MEMORANDUM OPTM
Agenda Item No. 3(L)

TO: Honorable Chairperson and Members
Board of County Commissioners

DATE: July 14, 2003

FROM: George M. Burgess
County Manager

SUBJECT: Small Low Floor Transit Buses RFP

This Request to Advertise has been prepared by Miami-Dade Transit (MDT) and is recommended for approval.

RFP: Small Low Floor Transit Buses for Miami-Dade Transit

RFP No.: 407

RFP LOCATION: Countywide

RFP DESCRIPTION: The County as represented by Miami-Dade Transit (MDT) requests proposals for the manufacture and design, engineering, testing, repair, quality assurance, training on repairs of parts and equipment, delivery, and spare parts for furnishing up to 400 small, low floor transit buses and support equipment in accordance with the terms and conditions set forth in this Request for Proposals (RFP).

The 400 buses will be purchased over a period of four years. The County also reserves the option to purchase an additional quantity of buses, up to 400 above the base quantity, for a period of five years after award of contract.

The contract resulting from this RFP shall be a fixed price contract. The buses proposed must be of durable, heavy-duty construction with an expected minimum life of ten years/350,000 miles and be Federal Transit Administration (FTA) fundable on no less than a ten-year cycle. Buses with a minimum life of twelve year/500,000 miles may also be proposed. The longer life cycle will be taken into consideration in the evaluation/selection process.

The vehicles must be new, current year production diesel powered, air-conditioned, low floor buses which meet all Federal, state and local requirements. The buses must seat

a minimum of 28 passengers and have two wheelchair positions.

The vehicles will include fare boxes that must be the same model as the fare boxes being used by all MDT buses. The County is in the process of procuring a new contract for fare boxes as part of a Tri-County Regional Transportation Organization project approved by the Board by Resolution # 1399-02 on December 3, 2002. Because this bus solicitation is for a contract over a 5 year period, the solicitation requires that all of the buses delivered include the fare boxes required by the department at that time.

These transit vehicles are intended for the widest possible spectrum of passengers, including children, adults, elderly passengers and persons with disabilities. The design of the vehicle must reflect the highest possible standard of concern for the welfare and safety of all such passengers.

Proposers are encouraged to offer unique and innovative designs and features that, while meeting the specifications contained in this RFP, also meet the following objectives:

- Modern, streamlined, aerodynamic, futuristic with up-to-date, innovative passenger accommodations and appealing in appearance
- Exceptional in design
- Comfortable, safe and convenient for use by passengers including elderly and disabled persons
- Durable
- Reliable
- Easy to maintain
- Compatible with the South Florida environment

The acquisition plan schedule is:

2004 – 150 minibuses
2005 – 150 minibuses
2006 - 50 minibuses
2007 - 50 minibuses

Early delivery, within the year the buses are required according to the above bus schedule, is crucial for the success of the bus operations. As a result of this, the delivery schedule is part of the evaluation criteria.

MINIMUM QUALIFICATIONS EXCEED LEGAL REQUIREMENTS: None

COST ESTIMATE: $201,500,000 (over the five year contract term, including options).

ART IN PUBLIC PLACES: Not applicable

FUNDING SOURCES: Local (90%) and Federal Funds (10%). The half-penny transit surtax may be utilized for this project after the project is approved by the Citizens' Independent Transportation Trust or, if disapproved by the Citizens' Independent Transportation Trust, surtax funds may be used as a result of a two-thirds override of the entire membership of the Board of County Commissioners.

MANAGING AGENCY: Miami-Dade Transit

INSPECTOR GENERAL: Due to conflict with federal procurement guidelines the Inspector General fees provisions are excluded.

IPSIG CONTRIBUTION: Not applicable

DBE GOAL: In compliance with regulations and procedures of the Federal Transit Administration (FTA), Transit Vehicle Manufacturer (TVM) goals are negotiated and agreed to with the FTA. The contractor must certify these goals.

REVIEW COMMITTEE DATE: Not Applicable

ESTIMATED ADVERTISEMENT DATE: Ten days after approval by the Board of County Commissioners, unless vetoed by the Mayor.

OTHER:

This RFP is subject to Ordinance 98-106, "Cone of Silence", as amended.

Note: Due to a conflict with federal procurement guidelines, Local Preference points will not be applied to proposer's scores and Protest Fees in the event of an award protest have been eliminated.

