract Bidder shall evaluate total vehicle operation during road tests. The purpose of the road tests is to observe and verify the operation of the vehicle as a system and to verify the functional operation of the subsystems that can be operated only with the vehicle in motion. Each vehicle shall be driven for a minimum of fifteen (15) miles during the road tests. Observed defects shall be recorded on the test forms. The vehicle shall be retested when defects are corrected and adjustments are made. This process shall continue until defects or required adjustments are no longer detected. Results shall be pass/fail for these vehicle operation tests. After the completion of the Contract Bidder's road test and repairs, if required, the State's inspector(s) shall be taken on a five-mile (minimum) road test to make all functional checks and to assure that there are no vibrations, unusual noises, or rattles prior to delivery.

3.5.11.4 Post-Delivery Test. The State and/or purchasing agency may conduct acceptance tests on each delivered vehicle. These tests shall be completed within 30 working days after vehicle delivery and shall be conducted in accordance with written test plans. The purpose of these tests is to identify defects that have become apparent between the time of vehicle release and delivery to the State and/or public transit systems. The post-delivery tests shall include visual inspection of the vehicle in a static condition and vehicle operations and safety in road tests. Vehicles that fail to pass the post-delivery tests are subject to rejection. The State and/or public transit systems shall record details of all defects on the appropriate tests forms and shall notify the Successful Bidder of rejection of each vehicle within five calendar days after completion of the tests. The defects detected during these tests shall be repaired according to procedures defined in Article XIII of the Contract on Warranty Requirements. Placing a vehicle in revenue service constitutes acceptance of that vehicle for purposes of payment.

3.5.11.5 Compliance Certification. The Contract Bidder will comply with 49 USC. Section 5323(c) and FTA's implementing regulation at 49 CFR part 665. A Certification of Compliance with FTA's Bus Testing Requirements is attached and will be made a part of the Contract. This testing shall be confirmed and recorded by the Contract Bidder on the signed certification form and provided to the State before final acceptance of the first vehicle delivered.

3.5.11.6 Compliance to All Applicable Federal Motor Vehicle Safety Standards. The Contract Bidder must agree to comply with all required applicable federal motor vehicle safety standards as outlined in this Request for Proposal. A list of all applicable Federal Motor Vehicle Safety Standards (FMVSS) of which each proposed vehicle complies with must be submitted.

3.5.11 Clean Air Act and Federal Water Pollution Control Act: The Contractor agrees; it will

not use any violating facilities, it will report the use of facilities places 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 the FTA, and it will comply with the inspection and other requirements of the Clean Air Act, as amended, (42 U.S.C 7401-7671Q); and the Federal Water pollution Control Act as amended (33 U.S.C 1251-1387)

3.5.12 Energy Conservation: The contractor agrees to comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

3.5.13 Federal Changes: Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Agreement (Form FTA MA (23) dated October 1, 2016) between Purchaser and FTA, as they may have amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

3.5.14 Incorporation of Federal Transit Administration (FTA) Terms: The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, dated October 1, 2016, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any Iowa DOT requests which would cause Iowa DOT to be in violation of the FTA terms and conditions.

3.5.15 Access to Records and Reports: A) Record Retention. The Contractor will retain, and will require its subcontractors of all tiers to retain, complete and readily accessible records related in whole or in part to the contract, including, but not limited to, data, documents, reports, statistics, sub-agreements, leases, subcontracts, arrangements, other third-party agreements of any type, and supporting materials related to those records. B) Retention Period. The Contractor agrees to comply with the record retention requirements in accordance with 2 C.F.R. § 200.333. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at not less than three (3) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case records shall be maintained until the disposition of all such litigation, appeals, claims or exceptions related thereto. C) Access to Records. The Contractor agrees to provide sufficient access to FTA and its contractors to inspect and audit records and information related to performance of this contract as reasonably may be required. D) Access to the Sites of Performance. The Contractor agrees to permit FTA and its contractors access to the sites of performance under this contract as reasonably may be required.

3.5.16 Resolution of Disputes, Breaches, Terminations, or Other Litigation:
Disputes. Disputes arising in the performance of this Contract which are not resolved by concurrence between the purchasing public transit agency and the contractor shall be decided in writing by the procurement administration. Such decision shall be final and conclusive unless within ten (10) days from the date of receipt of notice thereof by

Contractor, Contractor mails or otherwise furnishes a written appeal to the procurement administrator. In connection with any such appeal, Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the procurement administrator shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance During Dispute. Unless otherwise directed by the procurement administrator, Contractor shall continue performance of its duties and obligations under the Contract Documents while matters in dispute are being resolved.

Claims for Damages. If the public transit agency or contractor suffers injury or damage to person or property because of any act or omission of the other party or of any of the other party's employees, representatives, or agents, The IowaDOT will not interfere or interject in any claims. Each purchasing agency is an independent entity and is responsible for their own claims, disputes, litigation outside of the IowaDOT. The procurement administrator will mediate and make a final determination in non-legal disputes (see disputes above). This IFB has been conducted on behalf of Iowa's public transit agencies, regents, and other state offices as a courtesy. The IowaDOT itself makes no purchases for or on behalf of public transit agencies. The IowaDOT does not require the purchasing agencies to purchase off of this procurement. Each agency has the right and authority to conduct their own procurement outside of this IFB; therefore, the IowaDOT has no involvement in legal issues between the purchasing agency and the Contractor and shall be indemnified.

Remedies. Unless this Contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the purchasing public transit agency and Contractor arising out of or relating to the contract documents will be decided by the purchasing agency and the contractor.

Rights and Remedies. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the purchasing public transit agency or Contractor shall constitute a waiver of any right or duty afforded under the Contract Documents, 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.

Terminations. See section 6.10

3.5.17 Recycled Products: 40 CFR Part 247 requires a preference for recycled materials. It is not an absolute mandate. 40 CFR 247.2(d) states as follows: RCRA section 6002(c)(1) requires procuring agencies to procure designated items composed of the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, considering such guidelines. Procuring agencies may decide not to procure such items if they are not reasonably available in a reasonable period of time; fail to meet reasonable performance standards; or are only available at an unreasonable price.

3.5.18 Privacy Act: The Privacy Act of 1974, 5 U.S.C. § 552a , establishes a code of fair information practices that governs the collection, maintenance, use, and dissemination of information about individuals that is maintained in systems of records by federal agencies. A system of records is a group of records under the control of an agency from which information is retrieved by the name of the individual or by some identifier assigned to the individual. For more information search US Department of Justice Privacy Act of 1974.

See also Exhibits for required Federal Forms.

3.6 Warranty

See each vehicle class for warranty information. Extended warranties are an eligible FTA vehicle “make ready” expense as an option. Please discuss with purchasing agency as an added option.

3.7 Equipment Requirements-Mandatory

3.7.1 Equipment Bidder Capabilities: The Contract Bidder must be the original equipment manufacturer (OEM) or an authorized distributor for the OEM or a manufacturer’s representative for the OEM or its authorized distributor. If an authorized distributor or a manufacturer’s representative is submitting an offer on behalf of the OEM, it must either:

3.7.1.1 Be listed on the OEM’s website as an authorized distributor or an authorized manufacturer’s representative, or

3.7.1.2 Provide a letter from the OEM stating it is authorized to sell the product and that all OEM equipment warranties are applicable.

3.7.2 New model year 2018 or newer buses with wheelchair lift/ramp and securement devices. The
purchaser intends to obtain a safe, reliable vehicle with an attractive interior and exterior design and excellent ride qualities. The bus will be used to transport the general public and will be equipped for persons with disabilities based on current ADA standards. Buses will be operated on all types of roadways at various speeds and will be started and stopped frequently, in both, city, highway, and rural operations. Transit systems for which vehicles are procured are individually unique in system operations and require various bus sizes and seating configurations to meet individual needs. School Buses or vehicle that would easily appear to be school buses (school bus yellow, stop arms, flashers, etc) are not eligible for FTA funds and are not a part of this Solicitation.

3.7.3 General Requirements The equipment provided by the Contract Bidder must meet the following requirements:

3.7.3.1 The bus shall comply with all requirements of the State of Iowa as to lighting equipment, air pollution control equipment, and all warning and safety devices. The bus must comply with the Federal Motor Vehicle Safety Standards and Federal Motor Carrier Safety Regulations in effect at the time of manufacture.

3.7.3.2 The wheelchair securement positions must meet all federal and state requirements even if unintentionally omitted in these specifications. The preceding applies to any/or all other omissions (federal, state, or local) related to these specifications.

3.7.3.3 Responses should be accompanied by a description of the Responder's standard product, including brochures and detailed specifications.

3.7.3.4 Materials used in the specified components of the vehicle's occupant compartment shall meet or exceed the burn resistance requirements set forth in FMVSS #302.

3.7.3.5 All equipment must meet the requirements of the American's with Disabilities Act.

3.7.3.6 If applicable, the portion of the purchase price of a motor vehicle to make it accessible to persons with disabilities is not subject to State of Iowa sales tax. A sample form is provided in this IFB and must be completed for each vehicle.

3.7.3.7 Delivery costs are included in base price bid. In the event that fuel prices exceed the 20% increase as stated above, fuel surcharge shall be applied to loaded miles only. The Responder must state the starting location. Mileage distances will be determined from an official map of the United States or any on line mileage calculator based on shortest miles. All deliveries shall be FOB destination when applicable

3.7.3.8 All seating and wheelchair positions are in addition to the driver's seat. All wheelchair positions must be forward facing, accessible to the F. The lift door must be located on the right side of vehicle. All "flip seats" are to meet the requirements as outlined in the detailed specifications furnished with the IFB.

3.7.3.9 Each unit requires a specific combination of "options" for that unit only, which shall be included in the total price.

3.7.3.10 Vehicles in excess of 22 feet must meet ADA requirements for two wheelchair positions.

3.7.3.11 A representative(s) of the public transit system will inspect buses purchased upon delivery. Other than the public transit representative, the Department of Education may conduct inspections yearly if the vehicle transports school age general public riders with services under contract.

3.7.3.12 There is no provision to negotiate with transit systems for vehicle trade-in allowances.

3.8 Altoona Test Requirements

The vehicle to be procured in accordance with the specifications and procedures set forth herein will be constructed following the same structural design and configuration as an equal vehicle previously tested and certified for service by the Pennsylvania Transportation Institute Bus Testing Facilities in Altoona, Pennsylvania, (a Federal Transit Administration sponsored facility). The test must have been conducted on the complete vehicle anticipating a minimum of:

3.8.1 Four/Five years or 100,000/150,000 miles of service for vehicles typified by accessible small and mid-sized body-on-chassis buses;

3.8.2 Seven years or 200,000 miles of service for vehicles typified by medium duty mid-size buses, approximately 25 to 30 feet;

3.8.3 Ten years or 350,000 miles of service for vehicles typified by heavy duty mid-size buses, approximately 30 to 35 feet; and

3.8.4 Twelve years or 500,000 miles of service for vehicles typified by heavy duty transit buses, approximately 30 to 40 feet.

3.8.5 The manufacturer of the vehicle identified in response to these specifications will submit, with the response document, certification issued by the Altoona testing facility, unless an exception is granted in writing prior to the response opening based on previously submitted documents. A complete copy of the Altoona Test results must be sent to Office of Public Transit. If a complete copy is already on file at the Office of Public Transit and a major component or configuration change occurs that produces a partial test, a copy of the final test report must be submitted with the response. A copy of the partial Altoona test results must be on file at the Office of Transit.

3.9 Technical Specifications

When brand names of manufacturer's numbers are stated in the specifications, they are intended to establish a standard only and are not restrictive unless the Solicitation states "No Substitute." Responses will be considered on other makes, models or brands having comparable quality, style and performance characteristics.

3.9.1 Manufacturer and Model Offered Responders must include detailed information on the manufacturer's make and model that is being offered to the State. The manufacturer of the vehicle identified in response to these specifications will submit with the proposal document a certification issued by the Altoona testing facility, unless an exception is granted in writing prior to the proposal opening based on previously submitted documents. A complete copy of the Altoona Test results must be sent to the Office of Public Transit procurement administrator. A floor plan is to be submitted for each seating configuration being offered. Floor plans must show only permanent seats (no foldaway or flip seats as those are "options") and W/C positions and must match the wheelbase and capacity of vehicles being offered. Each floor plan is to be labeled as Group 3.1, 3.2, 4.4, etc. and the seating capacity (8 + 1, 8 + 2, etc.) to match the appropriate seating configuration and the wheelbase must be shown. Vehicles being offered by a body manufacturer but on multiple chassis (e.g.,
Ford and/or GM) must show floor plans for both chassis(s) unless the manufacturer incorporates both wheelbase lengths on one floor plan.

3.9.2 Cutoff Dates: The Contract Bidder must notify the State of the manufacturer's cut-off dates on equipment furnished within five business days after notice is received from the manufacturer. Failure to notify the State may result in disqualification from future State projects. Describe your ability to meet this requirement.

3.9.2.1 Please Note: If the manufacturer discontinues the model design offered before the Contract term has ended, the State reserves the right to consider acceptance of the new model design providing the new model design includes significant changes and the base and optional equipment prices are acceptable to the procurement administrator. All significant changes in the new model design must be documented by the manufacturer. Significant changes would be defined as, but not limited to, engine type and size, changes in the electrical system or overall physical characteristics of the bus, or changes in State or federal regulations that significantly impact the cost of the vehicle to the vendor. **Simply changing the model year does not qualify as a significant change or justify a price increase**. The intent is to hold firm the base bid price for two full contract years and only these significant changes above will be considered for price increase. After two full contract years at set price, a one-year extension will be offered (for 3 years max) and price adjustments will be evaluated and accepted/rejected by the procurement administrator. A price increase that is a significantly higher than other vendors or market rate may be eliminated from the state contract if the needs of the purchasing agencies can be met with vendors that supplied

less impactful price adjustments.

3.9.2.2 The Office of Public Transit procurement administrator may choose to accept the new model design and price increase, accept the new model year at no price increase, or reject the offered vehicle and either continue with other contracted vehicles or issue a new IFB, whichever is in the best interest of the State and purchasing agencies. All decisions of the procurement administrator will be final.

3.9.2.3 Prices on the new model design must be submitted to the procurement administrator for approval. Prices must include documentation from the manufacturer that substantiates that design and price changes are being issued on a national, not regional, basis.

3.9.2.4 As this IFB covers two years, it is assumed that a model year may change during the contract term. If the "model year" does change during the term of the Contract, **price adjustments will not be accepted** except in the rare instances stated above and below. Prices offered on the "model year" submitted with this IFB must remain firm for the term of the Contract. The exception would be if the chassis manufacturers should have a "built out date" for the current "model year" prior to producing an adequate number of chassis to fulfill orders under this Contract. Should this be the case, the procurement administrator would consider a price adjustment for the chassis built for the following "model year." Documentation from the chassis manufacturer would be required showing actual costs and must impact multiple vendors. Any price increase allowed would be the same for each Contract Bidder affected by the change in model year chassis.

3.9.2.5 Prices offered on the "model year" optional equipment submitted with this IFB must remain firm for the term of the Contract. If optional equipment that is currently listed in the IFB is not available when the IFB is submitted, but becomes available during the term of the Contract, the Contract Bidder may submit a request to have the equipment added to the Contract. All requests must be reviewed and approved by the procurement administrator before the option is added to the Contract. All decisions of the State will be final.

TECHNICAL SPECIFICATIONS

Iowa DOT

TECHNICAL EQUIPMENT SPECIFICATIONS FOR 26-42 FT. HEAVY DUTY BUSES

July 31, 2018

Contact person: Ryan Ward (ryan.ward@iowadot.us)

1) ***Standee Line:*** A yellow line marked across the bus aisle in line with the driver's barrier to designate the forward area which passengers may not occupy when the bus is moving.

2) ***Free Floor Space:*** Floor area available to standees, excluding ingress/egress areas, area under seats, area occupied by feet of seated passengers, and the vestibule area.

3) ***Curb Weight:*** Weight of vehicle, including maximum fuel, oil and coolant; and all equipment required for operation and required by their specification, but without passengers or driver.

4) ***Seated Load:*** One hundred fifty (150) pounds for every designated passenger seating position and the driver.

5) ***Gross Load:*** One hundred fifty (150) pounds for every designated passenger seating position, for the driver, and for each 1.5 square feet of free floor space.

6) ***SLW (Seated Load Weight):*** Curb weight plus seated load.

7) ***GVWR (Gross Vehicle Weight Rate):*** Curb weight plus gross load.

8) ***Fireproof:*** Materials that will not burn or melt at temperatures less than 2,000º F.

9) ***Fire Resistant:*** Materials that have a flame spread index less than 150 as measured in a radiant panel flame test per ASME-E 162-75.

10) ***HIC (Head Injury Criteria):*** The following equation presents the definition of head injury criteria:

Where a = the resultant acceleration at the center
gravity of the headform expressed as a multiple of g, the acceleration of gravity, t1 and t2 = any two points in time
ng the impact.

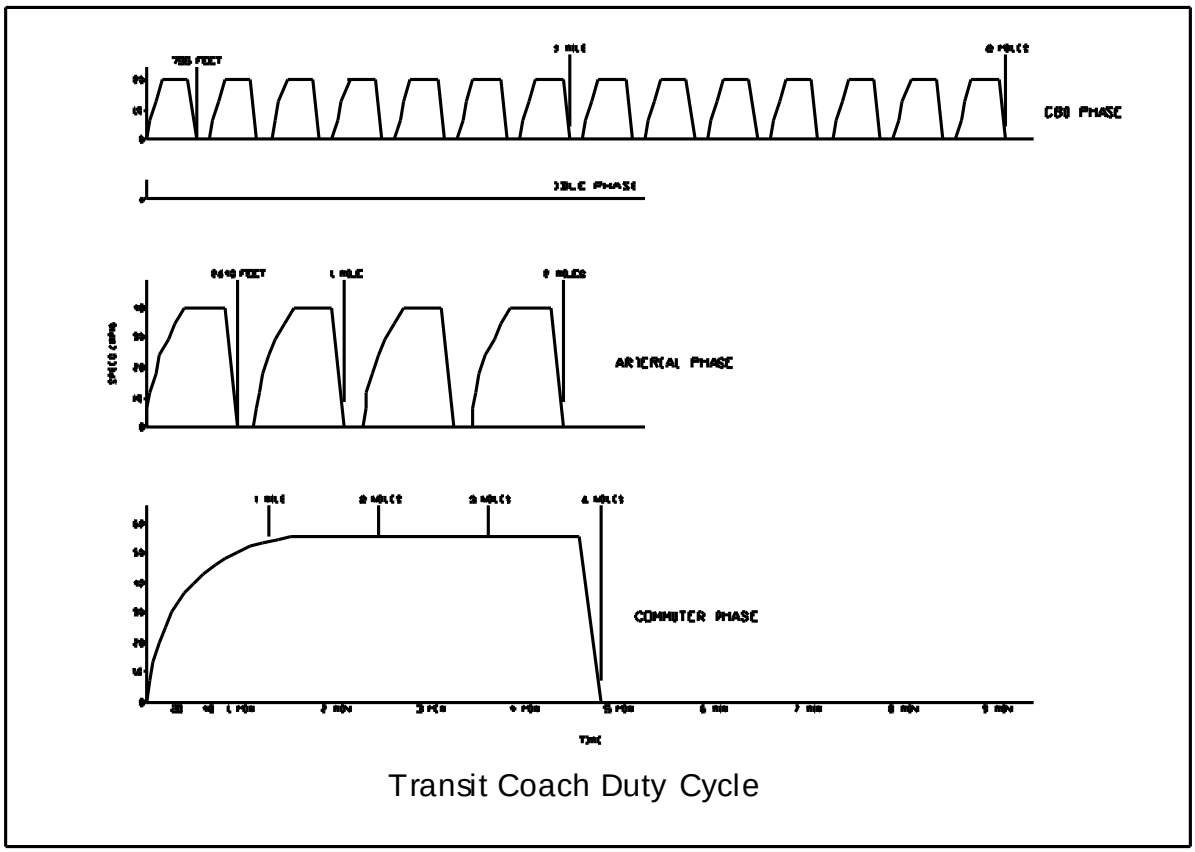
$$\left[\frac{1}{t_1 - t_2}\int_{t_2}^{t_1}(a)dt\right]^{2.5}(t_2 - t_1)$$

11) ***Design Operating Profile:*** The operating profile for design purposes shall consist of simulated transit type service. The duty cycle is described in the figure "Transit Coach Duty Cycle." The duty cycle consists of three phases to be repeated in sequence: a central business district (CBD) phase of 2 miles

with 7 stops per mile and a top speed of 20 mph, an arterial route phase of 2 miles with 2 stops per mile and a top speed of 40 mph, and a commuter phase of 4 miles with 1 stop and a maximum speed of 55 mph and a 5 minute idle phase.

Phase	Stops/ Mile	Top Speed (mph)	Miles	Accel. Dist. (ft.)	Accel Time (s)	Cruise Dist. (ft.)	Cruise Time (s)	Decel. Rate (fpsps)	Decel Dist. (ft.)	Decel. Time (s)	Dwell Time (s)	Cycle Time (min-s)	Total Stops
CBD	7	20	2	155	10	540	18.5	6.78	60	4.5	7	9-20	14
Idle	-	-	-	-	-	-	-	-	-	-	-	5-0	-
Arterial	2	40	2	1035	29	1350	22.5	6.78	255	9	7	4-30	4
CBD	7	20	2	155	10	510	18.5	6.78	60	4.5	7	9-20	14
Arterial	2	40	2	1035	35	1350	22.5	6.78	255	9	7	4-30	4
CBD	7	20	2	155	10	510	18.5	6.78	60	4.5	7	9-20	14
Commuter	1 stop for phase	Max. or 55	4	5500	90	2 miles + 4580 ft.	188	6.78	480	12	20	5-10	1
\			14									47-10	51

Average Speed - 17.8 mph



Transit Coach Duty Cycle

CLASSES OF FAILURES

Class 1, Physical Safety: A failure that could lead directly to passenger or driver injury and represents a severe crash situation.

Class 2, Road Call: A failure resulting in an in-route interruption of revenue service. Service is discontinued until the bus is replaced or repaired at the point of failure.

Class 3, Bus Change: A failure that requires removal of the bus from service during its assignments. The bus is operated to a rendezvous point with a replacement bus.

Class 4, Bad Order: A failure that does not require removal of the bus from service during it assignments but does degrade bus operation. The failure shall be reported by driver or inspector.

The bus shall meet all applicable FMVSS and all applicable BMCS and ADA regulations in effect at the date of manufacture.

The Contractor shall comply with all applicable Federal, State and Local regulations. In the event of any conflict between the requirements of these specifications and any applicable legal requirement, then the legal requirement shall prevail.

1.03 General

1) General Dimensions

Length Overall	40 feet (between 38.5 and 41.6 feet)
Width Overall	up to 102 inches, ADA platform must move through the front entry of the bus.
Height Overall	up to 120.7 inches
Seating Capacity	up to 36 with two wheelchair positions
Step Height From Ground - front	Maximum 12.5 inches kneeling. 15 inches normal
Step Height From Ground - rear	16.25 inches
Turning Radius - body corner	45.2 feet maximum

	40-foot bus	**35-foot bus**	**30-foot bus**	**26-foot bus**
Length Overall	40 feet	35-39 feet	30-34 feet	26-29 feet

Width Overall	up to 102 inches, ADA platform must move through the front entry of the bus.	up to 102 inches, ADA platform must move through the front entry of the bus.	up to 102 inches, ADA platform must move through the front entry of the bus.	up to 102 inches, ADA platform must move through the front entry of the bus.
Height Overall	up to 120.7 inches	up to 120.7 inches	up to 120.7 inches	up to 120.7 inches
Seating Capacity	Minimum 38 with two wheelchair positions unoccupied	Minimum 30 with two wheelchair positions unoccupied	Minimum 23 with two wheelchair positions unoccupied	Minimum 18 with two wheelchair positions unoccupied

Step Height From Ground - front	Maximum 12.5 inches kneeling. 15 inches normal	Maximum 12.5 inches kneeling. 15 inches normal	Maximum 12.5 inches kneeling. 15 inches normal	Maximum 12.5 inches kneeling. 15 inches normal
Step Height From Ground - rear	16.25 inches	16.25 inches	16.25 inches	16.25 inches
Turning Radius - body corner	45.2 feet maximum	39 feet maximum	34.5 feet maximum	34.5 feet maximum

2) ***Service Life:*** The bus shall be designed to operate in transit service for at least 12 years or 500,000 miles. It shall be capable of operating at least 40,000 miles per year including the 12th year.

3) ***Mean Mileage Between Failures:*** The following are design goals for mean mileage between failures by failure class, provided that specified preventative maintenance procedures are followed.

(a) *Class 1 - Physical Safety:* mileage shall be greater than 1,000,000 miles.

(b) *Class 2 - Road Call*: mileage shall be greater than 20,000 miles.

(c) *Class 3 - Bus Change*: mileage shall be greater than 16,000 miles.

(d) *Class 4 - Bad Order:* mileage shall be greater than 10,000 miles.

4) ***Accessibility:*** All systems or components serviced as part of periodic maintenance, or whose failure may result in Class 1 or Class 2 failures shall be readily accessible for service and inspection. To the extent practical, removal or physical movement or components unrelated to the specific maintenance and/or repair tasks involved shall be unnecessary. Relative accessibility of components, measured in time required to gain access, shall be inversely proportional to frequency of maintenance and repair of the components.

5) ***Interchangeability:*** Components with identical functions shall be interchangeable to the extent practical for each production run. These components shall include passenger window hardware, interior trim, lamps, lamp lenses and seat assemblies. Components with non-identical functions shall not be, or appear to be, interchangeable. **This applies to buses in each run.**

1.04 SHELL

1) ***Design:*** The bus shall have a clean, smooth, simple design, primarily derived from bus performance requirements and passenger service criteria. The exterior and body features, including grilles and louvers, shall be shaped to allow complete and easy cleaning by automatic bus washers without snagging washer brushes.

Water and dirt shall not be retained in or on any body feature to freeze or bleed out onto the coach after leaving the washer. Body and windows shall be sealed to prevent leaking of air, dust, or water under normal operating conditions and minimize leakage during cleaning in automatic bus washers for the service life of the coach. Accumulation on any window of the coach of spray and splash generated by the coach's wheels on a wet road shall be minimized.

2) ***Materials:*** Body materials shall be selected and the body fabricated to reduce maintenance, extend durability, and provide consistency of appearance throughout the life of the coach. Detailing shall be kept simple; add-on devices and trim shall be minimized and, where necessary, integrated into the basic design.

3) ***Finish and Color:*** All exterior surfaces shall be smooth and free of visible 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 original paint. Paint shall be applied smoothly and evenly with the finished surface free of dirt, runs, orange peel, and other imperfections. All exterior finished surfaces shall be impervious to diesel fuel, gasoline, and commercial cleaning agents. Finished surfaces shall not be damaged by controlled applications of commonly used graffiti-removing chemicals. All exterior paint will be of the "wet look" type such as Imron, PPG, PPG Concept, or approved equal. Colors and paint schemes will be determined after the award of contract.

4) ***Numbering and Signing:*** Monograms, numbers, and other special signing specified by the Purchasing Agency shall be applied to the inside and outside of the bus as required. Signs shall be durable and fade, chip, and peel resistant; they may be painted signs, decals, or pressure sensitive appliqués. At least one sign shall be provided on each side of the coach interior to indicate that seats at the front are priority seats for elderly and handicapped passengers.

Front coach numbers shall be control tack type reflective decals, 3" size, and black in color. Side coach numbers shall be control tack type reflective decal's, 4" size, black in color,
Coach numbers shall also be located on the roof; each number shall be at least 36" high, 36" wide and 4" wide. Location of numbering will be specified by purchasing agency at time of purchase.

Rear coach numbers shall be 4", white in color control tack type reflective decals. Engine compartment coach numbers shall be 3", white in color, control tack type reflective decals. Location of numbering will be specified by purchasing agency at time of purchase.

Bus manufacturer shall provide dimensional drawings showing the location, size, and orientation of the lettering and signage at the pre-production meeting (if applicable).

5) ***Pedestrian Safety:*** Exterior protrusions greater than ½" and within 80" of the ground shall have a radius no less than the amount of the protrusion. The left side rear-view mirror ad frames, and required lights and reflectors are exempt from the protrusion requirement. Grilles, doors, bumpers and other features on the sides and rear of the bus shall be designed to minimize the ability of unauthorized riders to secure toeholds or handholds.

6) ***Passenger Windows:*** A minimum of 20,000 square inches of window area, including door windows, shall be required on the standard configuration 40-foot coach. Minimum required area on the 35-foot coach shall be 16,000; minimum required area on the 30-foot coach shall be 14,000; minimum on the 26 foot coach will be vendor standard.

7) ***Passenger Doors:*** Two doors shall be provided in the right side of the bus for passenger ingress and egress. The front door shall be forward of the front wheels and located so that the driver is able to collect or monitor the collection of fares. The rear door shall be forward of the rear axle.

1.05 Body Structure

1) The basic frame structure shall be a semi (or full)-monocoque design or approved equal. The Iowa DOT requires a stainless steel (304) chassis. The structure shall feature full length longitudinal members throughout, with cross-members, pillar, roof bows and bulkheads. The total girder type structure shall be designed for maximum strength, reliability and durability. All joints shall be welded. Options will also be accepted for a fully-welded and stainless-steel structure as per the Orion design.

The body assembly shall be modular and comprised of lightweight and corrosion resistant aluminum and composite materials. The body frame assembly shall be of modular bolt-together industry proven aluminum construction. This type construction allows similar attachment of various body modules, as well as interior and exterior accessories and handrails, without the structural compromise or potential water leaks of drilled holes. Vertical and horizontal aluminum extrusion framing members shall be joined by a keyed aluminum casting with precision angles and using the bolted compression method. Drilled holes or welds shall not be used in joining these members.

The body attachment to the chassis shall be directly to the chassis, with the main attachments in the heavy steel side impact section of the chassis. In order to achieve maximum strength, maximum durability, and close-tolerance alignment, all body attachments shall be by high strength steel treated bolts, and/or shims as required. Special care shall be given to insulate the aluminum body from the stainless steel chassis to discourage galvanic action.

2) ***Strength and the Fatigue Life:*** Under conditions of transit service throughout the service life of the bus, the basic structure shall withstand fatigue damage that is sufficient to cause Class 1 or Class 2 failure. The structure shall also withstand impact and inertial loads due to street travel throughout the bus's service life without permanent deformation or damage. Material: Reinforced glass fibre and plastic materials will be excluded from the structural body construction, except for replaceable panels, doors, coverings for the structural body, and except that steel reinforced glass fibre wheel-wells are permitted. Fiberglass caps in the front and rear are permissible.

3) ***Distortion:*** The bus at GVWR and under static conditions shall not exhibit deformation or deflection that impairs operation of doors, windows, or other mechanical elements. Static conditions include the vehicle at rest with any one wheel or dual set of wheels on a 6" curb or a 6" deep hole.

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

5) ***Corrosion:*** All offerors should be aware of the harsh climate Iowa's transit systems operate in and therefore its extreme concern with the corrosion resistant properties of the coach. The coach must resist corrosion from atmospheric conditions and road salts. It will maintain structural integrity and nearly maintain original appearance throughout its service life, provided it is maintained in accordance with procedures. Materials exposed to the elements and all joints and connections of dissimilar metals will be corrosion resistant and will be protected from galvanic corrosion. Before assembling, all metal

body parts will be given a thorough anti-corrosion treatment. The main welded structures (under - structure, roof, sides and, ends) are to be joined to make a complete welded structure. Threaded holes must be plugged to prevent damaging threads. The entire joined structure will then blasted to a surface finish of SSPC - SP6 to give the metal an aggressive profile and to remove oil, grease, mill scale, and rust. All lap joints are to be sealed to prevent moisture to creep in to areas where the primer will not reach.

The entire structure will then be primed. The manufacturer shall be responsible for all damage caused by corrosion for the first seven years of use on the chassis. This includes all parts and labor.

The understructure will then be coated with a wax based, self-healing coating applied to give an extra layer of resistant to sound and stone chipping.

Underbody components, roof tanks and plywood flooring are to be installed after treatment is completed.

The coach is then raised and asphalt based mastic will be applied to the underbody.

Proposers may offer equals to the requirements under this section. But, all proposers are required to meet **all** the requests for corrosion **or** to strongly support their proposal by either providing themselves or paying the purchasing agency to replace parts, and recoat as necessary at 3, 6, and 9 years of life for the vehicle. Purchasing agencies will do the inspections. E coating of the radiator, hydraulic cooler, and air-to-air after cooler is required.

All proposers shall submit test results using ASTM Procedure B-117 of a 336-hour (2-week) salt spray test of all structural components that shows no structural detrimental effects to visible surfaces, and no weight loss over 1 percent

6) ***Jacking:*** Jacking from a single point shall permit raising the bus sufficiently high to remove and reinstall a wheel and tire assembly. Jacking pads or points located on the axle **or** suspension near the wheels shall permit easy and safe jacking with the flat tire or dual set on a 6" high run-up block not wider than a single tire. Jacking and changing any one tire shall be completed by a 2M serviceman in less than 30 minutes from the time the bus is approached. The bus shall withstand such jacking to a height sufficient to change a wheel **or** 18 inches whichever is less at any one or any combination of wheel locations without permanent deformation or damage.

7) ***Hoisting:*** The bus axles or jacking plates shall accommodate the lifting pads of a 2-post hoist system. Jacking plates, if used as hoisting pads, shall be approximately 5" square or round, with a turned-down flange not less than 1 inch deep on each side to prevent the bus from falling off the hoist. Other pads or the bus structure shall support the bus on jack stands independent of the hoist.

8) ***Fire Protection:*** The passenger and engine compartments shall be separated by a bulkhead(s) which shall, by incorporation of fire resistant materials in its construction, be a firewall. This firewall shall preclude or retard propagation of an engine compartment fire into the passenger compartment. Only necessary openings shall be allowed in the firewall, and these shall be fire resistant. Any passageways for the climate control system air shall be separated from the engine compartment by fireproof materials. Piping through the bulkhead shall have copper, brass, or fire resistant fittings sealed at the firewall with copper or steel piping on the forward side.

Wiring may pass through the bulkhead only if connectors or other means are provided to prevent or retard fire propagation through the firewall. The conduit and bulkhead connectors shall be sealed with fireproof material at the firewall. Engine access panels in the firewall shall be fabricated of fireproof material and secured with fireproof fasteners. These panels, their fasteners, and the firewall shall be constructed and reinforced to minimize warping of the panels during a fire that will compromise the integrity of the firewall. Fire protection systems must meet or exceed FMVSS 302.

9) ***Towing:*** Towing devices shall be provided on each end of the bus. The towing devices when used with a load equalizing sling shall withstand, without permanent deformation, tension loads up to 1.2 times the curb weight of the bus within 20º of the longitudinal axis of the bus. The rear towing device(s) shall not provide a toehold for unauthorized riders. The front towing devices shall allow attachment of a rigid tow bar and shall permit flat towing of the bus, at curb weight, by the towing devices and the tow bar. Each towing device shall accommodate a crane hook with a 1" throat. A tow bar is required as a part of this procurement.

10) ***Crashworthiness:*** The bus body and roof structure shall withstand a static load equal to 150% of the curb weight evenly distributed on the roof with no more than a 6" reduction in any interior dimension. Windows shall remain in place and shall not open under such a load. The bus shall withstand a 25 mph impact by a 4,000 pound, post 1973, American automobile at any point, excluding doorways, along either side of the bus with no more than 3" of permanent structural deformation at seated passenger hip height. This impact shall not result in sharp edges or protrusions in the bus interior. Exterior panels below the rubrail and their supporting structural members shall withstand a static load of 2,000 pounds applied perpendicular to the bus anywhere below the rubrail by a pad no larger than 5 square inches. This load shall not result in deformation that prevents installation of new exterior panels to restore the original appearance of the bus. A rubrail is not required.

11) ***Leakage Test:*** All buses covered by this specification shall, during the course of their manufacture, be subjected to a water test by the manufacturer to determine body leaks. Manufacturer shall take the necessary corrective action when body leaks are found to exist, and conduct a second water test to recheck following corrective action.

12) ***Rain Gutters:*** Gutters shall be provided to prevent water flowing from the roof onto the side windows and passenger doors. When the bus is decelerated, the gutters shall not drain onto the windshield, or driver's side window, or into the door boarding area. Cross sections of the gutters shall be no less than 0.25 square inches.

13) ***License Plates:*** License plate provisions at the rear of the bus shall be recessed or surface mounted.

14) **Rubrails:** Rubrails composed of black, flexible, resilient rubber-like material will be provided to protect both sides of the coach body from damage caused by minor sideswipe accidents with automobiles. Rubrails will have vertical dimensions of no less than 1 ½ inches with the centerline no higher than 33 inches above the ground. The rubrail will be capable of withstanding impacts as required in the FTA White Book crash test. The rubrail may be discontinued at doorways. A damaged portion of the rubrail will be replaceable without requiring removal or replacement of the entire rubrail. **Rubrails are NOT required.**

1.06 Interior

1) ***Headroom:*** Headroom above the aisle and at the centerline of the aisle seats shall be no less

than 78". At the centerline of the window seats, headroom shall be no lower than the required top of the side window. Headroom at the back of the rear bench seat may be reduced to a minimum of 56", but it shall increase to the normal ceiling height at the front of the seat cushion. In any area of the bus directly over the head of a seated passenger and positioned where a passenger entering or leaving the seat is prone to strike his/her head, padding shall be provided on the overhead panelling.

Driver Barrier: A barrier or bulkhead of ¼" thick double faced matte black melamine or equal, between the driver and the left front passenger seat shall be provided. The barrier shall eliminate glare and reflection in the windshield directly in front of the barrier from interior lighting during night operation. The barrier shall extend from the top of the interior left hand wheelhouse cover, to within 1" of the ceiling and shall fit the bus side windows and wall to prevent passengers from reaching the driver or his personal effects.

This partition will be constructed of an approved piece of thermoformed 1/4 inch thick No. 2370 bronze tinted polycarbonate material, or an approved painted aluminium panel and an approved 1/4 inch grey tinted polycarbonate. A metal coat hook and securing straps for the operator's jacket will be provided on the driver's barrier. Both Bronze tint and grey tinted DuPont SAR are acceptable. The San Diego barrier is the style requested. Aluminum in a dull matte finish is also an acceptable material. A diagnostic station also is acceptable.

1.07 Floor

1) ***Material:*** The floor shall be plywood that shall be ¾" thick, minimum 7-ply waterproof bond laminated exterior fir, Marine grade (bid sheet shows a cost reduction for wood) OR as an option a composite that meets all the other specifications of this procurement, this is the Iowa DOT's preferred option. All fasteners shall be zinc plated, cadmium plated or stainless steel to attach the floor to the frame structure. The floor is secured to the structure using adhesive and tapping screws outside of the main rails (center aisle). Down the center aisle the fasteners in tapping plates are used on every 12" centers every 24" longitudinally (every floor support). Silkaflex adhesives are acceptable. The Iowa DOT is very interested in the composite floor and realizes the additional front-end costs. Therefore, we are adding a line on the bid sheet for the inclusion of the composite floor. As vendors have a year to deliver we expect all will be able to quote a price for this.

2) ***Strength:*** The floor deck may be integral with the basic structure or mounted on the structure securely to prevent chafing or horizontal movement. Sheet metal screws shall not be used to retain the floor and all floor fasteners shall be serviceable from one side only. Tapping plates used for the floor fasteners shall be no less than the same thickness as a standard nut, and all floor fasteners shall be secured and protected from corrosion for the service life of the bus. The floor deck shall be reinforced as needed to support passenger loads at GVWR. The floor shall have an elastic deflection of no more than 0.60" from the normal place. The floor shall withstand the application of 2.5 times gross load weight without permanent detrimental deformation. Floor and step treads, with covering applied, shall withstand a static load of at least 150 pounds applied through the flat end of a ½" diameter rod, with 1/32" radius, without permanent visible deformation.

2) Edges: The floor shall be a continuous flat plane from the entrance at the front of the vehicle to the rear exit door, except at the wheel housings, but it shall not interfere with the passenger seating. The floor design shall consist of two levels (bi-level construction). Aft of the rear door position extending to the rear settee riser, the floor height may be raised to a height approximately 18 inches above the lower level. An increase slope shall be allowed on the upper level not to exceed 3-1/2 degrees off the horizontal along the front-to-back axis of the bus

Where the floor meets the walls of the bus the surface edges shall be blended with a circular section of radius not less than ¼" inch, and a moulding or cover shall prevent debris accumulation between the floor and wheel housings. All interior moldings shall be smooth and free of sharp edges and designed to last the life of the vehicle. The cut edges and bottom are sealed with a polyurethane sealant to prevent deterioration by rot, fungus, etc. The upper flooring may be butt jointed.

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4) Floor Protection: The floor, as assembled, including the sealer, attachments and covering shall be waterproof, non-hygroscopic, resistant to wet or dry rot, resistant to mould growth and impervious to insects.

5) Fastening: Interior panels shall be attached so that there are no exposed edges or rough surfaces. Panels and fasteners shall not be easily removable by passengers. Interior trim fasteners, where required, shall be rivets, cross-recessed head screws, or tamper proof screws.

6) *Access Openings:* These openings in the floor shall be sealed to prevent entry of fumes and water into the bus interior. Flooring materials shall be flush with the floor and shall be edge-bound with stainless steel to prevent the edges from coming loose. Access openings shall be non-symmetrical so that the ribs of reinstalled flooring shall be properly aligned. Fasteners shall tighten flush with the floor.

7) Slope: The floor shall be flat from the entrance door to the exit door. The floor is sloped or stepped at the rear axle for easy access. The slope may not exceed 3.5% for any distance greater than 14".

1.08 WHEELHOUSING

1) Construction: Front wheelhousings shall be constructed of molded fibreglass or 14 gauge or better stainless steel (16 gauge 304 stainless is also approved). Rear wheelhousings shall be constructed of 14-gauge stainless steel. Wheelhousings as installed and trimmed shall withstand impacts of a 2" steel ball with at least 200 foot pounds of energy without penetration. Lower portion trim shall be unpainted stainless steel only. If metal is used in construction of the wheelhousing, it shall be covered on the interior by the same material as the floor covering.

2) ***Splash Aprons:*** Splash aprons of ¼" thick fabric reinforced rubber shall extend to within 3" of ground. The front aprons shall be installed either behind or in front of the front wheels. Rear splash aprons installed behind the rear wheels may be sectional but shall extend full width of coach to protect all rear compartments from road splash. Splash aprons and their attachments will not be included in the road clearance measurements. Front wheelhousings shall also have a brush to minimize splashing.

3) ***Fender Skirts:*** Fender skirts shall be applied to exterior contour of wheelhouses for finished appearance and to control wheel splash. They may extend beyond allowable vehicle width if they are flexible. Tires are removed without removal of skirts.

1.09 DOORS

1) ***Materials:*** Structure of the doors, their attachments, inside and outside trim panels, and any mechanism exposed to the elements shall be durable and corrosion-resistant. Door construction shall be of extruded aluminium with bonded single skin construction. The doors, when fully opened, shall provide a firm support (grab-bar) and shall not be damaged if used as an assist by passengers during ingress or egress. They will be a bi-fold style door. Slide-glide type doors are acceptable as are rear swing outdoors.

2) ***Front Door:*** Front entrance door on right-hand side ahead of front wheel shall be two section Vapor slide-glide type, swing out or approved equal. The clear opening inside grab rails shall be at least 31.75" wide and 76.1" high with the door open. Mating edges shall be of the overlapping type and provide a minimum of 4" between the metal door edges. A front step blower is also required.

3) ***Rear Door:*** Rear exit door on right-hand side ahead of rear wheels shall be a two section Vapor Slide glide or swing type door or approved equal with clear opening of at least 30". The doors shall have pneumatic sensitive edges for safety protection as well as touch bars for passenger operation. Door height shall be a minimum of 75.1". An option for deletion of the rear door shall be provided.

4) ***Glazing:*** Both rear and front doors shall have full length glazing in all door panels. The rear door may have split glazing. Glazing shall be 1/4" (6 mm) laminated safety glass.

5) ***Projection:*** Exterior projection of the doors shall be minimized and shall not exceed 19" during the opening or closing cycles or when doors are fully opened. Projection inside the coach shall not exceed 20". The doors, when closed, shall be effectively sealed and the hard surfaces of the doors shall be at least 4" apart. Pantographic type rear doors are not acceptable. A brush-type gap filler shall be provided at the bottom edge of all doors to reduce the entry of wind, dirt, and water. Projecting portion of doors shall not extend below the top of the interior bus flooring.

6) ***Control:*** Front and rear doors shall be fully air operated with pneumatic door engine, with a five-position door control valve with single lever handle operating in a horizontal plane.

Operation of, and power to, the passenger doors shall be completely controlled by the driver. Rear door shall also open via passenger controlled touch bars. Doors shall open or close completely in 1.5 to 3.0 seconds from the time of control actuation and shall be subject to adjustment requirements of Subsection (8). A control or valve in the driver's compartment shall shut off the power to, and/or dump the power from, the front door mechanism to permit

manual operation of the front door with the coach shut down. A master door switch which is not within reach of the seated driver shall when set in the "Off" position, close the doors, deactivate the door control system, release the interlocks and permit only manual operation of the doors. There will be a rear door override that will allow the opening of the door and allowing it to stay open when the bus is not in operation.

To preclude movement of the bus, an accelerator interlock shall lock the accelerator in the closed position and a brake interlock shall engage a portion of the rear axle service brake system when the rear door control is activated. The braking effort shall be adjustable with hand tools only, from zero effort to the maximum capability of the rear axle brakes. The adjustment device shall be enclosed in a tamper-proof housing, if located inside the bus. An option will be for the interlock to only work on the rear door.

7) ***Closing Force:*** No more than a 10 pound force shall be imposed on a 1 square-inch area of any passenger struck by a closing rear door. A maximum force of 35 pounds shall be required for a passenger to free himself after having either door close upon him, even if the sensitive edge or safety device on the rear door is inoperative.

8) ***Actuators:*** Each door shall be powered by a single actuator and motor (such as those manufactured by Vapor) which shall be both rebuildable and adjustable in such a manner so that the door opening and closing speeds can be independently adjusted from one second up to three seconds. Door actuators shall be adjustable so that the door opening and closing speeds can be independently adjusted from one second up to three seconds. Actuators and the complex door mechanism shall be concealed from passengers but shall be easily accessible for servicing. All elements of the door and actuator system shall operate without a Class 3 failure for 50,000 miles on the design operating profile.

9) ***Emergency Operation:*** In the event of an emergency, it shall be possible to open the doors manually from inside the coach using a force of no more than 25 pounds after actuating an unlocking device at each door. The unlocking devices shall be clearly marked as an emergency only device and shall require two distinct actions to actuate. The door emergency unlocking device shall be accessible at the door areas. When this emergency device is actuated, the door interlock brake system shall apply to stop the bus.

Locked doors shall require a force of more than 100 pounds to open manually. When the locked doors are manually forced to open, damage shall be limited to the bending of minor door linkage with no resulting damage to the doors, engines, and complex mechanism.

1.10 SERVICE COMPARTMENTS AND ACCESS DOORS

1) ***Interior:*** Access for maintenance and replacement of equipment shall be provided by panels and doors that appear to be an integral part of the interior. Removal of fixtures or equipment unrelated to the repair task to gain access shall be minimized. There will be four rear interior access doors, on rear package shelf, below seat, seat back, and under seat. Access doors shall be installed with spring hinges or gas filled props, as necessary to hold the doors out of the mechanic's way. Retention of all interior access panels, except on the door actuator compartments, shall be with tamper proof screws. Panel fasteners shall be standardized so that only one tool is required to service all special fasteners within the bus. All fasteners that retain access panels will be captive in the cover.

Access doors for the door actuator compartments shall be secured with hand screws or latches, and shall prevent entry of mechanism lubricant into the bus interior. All fasteners that retain access panels shall be captive in the cover.

Access openings in the floor will be sealed to prevent entry of fumes, road noise, and water into the coach interior. Flooring material will be flush with the floor and will be edge-bound with stainless steel to prevent the edges from coming loose. Access openings will be non-symmetrical so that the ribs of reinstalled flooring will be properly aligned. Fasteners will be tightened flush with the floor.

2) ***Exterior:*** Conventional or pantograph hinged doors shall be used for the engine compartment and for all auxiliary equipment compartments including doors for checking liquid to the windshield washer reservoir and for access to the battery compartment master switch. Access to these compartments shall be from outside the bus. Access openings shall be sized for easy performance of tasks within the compartment including tool operating space. Access door shall be of rugged construction. They shall close flush with the body surface. All doors shall be hinged at the top or on the forward edge and shall be prevented from coming loose or opening during transit service or in the washing operations. All access doors shall be retained in the open position by counterbalancing with over-center or shock supports. Springs and hinges shall be corrosion-resistant. Latch handles shall be flush with, or recessed behind, the body contour and shall be sized to provide an adequate grip for opening. Large access doors shall hinge up and out of the way or flat against the bus body and shall be easily openable by one person. These doors, when opened, shall not restrict access for servicing other components or systems. Major access doors shall be equipped with locks requiring a nominal 5/16", square end tool to open. The locks shall be standardized so that only one tool is required to open all major access doors on the bus. All exterior access doors have stainless steel hinges.

The battery compartment will prevent accumulation of snow, ice, and debris on top of the batteries and will be vented and self-draining. It will be accessible only from outside the coach. All components within the battery compartment, and the compartment in itself, will be protected from damage or corrosion from the electrolyte. The inside surface of the battery compartment's access door will be electrically insulated, as required, to prevent the battery terminals from shorting on the door if the door is damaged in an accident or if a battery comes loose. If the battery compartment is not by itself then the batteries must have a safety cover. Battery tray and slides will be stainless steel.

Two (2) escape hatch/roof ventilator combinations shall be provided in the roof of the bus approximately over the front and rear axle. When open with the bus in motion, the escape hatch/roof ventilators shall provide fresh air inside the bus. The ventilator shall cover an opening area no less than 425 square inches and shall be capable of being positioned as a scoop with either the leading or trailing edge no less than 4", or with all 4 edges raised simultaneously to a height no less than 3½". A tool shall be provided that will allow the operator to open and close the roof hatches.

1.12 WINDSHIELD WIPERS AND WASHERS

1) ***Wipers:*** The bus shall be equipped with a variable speed (including intermittent) heavy duty windshield wiper for each half of the windshield. They will be electrically operated. No part of the windshield wiper mechanism shall be damaged by manual manipulation of the arms. At 60 mph, no more than 10% of the wiped area shall be lost due to windshield wiper lift. Both wipers

shall park along the edges of the windshield glass. Windshield wiper motors and mechanisms shall be easily accessible for repairs or service from outside the bus.

2) Washers: The windshield washer system shall deposit washing fluid on the windshield and when used with the wipers, shall evenly and completely wet the entire wiped area.

The windshield washer system shall have a minimum 2.5-gallon reservoir, located for easy access. Reservoir pumps lines and fittings shall be corrosion-resistant and the reservoir itself shall be translucent for easy determination of fluid level. An exterior access door for filling the tank shall be provided. The windshield washer system will be protected with an antifreeze washer solution to -20^0 F regardless of season of delivery. The protected solution will be tinted to provide easy visual indication that the washer solution is present.

1.13 LIGHTING, CONTROLS, INSTRUMENTS

1) Exterior Lighting: All exterior lights shall be sealed to prevent entry and accumulation of moisture or dust, and each lamp shall be replaceable in less than 5 minutes by a 2M mechanic. All exterior lamps will be designed to operate on 12 VDC. Lights mounted on the engine compartment doors shall be protected from the impact shock of door opening and closing. Lamps, lenses and fixtures shall be interchangeable to the extent practical. Lamps at the rear of the bus shall be visible from behind when the engine service doors are opened. **All exterior lights, except for step lights shall be LED**. This includes headlights.

Visible and audible warning shall inform following vehicles or pedestrians of reverse operation. Visible reverse operation warning shall conform to SAE Standard J593. Audible reverse operation warning shall conform to SAE. Recommended Practice J994-Type C or D.

Lamps at the front and rear doors shall activate only when the doors open and shall illuminate the street surface to a level that meets or exceeds ADA requirements. The lights are to be positioned below the lower daylight opening of the windows and shall be shielded to protect passengers' eyes from glare. One light shall be located above the rear door for this purpose. The lights may be positioned above or below the lower daylight opening of the windows and will be shielded to protect passengers' eyes from glare. These lighting systems must at a minimum provide 5 foot candle of light three feet from the coach

2) Headlights: Front headlights are to be sealed beam type, four (4) in total and located horizontally. The outboard headlight shall be dual type with low beam and high beam capacities are required. The adjacent or inboard headlight shall be capable of high beam only. High beam, low beam functions shall be controlled by a driver's foot switch, sealed and protected from moisture. Sealed beam units shall be latest type and low beam rating of 320 hour rack life, at 12 volts. Low voltage daytime running lights are required.

3) Directional Signals: Directional signals shall be 2” x 6” rectangular or oval at the front 4" diameter and 4" in diameter at the rear. All shall be LED. Front lights shall have a sealed amber/reflective lens; rear lights shall have a sealed amber lens. Directional signals shall be controlled by two (2) foot switches on the floor.