Request for Proposals
for
Small, Low Floor Transit Buses

RFP No. 407

Issuing Department:
Miami-Dade Transit

Contracting Officer: Diana Gonzalez
Telephone: (305) 637-3830

Proposals are due at the address shown below
no later than
Friday, December 5, 2003 at 2:00 pm (local time)
at
Clerk of the Board
Stephen P. Clark Center
111 NW 1st Street, 17th Floor, Suite 202
Miami, Florida 33128-1983

Proposals will be opened promptly at the time and place specified. Proposals received after the first proposal has been opened will not be opened and will not be considered. The responsibility for submitting a proposal to the Clerk of the Board on or before the stated time and date is solely and strictly the responsibility of the proposer. Miami-Dade County is not responsible for delays caused by any mail, package or courier service, including the U.S. Mail, or caused by any other occurrence.

Miami-Dade County is an equal opportunity employer and does not discriminate based on age, gender, race or disability.

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DEFINITIONS

The following words and expressions used in this solicitation shall be construed as follows, except when it is clear from the context that another meaning is intended:

a) The words "Contractor" or "Consultant" to mean the Proposer that receives any award of a Contract from the County as a result of this Solicitation, which is also to be known as "the prime Contractor" or "the prime Consultant".

b) The word "County" to mean Miami-Dade County, a political subdivision of the State of Florida.

c) The word "Department" to mean Miami-Dade Transit (MDT).

d) The words "Proposer", "Submitter" or "Respondent" to mean the person, firm, entity or organization submitting a response to this Solicitation.

e) The words "Scope of Services" or "Scope of Work" to mean Section 2.0 of this Solicitation, which details the work to be performed by the Contractor or Consultant.

f) The word "Solicitation" to mean this Request For Proposal (RFP) document, and all associated addenda and attachments.

g) The words "Subcontractor" or "Subconsultant" to mean any person, firm, entity or organization, other than the employees of the Contractor, who contracts with the Contractor to furnish labor, or labor and materials, in connection with the Work or Services to the County, whether directly or indirectly, on behalf of the Contractor.

h) The words "Work", "Services", "Program", "Project" or "Engagement" to mean all matters and things that will be required to be done by the Contractor in accordance with the Scope of Services and the terms and conditions of this Solicitation.

i) The words "Work Order" to mean a document that defines and describes the parameters of individual projects assigned or awarded by the County to the Contractor in accordance to the terms of the Contract.

SECTION 1.0 - RFP OVERVIEW AND PROPOSAL PROCEDURES

1.1 INTRODUCTION/BACKGROUND

The County as represented by Miami-Dade Transit (MDT) requests proposals for the manufacture and design, engineering, manufacture, testing, quality assurance, training, delivery, and spare parts for furnishing up to 400 small, low floor transit buses, spare parts and support equipment in accordance with the terms and conditions set forth is this Request for Proposals (RFP). The buses will be purchased over a period of four years. MDT also reserves the option to purchase an additional quantity of buses, up to 400 above the base quantity, for a period of five years after award of contract. The contract resulting from this RFP shall be a fixed price contract. The buses proposed must be of durable, heavy-duty construction with an expected minimum life of ten years/350,000 miles and be FTA fundable on no less than a ten-year cycle. Buses with a minimum life of twelve year/500,000 miles may also be proposed. The longer life cycle will be taken into consideration in the evaluation/selection process. The vehicles must be new, current year production diesel powered, air-conditioned, low floor buses which meet all Federal, state and local requirements. The buses must seat a minimum of 28 passengers and have two wheelchair positions. These transit vehicles are intended for the widest possible spectrum of passengers, including children, adults, elderly passengers and persons with disabilities. The design of the vehicle must reflect the highest possible standard of concern for the welfare and safety of all such passengers.

Proposers are encouraged to offer unique and innovative designs and features that, while meeting the specifications contained in this RFP, also meet the following objectives:

- Modern, streamlined and futuristic appearance that will encourage the use of transit by the community
- Include up-to-date, innovative passenger accommodations
- Exceptional in design
- Comfortable, safe and convenient for use by passengers including elderly and disabled persons
- Durable
- Reliable
- Easy to maintain
- Compatible with the South Florida environment

1.2 RFP TIMETABLE

The anticipated schedule for this RFP and contract approval is as follows:

RFP available for distribution:	September 23, 2003
Deadline for receipt of questions and approved equal requests:	October14, 2003 at 5:00 p.m. (Local Time)

Deadline for second round of clarifications and approved equal requests, if necessary:	November 14, 2003 at 5:00 p.m. (Local Time)
Deadline for receipt of proposals:	Friday, December 5, 2003 at 2:00 p.m. (Local Time) (See Section 1.4 for location)
Evaluation/Selection process:	Week of December 8, 2003
Oral presentations, if conducted:	Week of December 15 2003
Projected Award Date:	January 20, 2004

1.3 RFP AVAILABILITY

Copies of this solicitation package can be obtained through MDT Materials Management Division, 3401 N.W. 31 St., Miami, Florida 33142, phone number (305) 637-3830. To request the solicitation package through the United States Postal Service, mail your request with the following information: the solicitation number and title, the name of Proposer's contact person, Proposer's name, complete address to be mailed to, telephone number and fax number.