4) Stop, Tail Lights, and accident prevention system: There shall be eight (8) 4" diameter lamp assemblies to give indication of direction, stop/tail and back-up operation. Three (3) lights shall be vertically mounted on each side. The lamps shall be mounted on the corner pillars so that they

are visible even when the door is open, to provide warning to oncoming vehicles if the vehicle is disabled along the road and to maximize service access when rear and side closure doors are opened. The top light shall be amber, the middle two red, and the lower clear or white. The rear stop, turning, tail lights, and accident prevention lights shall be LED lights.

Options for 4-lens system on each side (Red-Amber-Red-White) and deletion of accident prevention system.

The coach will be equipped with a rear accident prevention system consisting of two additional LED lamps with red lenses mounted above the engine compartment door (all LED lights). These lamps will be electrically connected to the rear brake lights. The lights will stay lit whenever the rear brake lights are activated.

The accident prevention lights will be amber and flash when any of the doors of the bus open. There will be four amber lamps centered above the engine door.

THE DESIGN, MOUNTING, AND LOCATION OF THE REAR ACCIDENT PREVENTION LAMPS WILL BE SUBJECT TO THE PURCHASING AGENCY'S REVIEW AND APPROVAL

5) Marker Lights: Individual roof marker lights shall be provided at each corner of bus, with amber front and red rear lens. Intermediate marker lights with amber lens shall be provided in the rubrail position or normal height (there is no requirement for a rubrail) at center of each side of the bus. LED lights are required.

6) Identification Lights: Identification lights (Michigan marker lights, individual type) to be mounted at front and rear center of roof crown panels, front to be circular or rectangular amber lens, rear to have rectangular red lenses. LED lights are required.

7) Side Directional Lights: Two (2) side directional light with an amber lens, to function with front and rear directional signals, shall be mounted just rearward of the front wheel well on each side of the bus. LED lights are required.

8) Hazard Lights: A circuit shall be provided for the directional signals which, when on, will cause them to function as traffic hazard warning signals. LED lights are required.

9) License Light: A two (2) candlepower rear license plate light shall be provided in license plate well. LED lights are required (with options of zero, one, or two based on required holders)

10) Service Area Lighting: Lights shall be provided in the engine compartment to generally illuminate the area for night emergency repairs or adjustments. The lights shall be controlled by a switch located near the rear start controls in the engine compartment.

11) Passenger Interior Lighting: An overhead LED lighting system will provide general illumination in the passenger compartment and will be controlled independent of the run switch. The system will provide no less than 15 foot candles of illumination on a one-square-foot plane at an angle of 45 degrees centered 33 inches above the floor and 24 inches in front of the seat back at each seating position except at the rear cross seat where the illumination may be decreased to seven foot candles. All fixture covers will attach with screws, no snap on covers may be used. The overhead interior lighting system shall be IO LEDs.

Floor surface in the aisle will be illuminated at no less than ten foot candles. The floor surface in the vestibule will be illuminated to no less than four foot candles with the front door open and to no less than two foot candles when the front door is closed. ADA standards may again be substituted; the new generation Luminator system is acceptable (or approved equal). LED light fixtures will be located above the side windows at or near the juncture of the bus ceiling and the side wall and may be provided over the rear door. LED lighting will not be installed above the driver's side window and the front door. Lamp fixtures and lenses will be fire resistant and will not drip flaming material onto seats or interior trim if burned. Advertising media located in this area will be illuminated by back or direct lighting, although the interior lighting requirements will be attained without advertising media installed. The fixtures will be sealed to prevent accumulation of dust and insects but will be easily operable on hinges for cleaning and service. The lenses will be retained in a closed position and if threaded fasteners are used, they must be captive in the lens with cross-recessed type heads. Power supplies will be enclosed with fireproof material and will be located at the individual light fixtures. Power supplies will be inaudible with an operating frequency above 18,000 Hz. Interchangeability of LED lamps, lenses, fixtures, and power supplies will be maintained.

The forward left and right hand interior light fixtures will be so designed as to automatically extinguish when the front passenger door is closed. When the front passenger door is opened and the interior lights are on the forward left and right hand, interior light fixture will come on. A toggle switch on the driver's instrument panel will allow the driver the option of keeping the forward interior lights on constantly.

A stepwell lighting system will be illuminated when the master switch is in RUN and NIGHT/RUN, except the front stepwell lamps which will be extinguished when the doors are closed. The system will provide no less than five foot candles of illumination on the entry and exit step treads with the doors open. These lights will be shielded to protect passengers' eyes from glare. Light fixtures will be totally enclosed, splash proof, designed to provide east of cleaning as well as lamp and housing removal, and will not be easily removable by passengers. Stepwell lights will be protected from damage caused by passengers kicking lenses or fixtures and will not be a hazard to passengers.

Lighting (in floor or by the steps) by interior steps shall be LED with a service life of at least five years. Wiring for this system shall be corrosion resistant and protected from moisture.

12) ***Driver's Lighting:*** The driver's area shall have a light to provide general illumination and it shall illuminate the half of the steering wheel nearest the driver to a level of 5’ candles. This light shall be controlled by a switch that is convenient to the driver.

13) ***Driver Control:*** All switches and controls necessary for the operation of the bus shall be conveniently located in the driver's area and shall provide for ease of operation. Switches and controls shall be essentially within the hand reach envelope described in SAE Recommended Practice, J287, Driver Hand Control Reach. Controls shall be located so that boarding passengers may not easily tamper with control settings. All switches shall be illuminated for night vision. Rocker switches are acceptable.

Accelerator and brake pedals shall be designed for ankle motion. Foot surfaces of the pedals shall be faced with wear-resistant, non-skid, replaceable material. Pedal travel shall be limited by stops

under the pedals. Controls for engine operation shall be closely grouped within the driver's compartment. These controls include separate master run switch and start or button switch. The run switch shall be a four-position switch with the following functions:

ENGINE STOP - All electrical systems off, except power available for the interior lighting, stop lights, turn lights, hazard lights, silent alarm, horn, engine compartment lights and run box, auxiliary heater, fire detection/suppression system, and fare box.

NITE/PARK - All electrical systems off, except those listed in OFF and power to radio and marker lights.

DAY/RUN - All electrical systems and engine on, except the headlights, parking lights, and marker lights.

NITE/RUN - NITE/PARK - All electrical systems and engine on. The door control, kneel control, windshield wiper/washer controls and run switch shall be in the most convenient driver locations. They shall be identifiable by shape, touch, and markings. Doors shall be operated by a single control, conveniently located and operable in a horizontal plane by the driver's left hand. The setting of this control shall be easily determined by position and touch. Turn signal controls shall be floor-mounted, foot-controlled, waterproof, heavy-duty, momentary contact switches.

All switches and controls shall be marked with easily read identifiers. All panel-mounted switches and controls shall be replaceable, and the wiring at these controls shall be serviceable from the vestibule or the driver's seat. Switches, controls, and instruments shall be dust and water resistant. All required switches and controls are included in Table II.

15) ***Instrumentation:*** The speedometer, air pressure gauge(s), and certain indicator lights shall be located on the front cowl immediately ahead of the steering wheel. The steering wheel or rim shall not obstruct the driver's vision of the instruments when the steering wheel is in the straight ahead position. Illumination of the instruments shall be simultaneous with the marker lamps. Glare or reflection in the windshield, side window, or front door windows from the instruments, indicators, or other controls shall be minimized; instruments and indicators shall be easily readable in direct sunlight.

Indicator lights immediately in front or in the side console of the driver shall include:

TABLE II

Warning Lights

X	High headlamp beam
X	Right turn
X	Left turn
X	Hazard warning (may be common with turn signal indicators)
X	Exit door open or unlocked
X	Parking brake applied

X Service brakes applies (may be common with parking brake indicator)
X Stop request
X Wheelchair Stop request
X Backup
X Daytime running lights (if equipped)
X High Beams

Switches

X Master run switch
X Start button or switch
X Kneel switch
X Turn signal switch(es)
X Interior lighting switch
X Instrument panel lighting intensity control
X Passenger chime switch
X Driver's area light switch
X Hazard warning switch
X Horn button in steering wheel hub, protected to preclude accumulation of transfer punches in steering wheel hum (no identifier required)
Foot-controlled headlight dimmer switch, waterproof
X Fast idle switch
X Master door switch
X Diagnostic light panel test switch

Controls

X Accelerator pedal with electric adjusting
X Brake pedal with electric adjusting
X Door control
X Windshield wipers
X Windshield washers
X Interior climate control
X Defroster control
X Driver's heater control
X Parking/emergency brake control (actuation of brake, not control, shall be indicated to the driver)
X Transmission control
X Transmission Retarder Shutoff (location subject to review at pre-production)
X Front door dump valve
X Public address system controls
X Destination sign controls (easily accessible without opening a compartment)

The instrument panel shall include a speedometer indicating readings in mph and kph. The speedometer shall be a rotating pointer type, with a dial deflection of 220□ to 270□ and 40 mph near the top of the dial. An integral odometer can be supplied as an option.

The speedometer shall be sized and accurate in accordance with SAE recommended practice J678. The speedometer pickup shall be off of the transmission tail shaft. The instrument panel

shall also include air brake reservoir pressure gauge(s) with indicators for primary and secondary air tanks. The instrument panel and wiring shall be easily accessible for service from the driver's seat or top of the panel. Wiring shall have sufficient length and be routed to permit service without stretching or chafing the wires.

Fuel gauge on dash shall be required.

16) Onboard Diagnostics: Critical systems or components shall be monitored with a built-in diagnostic system. This diagnostic system shall have visual and audible indicators. The diagnostic indicator lamp panel shall be located in clear sight of the driver but need not be immediately in front of him. The intensity of indicator lamps shall permit easy determination of on/off status in bright sunlight but shall not cause a distraction or visibility problem at night. All indicators shall have a method of momentarily testing the operation of the lamp. Wherever possible, sensors shall be of the closed circuit type, so that failure of the circuit and/or sensor shall activate the malfunction indicator. An audible alarm shall sound when certain malfunctions are detected by the diagnostic system. The audible alarm shall be 80 to 83 dBA at the ear of a 5th to 95th percentile driver. Malfunction and other indicators listed in Table III shall be supplied on all buses.

Space shall be provided on the panel for future additions of not less than 3 indicators as the capability of onboard diagnostic systems improves.

Table III - Onboard Diagnostic Indicators

Visible Indicator	Audible Alarm	Function
Low oil*	Yes	Engine oil pressure low
Hot engine*	Yes	Engine coolant temperature high
Low air	Yes	Air system pressure low in primary or secondary reservoirs
Low coolant*	Yes	Radiator water level low
Generator stop	Yes or No	Generator not charging
Kneel activated	Yes	Kneeling system activated
A/C stop	No	Compressor off at high/low switch.
Fire	Yes	Over temperature in engine compartment.
ABS Fail	No	Failure of antilock braking
Check Engine	No	Engine code sent
Check Transmission	No	Transmission code sent
W/C Ramp	Yes	Ramp deployed

*Visual indicators may be common; however, both functions shall be provided.

1.14 INTERIOR TRIM

1) General Requirements: The interior shall be generally pleasing - simple, modern, and free from superficial design motifs. It shall have no sharp depressions or inaccessible areas and shall be easy to clean and maintain. To the extend practical, all interior surfaces more than 10 inches below the lower edge of the side windows, or windshield shall be shaped so that objects placed on them fall to

the floor when the bus is parked on a level surface. Handholds, lights, air vents, armrests, and other interior fittings shall appear to be integral with the bus interior. There shall be no sharp, abrasive edges and surfaces and no unnecessary hazardous protuberances. All plastic and synthetic materials used inside the bus shall be fire-resistant, except vinyl seat coverings which shall meet the requirements of Federal Specification CCC-A-680a Class 2(a)1 and seating upholstery textiles which shall meet the requirements for textiles in Federal Aviation Regulations Section 25.853(b), as tested in accordance with Appendix F of that part.

Materials shall be selected on the basis of maintenance, durability, appearance, safety, flameproof, and textile qualities. Trim and attachment details shall be kept simple and unobtrusive. Materials shall be strong enough to resist every day wear and tear and vandalism; they shall be resistant to scratches and markings. Interior trim shall be secured to avoid resonant vibrations under normal operational conditions. Final color and patterns will be chosen by the purchasing agency at time of vehicle order

2) ***Trim Panels:*** Side wall panels below the windows are to be constructed of 1/10" standard color melamine**,** retained by anodized aluminium moldings. Adhesive cushion strips are applied to frame before panels are applied.

The side window post cap mullions are to be constructed of 1/10” Antique White gloss material. Painted material is not acceptable.

3) ***Headlining:*** Ceiling trim panels shall be melamine, or equal, 1/8" minimum thickness, Antique White in color**.** Headlining shall be supported to prevent buckling, drumming, or flexing and shall be secured without loose edges. Adhesive cushion strips are applied to frame before panels are applied. Headlining materials shall be treated or insulated to prevent marks due to condensation where panels are in contact with metal members. Moldings and trip strips, as required to make the edges tamper proof, shall be stainless steel snap track. The outer edges of the panels are retained at the top of the side air duct/lighting fixture housing. Headlining panels covering operational equipment that is mounted above the ceiling shall be on hinges for ease of service but retained to prevent inadvertent opening. Ceiling insulation shall have an R value greater than or equal to 5 and with low water absorbsion and meet all Federal requirements. Polystyrene EPS is an acceptable material.

4) ***Front End:*** The entire front end of the bus shall be sealed to prevent debris accumulation behind the dash and to prevent the driver from kicking or fouling wiring and other equipment with his feet. The front end shall be free of protrusions that are hazardous to passengers standing or walking in the front of the bus during rapid deceleration. Panelling across the front and any trim around the driver's compartment shall be formed metal, plastic or fibreglass material. Formed metal dash panels shall be painted and finished to exterior quality. Plastic dash panels shall be reinforced, as necessary, vandal-resistant, and replaceable. All colored, painted, and plated parts forward from the driver's barrier shall be finished with a dull matte black finished surface, driver’s platform is elevated at least 7½” above the floor level. A proper platform and wiring for the farebox must be in place.

5) ***Rear End:*** The interior rear wall shall be carpeted and the riser below the rear seat will be ½” plywood covered with matching rubber transit flooring. The rear bulkhead will be panelled with reinforced moulded fibreglass. The ledge between the rear lounge seat and the engine compartment will then be covered with carpet to dampen the sound. Access to rear electrical console is provided via a hinged panel.

6) Passenger Information and Advertising: Advertising media 11" high and 0.09" thick shall be retained near the juncture of the ceiling and side wall. The retainers may be concave and shall support the media without adhesives. The media shall be illuminated by the interior fluorescent lighting system.

1.15 PASSENGER SEATS

1) Arrangements: Seating and interior trim shall have features to improve safety, comfort, and capacity. The passenger seats shall be arranged in a transverse, forward facing configuration, except over the rear wheelhousings, wheelchair areas and fuel storage bay where seats may be arranged as appropriate with due regard for passenger access and comfort. As many seats as possible shall be forward facing and none shall be rear-facing. Seating capacity shall be 38 passengers or greater, including two wheelchair positions. Hip-to-knee room at all seating positions shall be no less than 26" using a fiberglass molded shell seat. Foot room, measured at the floor forward from a point vertically below the front of the seat cushion, shall be no less than 12". Seats immediately behind the wheelhousings may have foot reduced, provided the wheelhouse is shaped so that it may be used as a footrest. Please provide a seating layout with pre-bid materials. Sating layouts to be submitted with pre-bid materials. Hip-to-knee for cushioned seating option shall be minimum 26.5 inches at all seating positions in paired transverse seats immediately behind other paired transverse seating positions.

Each transverse, forward facing seat, except the rear seats, shall accommodate two passengers. Thickness of the transverse seat backs shall be minimized to increase passenger knee room. The area between the longitudinal seat backs and the attachment to the side walls shall be designed to prevent debris accumulation.

The aisle between the seats shall be no less than 24" wide at seated passenger hip height and 20" at standing passenger hip height. Minimum width of transverse seats shall be 34". Final seating arrangements will be designed by the successful bidder.

2) Structure and Design: The passenger seat and its supporting structure shall be cantilevered between entrance and exit doors and constructed and mounted so that space under the seat is maximized to increase wheelchair manoeuvring room and is completely free of obstructions to facilitate cleaning. The structure shall be fully cantilevered from the side wall with sufficient strength for the intended service. The lowest part of the seat assembly that is within 12" of the aisle shall be at least 10" above the floor. The underside of the seat and the side wall shall be configured to prevent debris accumulation and the transition from the seat underside to the side wall to the floor cover radius shall be smooth. Structural failure of any part of the seat or side wall shall not introduce a laceration hazard. Pedestal seating shall be installed in the raised rear section. Cantilevered and T-Pedestal may also be used in combination.

The back of each transverse seat shall incorporate a handhold no less than 7/8" in diameter for standees and seat access/egress. The handhold shall not be a safety hazard during severe decelerations. The handhold shall extend above the seat back near the aisle so that standees shall have a convenient vertical assist, no less than 4 inches long that may be grasped with the full hand. This handhold shall not cause a standee using this assist to interfere with a seated 50th-percentile

male passenger. The handhold shall also be useable by a 5th-percentile female, as well as by larger passengers, to assist with seat access/egress for either transverse seating position. The seat back handhold may be deleted from seats that do not have another transverse seat directly behind and where vertical assist is provided in accordance with Section 1.22. The handhold shall extend above the seat back near the aisle.

The handhold shall be thermoplastic. Armrests shall not be included in the design of transverse seats.

Longitudinal seats shall be the same general design as transverse seats but without seat back handholds. Longitudinal seats may be mounted on the wheel-houses. When folded up, will make way for one wheelchair per unit of three each longitudinal seats. Armrests shall be included on the ends of each set of longitudinal seats except on the forward end of a seat set that is immediately to the rear of a transverse seat, the driver's barrier or a modesty panel and these fixtures perform the function of restraining passengers from sliding forward off the seat. Armrests are not required on longitudinal seats located in the wheelchair parking area that fold up when the armrest on the adjacent fixed longitudinal seat is within 1½" to 3½" of the end of the seat cushion. Armrests shall be located from 7-9" above the seat cushion surface.

The area between the armrest and the seat cushion shall be closed by a barrier or panel and still be constructed and trimmed to complement the modesty panels. The top and sides of the armrests shall have a minimum width of 2" and shall be free from sharp protrusions that form a safety hazard.

3) Construction and Materials: Seat material of the standard configuration seat shall be moulded fibreglass. Any visually exposed metal of the standard seat structure including mounting brackets and other components shall be stainless steel. The seat shall be contoured for individuality, lateral support, and maximum comfort and shall fit the framework to reduce exposed edges. The seat back thickness shall not exceed 1/4" in the knee room area. Complete seat assemblies shall be interchangeable to the extent practical. The shell shall be recessed in seat and back areas to accept padded or fibreglass inserts.

Materials used shall minimize damage from vandalism and shall reduce cleaning time. The seat shall be contoured for lateral support, individuality, and comfort to each individual passenger, and constructed of energy absorbing materials. The upper rear portion of the seat back, seat back handhold, and upper rear surface of the modesty panels located immediately forward of transverse seats shall be constructed of energy absorbing materials. All passenger seats will be either Transportation Seating (TSI) Model 1111 ADB (Cantilevered Design), American Seating #6468 with the vandal resistant fabric seat inserts, or an approved equal. COLORS WILL BE CHOSEN AFTER THE BID AWARD WITH STANDARD COLORS APPROXIMATING THOSE PREVIOUSLY SPECIFIED.

The minimum radius of any part of the seat back, handhold, or modesty panel in the head or chest impact zone shall be a nominal ¼". Color of the padding shall complement the balance of the interior and shall be consistent throughout the material. Seats, back cushions, and other pads shall be securely attached and shall be detachable by means of a simple release mechanism employing a special tool so that they are easily removed by the maintenance staff but not by the passengers. All seat cushions and backs shall be interchangeable throughout. All materials and workmanship shall conform to SPI standards and specifications in tests for plastic foam. Materials shall have high resistance to tearing, flexing, wetting and shall comply with safety standards of White Book Docket 90A.

4) Wheelchair Position: The American seating system with telescoping arm and retractable belts shall

be used (or approved equal). Colors of these seats and inserts or cushions shall match regular seats. Flip-up seat (sets of two or three), shall be installed to accommodate parking space and secure tiedown for passengers in wheelchairs. These seat assemblies shall have the capabilities of folding up to make way for two wheelchairs. The tie-down positions shall be on either side of the bus, not both on the same side. Manoeuvrings room inside the bus shall accommodate easy travel for two passengers in wheelchairs from the loading devise through the bus to the designated parking area, and back out. *As part of the request for equals each vendor shall submit a layout (for each vehicle class)of the bus showing dimensions for wheelchairs. Additionally, at this time, each vendor will state if a 30" by 48" platform (with rounded corners of ½" or less) on 4" wheels is able to negotiate from the front door to the tiedown area. If not the vendor will state what the largest platform size would be to do this.* Engineering diagrams should be included to confirm this. No portion of the wheelchair or its occupant shall protrude into the normal aisle of the bus when parked in the designated parking space. As a guide, no width dimension should be less than 34", areas requiring 90^0 turns of wheelchairs should have a clearance arc dimension no less than 45" and in the parking area where 180º turns are expected, space should be clear in a full 48" diameter circle. A vertical clearance of 12" above the floor surface should be provided on the outside of turning areas for wheelchair foot rest clearance.

The ramp shall be a 6 to 1 ratio with Stainless steel close-out.

Lights shall be provided above the doorway or adjacent to the stepwell equipped with the wheelchair ramp to floodlight the loading area. The lamps shall illuminate when the ramp is in operation and shall illuminate the street surface as per previous specification. This seat assembly shall be equipped with fold-down seats for use when no wheelchair is parked. Wheelchair position, chair restraints and passenger tiedown shall meet all ADA laws and Federal safety requirements.

1.16 DRIVERS SEAT

Driver's Seat: The driver's seat shall be an air suspension type with headrest, pneumatic side bolsters in the seat back for lateral support and pneumatic lumbar support in the lower part of the seat back cushion. The driver's seat will be an air ride Recaro Ergo Metro (or approved equal) with air bolster adjustment, manual lumbar support, and vent, Highback Vinyl Black Leather with cloth insert required The seat must be equipped with a retractable seat belt that does not interfere with the movement and adjustability of the seat. Upholstery will be ventilated. The driver's seat shall be ergonomically designed so it will adjust to compensate for different driver sizes. All controls must be conveniently accessible by the operator from the seated positions. The driver must be able to operate the manual back recline and seat cushion tilt controls from both sides of the seat. A complete instruction sheet on the operation of the driver's seat shall be installed on the back of the front sun visor.

Seat support shall have sufficient dampening capability to preclude "bouncing" while travelling upon rough roadway surfaces. Fore and aft seat travel must be at least nine (9) inches; adjustment accomplished by an air actuated fore and aft slide release. Seat stops shall be supplied to prevent the seat hitting the driver's barrier. An ABS plastic protective backshell shall be installed onto the seat back to protect the upholstery. Seat back frame shall be constructed of tubular steel, and shall be equipped with a solid steel back that prevents breakthrough. The back pan shall be curved to support the cervical, thoracic, lumbar, and sacral regions of the back.

Seat belts shall be retractable, mounted to the seat with an internal safety strap that allows the seat to meet the FMVSS 207/210 pull test. Seat belt release shall be on the left-hand side of the driver. Vertical

adjustment travel of the seat must not be more than five (5) inches. The seat shall accommodate drivers from the 5th percentile female the 95th percentile male.

1.17 FLOOR COVERING

In addition to the specifications below the Iowa DOT will accept Altro Transflor and Tarabus Galaxy NT transit flooring (or approved equal) in standard colors to be determined for the flooring material. RCA Rubber (or approved equal) shall be available at purchasing agency's option.

1) ***Vestibule:*** The floor in the vestibule shall be covered with 3/16 of an inch, non-skid, rubber composition material that remains effective in all weather conditions. Altro Trans Flor is recommended. The floor covering, as well as transitions of flooring material to the main floor and to the stepwell area, shall be smooth and present no tripping hazards. Floor covering ribs shall run transversely in line with the entrance, longitudinally in line with the aisle. The floor rubber shall; be grey in color. The standee line shall be at least 2" wide and shall extend across the coach aisle in line with the driver's barrier. This line shall be the same color as the edge of the steps, bright yellow.

2) ***Driver's Compartment:*** The floor in the driver's compartment shall be easily cleaned and shall be arranged to prevent debris accumulation. Any floor coverings shall be 3/16 of an inch thick, smooth surface, heavy-duty, rubber composition material. Color of the driver's floor shall be coordinated with the vestibule.

3) ***Passenger Area:*** The floor in the passenger area shall be covered with non-skid rubber composition material that remains effective in all weather conditions. A one-piece center strip shall extend from the rear seat between the aisle sides of transverse seats to the standee line. The covering between the center strip and the wheel housings may be separate pieces. The material shall be 3/16 of an inch thick in the aisle section and longitudinally-ribbed strip as wide as the door shall extend from the center strip to the top step.

At the rear door, however, a separate transversely-ribbed strip as wide as the door will extend from the center strip to the top step.

The floor under the seats shall be covered with 1/8 of an inch thick, smooth surface flooring material. The floor covering shall closely fit the sidewall cover or extend to the top of the cover. Color of the floor covering in the passenger compartment shall be the same as that in the vestibule.

The floor covering will be attached continuously to the subfloor by waterproof adhesives without voids. All seams and interfaces with the wall, wheel wells, etc., will be covered with trim or butt joints that will provide a floor that is free of tripping hazards and easy to clean by dry and wet wash with cleaning solutions. Clear or matching silicone caulking, H.D. Fuller Adhesive, or Sikaflex 221 (or approved equals) will be used at any point such as seams where moisture may enter into the flooring material. Caulking will not be required if the plywood used is marine grade and the adhesive is used.

1.18 WINDOWS

1) ***Windshield:*** The windshields are laminated, formed safety glass ASI, .270" thick laced in a reinforced fiberglass aperture or 1/4" tinted safety or laminated glass is acceptable. The windshield shall permit a driver's field of view as referenced in SAE Recommended Practice J1050. The vertically upward view

shall be a minimum of 15□ measured above the horizontal and including any shaded band. The vertically downward view shall permit detection of an object 3½' high no more than 2' in front of the bus. The horizontal view shall be a minimum of 90□ above the line of sight. Any binocular obstruction due to a center divider may be ignored when determining the 90□ requirement provided that the divider does not exceed a 3□ angle in the driver's field of view. Windshield pillars shall not exceed 10□ of binocular obstruction.