Proposers or Respondents who obtain copies of this Solicitation from sources other than as stated above, risk the potential of not receiving addenda, since their names will not be included on the list of firms participating in the process for this particular Solicitation. Such Proposers or Respondents are solely responsible for those risks **(see Section 1.8)**

1.4 PROPOSAL SUBMISSION

All proposals must be submitted on 8 1/2" X 11" paper, neatly typed on one side only, with normal margins, and spacing. The original document package must not be bound and the document package copies should be individually bound. **An unbound one-sided original and 10-bound copies (a total of 11)** of the complete proposal (both the technical and price proposals) must be received by **the deadline for receipt of proposal specified in this RFP Timetable (see Section 1.2).** The original, all copies, and the separate sealed price/cost envelope, must be submitted (**technical packaged separately from price**) in a sealed envelope or container stating on the outside the Proposer's name, address, telephone number, the RFP number, RFP title, and Proposal Due Date to:

Clerk of the Board
Stephen P. Clark Center
111 NW 1st Street, 17th Floor, Suite 202
Miami, FL 33128-1983

Hand-carried proposals may be delivered to the above address **ONLY** between the hours of 8:00 a.m. and 4:30 p.m., Mondays through Fridays (however, please note that proposals are due at the Clerk of the Board on the date and at the time indicated in Section 1.2. Additionally, the Clerk of the Board is closed on holidays observed by the County). Proposers are responsible for

informing any commercial delivery service, if used, of all delivery requirements and for ensuring that the required address information appears on the outer wrapper or envelope used by such service.

Both the Technical (Quality) Proposal and the Price Proposal must be signed by an authorized officer of the Proposer who is legally authorized to enter into a contractual relationship in the name of the Proposer. The submittal of a proposal by a Proposer will be considered by the County as constituting an offer by the Proposer to perform the required services at the stated prices.

A Proposer may propose more than one transit bus. However, a separate technical proposal and price proposal must be submitted for each vehicle proposed. Additional proposals must be submitted in discrete, clearly labeled packages with price proposals separate from technical proposals. Only one proposal guarantee deposit or proposal security bond will be required from each Proposer regardless of the number of proposals submitted.

1.5 PROTECTED HEALTH INFORMATION

Any person or entity that performs or assists Miami-Dade County with a function or activity involving the use or disclosure of "individually identifiable health information (IIHI) and/or Protected Health Information (PHI) shall comply with the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and the Miami-Dade County Privacy Standards Administrative Order. HIPAA mandates for privacy, security and electronic transfer standards, that include but are not limited to:

1. Use of information only for performing services required by the contract or as required by law;
2. Use of appropriate safeguards to prevent non-permitted disclosures;
3. Reporting to Miami-Dade County of any non-permitted use or disclosure;
4. Assurances that any agents and subcontractors agree to the same restrictions and conditions that apply to the Bidder/Proposer and reasonable assurances that IIHI/PHI will be held confidential;
5. Making Protected Health Information (PHI) available to the customer;
6. Making PHI available to the customer for review and amendment; and incorporating any amendments requested by the customer;
7. Making PHI available to Miami-Dade County for an accounting of disclosures; and
8. Making internal practices, books and records related to PHI available to Miami-Dade County for compliance audits.

PHI shall maintain its protected status regardless of the form and method of transmission (paper records, and/or electronic transfer of data). The Bidder/ Proposer must give its customers written notice of its privacy information practices including specifically, a description of the types of uses and disclosures that would be made with protected health information.

1.6 CONE OF SILENCE

Pursuant to Section 2-11.1(t) of the Miami-Dade County Code, as amended, a "Cone of Silence" is imposed upon each RFP or RFQ after advertisement and terminates at the time the County Manager issues a written recommendation to the Board of County Commissioners. The Cone of Silence **prohibits any communication** regarding RFPs or RFQs between, among others:

- potential Proposers, service providers, lobbyists or consultants **and** the County's professional staff including, but not limited to, the County Manager and the County Manager's staff, the Mayor, County Commissioners or their respective staffs;
- the Mayor, County Commissioners or their respective staffs **and** the County's professional staff including, but not limited to, the County Manager and the County Manager's staff; or
- potential Proposers, service providers, lobbyists or consultants, any member of the County's professional staff, the Mayor, County Commissioners or their respective staffs **and** any member of the respective selection committee.