The windshield shall be designed and installed to minimize external glare as well as reflections from inside the bus. When the bus is operated at night with the passenger interior lighting on, essentially no reflections shall be visible in the windshield immediately forward of the driver's barrier. Reflections in the remainder of the windshield shall be minimized, and no reflection of any part of the bus interior behind the driver's barrier shall be visible in the windshield. The windshield shall be easily replaceable by removing zip-locks from the windshield retaining moldings. Bonded-in-place windshield shall not be used. The glazing material shall have single density tint. The upper portion of the windshield above the driver's field of view shall have a dark, shaded band with a minimum luminous transmittance of 6% when tested in accordance to ASTM D-1003. Windshield, driver's window and side windows must not fog at the edges during their useful life. The useful life of this glass is six (6) years.

2) Driver's Window: The driver's window shall be sliding and open sufficiently to permit the seated driver to easily adjust the left outside rear-view mirror. This window section shall slide rearward in tracks or channels. The driver's side window shall not be bonded in place and shall be easily replaceable. The glazing material shall be a ¼" or 7/32" single density tint, laminated safety glass. Window tint shall be green and of 23% light transmittance or match the windshield.

3) Side Windows: Side windows shall extend from the shoulder height of 5th-percentile, seated, female passenger to the eye level of a 95th-percentile, standing male passenger. Vertical mullions between windows including the trim shall not exceed 10" in width. All side windows shall be fixed windows and shall comply with FMVSS-217. The windows will be non-openable by the customer except in an emergency. They shall be easily replaceable without disturbing adjacent windows. The frames shall be black anodized aluminium. Windows are fitted with emergency latches as per FMVSS-211 in the lower portion o the coach.

Options shall be provided for top tip-in transom, flush mount fixed windows, and flush mount top tip-in windows. Exception to top tip-in shall be allowed for narrower window panels. Up to 4 windows may be required to have paint applied to a portion of the glazing.

Side window glazing material shall be ¼" nominal thickness laminate glass, or approved equal. The material shall conform to the requirements of ANSI Z26.1-1977 Standard for Type AS-5 Safety Glazing Materials except for Test Number 17 which shall subject the specimens to 1000 cycles and the arithmetic mean of the percentages of light scattered shall not exceed 5%. Windows on the sides and in the rear door shall be tinted a neutral color, complementary to the exterior. The maximum solar energy transmittance shall not exceed 44%, as measured by ASTM E-424, and the luminous transmittance shall be no less than 16% as measured by ASTM D-1003. The destination sign glass shall be clear. Side window sashes will be made of black anodized aluminium.
Option shall be available for 28% solar energy transmittance.

4) Rear Window: No rear window will be required unless required by the bidder. If it is it will be a fixed, one-piece ¼" single density laminated glass clamped to rear panel or "zipped in".

1.19 INSULATION

1) ***Properties:*** Any insulation material used between the inner and outer panels shall be fire-resistant and sealed to minimize entry of moisture and to prevent its retention in sufficient quantities to impair insulation properties. Insulation properties shall be unimpaired by vibration compacting or settling during the life of the bus. The insulation material shall be non-hygroscopic and resistant to fungus and breeding of insects. Any insulation material used inside the engine compartment shall be fire-resistant and shall not absorb or retain oils or water.

2) ***Thermal Insulation:*** The combination of inner and outer panels on the sides, roof, and ends of the bus, and any material used between these panels shall provide a thermal insulation to meet the interior temperature requirements. The body shall be adequately sealed so that drafts cannot be felt by the driver or passengers during normal operations with the passenger doors closed. Styrofoam SM brand thermal insulation is used between panels.

3) ***Sound Insulation:*** The combination of inner and outer panels and any materials used between them shall provide sufficient sound insulation so that a sound source with a level of 80 Dba measured at the outside skin of the bus shall have a sound level of 65 Dba or less at any point inside. These conditions shall prevail with all openings, including doors and windows, closed and with the engine and accessories switched off.

The bus-generated noise level experienced by a passenger in any seat location in the bus shall not exceed 83 Dba and the driver shall not experience a noise level of more than 75 Dba under the following test conditions.

The bus shall be empty, except for test personnel, not to exceed four persons, and the test equipment. All openings shall be closed and all accessories shall be operating during the test. The bus shall accelerate at full throttle from a standstill to 35 mph on level commercial asphalt or concrete pavement in an area free of large reflecting surfaces within 50’ of the path. During the test, the ambient noise level in the test area shall be at least 10 dB lower than the bus under test. Instrumentation and other general requirements shall conform to SAE Standard J366. If the noise contains an audible discrete frequency, a penalty of 5 Dba shall be added to the sound level measured.

1.20 ANCILLARY FEATURES

1) ***Visors:*** Adjustable sun visor(s) will be provided for the driver's side of the windshield and the driver's side window. Visor(s) will be shaped to minimize light leakage between the visor and windshield pillars; there must not be a gap of greater than 1". Pull down visors are requested. If one visor will not cover sufficiently then two are required**.** Visors will store out of the way and will not obstruct air flow from the climate control system or foul other equipment such as the radio handset or the destination control. Deployment of the visors will not restrict vision of the rearview mirrors. Visor adjustments will be made easily by hand. Sun visor construction and materials will be strong enough to resist breakage during adjustments. Visors, when deployed, will be effective in the driver's field of view at angles more than five degrees above the horizontal. The sun visor for the operator’s window shall be the roller shade type of visor. In addition to visors, a coat hook and strap shall be installed in the driver’s area.

2) ***Exit Signal:***

General: A passenger chime signal audible to the driver and to passengers anywhere inside the coach will be provided. The chime will have pull cords that are convenient to seated passengers, standees, and passengers standing at the rear door. Standees will be able to easily reach the

chime signal located near the passenger interior lighting fixtures. Separate controls shall be provided at each wheelchair securement location which shall be no more than 48” nor less than 15" above the floor these will be tape switch or touch pad at purchasing agency’s option. It shall be operable by one hand and shall not require tight grasping, pinching, or twisting of the wrist. Force required shall not exceed 5 foot pounds. A driver-controlled toggle switch will deactivate the chime system. A stop request feature is to be incorporated into the exit signal system; this will feature an electric sign in the front center of the bus noting a stop has been requested and a colored light on the operator dash plainly visible to the driver. Under the ADA design criteria, a separate light signal is required for wheelchair patrons. Therefore, the Iowa DOT will approve a system that meets ADA requirements.

3*)* ***Outside Mirrors:*** The base bid shall include remote control and heated mirrors. The coach will be equipped with remote controlled, corrosion resistant, outside rearview mirror on each side of the coach. The mirrors will permit the driver to view the highway along both sides of the bus including the rear wheels. Each rear-view mirror will measure at least ten inches (height) by eight inches (width) and have a minimum surface area of 80 square inches. Additionally, a 5" diameter convex mirror will be mounted to the rectangular mirror; it will be above the rectangular mirror on both sides of the bus. Additionally, a 4” by 6" convex mirror will be mounted to the rectangular mirror on the passenger side of the bus. Mirrors will be firmly attached to the coach to prevent vibration and loss of adjustment, but not so firmly attached that the coach or its structure is damaged when the mirror is struck in an accident. The right side rearview mirror will be mounted so that its lower edge is no less than 80 inches above the street surface. Mirrors will retract or fold sufficiently to allow automatic washing operations.

4) ***Inside Mirrors:*** Mirrors shall be provided for the driver to observe passengers throughout the bus without leaving his seat and with shoulder movement, with a full standee-load, (including standees in the vestibule) he shall be able to observe passengers in the front and rear stepwells, anywhere in the aisle, and in the rear seats. Inside mirrors shall not be in the line of sight to the right outside mirror.

A center rear view mirror will be located above the windshield. A right windshield header mirror, 6" round, will be located so as not to interfere with passenger traffic and be mounted on an adjustable bracket. A 12" parabolic mirror will be mounted at the exit door area to an adjustable bracket and allow the operator to view the exit door and stepwell area.

5) ***Safety Equipment:***

a) 5 lb Fire extinguisher (ABC type). The safety equipment shall be mounted where it is easily accessible to the Driver.

b) Safety Triangles - three bi-directional emergency reflective triangles conforming to the FMVSS 125 in a case and mounted.

c) First Aid Kit - one First Aid Kit meeting or exceeding the requirements of Manufacturers Code 81.16. It shall contain at a minimum - 2 units of 1" adhesive tape at least 7.5' long - 2 units of sterile gauze pads that are 3" by 3" and a minimum of 12 per unit - one box of 100 bandages that are 3/4' by 3"- disposable CPR mouth piece. In addition, a standard Body Fluid Clean-Up Kit shall be provided. This is the minimum requirement.

d) Bio Hazard-Blood borne Pathogen Kit

e) Seat Belt Cutter.

f) Fire blanket

6) ***Public Address System:*** A public address system with filters to eliminate electrical interference, shall be provided and installed in the coach. The system shall be in total compliance with the American Disabilities Act of 1990. Six speakers shall be installed above the side windows mounted three on each side of the ceiling or beneath the light fixtures from the front to the rear of the bus. External speaker(s) will also be provided along with a convenient driver operator switch that will allow the driver to use no speakers, interior speakers, exterior speakers, or all speakers. The external speaker will be mounted above the door that contains the wheelchair platform. If that is the rear door than a second speaker will be provided above the front door (the speaker near the front door may be on the side panel in front of the wheel or in front of the door). A floor mounted on/off switch shall be installed to allow the driver to activate the system with both hands on the wheel. A black goose neck microphone shall be installed for the operators use. The microphone shall not obstruct the operators view while driving. The system shall have a speaker selector switch to activate interior only, exterior only, or both sets of speakers.

A volume level control switch shall also be integrated into the system. The amplifier shall have an accessible microphone and enough cord to reach the first passenger seat curb side of the coach. An input jack shall be provided in the driver's area along with a handheld microphone for each coach. The amplifier shall be mounted so it will not be damaged by movement of the driver's seat.

7) ***Drivers Security Box:*** A security box shall be provided in the general driver's area to allow the driver to secure his valuables. The box cover shall be retained with a 1/4 turn thumb latch.

8) **Hubodometer:** A hubodometer on the right rear wheel with a guard is required.

1.21 PASSENGER ASSISTS

1) ***General Requirements:*** Passenger assists in the form of full grip, vertical stanchions or handholds shall be provided for the safety of standees and for ingress/egress. Passenger assists shall be convenient in location, shape, and size for both the 95th-percentile male and the 4th-percentile female standee. Starting from the entrance door and moving anywhere in the bus and out the exit door, a vertical assist shall be provided either as the vertical portion of seat back assist or as a separate item so that a 5th-percentile female passenger may easily move from one assist to another using one hand and the other without losing support. Excluding those mounted on the seats and doors, the assists shall be 1¼" in diameter or width with radii no less than ¼". All passenger assists shall permit a full hand grip with no less than 1½" of knuckle clearance around the assist. One hanging strap is required between each vertical pole with a minimum of ten per bus. To clarify all vertical assists shall be covered with yellow powder coat and all horizontal assists shall be brushed stainless steel.

A crash resulting in a 1 foot intrusion shall not produce sharp edges, loose rails, or other potentially dangerous conditions associated with a lack of structural integrity of the assist. All joints in the assist structure shall be underneath supporting brackets and securely clamped to prevent passengers from moving or twisting the assists. All areas of the passenger assists that are handled by passengers including functional components used as passenger assists, shall be 16 gauge stainless steel with 180 grid finish. Assists shall withstand a force of 300 pounds applied over a 12" lineal dimension in any direction normal to the assist without permanent visible deformation. Brackets, clamps, screw heads,

and other fasteners used on the passenger assists shall be free of rough edges.

2) ***Vestibule:*** The aisle side of the driver's barrier and the modesty panels shall be fitted with vertical passenger assists. These assists shall have sufficient clearance from the barrier to prevent inadvertent wedging of a passenger's arm. A horizontal passenger assist shall be located across the front of the bus and shall prevent passengers from sustaining injuries of the fare collection device or windshield in the event of a sudden deceleration. Without restricting the vestibule space, the assist shall provide support for a boarding passenger from the front door through the fare collection procedure.

Passengers shall be able to lean against the assist for security while paying fares. The assist shall be no less than 36" above the floor or the average step tread surface. The assists at the front shall be arranged to permit a 5th percentile female passenger to easily reach from the door assist, to the front assist, to vertical assists on the driver's barrier or front modesty panel.

3) ***Overhead:*** Except forward of the standee line and at the rear door, a continuous, full-grip overhead assist shall be provided. This assist shall be convenient to standees anywhere in the bus and shall be located over the center of the aisle seating position of the transverse seats. The assist shall be no less than 70" above the floor. Overhead assists shall simultaneously support 150 pounds on any 12" length. No more than 5% percent of the full grip feature shall be lost due to assist supports. In the area over the wheelchair position a plastic assist will hang from the overhead assist.

Two grab straps per section (defined by vertical assists) shall be provided.

4) ***Longitudinal Seats:*** Longitudinal seats, excluding flip up seats, shall have vertical assists located between every other designated seating position. Assists shall extend from near the leading edge of the seat and shall be functionally continuous with the overhead assist. Assists shall be staggered across the aisle from each other where practical and shall be no more than 52" a part.

5) ***Rear Doorway:*** Vertical assists that are functionally continuous with the overhead assist shall be provided at the aisle side of the transverse seat immediately forward of the rear door and on the aisle side of the rear door modesty panel. Read doors, or the exit area, shall be fitted with assists no less than ¾" in width and shall provide at least 1½" of knuckle clearance between the assists that are functionally continuous during the entire exiting process, and the assists shall be no more than 6" from the outside edge of the lower step tread.

1.22 ELECTRONIC DESTINATION SIGN SYSTEM

1) ***Function & Description:*** An automatic electronic destination sign system is required. A side destination sign shall be provided as well as a rear sign and a remote emergency switch shall be provided that will display an emergency message on the exterior of the vehicle. The message will not appear on the driver's message monitor. The switch will be mounted on the drivers control panel and not on the floor area. Controls will be reachable by a seated driver. The route names will be expanded by not more than 10 entries from the current configuration. The colors of the signs will be yellow dots on black background. The glass in front of the destination sign shall be heated and the compartment ventilated (fans required) so as to prevent fogging in cold weather.

There will be a Front Destination Sign, Side Destination Sign, and Rear Sign.

The sign system shall be re-programmable on the coach with the use of a Memory Transfer Unit (MTU) or Memory Transfer Card (MTC).

2) ***Destination sign-readings:*** A list of destination sign reading will be supplied to the manufacturer to allow the signs to be pre-programmed with the correct readings.

3) *Power*: Destination sign power shall be supplied in all settings of the Master Run Switch except ENGINE STOP/OFF.

1.23 WHEELCHAIR PASSENGERS

1) ***Accommodations:*** A fold out electrical (hydraulic backup) operated ramp (ADA compliant) with stainless steel tray shall be provided at the front door for deployment by the driver from the drivers seated position. The deployed ramp measuring 30.5" wide or wider and 44" long or longer shall fold out to the curb height and retract back into a recessed floor area. The recessed area shall be designed to prevent passengers from tripping or falling while entering and exiting the bus. The seats shall be utilized as a regular seat and/or a wheelchair seat folded.

The driver's controls consist of an easy to operate three-position toggle switch on the instrument panel marked DEPLOY-STOW or DEPLOY - FLOAT - STOW. The ramp will be the flip out not cassette style of ramp. The ramp must be able to be manually deployed by a pull strap. It shall also be sealed so that dirt and debris will not enter the mechanism.

For each wheelchair position the wheelchair restraint devices shall be floor mounted. In addition, applicable ADA belts shall be provided. Wheelchair accessible buses will have two forward facing tie downs and jump seats. An extra seat belt extension that is 24 inches in length will be provided with each bus.

The exit signal shall be easy to reach. All systems must meet current ADA rules and regulations.

Bidders are to submit seating arrangements and wheelchair restraint device design along with their bid proposal.

1.24 Propulsion System

1) ***Power Requirements:*** Propulsion system and drive train shall provide power to enable the bus to meet the defined acceleration, top speed, and gradability requirements. Sufficient excess power shall be available to operate all accessories.

2) ***Top Speed:*** The bus shall be capable of a top speed of 60 mph (for emergency and passing manoeuvres) on a straight, level road at SLW with all accessories operating. Option shall be available for top speed of 68 mph governed to 65 mph.

3) ***Gradability:*** Gradability requirements shall be met on grades with a surface friction coefficient of 0.3 and above at SLW with all accessories operating. The standard configuration power plant shall enable the bus to maintain a speed of 38 mph on a 5% grade and 22 mph on a 10% grade or 40 mph on a 4.47% grade and 22 mph on an 8.25% grade. Gradability is more important than top speed. Final gear ratios will be discussed with successful bidder.

4) ***Acceleration:*** An average acceleration rate of at least 0.6g shall be achieved at SLW between 0 and 15 mph. Acceleration measurement shall commence when the accelerator is depressed.

5) ***Jerk:*** Jerk, the rate of change of acceleration, shall be minimized throughout the acceleration/deceleration range and shall average 0.3g/sec under normal driving conditions.

6) ***Operating Range:*** The operating range of the bus run on the design operating profile shall be at least 300 miles on a fill-up of fuel in the Duluth\Superior area.

1.25 Power Plant Mounting and Accessories

1) ***Mounting:*** The power plant shall be mounted in a compartment in the rear of the coach. The engine, transmission, and radiator shall be mounted in a cradle assembly which can be easily removed by the use of a standard industrial forklift or frame mounted with easy access to these components. If needed, guide pins or self-centering slides shall be incorporated so that the installation can be easily accomplished by one person. All power plant mounting will be mechanically isolated by means of rubber mounts to minimize transfer of vibration to the body structure. The power plant shall be mounted in a compartment in the rear of the bus. All power plant mounting shall be mechanically isolated to minimize transfer of vibration to the body structure.

2) ***Service:*** The power plant shall be arranged so that accessibility for all routine maintenance is assured. No special tools, other than dollies and hoists shall be required to remove the power plant. Two mechanics shall be able to remove, replace, and prepare the engine and transmission assembly for service in less than 20 total combined man-hours. The muffler, exhaust system, air cleaner, air compressor, starter, alternator, radiator, all accessories, and any other component requiring service or replacement shall be easily removable and independent of the engine and transmission removal. An engine oil pressure gauge, coolant temperature gauge, engine control switch, starter controls switch and lamp switch shall be provided in the engine compartment. The gauges shall be easily read during service and mounted in an area where they shall not be damaged during minor or major repairs.

Engine oil and the radiator filler caps shall be hinged to the filler neck and closed with spring pressure or positive locks. All fluid fill locations shall be properly labelled to help ensure correct fluid is added and all fillers shall be easily accessible with standard funnels, pour spouts, and automatic dispensing equipment. All lubricant sumps shall be fitted with magnetic-type, external, hex head, drain plugs of a standard size excluding the transmission.

The engine and transmission shall be equipped with sufficient heavy-duty fuel and oil filters for efficient operation and to protect the engine and transmission between scheduled filter changes. The engine oil filter shall be OEM. All filters shall be easily accessible and the filter bases shall be plumbed to assure correct re-installation. There will be shut off valves on either side of **all** removable filters so as to prevent loss of fluids when changing the filter. Where filters are mounted directly to the engine block or are the internal cartridge type for the transmission the shut off valves are not required. Fuel and oil lines within the engine compartment shall be rigidly supported and shall be composed of steel tubing where practical except in locations where flexible lines are specifically required. Flexible fluid lines shall be kept at a minimum and shall be as short as practical. They shall be routed or shielded so that failure of a line shall not allow fuel or oil to spray or drain onto any component operable above the auto-ignition temperature of the fluid. Flexible

lines shall be FC300 except in applications where premium hoses are required, such as the Power Steering output line, and shall have standard SAE or JIC brass or steel, reusable, swivel, end fittings. Hoses shall be individually supported and shall not touch one another or any part of the bus. A fuel priming pump or a check valve fitted in the fuel suction line to aid restarting after fuel filter changes. Flexible hoses may be used, but must meet all Federal safety regulations.

3) ***Accessories:*** Engine-driven accessories shall be unit mounted for quick removal and repair. Accessory drive systems shall operate without failure or unscheduled adjustment for 50,000 miles on the design operating profile. These accessories shall be driven at speeds sufficient to assure adequate system performance during extended periods of idle operation and low route speed portion of the design operating profile. Belt guards shall be provided as required for safety and shall be sturdy in design and installation and readily removable.

1.26 Engine

1) ***Type:*** Engine: The engine will be an ISL Cummings (or approved equal) that meets current fuel requirements. The engine provided must be capable of generating a minimum of 275 brake horsepower at 2100 RPM and 890 foot pounds of torque at 1200 rpm. During the warranty period, the local engine dealer will perform all warranty maintenance on the engine.

The engine will also be mounted on rubber type mounts to the vehicle frame and body for isolation of noise and vibration, so as to provide maximum isolation of audible frequencies over the range of 35 to 275 Hertz (cycles per second). The engine shall, with normal maintenance, operate with no smoke or objectionable odor using fuels and oils meeting the manufacturer's recommendation. The engine shall meet all Federal emission regulations applicable.

The engine will operate for 300,000 miles without major failure or significant deterioration. It will have traction control. Traction Control is linked to the brakes ABS. If the offeror proposes an engine other that specified in the IFB, the offeror must provide the Iowa DOT with the following information before their request will be considered.

a. Full technical specifications of the engine being proposed.

b. The length of the warranty period and the name of the local service representative that will be handling the engine during the warranty period.

c. Parts manual and price catalogue showing the cost of engine parts.

d. Additional training that will be provided to the purchasing agency.

e. Complete list of transit systems in the United States using the proposed engine in 40-foot transit buses. This list must clearly show the date the buses were placed in service, the present chassis mileage on the buses, contact person, and the telephone number for each system.

The engine will meet all requirements when operating on No. 2 diesel fuel (with a minimum of 2% and a maximum of 10% ethanol) or Ultra Low Sulphur diesel (which requires a stainless-steel particulate trap) including State-mandated biofuel content between 2 and 20%. Durability of the engine and its components will not be seriously reduced and the requirement of Section 3.1.4.1 will be met by operation on either of the commercially available diesel fuels.

The engine will be equipped with a driver-controlled fast idle device. The starter must be shielded from

all fluids, such as fuel or oil. The device will activate only with the transmission in neutral and parking brakes applied. This device may be used to help meet the requirements of coach cool down in Section 3.7. The engine starter will be protected by an interlock that prevents its engagement when the engine is running. The starter will be prevented from engaging when the transmission selector is in any position other than neutral.

An air filter restriction indicator will be provided and calibrated to 20 inches of water/vacuum.

All major repairs to the engine during the warranty period will be the responsibility of the Offeror. The Offeror will provide full details on the warranty service center the Offeror is planning to use.

The engine shall be equipped with an automatic engine shut-off circuit, with time delay and overrule switch. The automatic engine shut-off circuit shall be activated by each of the following warning systems:

- low engine coolant,
- engine overheat, and
- low engine oil pressure.

The engine shall operate to the manufacturers recommended design operating profile without major failure or significant deterioration.

An oil extraction fitting shall be attached to the engine's oil pressure gauge.

2) ***Fast Idle:*** The engine shall be equipped with a fast idle device either driver-controlled or automatically activated with the interior climate control system. If driver-controlled the device shall activate only with the transmission in neutral.

3) ***Air Intake:*** The engine air intake shall be through an opening at the rear top of the bus. The engine air duct shall be so positioned as to minimize water entrance into the air induction system. A passage shall be provided so that any water which does find entry into the system can be drained prior to entry into the air cleaner element.

4) ***Cooling System:*** Temperature of operating fluids shall be controlled by a cooling system(s). The cooling system shall be sized to maintain fluids at safe, continuous operating temperatures during the most severe operations possible with the bus loaded to GVWR and with ambient temperatures up to 115º. The engine shall be cooled by a water-based, pressure type, cooling system that does not permit foiling or coolant loss during the operations described above.

The cooling system shall incorporate an engine thermostat and fan by means of a single belt. The temperature settings shall open at 180ºF and activate a hot engine warning at 212ºF. The 180º engine thermostats shall be easily accessible for replacement. The engine cooling system shall be equipped with a properly sized water filter with a spin-on, disposable, and borate element filter (this is not required on the ISL ultra low sulphur engine). Shutoff valves shall allow filter replacement without coolant loss. Valves shall permit complete shutoff of both lines for the heating and defroster units. All low points in the water-based cooling system shall be equipped with drain cocks. Air vent valves shall be fitted at high points in the cooling system unless it can be demonstrated that the system is self-purging.

A minimum of one sight glass to determine satisfactory engine coolant level shall be provided and shall be accessible by opening one of the engine compartment's access doors. A spring-loaded, push button

type valve to safely release pressure or vacuum in the cooling system shall be provided, with water filler, no more than 60" above the ground and both shall be accessible through the same access door.

Both the radiator and tubing shall be epoxy coated. The radiator shall be of durable corrosion-resistant construction with bolted-on removable tanks. The L & M radiator is desired. If other radiators are requested the bidder will have to commit to replacing them at their cost (Parts and labor) for 5 full years. Radiator piping shall be stainless steel or brass tubing and if practical, rubber hoses shall be eliminated. Necessary hoses shall be premium, silicone rubber type that are impervious to all coach fluids (FC300 are acceptable). All hoses shall be secured with "Breeze Constant Torque" premium, stainless steel, and wide band type clamps with a collared screwdriver head (or approved equal). Fan speed shall be controlled by a direct belt drive from the crank-shaft to minimize fan noise. No heat producing components or climate control system components shall be mounted between the engine cooling air intake aperture and the radiator. The coolant system shall be equipped with gate valves in the heating and defroster lines. Hydraulic fans are acceptable.

The fan will be direct or fluid hydraulic driven. No heat producing components or climate control system components will be mounted between the engine cooling air intake aperture and the radiator(s). All cooling system fittings are to be cast iron or brass.

The coach will be delivered with 50-50 mixture of water and ethylene glycol (green in color) antifreeze recommended by the engine and transmission manufacturer.

5) Transmission: The transmission shall be a Voith DIA W4, D864 (or approved equal). An ATF extraction fitting shall be attached externally to the valve body of the transmission. Electrically operated driver gear selector is acceptable. A mechanic, with optional assistance, shall be able to remove, replace, and prepare the transmission assembly for service in less than ten total combined man-hours. The transmission shall operate for 150,000 miles on the design operating profile without repairs. The side panels of the engine compartment shall be ventilated to allow outside air to flow across power unit. The panel shall be screened in such a way to prevent manual access into the engine compartment with the panel in the closed position. A retarder is required and there will be an amber LED light on the exterior of the bus (upper right rear) that is lit when the retarder is in use bidders shall run the wiring for this and provide the light as well as the mounting hole. At the purchasing agency's option, this pre-wiring shall be deleted. The transmission shall be equipped with a drain plug on the tongue converter.

If the offeror proposes a Transmission other that specified by this RFP the offeror must provide the Iowa DOT with the following information before their request will be considered.

a. Full technical specifications of the transmission being proposed.

b. The length of the warranty period and the name of the local service representative that will be handling the transmission during the warranty period.

c. Parts manual and price catalogue showing the cost of transmission parts.

d. Additional training that will be provided to the purchasing agency

e. Complete list of transit systems in the United States using the proposed transmission in 40 foot transit buses. This list must clearly show the date the buses were placed in service, the present chassis mileage on the buses, contact person, and the telephone number for each system.

A large external repairable (rebuildable) heat exchanger will be provided which is capable of cooling the transmission.

The transmission gear selection controls will be electronic and meet or exceed the requirements of FMVSS 102. The transmission will be equipped with a starter interlock to prevent starting the coach unless the transmission is in neutral.

The transmission will be equipped with a disposable filter that may be top loading. The filter will be mounted in a location which is convenient for servicing. In lieu of a dipstick the bidder will provide an electronic transmission gauge to measure the correct fluid levels.

All major repairs to the transmission during the warranty period will be the responsibility of the offeror. The offeror will provide full details on the warranty center the offeror is proposing to use.

6) Engine Compartment Ventilation: The left-hand side of the engine compartment shall be ventilated to allow outside air to flow into the radiator. The panel shall be screened in such a way to prevent manual access into the engine compartment with the panel in the closed position.

1.27 Emissions

1) Gas and Smoke: The bus shall meet all applicable emission standards required by the Federal government.

2) Exhaust Location: Exhaust gases and waste heat shall be discharged by an exhaust above the top of the bus rear roof.

3) Exhaust System: A stainless steel single muffler shall be provided.

4) Exterior Noise: Airborne noise generated by the bus and measured from either side shall not exceed 83 Dba under full power acceleration when operated at or below 35 mph at curb weight, just prior to transmission up shift.

1.28 Final Drive

1) Rear Axle: Rear axle shall be heavy duty low profile axle manufactured by Rockwell (Meritor's 61143 or 71163 are acceptable) or MAN. Load rating shall be sufficient for the bus loaded to GVWR. Ring gear must be bolted instead of riveted or welded. Transfer of gear noise to the bus interior shall be minimized. The driven axles shall operate for 300,000 miles on the design operating profile without repairs. Wheels bearing inner grease seal shall run on a replaceable wiper ring or the tube. The axle ratio shall be determined after contract signing with the intent of a maximum speed of 60 mph and low-end power.

2) Propeller Shaft: Propeller shaft shall be a minimum of 3.5" O.D. heavy duty type utilizing Spicer 1710 Series or 1700 series universal joints (or approved equal). The drive shaft shall be guarded to prevent striking the floor of the bus or the ground in the event of a tube or universal joint failure. It shall be flanged or yoke mounted to the axle and yoke mounted to the transmission.

1.29 SUSPENSION

1) General Requirements: The front axle shall be a solid beam type axle with air suspension, non-driving

with a load rating sufficient for the bus loaded to GVWR. It shall be manufactured by Rockwell or Mann. Both the front and rear axle suspensions shall be pneumatic type. The basic suspension system shall last the life of the bus without major overhaul or replacement. Items such as bushings and air springs shall be easily and quickly replaceable by a mechanic. Adjustment points shall be minimized and shall not be subject to a loss of adjustment in service. Necessary adjustments shall be easily accomplished without removing or disconnecting the components. Both front and rear axle shall be equipped with oil seals.

2) ***Regulation and Operation:*** The pneumatic system shall be regulated by levelling valves (warranties for 150,000 miles) located at front and rear wheel locations. The suspension system shall maintain a constant floor height in relation to the axles regardless of load. The source of air shall be the accessory air tank, and a pressure regulating valve shall protect against air loss from leaks in the suspension air springs. Warranty for consumable components one year or 50,000; structural members three years or 150,000; and structural (except where covered elsewhere in this specification) is seven years or 350,000

3) ***Travel:*** The suspension system shall permit a minimum wheel travel of 3.5" in jounce and 3" in rebound. Elastomeric bumpers shall be provided at the limit of jounce travel. Rebound travel may be limited by elastomeric bumpers or hydraulically within the shock absorbers. Suspensions shall incorporate appropriate devices for automatic height control so that regardless of lead the bus height required elsewhere.

4) ***Kneeling:*** A driver-actuated kneeling device shall lower the bus during loading or unloading operations regardless of load to a floor height of 12.5" measured at the longitudinal centerline of the front door. A kneeler is not required if the floor height is 11.5" or less off the pavement. Brake and throttle interlock shall prevent movement when the bus is kneeled. The bus shall kneel and rise at an essentially a constant rate. After kneeling, the bus shall rise within two seconds to a height permitting the bus to resume service and shall rise to the correct operating height within five seconds. During the lowering and raising operation, the maximum acceleration shall not exceed 0.2g and the jerk shall not exceed 0.3g/sec. measured on the front door step tread. An indicator visible to the driver shall be illuminated until the bus is raised to a height adequate for safe street travel. The manufacturer is to provide and install both audible and visual warning devices that operate together with the kneeling system. Devices are to be easily seen and heard by boarding passengers at the front door. Audible devices are to be an identical beeping or buzzing tone on all buses. Both devices are to be operated from a single control mechanism/switch.

5) ***Damping:*** Vertical damping of the suspension system shall be accomplished by hydraulic shock absorbers mounted to the suspension arms or axles and attached to an appropriate location on the chassis. Damping shall be sufficient to control coach motion to four cycles or less after hitting road protuberances. Shock absorbers shall maintain their effectiveness for at least 50,000 miles in normal service, and each unit shall be replaceable by a 2M mechanic in less than 15 minutes.

6) ***Lubrication:*** All elements of steering, suspension, and drive systems requiring scheduled lubrication shall be provided with grease fittings conforming to SAE Standard J534. These fittings shall be located for ease of inspection, and shall be accessible with a standard grease gun with or without flexible hose end from a pit or with the bus on a hoist. Each element requiring lubrication shall have its own grease fitting with a relief path. Lubricant specified shall be standard for all elements serviced by standard fittings.

1.30 Steering

1) ***Strength:*** Fatigue life of all steering components shall exceed 1,000,000 miles. No element of the steering system components shall fail before suspension system components when one of the tires strikes a severe road hazard.

2) ***Turning Radius:*** Outside body corner turning radius for a standard configuration for 40' long bus shall not exceed 45.5' at SLW and for a 35' long bus, shall not exceed 39' at SLW.

Each proposer will furnish the Iowa DOT with a detailed scale drawing of the turning envelope that accurately depicts the turning envelope for a right and left-hand turn at the time of the proposal

3) ***Design:*** Steering column is to be Douglas Model 909, Model 929 or approved equal (including the TRW model with the same features), tilt-type design and telescoping, with four positions, for maximum adaptability to individual drivers. When steering column location is selected a positive lock shall engage to prevent inadvertent movement of column.

4) ***Turning Effort:*** The steering wheel shall be no less than 20" in diameter and shall be shaped for firm grip with comfort for long periods of time. The steering wheel shall be removable with a standard or universal puller.

Hydraulically-assisted power steering shall be provided. The steering gear shall be an integral type with flexible lines eliminated or the number and length minimized. Steering torque applied by the driver shall not exceed 10-foot pounds with the front wheels straight ahead to turned 10□. Steering torque may increase to 70-foot pounds when the wheels are approaching the steering stops. Steering effort shall be measured with the bus at SLW, stopped with the brakes released and the engine at normal idling speed on clean, dry, level, commercial asphalt pavement and the tires inflated to recommended pressure. Power steering failure shall not result in loss of steering control. With the bus in operation, the steering effort shall not exceed 55 pounds at the steering wheel rim and perceived free play in the steering system shall not materially increase as a result of power assist failure. Gearing shall require no more than seven turns of the steering wheel lock-to-lock.

Caster angle shall be selected to provide a tendency for the return of the front shields to the straight position with minimal assistance from the driver.

1.31 BRAKES

1) ***Actuation:*** Service brakes shall be controlled and actuated by an air system. The system shall be balanced with no front/rear displacement. E10, Bendix E6, E8P, E15 (or approved equal) brake valves are required. Force to activate the brake pedal control shall be an essentially linear function of the bus deceleration rate and shall not exceed 70 pounds at a point 7" above the heel point of the pedal to achieve maximum emergency braking. Microprocessor controlled Antilock Braking System (ABS) shall be provided. The microprocessor for the ABS system shall be protected yet in an accessible location to allow for ease of service. The total braking effort shall be distributed between all wheels in such a ratio as to ensure equal friction material wear rate at all wheel locations.

Microprocessor-controlled Automatic Traction Control (ATC) shall be available as an option.
Four-wheel disc brakes shall be available as an option, including allowance for machining up to ¼" on each side.

Activation of the ABS and/or ATC shall override the operation of the brake retarder

2) ***Friction Material:*** The entire service brake system, including friction material, shall have an overhaul or replacement life of at least 30,000 miles when running on the design operating profile. Brakes shall be self-adjusting throughout this period. The slack adjusters will have the proper rated inch point torque specification and be of the proper length to provide the necessary leverage and to avoid excessive travel of brake diaphragm. Levers will not have more than one hole and it will be properly bushed. The slack adjusters will not be repairable and a have a grease fitting for periodical lubrication and will have a normal replacement life of 100,000 miles. The S-cam (Quick-cam) brakes are required.

Brake lining must be designed and approved for use on the vehicle being proposed. Brake lining must provide optimum performance with the brake system being used and will minimize brake noise under all weather conditions. Non-asbestos material will be used in the brake lining. Tenneco Brake block is requested. Front and rear brake material must be the same.

3) ***Hubs and Drums:*** Front hubs will be of the type that can be disassembled to remove bearings, races, and seals. Both front and rear axles shall have oil seals.

4) ***Air System:*** The bus air system shall operate all accessories and the braking system with reserve capacity. This system shall be equipped with a remote air hook-up, Schrader type (or equal) located in the engine compartment that will allow hook-up for auxiliary air. The engine-driven air compressor shall be sized to charge the air system from 40 psi to the governor cut-off pressure in less than three minutes while not exceeding the engine's rated speed. Regardless of the system's air pressure, idle up to the rated engine speed shall be available to the driver with the transmission in neutral and the parking brake applied. The air system shall have an oil separator. ADIT High cycle required.

Four air tanks shall supply air for the vehicle's air suspension system, windshield wipers, door operating mechanism and brake system. These air tanks will be mounted in the ceiling behind the interior fluorescent lights, easily accessible for inspection and maintenance. Air tank sizing and plumbing will be in accordance with the requirements of the FMVSS-121. The air storage system shall have a combined capacity of at least 6520 cubic inches.

Check valves shall be furnished between the first and all other air tanks and shall be located adjacent to the other tanks. First air tanks shall have 150 psi safety valve. All air tanks to be equipped with quality brass petcock type drain cocks.

Air lines, except necessary flexible lines, shall conform to the installation and material requirements of SAE Standard J844 Type 1 for copper tubing with standard, brass, flared or ball sleeve fittings, or SAE Standard J844 Type 3B for nylon tubing if not subject to temperatures over 200□F. Accessory and other non-critical lines may use Type 3A tubing. Nylon tubing shall be installed in accordance with the following color-coding standards:

Green	-	indicates primary brakes and supply.
Red	-	indicates secondary brakes.
Brown	-	indicates parking brake.
Yellow	-	indicates compressor governor signal.
Black	-	indicates accessories.

Line supports shall prevent movement, flexing, tension strain, and vibration. Copper lines shall be supported by looms to prevent the lines from touching one another or any component of the coach. To the extent practical and before installation, the lines shall be pre-bent on a fixture that prevents tube

flattening or excessive local strain. Copper lines shall be bent only once at any point, including pre-bending and installation. Rigid lines shall be supported at no more than 5 foot intervals.

The compressor discharge line between power plant and body-mounted equipment shall be flexible convoluted copper or stainless steel line, or may be flexible Teflon hose with a braided stainless steel jacket. Other lines necessary to maintain system reliability shall be FC 300 hose. End fittings shall be standard SAE or JIC brass or steel, flanged, reusable, swivel type fittings. Flexible hoses shall be as short as practical and individually supported. They shall not touch one another or any part of the bus except for the supporting grommets. Flexible lines shall be supported at 30 inch intervals or less. Air lines shall be cleaned and blown out before installation and shall be installed to minimize air leaks. New buses shall not leak down more than 6 psi as indicated on the instrument panel mounted air gauges, within 15 minutes from the point of governor cut-off.

All air lines shall be sloped toward a reservoir and routed to prevent water traps wherever practical. Grommets shall protect the air lines at all points where they pass through understructure members. Provision shall be made to apply shop air to the bus air systems using a standard tire inflation type valve. This valve shall be conveniently located in the engine compartment and shall include a 3/8" FIP fitting ahead of the tire inflation valve.

Air for the compressor shall be filtered through the main engine air cleaner system. All air reservoirs shall meet the requirements of SAE Standard J10 and shall be equipped with clean-out plugs and guarded or flush type drain valves. These valves and any automatic moisture ejector valves shall be protected from road hazards by major structural members. Reservoirs shall be sloped toward the drain valve. The air system shall be protected by a pressure relief valve set at 150 psi and shall be equipped with check valves and pressure protection valves to assure partial operation in case of line failures.

An air dryer shall prevent accumulation of moisture in the air system. It shall have a dual filter and be designed for buses. It shall be vertical-mount, desiccant type with replaceable desiccant cartridge and thermostatically controlled heater element. It shall have automatic purge and drain cycle, and be cleanable through the bottom of the unit.

5) Parking Brake: The parking brake shall be an air release, spring applied drum type mounted to the rear axle drum assembly. The parking brake shall be controlled by a push-pull air valve at the driver's location. This brake shall comply with requirements of FMVSS-121. The parking brake system should use the rear axle drum brakes and spring brake chambers.

6) Wheels and Tires: Painted or powder coated steel wheels as manufactured by Accuride (or equal) shall be provided. Wheels shall be size 22.5" X 8.25", accommodate tubeless tires, are ten stud and be hub pilot mounted. Wheel hubs shall be painted.

Options shall be available for polished Aluminium wheels and for purchased tires (Michelin/Bridgestone/Firestone acceptable).

1.32 GENERAL CHASSIS

1) Fuel Tank: The fuel tank and straps shall be of stainless steel construction and generously undercoated, shall be securely mounted to the bus to prevent movement during manoeuvres, but shall be easily removable for cleaning or replacement by a 2M mechanic in 1.5 hours or less. Fuel tank capacity shall

be at least 100 useable US gallons. The fuel tank shall be equipped with an external, hex head, brass drain plug. It shall be at least a 3/8" size and shall be located at the lowest point of the tank. The tank shall have an inspection plate or removable filler neck to permit cleaning and inspection. The tank shall be baffled internally to prevent fuel sloshing noise regardless of fill level. The baffles or fuel pickup location shall assure continuous full power operation on a 6% downgrade for 30 minutes starting with no more than ten gallons of fuel over the unusable amount in the tank. All fuel lines shall be stainless steel or Areo Quip (or equal) FC350 hose. A heated fuel processor is required

2) ***Fuel Filler:*** The fuel filler shall be located behind the rear door on the right side of the bus. The filler cap shall be recessed into the body so that spilled fuel will not run onto the outside surface of the bus. The filler shall accommodate a 1½" diameter nozzle and a fill rate of 25 gallons per minute of foam-free fuel without spitting back or causing the nozzle to shut off before the tank is full. An audible signal shall indicate when the tank is essentially full. The fuel lines forward of the engine bulkhead shall be in conformance to SAE Standard J844-Type 1 for copper tubing or SAE Standard J844-Type 3B for nylon tubing color coded orange or Areo Quip (or equal) FC350 hose.

3) ***Fuel Filters:*** Two engine-mounted fuel filters are required. A primary filter and the secondary filter both of which incorporate spin-on type elements shall be provided. The secondary filter shall have a threaded pipe plug on the side of the housing to permit check fuel pressure with a pressure gauge. Both shall have shut-off valves.

1.33 BUMPER SYSTEM

1) ***Location:*** Bumpers shall provide impact protection for the front and rear of the bus up to 26" above the ground. The bumpers shall wrap around the bus to the extent practical without exceeding allowable width. They will be Romeo Rim help bumpers or approved equals.

2) ***Front Bumper:*** No part of the bus, including the bumper, shall be damaged as a result of a 5 mph impact of the bus at curb weight with a fixed, flat barrier perpendicular to the bus's longitudinal centerline. The bumper shall protect the bus from damage as a result of 6.5 mph impacts at any point by the striker defined in FMVSS #301 loaded by 4,000 pounds parallel to the longitudinal centerline of the bus and 5.5 mph impacts into the corners at a 30□ angle to the longitudinal centerline of the bus. The energy absorption system of the bumper shall be independent of every power system and shall not require service or maintenance in normal operation during the service life of the bus. The flexible portion of the bumper may increase the overall bus length specified by no more than 6 inches. All bumpers shall be black in color.

3) ***Rear Bumper:*** The rear bumper and its mounting shall provide impact protection to the bus at curb weight from a two mph impact with a fixed, flat barrier perpendicular to the longitudinal centerline of the bus. When using yard tug with a smooth, flat plate bumper 2' wide contacting the horizontal centerline of the rear bumper, the bumper shall provide protection at speeds up to five mph, over pavement discontinuities up to 1" high, and at accelerations up to two mph/sec. The rear bumper shall protect the bus, when impacted anywhere along its width by the striker defined in FMVSS #301 loaded to 4,000 pounds, at four mph parallel to the longitudinal centerline of the bus or into the corners up to a 30□ angle to the longitudinal centerline. The rear bumper or bumper extensions shall be shaped to preclude unauthorized riders standing on the bumper. The bumper shall be independent of all power systems and shall not require service or maintenance in normal operation during the service life of the bus. Any flexible portion of the bumper may increase the overall length specified by no more than 6".

4) ***Bumper Material:*** Bumper material shall be corrosion resistant. Visible surfaces shall be black. These qualities shall be sustained throughout the service life of the coach.

1.34 ELECTRICAL SYSTEM

1) ***General Requirements:*** The electrical system shall provide and distribute power to ensure satisfactory performance of all electrical components. The system shall supply a nominal 12 and 24 volts of direct current. Electrical power provided for the fare collection device and the radio compartment shall be 12 volts, D.C. Precautions shall be taken to minimize hazards to service personnel. The power generating system shall be rated sufficiently higher than the total possible electrical load to maintain the charge on the batteries at all operating conditions including the engine at idle. All circuits, except for those involved in propulsion system start-up, shall be protected by circuit breakers or fuses. Fuses shall be used only where it can be demonstrated that circuit breakers are not practical, and they shall be easily accessible for replacement. All electrical systems and components shall be properly identified and labelled.

Redundant grounds shall be used for all electrical equipment, except where it can be demonstrated that redundant grounds are not feasible or practical. One ground may be the body and framing. Grounds shall not be carried through hinges, bolted joints (except those specifically designed as electrical connectors), or power plant mountings. Electrical equipment shall not be located in an environment that will reduce the performance or shorten the life of the component or electrical system. Major wiring harnesses shall not be located under the floor, and under-floor wiring shall be eliminated to the extent practical. Wiring and electrical equipment necessarily located under the bus shall be insulated from water, heat, corrosion, and mechanical damage.

2) ***Modular Design:*** Design of the electrical system shall be modular so that each major component, apparatus panel, or wiring bundle is easily separable with standard hand tools or by means of connectors. Each module, except the main body wiring harness, shall be removable and replaceable in less than 60 minutes by a 3M mechanic. Power plant wiring shall be an independent wiring module

3) ***Wiring and Terminals:*** All wiring between major electrical components and terminations, except battery wiring, shall have double electrical insulation, shall be waterproof, and shall meet specifications requirements of SAE Recommended Practice J555 and J878-Type SXL. Except as interrupted by the master battery disconnect switch, battery and starter wiring shall be continuous cables with connections secured by bolted terminals and shall conform to specification requirements of SAE Standard J1127-Type SGT or SGX and SAE Recommended Practice J541, grouped, numbers, and/or color-coded full length. Installation shall permit ease of replacement. All wiring harnesses over 5’ long and containing at least five wires shall include 5% excess wires for spares that are the same size as the largest wire in the harness excluding the battery cables.

Wiring harnesses shall not contain wires of different voltages unless all wires within the harness are sized to carry the current and insulated for the highest voltage wire in the harness. Double insulation shall be maintained as close to the terminals as practical. The requirement for double insulations shall be met by wrapping harnesses with plastic electrical tape or by sheathing all wires and harnesses with non-conductive, rigid or flexible conduit. Grommets of elastomeric material shall be provided at points where wiring penetrates metal structure. Wiring supports shall be non-conductive. Precautions shall be taken to avoid damage from heat, water, solvents, or chafing. Wiring length shall allow replacement of end terminals twice without pulling, stretching, or replacing the wire. Except for those on large wires such as battery cables, terminals shall be crimped to the wiring and may be soldered only if the wire is not

stiffened above the terminal and no flux residue remains on the terminal. Terminals shall be full ring type or interlocking and corrosion-resistant. "T" Splices may be used when it is less than 25,000 circular mills of copper in cross-section: a mechanical clamp is used in addition to solder on the splice; the wire supports no mechanical load in the area of the splice; and the wire is supported to prevent flexing. All wiring shall be color coded and/or numbered so as to be identical from one bus to the next.

4) ***Junction Boxes:*** All relays, controller, flashers, automatic or manual resetting circuit breakers, and other electrical components should be mounted in easily accessible junction boxes. The boxes shall be sealed to prevent moisture from normal sources, including engine compartment cleaning, from reaching the electrical components and shall prevent fire that may occur inside the box from propagating outside the box. The components and circuits in each box shall be identified and their locations recorded on a schematic drawing permanently glued to or printed on the inside or outside of the box cover or door plastic coated schematics placed rather than glued are also acceptable. The drawing shall be protected from oil, grease, fuel, and abrasion. If the junction box is located along the left side wall, it shall be replaceable as a unit in less than 25 minutes by a mechanic. A rear start and run control box shall be mounted in an accessible location in the engine compartment***.***

5) ***Programmable Logic Control System:*** The bus shall be equipped with an IO Controls Corp. or Allen Bradley industrial programmable logic control system (or approved equal) that will have the ability to talk to various modules located throughout the bus that can store and retrieve data for the mechanical and electrical functions of the bus. The system shall be so designed to significantly reduce the connectors, circuit breakers and wiring harnesses of a standard bus. It shall have the capability to quickly trouble-shoot electrical failures for the mechanic and notify maintenance when an electrical component has failed.

The system shall have the capability to down load information to in-house computer system per bus and automatically determine mechanical failures. An Allen Bradley SLW 500 programmable controller (or approved equal) shall be located in a sealed compartment in the rear of the interior of the coach.

The manufacturer shall provide training on the programming of components and the report formatting and usage of the system.

1.35 ELECTRICAL COMPONENTS

1) ***General Requirements:*** All electrical components, including switch, relays, flashers, and circuit breakers, shall be heavy-duty designs. To the extent practical, these components shall be designed to last the service life of the bus and shall be replaceable in less than five minutes by a mechanic. Sockets of plug-in components shall be polarized where required for proper function and the components shall be positively retained. All electric motors, except cranking motors, shall be heavy-duty brushless type. Electric motors shall be located for easy replacement and except for the cranking motor the brushes shall be replaceable in less than 15 minutes by a mechanic without removing the motor.

Dual electric horns will be provided. Horns will be positioned to be protected from road hazards and the elements. The horn trumpets will be down turned to assure drainage of any moisture that may enter.

2) ***Batteries:*** Batteries shall be mounted on a stainless steel, sliding battery tray in the engine compartment or under the operator's area with the stud terminals toward the rear of the coach. Batteries shall be held in position by tray separators and retained to the tray by hold down brackets.

AGM gel cell batteries are required with top mount connections and moulded handles shall be provided. Different sized positive and negative posts will be provided. Battery cables shall be 4/0 or better extra flexible cables with neoprene jackets.

A master battery switch shall be provided near the batteries for complete disconnecting from all electrical systems. The master switch shall be accessible in less than ten seconds for activation. The master switch shall be capable of carrying and interrupting the total circuit load. Opening the master switch with the power plant operating shall not damage any component of the electrical system. For jumping the vehicle, there will also be a "quick connect system" installed. The connectors will be colored red.

3) ***Radio Noise Suppression:*** Proper suppression equipment shall be provided in the electrical system to eliminate interference with radio and television transmission and reception. This equipment shall not cause interference with any electronic system on the coach.

4) ***Fire Detectors***: At least two temperature-sensitive sensors or linear wire will be provided. They will be located in the engine compartment under all horizontal bulkheads, above and downwind of the major heat sources, and in areas likely to be wetted by leaking flammable fluids. Additional sensors will be located in other potentially critical areas. The sensors will detect high temperature in the critical areas and will activate the fire alarm bell and warning light in the driver's compartment. The sensors will return to normal setting and deactivate alarms when the temperature returns to normal.

5) ***Farebox Collection:*** Space as far forward as practical with structural provision shall be provided for installation of an electronic registering farebox system. The manufacturer will provide a 10 amp, 12 volt, DC protected circuit to power the farebox. The floor under the farebox will be reinforced, as necessary using a 1/8" steel plate welded to the chassis to provide a sturdy mounting platform. The farebox is 40.5" high and the pedestal should be 6" high. Farebox power shall be supplied directly from the battery and independent of the master run switch and master battery switch.

6) ***Fire Suppression System:*** A Fire Sensing and Suppression System (FSS) shall be provided to monitor the engine compartment and auxiliary areas where a significant fire hazard exists. Upon detection, the system will alert the operator with visual and audible signals and initiate automatic engine shutdown, fuel shut-off, and extinguisher discharge sequences.

A) Fire Detection

Both thermal and optical fire detection shall be supplied.

Thermal fire detectors shall be spot (one-dimensional detection) or linear (two-dimensional detection) designed for use in engine compartments. Thermal fire detectors must be in close proximity to the fire in order to detect. Their mounting locations must be chosen per the installation instruction, certified by the manufacturer, and typically mounted so that airflow will act to move a fire in the protected area toward them. The thermal detector shall respond to being immersed in a fire in less than thirty seconds. The thermal detection system in the engine compartment will be comprised of at least two each spot detectors or one linear detector of suitable length.

Optical fire detectors shall sense infrared radiation emitted from a fire (three-dimensional detection) and be designed for use in engine compartments. Optical fire detectors must be able

to view a fire in order to detect and must be mounted per the installation instructions. The optical detector shall have at least a 90 degree conical field-of-view. The optical fire detector shall have a response time of less than one half of one second to a fire. The optical detection system in the engine compartment will be comprised of at least two each infrared optical fire detectors.