The provisions do not apply to, among other communications:

- oral communications with the staff of the Vendor Information Center, the responsible Procurement Agent or Contracting Officer, provided the communication is limited strictly to matters of process or procedure already contained in the solicitation document;
- oral communications at pre-proposal conferences, oral presentations before selection committees, contract negotiations during any duly noticed public meeting, public presentations made to the Board of County Commissioners during any duly noticed public meeting; or
- communications in writing at any time with any county employees, official or member of the Board of County Commissioners unless specifically prohibited by the applicable RFP or RFQ documents.

Proposers must file a copy of any written communications with the Clerk of the Board, which shall be made available to any person upon request. The County shall respond in writing and file a copy with the Clerk of the Board, which shall be made available to any person upon request. Written communications may be in the form of e-mail, with a copy to the Clerk of the Board at CLERKBCC@MIAMIDADE.GOV.

In addition to any other penalties provided by law, violation of the Cone of Silence by any Proposer shall render any RFP award or RFQ award voidable. Any person having personal knowledge of a violation of these provisions shall report such violation to the State Attorney and/or may file a complaint with Ethics Commission. Proposers should reference Section 2-11.1(t) of the Miami-Dade County Code for further clarification.

This language is only a summary of the key provisions of the Cone of Silence. Please review Miami-Dade County Administrative Order 3-27 for a complete and thorough description of the Cone of Silence.

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All Proposers will be notified in writing when the County Manager makes an award recommendation to the Board of County Commissioners.

The Contracting Officer for this RFP is:

Name and Title:	Diana Gonzalez, Contracts Manager
Name of Agency:	MDT Materials Management Division
Address:	3401 NW 31 St., Miami, Florida 33142
Telephone:	(305) 637-3830
Fax:	(305) 638-7460

1.7 INTENTIONALLY OMITTED

1.8 ADDITIONAL INFORMATION INCLUDING REQUESTS FOR APPROVED EQUALS/ADDENDA

Requests for additional information, clarifications or approved equals must be made in writing and received by the County's Contracting Officer for this RFP, in accordance with **Section 1.6** above, no later than the deadline for receipt of questions specified in the RFP Timetable **(see Section 1.2)**. All communications regarding technical requirements must be fully supported with technical data, test results or other pertinent information as appropriate. MDC responses may have excerpts included from the original solicitation documents solely for the convenience of the reader. Any errors or omissions in the re-statement of this language shall not change the original document. The request must clearly reference the RFP number and title, and state Proposer's name, name of Proposer's contact person, address, phone number, and facsimile number. Each request must reference the corresponding Section, paragraph and page of the RFP.

In addition to written submittals, MDC requests that Requests for Approved Equals, clarifications, questions, and objections to the Specifications/Addenda be provided on a 3 1/2" floppy disk using MS Word to facilitate MDC's responses.
In lieu of written submittals proposers may submit requests by e-mail to judyem@miamidade.gov. E-mail requests must be received no later than the deadline for receipt of questions specified in the RFP Timetable **(see Section 1.2)** and must follow the same procedures and contain the same information as described above for written proposals.

Section 5, Part III Technical Specifications, defines the requirements for furnishing Small Transit Buses to the Miami-Dade Transit. All products described herein are known acceptable products. Manufacturer's name, model and/or catalog/part numbers are used in these specifications for the sole purpose of establishing minimum requirements of level of quality, standards of performance, and design required and are in no way intended to prohibit the proposing of other manufacturers' items of equal serviceability. Equal products may be proposed provided unit so proposed is submitted to MDT for prior approval. MDT shall be sole and final judge of equality in its best interest. Where a manufacturer is unable to comply with units specified or intends to submit an equal for products, equipment or design approval of any nature in this section, approval from MDT must be obtained during the period provided for submittal of questions. (See Section 1.2 RFP Timetable.) Any such requests shall be given careful consideration.

The County will issue responses to inquiries, including approved equals and any other corrections or amendments it deems necessary in written addenda issued prior to the Proposal Due Date. If further clarifications are necessary, a second period may be provided for additional clarifications. Proposers should not rely on any representations, statements or explanations other than those made in this RFP or in any written addendum to this RFP. Where there appears to be conflict between the RFP and any addenda issued, the last addendum issued shall prevail.

It is the Proposer's responsibility to assure receipt of all addenda. The Proposer should verify with the designated RFP Contracting Officer prior to submitting a proposal that all addenda have been received. Proposers are required to acknowledge the number of addenda received as part of their proposals **(See attached Form A-3)**.

Proposers who obtain copies of this RFP from sources other than Miami-Dade Transit, Materials Management Division risk the potential of not receiving addenda, since their names will not be included on the Vendor List for this particular RFP. Such Proposers are solely responsible for those risks.

1.9 PROPOSAL GUARANTEE DEPOSIT/PROPOSAL SECURITY BOND

All proposals shall be accompanied by a Certified Check, Cashier's Check, Irrevocable Letter of Credit or Proposal Bond in the amount of $10,000.00 payable to Miami-Dade Board of County Commissioners, and conditioned upon the successful Proposer executing a contract in accordance with the terms of this RFP and the proposal submitted. In case of failure or refusal to execute a contract in the form and manner required by the County within five (5) calendar days following delivery of the appropriate documents by the County, or to submit the required insurance certificates and Performance Bond within the specified time frames, the Proposal Security, will be forfeited.

1.10 PERFORMANCE BOND

Upon receipt of each Notice to Proceed (NTP) the successful Proposer shall be required to deliver to MDC a duly executed performance bond meeting the requirements specified in Section 5, Part I. General Conditions. The amount of the bond shall be 20% of the total NTP value. The bond requirement shall be repeated for successive NTP's and option lots if the option to purchase additional buses is exercised.

1.11 MODIFIED PROPOSALS

A Proposer may submit a modified proposal to replace all or any portion of a previously submitted proposal up until the Proposal Due Date. The Evaluation/Selection Committee will only consider the latest version of the proposal.

1.12 WITHDRAWAL OF PROPOSALS

Proposals shall be irrevocable until contract award unless the proposal is withdrawn. A proposal may be withdrawn in writing only, addressed to the County contact person for this RFP **(see Section 1.6)**, prior to the Proposal Due Date or upon the expiration of ONE HUNDRED EIGHTY (180) calendar days after the opening of proposals.

1.13 LATE PROPOSALS, LATE MODIFICATIONS AND LATE WITHDRAWALS

Proposals received after the Proposal Due Date are late and will not be considered. Modifications received after the Proposal Due Date are also late and will not be considered. Letters of withdrawal received either after the Proposal Due Date or after contract award, whichever is applicable, are late and will not be considered.

Proposals will be opened promptly at the time and place specified. Proposals received after the first proposal has been opened will not be opened and will not be considered. The responsibility for submitting a proposal to the Clerk of the Board on or before the stated time and date is solely and strictly the responsibility of the Proposer. Miami-Dade County is not responsible for delays caused by any mail, package or courier service, including the U.S. mail, or caused by any other occurrence.

1.14 RFP POSTPONEMENT/CANCELLATION

The County may, at its sole and absolute discretion, reject any and all, or parts of any and all proposals; re-advertise this RFP; postpone or cancel, at any time, this RFP process; or waive any irregularities in this RFP or in the proposals received as a result of this RFP.

1.15 COSTS INCURRED BY PROPOSERS

All expenses involved with the preparation and submission of proposals to the County, or any work performed in connection therewith, shall be borne by the Proposer(s). No payment will be made for any responses received, nor for any other effort required of or made by the Proposer(s) prior to commencement of work as defined by a contract approved by the Board of County Commissioners.

1.16 ASSIGNABILITY

Miami-Dade Transit may assign its rights and obligations under the contract resulting from this RFP to any successor to the rights and functions of Miami-Dade Transit or to any governmental agency to the extent required by applicable laws or governmental regulations or to the extent that Miami-Dade Transit deems necessary or advisable under the circumstances. This Assignability Clause shall pertain to any unused portion of the optional buses as specified.

1.17 BUSINESS ENTITY REGISTRATION

Miami-Dade County requires business entities to complete a registration application with Department of Procurement Management before doing business with the County. Proposers need not register with the County to present a proposal; however, the selected Proposer(s) must register prior to award of a contract as failure to register may result in the rejection of the Proposal. To register, or for assistance in registering, contact the **Vendor Information Center at (305) 375-5773.**

It is the responsibility of the business entity to update and renew its application concerning any changes such as new address, telephone number, commodities, etc. during the performance of any agreement obtained as a result of this RFP.

Section 2.11.1(d) of the Miami-Dade County Code, as amended by Ordinance 00-1, requires any county employee or member of the employee's immediate family to obtain a conflict of interest

opinion from the county's Ethics Commission prior to entering into any contract or transacting any business with Miami-Dade County or any person or agency acting for Miami-Dade County, through a firm, corporation, partnership or business entity in which the employee or member of the employee's immediate family has a controlling financial interest, direct or indirect.

Any contract, agreement or business engagement entered into in violation of Section 2.11.1(d), as amended, shall render the transaction voidable. For additional information, please contact the Ethics Commission hot line at (305) 579-2593.