Fire detection sensors shall be located in an area not subject to corrosion.

B) SYSTEM ACTION

The FSS will detect fires in the protected areas. Upon detection, the system will alert the operator with visual and audible signals and initiate automatic engine shutdown, fuel shut-off, and extinguisher discharge sequences.

Alarm Indication: Upon detection of a fire, the system will provide a visual and audible fire alarm to the operator.

System Status and Trouble Indication: The status of the FSS shall be verified by inspection during maintenance.

Automatic Engine Shut-Down: After a fire is detected, the FSS shall cause the fuel flow to cease, and the engine to shut down. An operator override feature shall be provided. An automatic delay between the fire alarm and engine shutdown shall not exceed 30 seconds.

Extinguisher Discharge: The system shall provide a means for manually discharging the extinguisher with the control located in the driver's area. The installation shall be certified by the manufacturer of the suppression system

System Reset: After a fire alarm and complete system sequence, the FSS shall have provision to be reset after the system is reconfigured per the instructions provided by the manufacturer.

C) FIRE SUPPRESSION SYSTEM

The fire suppression system shall be pre-engineered and designed for vehicle applications. The system shall have a minimum capacity of 20 pounds of BC or ABC dry chemical agent. System cylinder shall have a minimum service pressure of 350 psi and be DOT rated. Nozzles and distribution shall be installed in accordance with the installation manual. Stored pressure type extinguishing units shall be provided with a gauge that can be visually inspected for pressure condition.

1.36 INTERIOR CLIMATE CONTROL

1) ***Capacity and Performance:*** The interior climate control system will maintain the interior of the coach at a level suitable for all climatological conditions found in Minnesota and Wisconsin. The heating, ventilating, and cooling systems shall maintain an average passenger compartment temperature between 65^0 F and 78^0F with a relative humidity of 50% or less. The system shall maintain these conditions in ambient temperatures of -30^0F to 95^0F with ambient humilities of 5 to 50% while the coach is running on the design operating profile with a full standee load of passengers. In ambient temperatures of -10^0 to -40^0F, the average interior temperature shall not fall below 55^0F while the coach is running on the design operating profile with no passengers. The temperatures measured from a height of 6" below the ceiling shall be within $\pm 5^0$F of the average temperature at the top surface of the seat cushions. Temperatures measured more than 3" above the floor shall be within $\pm 10^0$F of the average temperature at the top surface of the seat cushions. The interior temperature, from front to

rear of the coach, shall not vary more than ±5^{0}F from the average. Supplemental heat will be provided to the passenger area with a Proheat or Webasto 300, 104,000 BTU heater (or approved equal)**.** A shut-off valve shall be provided for these units. Two under seat units are required. A light on the dash showing when the heaters are activated is required.

The cooling mode shall be capable of reducing the passenger compartment temperature from 110^0 to 90^{0}F in less than 20 minutes after engine start-up under the following conditions. Engine temperature shall be within the normal operating range at the time of start-up of the cool down test and the engine speed shall be limited to fast idle that may be activated by a driver-controlled device. During the cool down period, the refrigerant pressure shall not exceed 400 psi and the condenser discharge air shall not exceed 145^{0}F, measured 6 inches from the surface of the coil. The coach shall be parked in direct sunlight with the ambient temperature at 100^{0}F and humidity less than 20%. There shall be no passengers onboard and the doors shall be closed. The cooling mode may operate independent of the propulsion system and outside air may be cut off during the cool down period.

The pullup requirements for the heating system shall be in accordance with Section 9 of the APTA document, "Recommended Instrumentation and Performance Testing for Transit Bus Air Conditioning System." With ambient temperature at –20F, and vehicle cold soaked at that temperature, the bus heating system shall warm the interior passenger compartment to an average temperature of 70±2 degrees F within 70 minutes.

The climate control system shall be highly reliable since most failures are Class 2. Manually controlled shutoff valves in the refrigerant lines shall allow isolation of the compressor and receiver for service. To the extent practical, self-sealing couplings shall be used to break and seal the refrigerant lines during removal of major components such as the refrigerant compressor or condenser. The condenser shall be located to efficiently transfer heat to the atmosphere, and shall not ingest air warmed by the coach mechanical equipment above the ambient temperature or discharge air into any other system of the coach. The location of the condenser shall preclude its obstruction by wheel splash, road dirt or debris.

Manually controlled valves shall have shutoff valves in the refrigerator lines to allow isolation of the compressor and receiver for service. The condenser will be located in the rear, of the coach top to efficiently transfer heat to the atmosphere, and will not ingest air warmed by coach's mechanical equipment above the ambient temperature or discharge air into other systems of the coach.

Air Conditioning Evaporators The air conditioning evaporators will be located in the rear of the coach in a location designed for ease of maintenance of the evaporators, the expansion valve, the return air filters, the electric controls and the blower motors (brushless). The evaporators will incorporate, as part of their design a drainage tube of sufficient size to remove all condensation. The mounting of evaporators on the roof of the coach is not allowed.

Air Conditioning Compressor: Screw type required. The air conditioning compressor will have a minimum displacement of 25 cubic inches. The compressor must be designed to allow its engagement at any speed without damage to the compressor or any other components in the coach. The compressor must have a minimum useful life of five years on the standard operating profile. To facilitate the servicing of the compressor two back seated valves will be provided at the compressor to allow the compressor to be isolated.

Heat shall be applied to the front step tread to prevent accumulation of snow, ice, or slush. Stepwell heat shall be supplied via the supplemental heater and controlled by the driver's heater and defroster

system.

A swing-out type guard with a minimum of screws will be provided for easy access to the air conditioning system.

2) ***Controls:*** All interior climate control system requirements shall be attained automatically; the driver shall control only the defroster and driver's heater. The interior climate control system shall switch automatically to the ventilating mode if refrigerant compressor or condenser fan fails. An option shall be available for a four-position controller (Off/Vent/Cool/Heat).

All interior climate controls will be directly under the control of the driver through the use of toggle switches for each function. Actual bus temperatures are controlled by automatic thermostats. These controls are in addition to the front defroster and driver's heater. If the air conditioning system fails, the climate control system will automatically switch to the vent mode.

3) ***Air Flow, Passenger Area:*** The cooling mode of the interior climate control system shall introduce air into the coach at or near the ceiling height at a minimum rate of 25 cubic feet per minute per passenger based on the standard configuration coach with full standee load. The air will be composed of no less than 10 percent outside air. Air flow shall be evenly distributed throughout the coach with air velocity not exceeding 60 feet per minute on any passenger. The ventilating mode shall provide outside air at a minimum flow rate of 20 cubic feet per minute per passenger.

Air flow may be reduced to 15 cubic feet per minute per passenger when operating in the heating mode with full standee load. Heated air introduced into the coach will contain no less than 20 percent outside air. The fans shall not activate until the heating element has warmed sufficiently to assure at 70□F air outlet temperature.

Sufficient floor level heaters shall be provided that evenly supply heated forced air through floor ducts across the length of the bus. Floor ducts may be discontinued at the upper level but additional provisions to prevent cold floor and ensure temperature uniformity shall be included. Control of the floor level heating shall be through the main heating system electronic control.

4) ***Driver's Area:*** The coach interior climate control system shall deliver at least 100 cubic feet per minute of air to the driver's area when operating in the ventilating and cooling modes. Adjustable nozzles shall permit variable distribution or shutdown of the air flow. Air flow in the heating mode shall be reduced proportionally to the reduction of air flow into the passenger area. The windshield defroster unit shall meet the requirements of SAE Recommended Practice J382, Windshield Defrosting Systems Performance Requirements, and shall have the capability of diverting heated air to the driver's feet and legs. The defroster or interior climate control system shall maintain visibility through the driver's side window. Two dash mounted fans (this is additional fans) will be provided to assist with defrosting the windshield. The switch for the fans will be mounted so that the bus operator does not have to leave the seat to activate the fans. The switch will activate either one or both of the fans. The fan will be located out of the line of site of the operator and in such a fashion so as to prevent passengers from touching the fan. This area will also be equipped with a fresh air vent that is easily operable by the driver.

5) ***Air Intakes:*** Outside openings for air intake shall be located on the left side of the vehicle to ensure cleanliness of air entering the climate control system, particularly with respect to exhaust emissions from the coach and adjacent traffic. All intake openings shall be baffled to prevent entry of snow, sleet, or water. The filter shall meet the ASHRAE requirement for 5% or better atmospheric dust spot efficiency, 50 percent weight arrestance and a minimum dust holding capacity of 120 gram per 1,000

cfm cell. More efficient air filtration may be provided to maintain efficient heater and or evaporator operation. Air filters shall be cleanable and easily removable for service. Moisture drains from air intake openings shall be located so that they will not be subject to clogging from road dirt.

6) Manual Control: The entire interior climate control system shall be controlled by a switch conveniently located to the driver. This switch shall have only OFF and ON positions. When the switch in ON the interior climate control system shall meet all specification requirements, and when in the OFF position no mechanical system within the climate control system shall be powered. See 1.36(2) for optional 4-way controller.

7) Air Conditioner Compressor: Screw Type Compressor (S391). A Thermo King X426 or X430 compressor with Thermo King brushless motors shall be provided (or approved equal).

a) Fan Motors: Evaporator and condenser motors shall be brushless permanent magnet motors.

1.37 HORN

Two heavy duty 12 or 24 volt horns, high and low pitch, shall be installed and protected from wheel wash.

1.38 RADIO ANTENA

A provision shall be made to mount three radio antennas on all buses unless fewer are specified by the purchasing agency at the time of order. Fewer antennas must be listed as an option with a price decrease. The normal location for the antennas is in the front center, above the driver's area. The cable shall have no splices from antenna roof port to radio compartment plus 3'. The Coax cable shall be installed without sharp bends, kinks or abrasions. Manufacturers are requested to submit possible locations for the radio control head. The normal location is above and to the left of the driver.

1.39 ADDITIONAL EQUIPMENT

1) Bike Rack Brackets:
All buses are to be equipped with Bike Rack mounting brackets (20 second bike rack) and bike racks (made of stainless steel with a brushed finish) in the front of the coach.

2) Security Cameras - Digital

General Criteria: Any camera, radio, GPS, or data systems must only be listed as options and the base price quoted for each class must not contain costs for these systems. However, each vehicle must be pre-wired for at least a 6-camera system and a radio system.

SECTION NUMBER: SPECIAL
SECTION TITLE: TRAINING

The offeror will provide training for both the bus operators and for the mechanics if requested by the purchasing agency. The operator training will consist of orientation to the coach including the location of

all switches, warning indicators, seat adjustment and door control. Orientation will also include a compartment by compartment explanation of the coach and how the climate control system works. The operator orientation will conclude with behind the wheel driving instruction on transmission shifting patterns, the braking system and turns. Offeror will provide minimum of 40 hours of operator training.

Mechanical training will consist of an on-site instructor who will work with the mechanics and explain each subsystem on the coach including, but not limited to the climate control system, the transmission, the engine, the door control system, the electrical system, the brake system, the air system, and part procedures. The instructor will be on site until the buses are able to be put into service. The training required is: electrical **24** hours; AC 8 hours; wheelchair ramp 8 hours; and Powertrain **24** hours. Powertrain and AC training may be off-site. The trainer will revisit the purchasing agency for supplemental training and to insure that the agency is proper maintaining the vehicles and to answer warranty questions as well as technical questions from the maintenance personnel 90 and 180 days after arrival of the last coach unless the property agrees this is not needed. Thereafter a trainer or service representative shall visit each property annually for a period of five years for the same purpose. All training will be scheduled at each property's convenience within one year of delivery.

All instructors must be able to speak English and have a complete understanding of the English language. If the instructor lacks skill or knowledge to provide the required instruction, or cannot communicate with the students, the purchasing agency reserves the right to request that the instruction be repeated. The offeror will be able to provide continual updating of the instruction upon request of the purchasing agency.

In addition to the above training, the offeror will provide handouts for the mechanics which they will be able to keep. Operator training will be done by the purchasing agency staff who will be trained by the successful bidder.

DOCUMENTATION

In addition to other documents called for in the specification, the contractor shall furnish the purchasing agency with six complete sets of wiring schematics, manuals, parts lists, and other information as may be needed for maintenance of the system. Parts book must be broken down by sub-assembly. A CD for these items is also required. Sources for all spare parts shall be identified. If the bidder does not have the in their documentation information from subs, then they must supply similar documentation from that sub.

Operator manuals are also required for each vehicle

All training to take place within one year of acceptance of the last vehicle.

FINISH AND COLOR

UNDERCOATING

The underneath portion of the under frame and stepwell, including the wheelhousings will be sprayed with either fire retardant Ashland Oil and Refining Tectyle 135 or 506G (or approved equal) a Quaker Koat or Dolchm 7701 Hydro Armor undercoating material (or approved equal). All brake components, air tank drains, tube fittings, electrical components and U-joints will be protected before the undercoating is applied and the protection will be removed before the coach is shipped. If other rust proofing is used it must be fully warrantied by the manufacturer for 12 years against any failure due to corrosion.

EXTERIOR COLORS

Exterior colors will be presented to the offeror by the purchasing agency at the time of order.

INTERIOR COLORS

Interior colors will be presented to the offeror by the purchasing agency at the time of order.

DECALS AND MONOGRAMS

The offeror will not affix to the exterior of the coach any logos or identification without prior written permission of the purchasing agency.

SPECIAL ATTACHMENT

SECTION NUMBER: 2.1.1.4
SECTION TITLE: SIGNING

The Offeror will supply and affix to the interior and exterior of the coach those decals regarding safety and operating procedures. Said decals will include, but not be limited to the following:

	DECAL	NUMBER	LOCATION
a.	No Smoking	2	Interior above the driver, Rear bulkhead
b.	Watch Your Step	3	Front and rear stepwell, top-most rider of interior steps
c.	Fire Extinguisher	1	Front safety compartment.
d.	Rear Door Oprtg Instructions	1	Above the rear exit door
e.	No standing forwd Yellow Line	1	Above the driver
f.	No eating or radio playing on bus	2	Above the driver Rear Bulkhead
g.	Please reserve seats for E/H	2	Over forward seats
h.	Bus Number	9	Exterior: (4") Left & Right sides below windshield left side front above operator left & right-side rear right side above front door rear center inside fuelling door top of bus (center front) (12" lettering) Interior: (4") front centered above windshield rear centered above
i.	Video surveillance	2	Interior above the driver, Rear bulkhead
j.	Diesel fuel only	1	Inside fuel filler door
k.	Emergency Exit Instructions	2	Decal – above inside of doors
l.	Emergency Exit Instructions	#	Metal Plate – riveted to window frame of each egress window
m.	Wheelchair/ADA	3+	To the left of the entry door that is ramp equipped then in a visible location near each wheelchair securement location

The offeror will affix to the exterior of the coach, the assigned vehicle number on the front, rear, and side of the coach in locations approved by the purchasing agency. The size and number of vehicle decals will be subject to review and approval of the purchasing agency. Additionally, the bus number will also be affixed inside the fuelling door.

The offeror will also affix to the interior of the coach above the driver and rear bulkhead the assigned vehicle number. The location and size of the decal will also be subject to the purchasing agency's review and approval.

WARRANTY

1.1 WARRANTY REQUIREMENTS

Warranties in this document are in addition to any statutory implied warranties, remedies, or warranties imposed on the contractor. Consistent with this requirement, the contractor warrants and guarantees to the purchasing agency each complete coach, and specific subsystems and components as follows: The warranty period starts with the acceptance of the last Coach of each production run or the day each coach is put into revenue service whichever comes first.

- Complete Coach

The coach is warranted and guaranteed to be free from defects* and related defects** 1 year or 50,000 miles, whichever comes first, beginning on the date of acceptance of each coach**. During this warranty period, the coach will maintain its structural and functional integrity. The warranty is based on regular operation of the coach under the operating conditions prevailing in the purchasing agency's location.

- Subsystems and Components

Should subcontractors be used to provide or perform warranty repairs, the offeror agrees and understands that they are solely responsible for the subcontractor's full compliance with these specifications. The offeror further agrees that the purchasing agency is the final determining authority as to what defects are covered by warranty subject to protest and appeal procedures contained in these specifications and voiding of warranty per Section 1.2 below.***

Specific subsystems and components are warranted and guaranteed to be free from defects and related defects for the times and/or mileage given in the table below.

- For definitions see: Solicitation, Offer and Award/Contractual provisions.

** For acceptance requirements see: Solicitation, offer and award/contractual provisions.

*** Coverage on any vehicle and subsystems is warranted with 100% parts and labor coverage so as no expense is incurred by the purchasing agency for warranty repairs.

Standard warranty does not include consumables.

SUBSYSTEM AND COMPONENT WARRANTY WHICHEVER COMES FIRST

ITEM	YEARS	MILEAGE
Engine	2	100,000
Transmission	2	100,000
Drive Axle	2	100,000
Brake system (excluding friction material)	1	35,000
Air Conditioning System	2 seasons	unlimited
A/C Compressor	2 seasons	unlimited
Basic body structure	3	150,000
Structural Integrity Corrosion	12	500,000

OPTIONAL WARRANTY PACKAGE

ITEM	YEARS	MILEAGE
Engine	5	300,000
Transmission	5	300,000
Drive Axle	2	100,000
Brake system (excluding friction material)	2	100,000
Air Conditioning System	3 seasons	unlimited
A/C Compressor	3 seasons	unlimited
Basic body structure	3	150,000
Structural Integrity Corrosion	7	350,000

Additionally, bidders shall furnish information concerning extended warranties on the engine and transmission.

1.2 VOIDING OF WARRANTY

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

1.3 EXCEPTIONS TO WARRANTY

The warranty will not apply to scheduled maintenance items nor to items furnished by the purchasing agency such as radios, fareboxes, and other auxiliary equipment, except insofar as such equipment may be damaged by the failure of a part of component for which the contractor is responsible.

1.4 DETECTION OF DEFECTS

If the purchasing agency detects a defect with the warranty periods defined in Section 1.1.1. it will promptly notify the contractor's representative. Within five working days after receipt of notification, the contractor's representative will either agree that the defect is in fact covered by warranty, or reserve judgement until the subsystem or component is inspected by the contractor's representative or is removed and examined at the purchasing agency's property. At that time, the status of warranty coverage on the subsystem or component will be mutually resolved between the purchasing agency and the contractor. Work necessary to affect the repairs defined in Section 2.2 will commence within 5 working days after receipt of notification by the contractor.

1.5 SCOPE OF WARRANTY REPAIRS

When warranty repairs are required, the purchasing agency and the contractor's representative will agree within five days after notification on the most appropriate course for the repairs and the exact scope of the repairs to be performed under the warranty. If no agreement is obtained within the five-day period, the purchasing agency reserves the right to commence the repairs in accordance with Section 2.2.

1.6 FLEET DEFECTS

A fleet defect is defined as the failure of identical items covered by the warranty and occurring in the warranty period in a specified number of coaches. For this contract, a fleet defect will be defied as an identical defect occurring in any 2 or more vehicles purchased during the contract terms

1.6.1 Scope of Warranty Provisions

The contractor will correct a fleet defect under the warranty provisions defined in Section 2.2 of warranty provisions. After correcting the defect, the contractor will promptly undertake and complete a work program reasonably designed to prevent the occurrence of the same defect in all other coaches purchased under this contract. The work program will include inspection and/or correction of the potential or defective parts in all of the coaches.

The warranty on items determined to be fleet defects will be for the remaining term of the original warranty.

1.6.2 Voiding of Warranty Provisions

The fleet defect provisions will not apply to coach defects caused by non-compliance with the contractor's recommended normal maintenance practices and procedures.

1.6.3 Exceptions to Warranty Provisions

Fleet defect warranty provisions will not apply to damage that is a result of normal wear and tear in service to such items as seats, lights, and interior trim.

2.0 REPAIR PROCEDURES

2.1 REPAIR PERFORMANCE

At its option, the purchasing agency or its designated representative may require the contractor or its designated representative to perform warranty covered repairs that are clearly beyond the scope of the purchasing agency's capabilities. The work may be done by the purchasing agency's personnel with reimbursement by the contractor.

2.2 REPAIRS BY CONTRACTOR

If the purchasing agency requires the contractor to perform warranty covered repairs, the contractor's representative must begin the work necessary to make the repairs, within l0 working days after receiving notification of a defect from the purchasing agency. The purchasing agency will make the coach available to complete repairs timely with the contractor repair schedule.

The contractor will provide, at its own expense, all spare parts, tools and space required to complete repairs. At the purchasing agency's option, the contractor may be required to complete repairs. At the purchasing agency's option, the contractor may be required to remove the coach from the purchasing agency's property while repairs are being affected. If the coach is removed from the purchasing agency’s property, repair procedures must be diligently pursued by the contractor's representative.

2.3 REPAIRS BY PURCHASING AGENCY

2.3.1 Parts Used

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

2.3.2 Contractor Supplied Parts

The purchasing agency may request that the contractor supply new parts for warranty covered repairs being performed by the purchasing agency. These parts will be shipped prepaid to the purchasing agency from any source selected by the contractor within l0 working days of receipt of the request for said parts.

2.3.3 Defective Components Return

The contractor may request that parts covered by the warranty be returned to the manufacturing plant. The total cost for this action will be paid by the contractor. Materials should be returned in accordance with the contractor's instructions.

2.3.4 Reimbursement for Labor

The purchasing agency will be reimbursed by the contractor for labor. The amount will be determined by multiplying the number of labor - hours actually required to correct the defect by the current per hour, straight wage rate, plus actual fringe benefits in the coach if such action was mechanically necessary and if the coach was in the normal service area. These wage and fringe benefit rates will not exceed the rates in effect in the purchasing agency's service garage at the time the defect correction is made.

2.3.5 Reimbursement for Parts

The purchasing agency will be reimbursed by the contractor for defective parts and for parts that must be replaced to correct the defect. The reimbursement will be at the invoice cost of the part(s) at the time of repair and will include taxes where applicable and 15 percent handling costs.

2.4 WARRANTY AFTER REPLACEMENT/REPAIRS

If any component, unit, or subsystem is rebuilt or replaced by the contractor or by the purchasing agency's personnel, with the concurrence of the contractor, the subsystem will have the unexpired warranty period of the original subsystem.

2.5 WARRANTY OF BASIC COACH STRUCTURE

The contractor will warranty the frame and suspension members for l2 years or 500,000 miles, whichever comes first. This warranty will not cover air bags, levelling valves, springs or other normal wearing parts. The contractor is not liable for warranty if the purchasing agency voids the warranty as outlined in Section 1.2 If the frame or suspension fails or shows indication of imminent failure, the purchasing agency will immediately notify the contractor of the said defect. Within ten calendar days the contractor will inform the purchasing agency on how the contractor will repair the coach. Repair of frame and suspension failures will be the responsibility of the contractor. Within 25 calendar days from notification of the defect the contractor will begin the repair of the frame and suspension defects. If the coach with the reported frame and suspension defect is out of revenue service for 35 or more calendar days because of the reported defect, the contractor will have to provide a substitute transit bus of equal seating capacity or directly reimburse the purchasing agency for the cost of leasing a substitute vehicle. The maximum daily reimbursement will be $250.00. The contractor will have to continue to provide a substitute vehicle(s) or reimburse the purchasing agency until the defect is completely repaired.

4.1 Instructions

The following instructions prescribe the format and content of the Bid Proposal. They are designed to facilitate a uniform review process. Failure to adhere to the proposal format may result in the rejection of the Bid Proposal. It is the request of the Iowa DOT that the following section headings be used in the bidder responses to this IFB and that they be arranged in the order as listed in the proposal. The bidder should provide a table of contents. Responses must be in sufficient detail to permit an understanding and comprehensive evaluation of the bidder's bid.

4.1.1 The Bid Proposal shall be submitted on a flash drive

4.1.2 The Bid Proposal shall be divided into two parts on the flash drive: (1) the Technical Proposal and (2) the Cost Proposal. The Cost Proposal shall be named clearly as to not be confused with the technical proposal. If multiple folders for each Bid Proposal are used, the folders shall be numbered in the following fashion: 1 of 4, 2 of 4, etc. The sealed envelope used to submit the flash drive bid shall be labeled as below with the name of the bidding agency and address in the top left corner of the envelope:

Iowa Department of Transportation
Office of Public Transit
800 Lincoln Way Ames, Iowa 50010
Bus Bid IFB # OPT2018HDB
Attention: Ryan Ward

The Iowa DOT shall not be responsible for misdirected packages or premature opening of Bid Proposals if a Bid Proposal is not properly labeled.

4.1.3 Flash drive(s) and one (1) removable media (example: CD or flash drive) is allowed in a sealed envelope

4.1.4 If the Bidder designates any information in its Bid Proposal as confidential pursuant to Section 2.20, the Bidder must watermark or stamp "Confidential" clearly on each page.

4.1.5 Bid proposals shall not contain promotional or display materials.

4.1.6 Attachments shall be referenced in the Bid Proposal.

4.2 Technical Proposal

The following documents and responses shall be included in the Technical Proposal section of the flash drive in the order given below:

4.2.1 Transmittal Letter (Required)

An individual authorized to legally bind the Bidder shall sign the transmittal letter. The letter shall include the Bidder's mailing address, electronic mail address, fax number, and telephone number. Any request for confidential treatment of information shall be included in the transmittal letter and page numbers listed in accordance with the provisions of Section 2.21 In addition to the specific statutory basis supporting the request, an explanation why disclosure of the information is not in the best interest of the public. The transmittal letter shall also contain the name, address and telephone number of the individual authorized to respond to the Iowa DOT about the confidential nature of the information.

4.2.2 Table of Contents
The Bidder should include a table of contents of its Bid Proposal and submit the check list of submittals per Attachment # 4.

4.2.3 Terminations, Litigation, Debarment
The Bidder must provide the following information for the past five (5) years:
(also see Attachment 1).

4.2.3.1 Has the Bidder had a contract for goods and/or services terminated for any reason? If so, provide full details regarding the termination.

4.2.3.2 Describe any damages or penalties assessed against or dispute settlements entered into by the Bidder under any existing or past contracts for goods and/or services. Provide full details regarding the incident, including the dollar amount of damages, penalties and settlement payments.
4.2.3.3 Describe any order, judgment or decree of any Federal or State authority barring, suspending or otherwise limiting the right of the Bidder to engage in any business, practice or activity.

4.2.3.4 A list and summary of all litigation or threatened litigation, administrative or regulatory proceedings, or similar matters to which the Bidder or its officers have been a party. The Bidder must also state whether it or any owners, officers, or primary partners have ever been convicted of a felony. Failure to disclose these matters may result in rejection of the Bid Proposal or in termination of any subsequent contract.