1.18 ORAL PRESENTATIONS

The County may require Proposers to give oral presentations in support of their proposals or to exhibit or otherwise demonstrate the information contained therein. As part of the presentations Proposers may be required to exhibit a bus at a MDT facility that is similar or, if available, identical to the bus being proposed. If required, the presentations are anticipated to be conducted on the date indicated in this **RFP Timetable (See Section 1.2).**

1.19 PROPOSER REGISTRATION AFFIDAVIT

Proposers are advised that in accordance with Section 2-11.1(s) of the Code of Miami-Dade County, the attached Affidavit of Miami-Dade County Lobbyist Registration for Oral Presentation **(See attached Form A-2)** must be completed, notarized and included with the proposal submission. Lobbyists specifically include the principal, as well as any agent, officer or employee of a principal, regardless of whether such lobbying activities fall within the normal scope of employment of such agent, officer or employee.

Individuals substituted for or added to the presentation team after submittal of the proposal **MUST** register with the Clerk of the Board and pay all applicable fees.

NOTE: Other than for the Oral Presentation, Proposers who wish to address the County Commission, County Board or Committee concerning any actions, decisions or recommendations of County personnel regarding this RFP in accordance with Section 2-11.1(s) of The Code of Miami-Dade County, Florida and Ordinance 01-162 must register with the Clerk of the Board (Form BCCFORM2DOC) and pay all applicable fees.

1.20 EXCEPTION TO THE RFP

Proposers may take exceptions to any of the terms of this RFP unless the RFP specifically states where exceptions may not be taken. All exceptions taken must be specific, and the Proposer must indicate clearly what alternative is being offered to allow the County a meaningful opportunity to evaluate and rank proposals, and the cost implications of the exception (if any).

Where exceptions are taken, the County shall determine the acceptability of the proposed exceptions. The County, after completing evaluations, may accept or reject the exceptions. Where exceptions are rejected, the County may insist that the Proposer furnish the services or goods described herein or negotiate an acceptable alternative.

All exceptions shall be referenced by utilizing the corresponding Section, paragraph and page number in this RFP. However, the County is under no obligation to accept any exceptions. If no exception is stated, the County will assume that the Proposer will accept and comply with all terms, conditions and specifications contained in the RFP.

1.21 PROPRIETARY/ CONFIDENTIAL INFORMATION

Proposers are hereby notified that all information submitted as part of, or in support of, proposals will be available for public inspection after opening of proposals, in compliance with Chapter 119, Florida Statutes, popularly known as the "Public Record Law."

The Proposer shall not submit any information in response to this solicitation, which the Proposer considers to be a trade secret, proprietary or confidential. The submission of any information to the County in connection with this solicitation shall be deemed conclusively to be a waiver of any trade secret or other protection, which would otherwise be available to Proposer. In the event that the Proposer submits information to the County in violation of this restriction, either inadvertently or intentionally, and clearly identifies that information in the proposal as protected or confidential, the County shall endeavor to redact and return that information to the Proposer as quickly as possible, and if appropriate, evaluate the balance of the proposal. The redaction or return of information pursuant to this clause may render a proposal nonresponsive.

1.22 INITIAL OFFERS

The County may award a contract on the basis of initial offers received, without discussions. Therefore, initial offers should contain the Proposer's best terms from a monetary and technical standpoint.

1.23 RIGHTS OF PROTEST

A recommendation for contract award or rejection of all proposals may be protested by a Proposer in accordance with the procedures contained in Sections 2-8.3 and 2-8.4 of the County Code, as amended, and as established in Administrative Order No. 3-21.

Any question, issue, objection or disagreement concerning, generated by, or arising from the published requirements, terms, conditions or processes contained or described in the solicitation document shall be deemed waived by the protester and shall be rejected as a basis for a protest unless it was brought by that Proposer to the attention, in writing, of the procurement agent, buyer, contracting officer or other contact person in the County department that issued the solicitation document, at least two working days (not less than 48 hours) prior to the hour of the due date for proposal submission.

The foregoing notwithstanding, the protest may not challenge the relative weight of the evaluation criteria or the formula specified for assigning points therefore contained in the request for proposals ("RFP") or request for qualifications ("RFQ") specifications.

All protests shall be submitted in writing to the Clerk of the Board pursuant to the procedures established in Section 2-8.4 and Administrative Order No. 3-21. The protest shall state with

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particularity the specific facts and grounds on which it is based, and shall include all pertinent documents and evidence and shall be accompanied by the corresponding filing fee. This shall form the basis for review of the protest and no other facts, grounds, documentation or evidence not contained in the protester's submission to the Clerk of the Board at the time of filing the protest shall be permitted in the consideration of the protest, except for such additional evidence as is allowed during the course of the protest proceedings.