4.2.4.5 Any irregularities discovered in any of the accounts maintained by the Bidder on behalf of others, describe the circumstances and disposition of resolving the irregularities. The above disclosures are a continuing requirement of the Bidder. The Bidder shall provide written notification to the Lead Agency of any such matter commencing or occurring after submission of a Bid Proposal, and with respect to the successful Bidder, following execution of the Resulting Contract.

4.2.4 Certification Letter (Attachment 1)
The Bidder shall sign and submit with the Bid Proposal the document included as Attachment (Certification Letter) in which the Bidder shall make the certifications included in Attachment 1.

4.2.4.1 The successful Bidder will be required to register to do business in Iowa before payments can be made. For bidder registration documents, go to:
http://www.iowadotpurchasing.com

4.2.5 Acceptance of Terms and Conditions
The Bidder shall specifically agree that the Bid Proposal is predicated upon the acceptance of all terms and conditions stated in the IFB. If the Bidder objects to any term or condition, the Bidder must specifically take exception per the IFB page and section and provide the reason for the objection. Objections or responses that materially alter the IFB may be deemed non-responsive and result in rejection of the Bid proposal.

4.2.6 Authorization to Release Information (Attachment 2)
The Bidder shall sign and submit with the Bid Proposal the document included as Attachment #2 (Authorization to Release Information Letter) in which the Bidder authorizes the release of

information to the Iowa DOT.

4.2.7 Firm Bid Proposal Terms (Attachment 4)
The Bidder shall guarantee in writing the availability of the goods and/or services offered and that all Bid Proposal terms, including price, will remain firm a minimum of 180 days following the deadline for submitting Bid Proposals.

4.3 Schedule of Prices - Cost Proposal
The bidder shall provide its cost proposal for the proposed services.
Provide cost information on the Schedule of Prices - Cost Proposal Form located with the Purchasing Proposal at the *beginning* of the IFB packet. Use additional pages for the detail information requested. The amounts should exclude state and federal taxes except for taxes required to be withheld for employment purposes. The Iowa DOT is a tax-exempt entity. Cost Proposal must be submitted in a clearly marked separate file on the flash drive.

4.4 Purchase orders
The type of order shall be determined between the requesting entity and supplier.

5.1 Award

See previous sections.

5.2 Protest Procedure

Bid Specifications

Anyone wishing to file a protest concerning the specifications or the bid procedure must do so in writing. This written protest must be received by the Office of Public Transit (OPT) procurement administrator at the Iowa DOT no later than 72 hours prior to bid opening. If protests are received that cannot be resolved by the designated time for bid opening, the OPT shall delay the bid opening until the protest is resolved. However, the decision must be issued in writing by the OPT within no more than (5) working days from the date the written protest was received. If anyone wishes to protest some aspect of this procurement other than specifications or bid procedure, or something about the bid procedure that only becomes evident after the bid opening, they must file the protest in writing via email. This written protest must be received by the procurement administrator no later than (5) working days after notification to all bidders of their contract award decision, and the OPT must issue its written email decision within no more than (5) working days from the day the written protest was received. If a protester feels that the OPT has not followed these protest procedures, the protester has (10) working days from the alleged infraction to file a subsequent protest with the Iowa Department of Transportation Modal Division Director. The Iowa Department of Transportation Modal Division Director will issue its written decision within 20 working days of receipt of such an appeal. Any further appeal at the state level must be in accordance with Chapter 17A of the Iowa Code.

Protest of Contract Award

Anyone wishing to file a protest concerning the contract award must do so in writing. The OPT must receive this written protest via email no more than five (5) working days after the bid award. The OPT will issue its written decision on the protest with (5) days of receiving the protest. If anyone wishes to protest the decision, they must submit such protest in writing to the Iowa Department of Transportation, Modal Division Director which must receive this written protest within (5) days of the initial protest decision. A concurrent letter on the protest must be sent to the OPT procurement administrator. The Department of Transportation will issue its written decision on any timely protest within ten (10) business days. Any further appeal at the state level must be in accordance with Chapter 17A of the Code of Iowa. A protester must exhaust all administrative remedies with the SPO and then with the Iowa DOT Purchasing Director before pursuing a protest with the Federal Transit Administration (FTA). Reviews of any protest filed with the FTA will be limited to review of whether the OPT or the Iowa DOT, as the Grantee, failed to have or follow its protest procedures, or failed to review a complaint or protest. An appeal to FTA must be received by the cognizant FTA Regional [901 Locust Street, Kansas City, MO, Suite 404, 64106] or Headquarters Office within five (5) working days of the date the protester knew or should have known of the violation. Any protest filed with FTA shall also be sent simultaneously to and the OPT of the Iowa DOT. Any allegation that a violation of Federal law or regulation may have occurred shall be handled by the complaint process stated within that law or regulation. Violations of State or local law or regulations will be handled under the jurisdiction of Iowa or local authorities.

6.1 Contract Terms and Conditions

The contract(s) that the Department expects to award as a result of this IFB will be based upon the Bid Proposal submitted by the successful Bidder(s) and the IFB. The contract between the Department and the successful Bidder shall be a combination of the specifications, terms and conditions of the IFB, including the terms contained in the Department's attachment(s), the contract terms and conditions contained at the web-addresses contained in the IFB, the offer of the Bidder contained in the Bid Proposal, written clarifications or changes made in accordance with the provisions of the IFB herein and any other terms deemed necessary by the Department, except that no objection or amendment by a Bidder to the IFB requirements shall be incorporated by reference into the Contract unless the Department has explicitly accepted the Bidder's objection or amendment in writing.

The contract terms contained in Section 6 are not intended to be a complete listing of all contract terms but are provided only to enable bidders to better evaluate the costs associative with the IFB and the potential resulting contract. Bidders should plan on such terms being included in any contract awarded as a result of this IFB. All costs associated with complying with these requirements should be included in the pricing proposal or any pricing quoted by the bidder.

By submitting a Bid Proposal, each Bidder acknowledges its acceptance of the IFB specifications and the contract terms and conditions without change except as otherwise expressly stated in its Bid Proposal. If a Bidder takes exception to a provision, it must state the reason for the exception and set forth in its Bid Proposal the specific contract language it proposes to include in place of the provision. Exceptions that materially change the contract terms and conditions or the requirements of the IFB may be deemed non-responsive by the Iowa DOT, in its sole discretion, resulting in possible rejection of the Bid Proposal. The Department reserves the right to either award a contract(s) without further negotiation with the successful Bidder or to negotiate contract terms with the successful Bidder if the best interests of the State would be served.

6.2 Contract Period

See Previous Info

6.3 Additional Cost Items Not In Contract

The Department is unaware of any additional Contract terms that would add cost. Notwithstanding, should any Contract items arise that would cost additional monies; those costs shall be borne by the Bidder.

6.4 Equipment Delivery Schedule

The equipment shall be delivered as agreed upon between the successful Bidder and the purchasing agency.

6.5 Installation and Implementation

Will be discussed between the vendor and the purchasing agency with the Iowa DOT serving as mediator only.

6.6 Scope of Work (Services)

The services to be performed pursuant to and as a result of this contract by the bidder are described in Project Specifications, Section 3, and made a part hereof by this reference.

The bidder shall prepare and deliver specifications to the Iowa DOT which will detail the design, technical and functional capabilities, and other attributes related to the project, all as more fully described in Section 3.

6.7.1 Amendments to Scope of Services and Specifications.

The parties agree that the Scope of Services and the specifications may be revised, replaced, amended or deleted at any time during the term of this Contract to reflect changes in service or performance standards upon the mutual written consent of the parties. Changes resulting in increased costs and/ or creating an unusable vehicle based on needs of the purchasing agencies may result in the cancelation of the contract

if the procurement administrator deems that the needs of the purchasing agencies can be met with other contracted vendors.

6.7.2 Industry Standards

Services rendered pursuant to this Contract shall be performed in a professional and workmanlike manner in accordance with the terms of this Contract and with generally acceptable industry standards of performance for similar tasks and projects. In the absence of a detailed specification for the performance of any portion of this Contract, the parties agree that the applicable specification shall be the generally accepted industry standard.

As long as the Iowa DOT notifies the bidder promptly of any services performed in violation of this standard, the bidder will re-perform the services, at no cost to Iowa DOT, such that the services are rendered in the above-specified manner.

6.7.3 Non-Exclusive Rights.

This Contract is not exclusive. The Iowa DOT reserves the right to select other vendors to provide services similar or identical to the Scope of Services described in this Contract during the term of this Contract when necessary to meet the changing needs of the many purchasing agencies.

6.8 Licenses

The Bidder shall include the cost for all software licenses and annual software maintenance fees required for its work. The Bidder must furnish a written copy of the software Terms and Conditions of software agreement with the submitted proposal.

The Bidder shall give all notices and comply with all codes, laws, ordinances, rules and regulations of any public authority having jurisdiction that bears on the performance of its work.

6.9 Labor Regulations

All contractors, before entering into a contract with the Iowa Department of Transportation, must be registered with the Division of Labor in the Workforce Development Department, 515-281-3606 according to chapter 91C, Code 1993.

6.10 Contract Termination

It is imperative that the bidder consistently provides high quality services. Below are procedures that will be utilized in the event that the contract must be terminated due to the bidder's lack of ability to produce required results:

6.10.1 Immediate Termination by the Iowa DOT

The Iowa DOT may terminate this contract in writing for any of the following reasons effective immediately without advance notice:

6.10.1.1 In the event the bidder is required to be certified or licensed as a condition precedent to providing services, the revocation or loss of such license or certification will result in immediate termination of the Contract effective as of the date on which the license or certification is no longer in effect;

6.10.1.2 The Iowa DOT determines that the actions, or failure to act, of the bidder, its agents, employees or subcontractors have caused, or reasonably could cause, a client's life, health or safety to be jeopardized;

6.10.1.3 The bidder fails to comply with confidentiality laws or provisions;

6.10.1.4 The bidder furnished any statement, representation or certification in connection with this Contract or the IFB which is materially false, deceptive, incorrect or incomplete;

6.10.2 Termination for Cause

The occurrence of any one or more of the following events shall constitute cause for the Iowa DOT to declare the bidder in default of its obligations under this Contract.

6.10.2.1 The bidder fails to perform to the Iowa DOT's satisfaction, per Section 3 Project Specification requirements.

6.10.2.2 The Iowa DOT determines that satisfactory performance of this Contract is substantially endangered or that a default is likely to occur.

6.10.2.3 The bidder fails to make substantial and timely progress toward performance and deliverables within the contract.

6.10.2.4 The bidder consistently misses deadlines agreed upon with the Iowa DOT procurement administrator.

6.10.2.5 The bidder replaces key personnel with individuals who have less experience, knowledge and skills in the areas of their responsibilities.

6.10.2.6 The bidder staff's knowledge, skills, and experience are unacceptable to the Iowa DOT and do not reflect what the bidder represented the skill sets of their staff that would be assigned to this engagement.

6.10.2.7 The bidder's staff turnover is unacceptably high to Iowa DOT.

6.10.2.8 The bidder fails to effectively manage bidder staff time and/or assignments and respond to Iowa DOT and/or purchasing agency question/comments in a timely manner.

6.10.2.9 The bidder's quality of work is unacceptable to Iowa DOT (i.e. incorrect results, standards are not followed).

6.10.2.10 The bidder's quantity of work is unacceptable to Iowa DOT. The bidder fails to perform additional assignments as requested.

6.10.2.11 The bidder does not respond to critical issues and/or fails to participate in problem resolution when asked. This includes requests for support in the evenings and weekends.

6.10.2.12 The bidder's deliverable(s) cause a major outage to the Iowa DOT's IT infrastructure.

6.10.2.13 The bidder becomes subject to any bankruptcy or insolvency proceeding under federal or state law to the extent allowed by applicable federal or state law including bankruptcy laws; the bidder terminates or suspends its business; or the Iowa DOT reasonably believes that the bidder has become insolvent or unable to pay its obligations as they accrue consistent with applicable federal or state law.

6.10.2.14 The bidder has failed to comply with applicable federal, state and local laws, rules, ordinances, regulations and orders when performing within the scope of this Contract.

6.10.2.15 The bidder has engaged in conduct that has or may expose the Iowa DOT to liability, as determined in the Iowa DOT's sole discretion.

6.10.2.16 The bidder has infringed any patent, trademark, copyright, trade dress or any other intellectual property right.

6.10.3 Notice of Default

If there is a default event caused by the bidder, the Iowa DOT shall provide written notice to the bidder requesting that the breach or noncompliance be remedied within the period of time specified in the Iowa DOT's written notice to the bidder. If the breach or noncompliance is not remedied by the date in the written notice, the Iowa DOT may either:

6.10.3.1 Immediately terminate the contract without additional written notice.

6.10.3.2 Enforce the terms and conditions of the contract and seek any legal or equitable remedies.

6.10.4 Termination Upon Notice

Following 30 days written notice, the Iowa DOT may terminate this Contract in whole or in part without the payment of any penalty or incurring any further obligation to the bidder. Following termination upon notice, the bidder shall be entitled to compensation, upon submission of invoices and proper proof of claim, for services provided under this Contract to the Iowa DOT up to and including the date of Termination.

6.10.5 Termination Due to Lack of Funds or Change in Law

The Iowa DOT shall have the right to terminate this Contract without penalty by giving thirty (30) days written notice to the bidder as a result of any of the following:

6.10.5.1 Adequate funds are not appropriated or granted to allow the Iowa DOT to operate as required and to fulfill its obligations under this Contract.

6.10.5.2 Funds are de-appropriated or not allocated or if funds needed by the Iowa DOT, at the Iowa DOT's sole discretion, are insufficient for any reason.

6.10.5.3 The Iowa DOT's authorization to operate is withdrawn or there is a material alteration in the programs administered by the Iowa DOT.

6.10.5.4 The Iowa DOT's duties are substantially modified.

6.10.6 Remedies of the Bidder in Event of Termination by the Iowa DOT

In the event of termination of this Contract for any reason by the Iowa DOT, the purchasing agency shall pay only those amounts, if any, due and owing to the bidder for services and/or vehicles and vehicle components actually rendered up to and including the date of termination of the contract and for which the public transit agency is obligated to pay pursuant to this Contract. Payment will be made by the public transit agency only upon submission of invoices, required Buy America documentation, and FMVSS documentation and proper proof of the bidder's claim. This provision in no way limits the remedies available to the Iowa DOT under this Contract in the event of termination. However, the Iowa DOT shall not be liable for any of the following costs:

6.10.6.1 The payment of unemployment compensation to the bidder's employees.

6.10.6.2 The payment of workers' compensation claims, which occur during the contract or extend beyond the date on which the contract terminates.

6.10.6.3 Any costs incurred by the bidder in its performance of the contract, including, but not limited to, startup costs, overhead or other costs associated with the performance of the contract.

6.10.6.4 Any taxes that may be owed by the bidder in connection with the performance of this Contract, including, but not limited to, sales taxes, excise taxes, use taxes, income taxes or property taxes.

6.10.7 Bidder Termination Duties

The bidder, upon receipt of notice of termination or upon request of the Iowa DOT, shall:

6.10.7.1 Cease work under this Contract and take all necessary and appropriate steps to limit disbursements and minimize costs, and furnish a report within thirty (30) days of the date of notice of termination, describing the status of all work under the contract, including, without limitation, results accomplished, conclusions resulting therein, any other matters the Iowa DOT may require.

6.10.7.2 Immediately cease using and return to the Iowa DOT any personal property or materials provided by the Iowa DOT to the bidder.

6.10.7.3 Comply with the Iowa DOT's instructions for the timely Transfer of any active files and work product produced by the bidder under this Contract.

6.10.7.4 Cooperate in good faith with the Iowa DOT, its employees, agents and bidders during the transition period between the notification of termination and the substitution of any replacement bidder.

6.10.7.5 Issue credit to the Iowa DOT for any payments made by the Iowa DOT for services that were inappropriately billed for services that were not rendered by the bidder.

6.10.7.6 Immediately deliver to the Iowa DOT any and all Deliverables for which the Iowa DOT or designated public agency has made payment (in whole or part) that are in the possession or under the control of the Contractor or its agents or subcontractors in whatever stage of development and form of recordation such property is expressed or embodied as that time.

6.10.8 Unacceptable Deliverables

The bidder shall be required to perform the work for each deliverable in accordance with the terms, conditions, and representations of this Contract.

6.11 Contractor's Insurance Requirements

The resulting Contract will require the successful Bidder to maintain insurance coverage(s) of the type and in the amounts set forth below.

- It shall be the Contractor's responsibility to have liability insurance covering all of the project operations incident to contract completion and the Contractor(s) must have on file with the Contracting Authority a current "Certificate of Insurance" prior to award of contract. The certificate shall identify the insurance company firm name and address, contractor firm name, policy period, type of policy, limits of coverage, and scope of work covered (single contract or statewide). This requirement shall apply with equal force, whether the work is performed by persons employed directly by the Contractor(s) including a subcontractor, persons employed by a subcontractor(s), or by an independent contractor(s).
- In addition to the above, the Contracting Authority shall be included as an insured party, or a separate owner's protective policy shall be filed showing the Contracting Authority as an insured party.
- The liability insurance shall be written by an insurance company (or companies) qualified to do business in Iowa. For independent contractors engaged solely in the transportation of materials, the minimum coverage provided by such insurance shall be not less than that required by Chapter 325A, Code of Iowa, for such truck operators or contract carriers as defined therein. For all other contractors, subcontractors, independent contractors, and the Contracting Authority, the minimum coverage by such insurance shall be as follows:

  Comprehensive General Liability including Contractual Liability;
  Contingent Liability; Explosion, Collapse and Underground Drainage
  Damage; Occurrence Basis Bodily Injury: Broad Form Personal Injury; Broad Form Property

Damage.

6.11.1 Bodily Injury: The contractor will purchase and maintain throughout the term of this contract the following minimum limits and coverage:

- Each person - $750,000
- Each Accident/occurrence - $750,000
- Workers Compensation - $750,000
- Statutory Limits - $750,000

6.11.2 Operations:

- Property damage - $250,000 each occurrence

6.11.3 Builders Risk Insurance (Optional)
Each Contractor holding a valid contract with the Owner shall furnish and pay for builder's risk insurance, providing coverage for at least the following losses: fire, extended coverage, vandalism and malicious damage to materials incorporated in the project, and materials purchased to be incorporated in the project, either stored on or off the permanent job site. If this insurance coverage is not provided, the Contractor shall assume all responsibility for the perils outlined above which may occur prior to project completion and acceptance.

Failure on the part of the Contractor(s) to comply with the requirements of this Article will be considered sufficient cause to suspend the work, withhold estimates, and to deny the Contractor(s) any further contract awards, as provided in Article 1103.01.

The Contractor(s) shall require all subcontractor(s) meet the above insurance requirements.

6.11.3 The Certificate of Insurance must include the following

- Iowa Department of Transportation must be listed as an additional insured
- Proposal Number
- Proposal Description
- Letting Date and Contract Period

6.12 Performance Bond
Not required for this IFB.

6.13 Force Majeure
Neither Bidder nor the DOT shall be liable to the other for any delay or failure of performance of this Contract; and no delay or failure of performance shall constitute a default or give rise to any liability for damages if, and only to the extent that, such delay or failure is caused by a "force majeure".
As used in this Contract, "force majeure" includes acts of God, war, civil disturbance and any other causes which are beyond the control and anticipation of the party effected and which, by the exercise of reasonable diligence, the party was unable to anticipate or prevent.

Failure to perform by a subcontractor or an agent of the Bidder shall not be considered a "force majeure" unless the subcontractor or supplier is prevented from timely performance by a "force majeure" as defined in this Contract. "Force majeure" does not include: financial difficulties of the Bidder or any parent, subsidiary, affiliated or associated company of Bidder; claims or court orders which restrict Bidder's ability to deliver the goods or services contemplated by this Contract; or Year 2000 issues or Y2K-related difficulties or problem.

If a "force majeure" delays or prevents Bidder's performance, the Bidder shall immediately commence to use its best efforts to directly provide alternate, and to the extent possible, comparable performance. Comparability of performance and the possibility of comparable performance shall be reasonably determined solely by the DOT.
During any such period, the Bidder shall continue to be responsible for all costs and expenses

related to alternative performance.
This Section shall not be construed as relieving the Bidder of its responsibility for any obligation which is being performed by a subcontractor or supplier of services unless the subcontractor or supplier is prevented from timely performance by a "force majeure" as described here.

6.14 Indemnification by Bidder

The Bidder agrees to defend, indemnify and hold the Iowa DOT, and the State of Iowa, its employees, agents, board members, appointed officials and elected officials, harmless from any and all demands, debts liabilities, damages, loss, claims, suits or actions, settlements, judgments, costs and expenses, including the reasonable value of time expended by the Attorney General's Office, and the costs and expenses and attorney fees of other counsel required to defend the Iowa DOT or the State of Iowa related to or arising from:
Any violation or breach of this Contract including without limitation any of the Bidder's representations or warranties; or Any acts or omissions, including, without limitation, negligent acts or omissions or willful misconduct of Bidder, its officers, employees, agents, board members, contractors, subcontractors, or counsel employed by Bidder in the performance of this Contract, or any other reason in connection with the goods and services provided under this Contract; or
Claims for any violation of any intellectual property right including but not limited to infringement of patents, trademarks, trade dress, trade secrets, or copyrights arising from the any of the goods or service performed in accordance with this Contract; or
The Bidder's performance or attempted performance of this Contract; or *Any failure by the Bidder to comply with all local, State and Federal laws and* regulations; or
Any failure by the Bidder to make all reports, payments and withholdings required by Federal and State law with respect to social security, employee income and other taxes, fees or costs required by the Bidder to conduct business in the State of Iowa.

The Bidder's duty to indemnify as set forth in this section shall survive the expiration or termination of this Contract and shall apply to all acts taken in the performance of this Contract regardless of the date any potential claim is made or discovered by the STATE.

6.15 Indemnification by DOT

The State shall, only to the extent consistent with Article VII, Section 1 of the Iowa Constitution and Iowa Code Chapter 669, indemnify and hold harmless the Bidder from and against any and all costs, expenses, loses, claims, damages and liabilities arising directly out of the negligence or wrongful acts or omissions of any employee of the DOT while acting within the scope of the employee's office of employment in connection with the performance of this Contract.

At the option of the Iowa DOT, the Bidder shall be represented by the Attorney General of the State or special counsel retained by the DOT or the Attorney General of the State with respect to any litigation brought by or against the Bidder or such persons with respect to any claims, damages, judgments, liabilities or causes of action to which such persons may be subject and to which they are entitled to be indemnified hereunder.

Indemnification under this Section shall survive the termination of this Contract
and shall include reasonable fees and expenses of counsel and expenses of litigation. If the DOT shall have made any indemnity payments pursuant to this Section and the person to or on behalf of whom such payments are made thereafter shall collect any of such amounts from others, such person shall promptly repay such amounts to the DOT, without interest.

6.16 Payment

Payment for vehicles will be made to the Contract Bidder by each public transit system.

6.17 Care of Property

The bidder shall be responsible for the proper custody and care of any the State- owned tangible personal property furnished for the bidder's use in connection with the performance of the contract, and the bidder will reimburse the Iowa DOT for such property's loss or damage caused by the bidder, normal wear and tear excepted.

6.18 Bidder Conduct

The bidder shall adhere to State and other written established work rules. The Iowa DOT Workplace Environment Policies and Procedures will be provided to the bidder. These rules consist of commonly accepted, professional business conduct.

6.19 Public Contract Termination

The Provisions of Iowa Law as contained in Chapter 573A of the Code of Iowa, an Act to provide for termination of contracts for the construction of public improvements when construction or work thereon is stopped because of national emergency shall apply to and be a part of this Contract, and shall be binding upon all parties hereto including sub-contractors and sureties upon any bond given or filed in connection herewith.

6.19.1 Legislative Changes. The Contractor expressly acknowledges that the contracted Deliverables are subject to legislative change by either the federal or state government. Should either legislative body enact measures which alter the project, the Contractor shall not hold the Agency liable in any manner for the resulting changes. The Agency shall use best efforts to provide thirty (30) days' written notice to the Contractor of any legislative change. During the thirty (30)- day period, the parties shall meet and make a good faith effort to agree upon changes to the Contract to address the legislative change. Nothing in this Subsection shall affect or impair the Agency's right to terminate the Contract pursuant to the termination provisions.

6.20 Repayment Obligation In the event that any State and/or federal funds are deferred and/or disallowed as a result of any audits or expended in violation of the laws applicable to the expenditure of such funds, the Contractor shall be liable to the Agency for the full amount of any claim disallowed and for all related penalties incurred. The requirements of this paragraph shall apply to the Contractor as well as any subcontractors. Confidential Information (Attachment 6)

6.20.1 The Contractor's employees, agents and subcontractors may have access to confidential information maintained by the DOT to the extent necessary to carry out its responsibilities under the Contract.

The Contractor shall presume that all information received pursuant to this Contract is confidential unless otherwise designated by the DOT. The Contractor shall provide to the DOT a written description of its policies and procedures to safeguard confidential information. Policies of confidentiality shall address, as appropriate, information conveyed in verbal, written, and electronic formats. The Contractor must designate one individual who shall remain the responsible authority in charge of all data collected, used, or disseminated by the Contractor in connection with the performance of the Contract. The Contractor shall provide adequate supervision and training to its agents, employees and subcontractors to ensure compliance with the terms of this Contract. The private or confidential information shall remain the property of the DOT at all times.

6.20.2 No confidential information collected, maintained, or used in the course of performance of the Contract shall be disseminated by Contractor except as authorized by law and only with the prior written consent of the DOT, either during the period of the Contract or thereafter. Any data supplied by the DOT to the Contractor or created by the Contractor in the course of the performance of this Contract shall be considered the property of the DOT. The Contractor must return any and all data collected, maintained, created or used in the course of the performance of the Contract in whatever form it is maintained promptly at the request of the DOT. The Contractor may be held civilly or criminally liable for improper disclosure of confidential information.

6.20.3 In the event that a subpoena or other legal process is served upon the Contractor for records containing confidential information, the Contractor shall promptly notify the DOT and cooperate with the DOT in any lawful effort to protect the confidential information.

6.20.4 The Contractor shall immediately report to the DOT any unauthorized disclosure of

confidential information.

6.20.5 The Contractor's obligations under this section shall survive termination or expiration of this Contract.

Attachment # 1 - Certification Letter

Alterations to this document are prohibited (see Section 2.12.16)

Note: Effective Date follows signature of last page

Ryan Ward, Transit Programs Administrator Iowa
Department of Transportation 800 Lincoln Way
Ames, Iowa 50010

Re: PROPOSAL CERTIFICATIONS

Dear Mr. Ward:

I certify that the contents of the Bid Proposal submitted on behalf of authorized Bidder Company name designated in response to Iowa Department of Transportation's Request for Proposal (IFB) designated on the cover page and specified following the signature line of this document are true and accurate. I also certify I have not knowingly made any false statements in its Bid Proposal as the representative for the Bidder.