A. Award Recommendations Over $100,000

Award recommendations for contracts over $100,000 will be in writing, signed by the issuing department to each competing Proposer announcing the recommended award, and a copy shall be deposited with the Clerk of the Board on the same day it is mailed. Any protest Proposer must be filed with the Clerk of the Board within ten (10) working days of the date of the award recommendation letter. Within two (2) working days of that filing, the protester shall supply the County Attorney and each Proposer in the competitive process with a true copy of each document that was filed with the protest. A hearing examiner shall be appointed to hear the protest and submit a written report and recommendation to the County Manager within twenty (20) working days of the filing of the protest (maximum 25 working days if hearing examiner consents to extension request).

Failure to timely file any written protest shall constitute a waiver of the right to protest the award recommendation.

B. Award Recommendations Over $25,000 and up to $100,000

Award recommendations for contracts over $25,000 up to and including $100,000 shall be posted by 9:00 a.m., every Monday in the lobby of the Stephen P. Clark Center, 111 NW 1st Street, Miami, FL 33128. Such recommendations shall be in writing and shall identify the Proposer to whom the award is being recommended and the basis therefor. It is the responsibility of the Proposer to monitor such bulletin after proposal submission to ascertain that a recommendation for award has been made. Participants can call the Awards Line at 305-375-4724 or (800) 510-4724, or contact the person identified on the cover page of the solicitation.

Any protest by a Proposer must be filed with the Clerk of the Board within five (5) working days of the posting of the award recommendation, together with the $500.00 nonrefundable filing fee. Award recommendations for which a protest is not received within the five (5) working day period shall be awarded in accordance with the department's recommendation. Not later than twenty (20) working days from the filing of the protest, the Director of the issuing department shall review the written recommendation for award and the written protest, and after consultation with the County Attorney, shall issue a recommendation to the County Manager for final disposition of the protest.

The department shall provide an opportunity to settle the protest by mutual agreement within five (5) working days of the filing of the protest.

Failure to timely file any written protest shall constitute a waiver for the right to protest the award recommendation.

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C. Award Recommendations $25,000 and Less

Award recommendations for contracts of $ 25,000 or less may be protested to the Miami-Dade Transit (MDT) Director. Proposers wishing to protest the award recommendation must submit a certified letter to the MDT Director detailing the basis of the protest within five (5) working days of the posting of the award recommendation. The MDT Director shall review the recommendation for award and the written protest and issue his determination for the resolution of the protest, which shall be considered final.

1.24 CONTRACT DOCUMENTS

The contract resulting from this RFP shall consist of the following documents:

A. Notice of Award
B. Successful Proposer's Best and Final Offer
C. General Conditions (See Section 5, Part I of this RFP.)
D. Special Conditions (See Section 5, Part II of this RFP.)
E. Technical Specifications (See Section 5, Part III of this RFP)
F. Addenda
G. Successful Proposer's Proposal including any modifications explicitly incorporated into the Best and Final Offer.

In case of any conflict among these documents where the parties' intended resolution is not clear, the order of precedence shall be as follows:

First, Addenda as issued by MDT
Second, Technical Specifications, Section 5, Part III
Third, Special Conditions, Section 5, Part II
Fourth, General Conditions, Section 5, Part I
Fifth, successful Proposer's Best and Final Offer
Sixth, successful Proposer's proposal

1.25 RULES, REGULATIONS AND LICENSING REQUIREMENTS

The Proposer shall comply with all laws; ordinances and regulations applicable to the services contemplated herein, especially those applicable to conflict of interest and collusion. Proposers are presumed to be familiar with all Federal, State and local laws, ordinances, codes, rules and regulations that may in any way affect the goods or services offered, especially Executive Order No. 11246 entitled "Equal Employment Opportunity" and as amended by Executive Order No. 11375, as supplemented by the Department of Labor Regulations (41 CFR, Part 60), the Americans with Disabilities Act of 1990 and implementing regulations, the Rehabilitation Act of 1973, as amended, Chapter 553 of Florida Statutes and any and all other local, State and Federal directives, ordinances, rules, orders, and laws relating to people with disabilities.

1.26 REVIEW OF PROPOSALS FOR RESPONSIVENESS

Each proposal will be reviewed to determine if the proposal is responsive to the submission requirements outlined in the RFP. A responsive proposal is one which follows the requirements

of the RFP, includes all documentation, is submitted in the format outlined in the RFP, is of timely submission, and has the appropriate signatures as required on each document. Failure to comply with these requirements may result in a proposal being deemed non-responsive.