Certification of Independence

I certify that I am a representative of the Contractor expressly authorized to make the following certifications on behalf of the Contractor. By submitting a Bid Proposal in response to the IFB, I certify on behalf of the Contractor the following:

1. The Bid Proposal has been developed independently, without consultation, communication or agreement with any employee or consultant to the Iowa DOT or any Participating Agency, or with any person serving as a member of the evaluation committee.
2. The Bid Proposal has been developed independently, without consultation, communication or agreement with any other contractor or parties for the purpose of restricting competition.
3. Unless otherwise required by law, the information found in the Bid Proposal has not been and will not be knowingly disclosed directly or indirectly prior to the Iowa DOT's issuance of the Notice of Intent to Award the contract.
4. No attempt has been made or will be made by the Contractor to induce any other Contractor to submit or not to submit a Bid Proposal for the purpose of restricting competition.
5. No relationship exists or will exist during the contract period between the Contractor and the Iowa DOT or any Participating Agencies that interferes with fair competition or constitutes a conflict of interest.

Certification Regarding Debarment

6. I certify that, to the best of my knowledge, neither Contractor nor any of its principals: (a) are presently or have been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by a Federal Agency or State Agency; (b) have within a three year period preceding this Bid Proposal been convicted of, or had a civil judgment rendered against them for commission of fraud, a criminal offense in connection with obtaining, attempting to obtain, performing a public (federal, state, or local) transaction or contract under a public transaction, violation of antitrust statutes commission of embezzlement, theft, forgery, falsification or destruction of records, making false statements, or receiving stolen property; (c) are presently

indicted for, or criminally or civilly charged by a government entity (federal, state, or local) with the commission of any of the offenses enumerated in (b) of this certification; and (d) have not within a three-year period preceding this Bid Proposal had one or more public transactions (federal, state, or local) terminated for cause.
This certification is a material representation of fact upon which the Iowa DOT has relied upon when this transaction was entered into. If it is later determined that the Contractor knowingly rendered an erroneous certification, in addition to other remedies available, the Iowa DOT may pursue available remedies including suspension, debarment, or termination of the contract.

Certification Regarding Registration, Collection, and Remission of Sales and Use Tax

7. Pursuant to Iowa Code Sections 423.2(10) and 423.5(8) (2009) a retailer in Iowa or a retailer maintaining a business in Iowa that enters into a contract with a state agency must register, collect, and remit Iowa sales tax and Iowa use tax levied under Iowa Code chapter 423 on all sales of tangible personal property and enumerated services. Contractors are required to certify their compliance with sales tax registration, collection, and remission requirements and provides potential consequences if the certification is false or fraudulent.

By submitting a Bid Proposal in response to (IFB), the Contractor certifies the following: (check the applicable box)

_ Contractor is registered with the Iowa Department of Revenue, collects, and remits Iowa sales and use taxes as required by Iowa Code chapter 432; or

_ Contractor is not a "retailer" or a "retailer maintaining a place of business in this state" as those terms are defined in Iowa Code subsections 423.1(42) and (43).

Contractor also acknowledges that the Iowa Department of Transportation may declare the Contractor's Bid Proposal or resulting contract void if the above certification is false. The Contractor also understands that fraudulent certification may result in the Iowa Department of Transportation or its representative filing for damages for breach of contract in additional to other remedies available to Iowa Department of Transportation.

Sincerely,

[Signature of authorized representative] [Print Name and Title]

[Printed Name of Contractor Organization] [Date

Attachment # 2 – Authorization to Release Information Letter

Alterations to this document are prohibited (see Section 2.12.16)

Note: Effective Date follows signature of last page

Ryan Ward, Transit Programs Administrator
Iowa Department of Transportation 800 Lincoln
Way Ames, Iowa 50010

Re: AUTHORIZATION TO RELEASE INFORMATION Dear Ms. Shirley:

I certify that I am an authorized representative of the Bidder and hereby authorize the Iowa Department of Transportation or a member of the Evaluation Committee to obtain information regarding its performance on other contracts, agreements or other business arrangements, its business reputation, and any other matter pertinent to evaluation and the selection of a successful Contractor in response to Request for Proposal Number (IFB) designated on the cover page and specified following the signature line of this document.

The Contractor acknowledges that it may not agree with the information and opinions given by such person or entity in response to a reference request. The Contractor acknowledges that the information and opinions given by such person or entity may hurt its chances to receive contract awards from the State or may otherwise hurt its reputation or operations. The Contractor is willing to take that risk.
The Contractor hereby releases, acquits and forever discharges the State of Iowa, the Iowa DOT, Participating Agencies, their officers, directors, employees and agents from any and all liability whatsoever, including all claims, demands and causes of action of every nature and kind affecting the undersigned that it may have or ever claim to have relating to information, data, opinions, and references obtained by the Iowa DOT or the Evaluation Committee in the evaluation and selection of a successful Contractor in response to the IFB.

The Contractor authorizes representatives of the Iowa DOT or the Evaluation Committee to contact any and all of the persons, entities, and references which are, directly or indirectly, listed, submitted, or referenced in the Contractor's Bid Proposal submitted in response to the IFB.

The Contractor further authorizes any and all persons, entities to provide information, data, and opinions with regard to its performance under any contract, agreement, or other business arrangement, its ability to perform, business reputation, and any other matter pertinent to the evaluation of the Contractor's Bid Proposal. The Contractor hereby releases, acquits and forever discharges any such person or entity and their officers, directors, employees and agents from any and all liability whatsoever, including all claims, demands and causes of action of every nature and kind affecting the Contractor that it may have or ever claim to have relating to information, data, opinions, and references supplied to the Iowa DOT or the Evaluation Committee in the evaluation and selection of a successful contractor in response to the IFB.

A photocopy or facsimile of this signed Authorization is as valid as an original.

Sincerely,

[Signature of authorized representative] [Print Name and Title]

[Printed Name of Contractor Organization] [Date]

This page is supplied as a checklist and is not intended to be used as an all-inclusive bid proposal requirement

Section	IFB REFERENCE	LOCATION OF RESPONSE
Cover	Bid Response	
Cover/4.3	Schedule of Prices -Cost Proposal (blank on page 3)	*In a separate folder from Technical Specs on flash drive*
2.2/2.5	Acknowledgement that Proposal is not based on oral representations (Attachment 5)	
2.3/2.6	Vendor signed Addenda *if issued.* Posted on internet website: www.iowadot.gov/transit	
3	Specifications and Technical Requirements	
4.1.1	Original flash drive(s)	
4.1.4	Confidential Information noted on each corresponding page of the bid	
4.2.1	Transmittal Letter	
4.2.3	Termination, Litigation, Debarment	
4.2.4	Certification Letter (Attachment 1)	
4.2.5	Acceptance of Terms and Conditions	
4.2.6	Authorization to Release Information	
4.2.13	Firm Bid Proposal Terms (Attachment 4)	
6.20	Confidential Information & Non-Disclosure Agreement	

Ryan Ward, Transit Programs Administrator
Iowa Department of Transportation 800 Lincoln
Way Ames, Iowa 50010 Office of Public Transit
800 Lincoln Way Ames, Iowa 50010

Re: Firm Prices

Dear Mr. Ward:

By submitting a proposal in response to Iowa Department of Transportation Request for Proposal Number listed below signature line, the undersigned certifies the following:

> The Bidder shall guarantee in writing the availability of the products offered and that all bid proposal terms, including price, will remain firm based on criteria as stated in the IFB body.

A photocopy or facsimile of this signed Authorization is as valid as an original.

Sincerely,

[Signature of authorized representative] [Print Name and Title]

[Printed Name of Contractor Organization] [Date]

Ryan Ward, Transit Programs Administrator Iowa
Department of Transportation 800 Lincoln Way
Ames, Iowa 50010

Re: Acknowledgement that Proposal is not based on oral representations or statements

Dear Mr. Ward:

By submitting a proposal in response to Iowa Department of Transportation Request for Proposal Number listed below signature line, the undersigned certifies the following:

1. The Bidder's proposal, including cost, is based solely on its own understanding of the requirements of the IFB based on the written contents of the IFB, and any written addenda and written clarifications provided to bidders during the procurement process by the purchasing officer.

2. The bidder acknowledges and agrees that the Iowa DOT is not bound by any oral or written representations, statements, promises, agreements (formal or informal), or understandings (collectively Statements) which were made at any time prior to or during the procurement process by an elected official, officer, appointed official, employee, agent, representative or consultant which are NOT expressly incorporated into the IFB or included by written addenda or written clarifications during the procurement process and issued by the purchasing officer.

A photocopy or facsimile of this signed Authorization is as valid as an original.

Sincerely,

[Signature of authorized representative] [Print Name and Title]

[Printed Name of Contractor Organization] [Date]

Exhibit Requirements Checklist

THE RESPONDER MUST COMPLETE, SIGN AND RETURN THE FOLLOWING FORMS FOR EACH MANUFACTURER OFFERED WITH ITS RESPONSE:

REQUIRED FORMS AND CERTIFICATIONS

Exhibit A.	Trade Secret Information Form
Exhibit B.	Affidavit of Non-collusion
Exhibit C.	Services and Delivery
Exhibit D.	Environmental Report
Exhibit E.	Taxpayer Identification
Exhibit F.	Buy America Rule Certification
Exhibit G.	Lobbying Restriction Certification
Exhibit H.	Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
Exhibit I.	Clean Air Certification
Exhibit J.	Clean Water Certification

THE MANUFACTURER MUST COMPLETE AND SIGN THE FOLLOWING FORMS FOR EACH BODY, CHASSIS AND CLASS OFFERED AND THE SOLICITATION RESPONDER WILL RETURN THE FORM WITH ITS RESPONSE:

Exhibit K.	Certification of TVM/DBE Compliance
~~Exhibit L.~~	~~Cargo Preference Certification~~
Exhibit M.	Pre-Award and Post Delivery Audit Certification
Exhibit N.	Bus Testing Compliance Certification
Exhibit O.	Certification of Compliance with Federal Motor Vehicle Safety Standards
Exhibit P.	ADA Certification
Exhibit Q.	Potential Participating Entities

Exhibit A <u>Trade Secret Information</u>

Data submitted in a response becomes public upon completion of the evaluation process and negotiations are complete, or upon completion of the selection process for a solicitation. However, "trade secret information" cannot be disclosed to the public. While the majority of data submitted in a response is not trade secret information, the following form is needed to assist the State in making appropriate determinations about the release of data provided in a response.

All responders must select one of the following boxes:

- □ My response does not contain "trade secret information." I understand that my entire response will become public record in accordance with Minn. Stat. § 13.591.
- □ My response does contain trade secret information because it contains data that:
  1. is a formula, pattern, compilation, program, device, method, technique or process; AND
  2. is the subject of efforts by myself or my organization that are reasonable under the circumstances to maintain its secrecy; AND
  3. derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

Complete only if trade secret status is asserted:

I am claiming that aspects of my response contain trade secret information. I have completed the following:

□ I have clearly marked and placed any data I claim to be "trade secret information" on each corresponding page of the bid and have included explanation justifying the trade secret designation.

Please note that failure to attach an explanation may result in a determination that the data does not meet the statutory trade secret definition. All data for which trade secret status is not justified will become public in accordance with Minn. Stat. § 13.591.

By submitting this response, responder agrees to indemnify and hold the State, its agents and employees, harmless from any claims or causes of action relating to the State's withholding of data based upon reliance on the above representations, including the payment of all costs and attorney fees incurred by the State in defending such an action.

Exhibit B <u>Affidavit of NonCollusion</u>

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

1. That I am the responder (if the responder is an individual), a partner in the company (if the responder is a partnership), or an officer or employee of the responding corporation having authority to sign on its behalf (if the responder is a corporation);
2. That the attached response has been arrived at by the responder independently and has been submitted without collusion with and without any agreement, understanding or planned common course of action with any other bidder designed to limit fair or open competition;
3. That the contents of the IFB response have not been communicated by the responder or its employees or agents to any person not an employee or agent of the responder and will not be communicated to any such persons prior to the official opening of the responses; and
4. I certify that the statements in this affidavit are true and accurate.

Authorized

Signature:

Date:

Firm Name:

Subscribed and sworn to me this _____ day of

Notary Public My

commission expires

Exhibit C Services and Delivery

Service and delivery are important requirements for all State Contracts. The successful responder will be expected to ship all orders within the time specified in its response or, in the case of unanticipated problems causing a delay, notify the agency of the problem and when the shipment will be made. All requests for information from State agencies will be answered promptly. A copy of all correspondence to State agencies shall be sent to the Iowa DOT, Office of Public Transit procurement administrator. Any Contract Bidder found to be providing unsatisfactory service during the Contract period may be disqualified for a subsequent Contract award.

SUBSEQUENT CONTRACT REVISIONS No verbal or written instructions from State agencies or officials to change any provision of the resulting Contract shall be accepted by the Contract Bidder without the approval of the TPA. The Contract Bidder shall report any such requests to the TPA who will issue approval or denial in writing.

CONTACT PERSON FOR ORDERS:

NAME: _____ TITLE:
TELEPHONE
NUMBER: _____ FAX NUMBER:
TOLL FREE
NUMBER: _____ E-MAIL:

CONTACT PERSON TO EXPEDITE ORDERS (if different from above):

NAME: _____ TITLE:
TELEPHONE
NUMBER: _____ FAX NUMBER:
TOLL FREE
NUMBER: _____ E-MAIL:

ORDER ADDRESS:

Exhibit D Environmental Products and Services

Environmental Characteristics for Reporting Purposes The State desires to purchase environmentally responsible goods and services where practicable. To identify these products and report the purchasing results, the State must know the environmentally responsible characteristics of the goods and services offered. Using the list of environmental codes below, specify which line items have environmentally responsible characteristics and enter the appropriate environmental code. The environmental codes* are:

EE =	Energy Efficient	EM =	Remanufactured
LT =	Less Toxic	RE =	Repair
PB =	Plant-based	US =	Used
RB =	Rebuilt	WC =	Water Conserving
RC =	Recycled Content	MU =	Multiple Codes Specify:
	(Post-consumer: %)	TO =	Other Specify
RK =	Reduced Packaging	NO =	None

Enter the appropriate environmental code for each item offered, either after the description of the item, or after the price.

If all goods and services offered are the same environmental code, enter it here: _____
If none of the items being offered have environmental characteristics, please check and initial here:
□ _____ .

Mercury: The State cannot buy mercury in thermometers and certain other products. Please certify below if your product does or does not contain mercury. The actual product specification will stipulate if mercury is prohibited.

Does your product contain mercury? □ Yes □ No If

yes, list the components that contain
mercury: _____

Environmental Codes Definitions

EE (Energy Efficient): A product that uses less energy (either electricity or fossil fuel) to accomplish its task relative to a comparable product or to an earlier version of the same product by the same manufacturer.

LT (Less Toxic): A product containing a smaller amount of toxic substances relative to a comparable product or a product reformulated to be less toxic.

PB (Plant-Based): A product derived from renewable resources, including fiber crops (such as kenaf); chemical extracts from oilseeds, nuts, fruits and vegetables (such as corn and soybeans); agricultural residues (such as wheat straw and corn stover); and wood wastes generated from processing and manufacturing operations. These products stand in contrast to those made from fossil fuels (such as petroleum) and other less renewable resources (such as virgin timber).

RB (Rebuilt): A product refurbished to a level less than a total remanufacture. The warranty is by the rebuilder, and may be different from the same product when new or remanufactured. Also called reconditioned or refurbished.

RC (Recycled Content): A product containing materials that have been recovered or diverted from the solid waste stream after consumer use (post-consumer).

RK (Reduced Packaging): A product presented for use with less packaging or alternative methods of packaging or shipping.

EM (Remanufactured): A product restored to its original condition by extensive rebuilding, usually given an equal or better warranty than a new product.

RE (Repair): A product that has had a defect corrected and can again serve its original function. Repairing is a less comprehensive process than either remanufacturing or rebuilding.

US (Used): A product used or owned before without further manufacture.

WC (Water Conserving): A product that requires less water to operate or to manufacture than a comparable product, or a different version of the same product from the same manufacturer.

MU (Multiple Codes): A product that has several significant environmentally responsible characteristics, and could be classified under more than one code, but not one code is predominant.

TO (Other): A product having environmentally responsible characteristics that does not fit into any of the categories listed above.

Exhibit E Taxpayer Identification

The Contract Bidder consents to disclosure of its social security number or federal employer tax identification number to federal and State tax agencies and State personnel involved in the payment of State obligations. These identification numbers may be used in the enforcement of federal and State tax laws which could result in action requiring the Contract Bidder to file tax returns and pay delinquent tax liabilities, if any.

Firm Name:

Address:

Federal Employer ID Number or Social Security:

Are you a sole proprietorship? Yes No

Are you an independent contractor? Yes No

Exhibit F Buy America Rule Certification

The Contract Bidder agrees to comply with 49 USC. 5323(j) and 49 CFR 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 CFR 661.7, and include final assembly in the United States for 15-passenger vans and 15-passenger wagons produced by Chrysler Corporation, microcomputer equipment, software, and small purchases (currently less than $150,000) made with capital, operating, or planning funds. Separate requirements for rolling stock are set out at 5323(j)(2)(C) and 49 CFR 661.11. Rolling stock not subject to a general waiver must be manufactured in the United States and have the ascending percent domestic content.

A Responder must submit to the FTA recipient the appropriate Buy America certification (below) with all offers on FTA-funded contracts, except those subject to a general waiver. Responses that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

Certification requirement for procurement of buses, other rolling stock, and associated equipment

Certificate of Compliance with 49 USC 5323(I)(2)(C)

The Responder hereby certifies that it will comply with the requirements of 49 USC. 5323(j) (2) (C) and the regulations at 49 CFR Part 661.

Company Name _____

Signature _____

Title _____

Date _____

Certificate of Compliance with 49 USC 5323(I)(2)(C)

The Responder hereby certifies that it cannot comply with the requirements of 49 USC. 5323(j)(2)(C), but may qualify for an exception pursuant to 49 USC. 5323(j)(2)(B) or (j)(2)(D) and the regulations in 49 CFR 661.7.

Company Name _____

Signature _____

Title _____

Date _____

Exhibit G Lobbying (31 UCS. 1352, 49 CFR p. 19, 49 CFR p. 20)

Byrd Anti-Lobbying Amendment, 31 USC. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 USC. § 1601, et seq.] - Contractors who apply or bid for an award of $100,000 or more shall file the certification required by 49 CFR 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 USC. 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 USC. 1352. Such disclosures are forwarded from tier to tier up to the recipient.

APPENDIX A, 49 CFR PART 20--CERTIFICATION REGARDING

LOBBYING Certification for Contracts, Grants, Loans, and Cooperative Agreements The

undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 USC. 1601, et seq.).

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, USC. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Note: Pursuant to 31 USC. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.

The Contractor, _____ , certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 USC. A 3801, et seq., apply to this certification and disclosure, if any.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

COMPANY

Office of the Secretary of Transportation 49 CFR Part 20, App. B

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 USC, 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. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. 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 follow-up 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 subcontract, 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 (IFB) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., “IFB-DE-90-OO1.”

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 entity 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 service, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).

11. Enter the amount of compensation paid to reasonable expected to be paid by the reporting entity (item 4) to the lobbing entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.

12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.

13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.

15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.

16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and review the collection of information.
Send comments regarding the burden estimate or any other aspect of this collection

49 CFR Pat 20, App. B

DISCLOSURE OF LOBBYING ACTIVITIES Approved by OMB 0348-0046

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352. Approved by OMB 4040-0013

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
4) Name and Address of Reporting Entity:
   Prime ☐ SubAwardee ☐

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

Congressional District if known_____

5) If reporting Entity in #4 is SubAwardee, Enter Name and Address of Prime

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

Congressional District if known_____

6) Federal Department/Agency

7) Federal Program Name/Description

8) Federal Action # (if Known)

9) Award Amount (if known)

10) A. Name and Address of Lobbying Registrant

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

B. Name and Address of Individual Performing Services

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

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 the 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: _____

First Name_____ Last Name _____

Title _____ PH # _____

Date_____

Exhibit H Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion

1. By signing and submitting this bid, the prospective lower tier participant is providing the signed certification set out below.

2. The certification referred to in this paragraph is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the State may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the State if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered participant," "persons," "lower tier covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this paragraph, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549, 49 CFR Part 29. You may contact the State for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this bid that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized in writing by the State.

6. The prospective lower tier participant further agrees by submitting this bid that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Non-Procurement List issued by US General Service Administration.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this paragraph. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under subparagraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to all remedies available to the Federal Government, the State may pursue available remedies including suspension and/or debarment.

The prospective lower tier participant certifies, by submission of this offer, that neither it nor its "principals" [as defined at 49 CFR section 29.105(p)] is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

When the prospective lower tier participant is unable to certify to the statements in this certification, such prospective participant shall attach an explanation to this certification.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

Exhibit I Clean Air Certification

The Contract Bidder agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 USC.§§ 7401 et seq. The Contract Bidder agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

The Contract Bidder also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

Exhibit J Clean Water Certification

The Contract Bidder agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 USC. 1251 et. seq. The Contract Bidder agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

The Contract Bidder also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

Exhibit K Certification of TVM/DBE Compliance

The Responder, a Primary Transit Vehicle Manufacturer (TVM), hereby certifies that it has complied with the requirements of 49 CFR section 26.49, as amended, by submitting an annual Disadvantaged Business Enterprises (DBE) goal, as amended, to the Federal Transit Administration (FTA). The goal has either been approved or not disapproved by the FTA.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

Exhibit M Pre-Award and Post Delivery Audit Requirements

Pre-Award and Post-Delivery Audit Requirements - The Contract Bidder agrees to comply with 49 USC. § 5323(l) and FTA's implementing regulation at 49 CFR Part 663 and to submit the following certifications:

(A) Buy America Requirements: The Contract Bidder shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Responder/Offer or 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.

(B) Solicitation Specification Requirements: The Contract Bidder shall submit evidence that it will be capable of meeting the solicitation specifications.

(C) Federal Motor Vehicle Safety Standards (FMVSS): The Contract Bidder 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.

BUY AMERICA CERTIFICATE OF COMPLIANCE WITH FTA REQUIREMENTS FOR BUSES, OTHER ROLLING STOCK, OR ASSOCIATED EQUIPMENT

Certificate of Compliance

The Responder hereby certifies that it will comply with the requirements of 49 USC. Section 5323(j)(2)(C), Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and the regulations of 49 CFR 661.11:

SIGNATURE

TYPED OR PRINTED NAME

TITLE

COMPANY

DATE

Certification of Non-Compliance

The Responder hereby certifies that it cannot comply with the requirements of 49 USC. Section 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 USC. Sections 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 CFR 661.7.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

Exhibit N Bus Testing Compliance Certification

The Contract Bidder [Manufacturer] agrees to comply with 49 USC.A 5323(c) and FTA's implementing regulation at 49CFR 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.

CERTIFICATION OF COMPLIANCE WITH FTA BUS TESTING REQUIREMENTS

The undersigned [Contract Bidder/Manufacturer] certifies that the vehicle offered in this procurement complies with 49 USC. A 5323(c) and FTA's implementing regulation at 49 CFR Part 665.

The undersigned understands that misrepresenting the testing status of a vehicle acquired with Federal financial assistance may subject the undersigned to civil penalties as outlined in the Department of Transportation's regulation on Program Fraud Civil Remedies, 49 CFR Part 31. In addition, the undersigned understands that FTA may suspend or debar a manufacturer under the procedures in 49 CFR Part 29.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

COMPANY

DATE (46 USC. section 5323(1), 49 CFR Part 663, Subpart D)

Exhibit O <u>Certification of Compliance with Federal Motor Carrier Safety Standards (FMVSS)</u>

The manufacturer hereby certifies that the vehicles(s) listed below will meet all of the applicable requirements of the Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in Part 571 of this title.

A list of all applicable Federal Motor Vehicle Safety Standards (FMVSS) of which each proposed vehicle complies with must be submitted.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

COMPANY

DATE

List Vehicles:

Make:

Model:

Year:

The Responder hereby certifies that the buses provided pursuant to this Solicitation will comply with the Federal Motor Vehicle Safety Standards established by the Department of Transportation which are in effect at the time of bus manufacture.

Exhibit P ADA Certification

Certification of Compliance with the Americans with Disabilities Act of 1990

The manufacturer hereby certifies that it shall comply with all requirements relating to vehicle design or special equipment design as required by the Americans with Disabilities Act of 1990 and any other federal accessibility regulations and subsequent amendments thereto that may be applicable to this procurement.

SIGNATURE

TYPED OR PRINTED NAME

TITLE

Exhibit Q Potential Participating Entities

The following is a list of the potential customers who would be approved to buy from awarded bidders.

Transit Agencies

Burlington Urban Service
City of Clinton, Municipal Transit Administration
City of Fort Dodge (DART)
Marshalltown Municipal Transit
City of Mason City
City of Muscatine
Ottumwa Transit
Ames Transit Agency/CyRide
City of Bettendorf
University of Iowa, Cambus
Cedar Rapids Transit
Coralville Transit System
City of Council Bluffs
Davenport Public Transit (CitiBus)
Des Moines Area Regional Transit Authority (DART)
City of Dubuque, The Jule Iowa City Transit Sioux City Transit System
Metropolitan Transit Authority of Black Hawk County/Waterloo MET
Northeast Iowa Community Action Corporation - Transit/NEICAC-T
North Iowa Area Council of Governments/Region 2 Transit
Regional Transit Authority/RIDES
Siouxland Regional Transit System
MIDAS Council of Governments
Region Six Planning Commission/PeopleRides
Iowa Northland Regional Council of Governments/ Regional Transit Commission Region 8 Regional Transit Authority (RTA)
River Bend Transit
East Central Iowa Council of Governments Heart of Iowa Regional Transit Agency
Region XII Council of Governments/Western Iowa Transit System Southwest Iowa Planning Council/Southwest Iowa Transit Agency Southern Iowa Trolley 10-15 Regional Transit Agency
South East Iowa Regional Planning Commission/SEIBUS

Public Transit agencies not in Iowa, but part of an MPO shared between Iowa and another state.

Regents

Iowa State University, University of Northern Iowa, University of Iowa

State Agencies Any State of Iowa Agency

Bidder

Iowa Department of Transportation
Office of Public Transit
800 Lincoln Way Ames, Iowa 50010
Attn: Ryan Ward

SEALED BID

PROPOSAL NO: _____

PROPOSAL DESCRIPTION: _____

LETTING DATE:_____