1.27 CRIMINAL CONVICTION

Pursuant to Miami-Dade County Ordinance No. 94-34, "Any individual who has been convicted of a felony during the past ten years and any corporation, partnership, joint venture or other legal entity having an officer, director, or executive who has been convicted of a felony during the past ten years shall disclose this information prior to entering into a contract with or receiving funding from the County." Accordingly, Criminal Record Affidavit forms are available upon request at Department of Procurement Management/VIC at (305) 375-5773 for those individuals or firms requesting to disclose this information only.

1.28 QUARTERLY REPORTING WHEN SUB-CONTRACTORS ARE UTILIZED

Proposers are advised that when subcontractors or subconsultant are utilized to fulfill the terms and conditions of this contract, Miami-Dade County Resolution No. 1634-93 will apply to this contract. This resolution requires the selected Proposer to file quarterly reports as to the amount of contract monies received from the County and the amounts thereof that have been paid by the contractor directly to Black, Hispanic and Women-Owned businesses performing part of the contract work.

Additionally, the subcontractors are required to sign the reports, verifying their participation in the contract work and their receipt of such monies. For purposes of applicability, the requirements of this resolution shall be in addition to any other reporting requirements required by law, ordinance or administrative order.

1.29 INSPECTOR GENERAL REVIEWS

A. Independent Private Sector Inspector General Review

Pursuant to Miami-Dade County Administrative Order 3-20 and in connection with any award issued as a result of this RFP, the County has the right to retain the services of an Independent Private Sector Inspector General ("IPSIG"), whenever the County deems it appropriate to do so. Upon written notice from the County, the selected Proposer shall make available, to the IPSIG retained by the County, all requested records and documentation pertaining to this RFP or any subsequent award, for inspection and copying. The County will be responsible for the payment of these IPSIG services, and under no circumstance shall the Proposer's cost/price for this RFP be inclusive of any charges relating to these IPSIG services. The terms of this provision herein, apply to the Proposer, its officers, agents, employees and assignees. Nothing contained in this provision shall impair any independent right of the County to conduct, audit or investigate the operations, activities and performance of the selected Proposer in connection with this RFP or any contract issued as a result of this RFP. The terms of this provision are neither intended nor shall they be construed to impose any liability on the County by the selected Proposer or third party.

B. Miami-Dade County Inspector General Review

According to Section 2-1076 of the Code of Miami-Dade County, as amended by Ordinance No. 99-63, Miami-Dade County has established the Office of the Inspector General which may, on a random basis, perform audits on all County contracts, throughout the duration of said contracts.

1.30 PUBLIC ENTITY CRIMES

Pursuant to Paragraph 2(a) of Section 287.133, Florida Statutes, a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a proposal for a contract to provide any goods or services to a public entity; may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work; may not submit proposals on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and, may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 for CATEGORY TWO ($10,000) for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.

1.31 REQUIRED LISTING OF SUBCONTRACTORS AND SUPPLIERS ON COUNTY CONTRACTS

Ordinance 97-104, amended by Ordinance 00-30, requires a bid or proposal for a County or Public Health Trust contract involving the expenditure of $100,000 or more to include a listing of subcontractors and suppliers who will be used on the contract. The required listing must be filed prior to the contract award. The required listing must be submitted even though the Proposer will not utilize subcontractors or suppliers on the contract. In the latter case, the listing must expressly state no subcontractors, or suppliers, as the case may be, will be used on the contract.

FORM A-7.1, OR A COMPARABLE LISTING MEETING THE REQUIREMENTS OF ORDINANCE NO. 97-104 AS AMENDED BY ORDINANCE NO. 00-30, MUST BE COMPLETED AND SUBMITTED EVEN THOUGH THE PROPOSER MAY NOT UTILIZE SUBCONTRACTORS OR SUPPLIERS FOR THIS PROPOSAL. THE PROPOSER SHOULD ENTER THE WORD "NONE" UNDER THE APPROPRIATE HEADING (S) ON FORM A-7.1 IN THOSE INSTANCES WHERE NO SUBCONTRACTORS AND/OR SUPPLIERS WILL BE USED ON THIS PROPOSAL.

1.32 FAIR SUBCONTRACTING POLICIES (Ordinance 97-35)

All selected Proposers on County contracts in which subcontractors may be used shall be subject to and comply with Ordinance 97-35, as amended, requiring Proposers to provide a detailed statement of their policies and procedures for awarding subcontractors.

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The County encourages Proposers to adopt policies and procedures which:

A. notifies the broadest number of local subcontractors of the opportunity to be awarded a subcontract;
B. invites local subcontractors to submit bids/proposals in a practical, expedient way;
C. provides local subcontractors access to information necessary to prepare and formulate a subcontracting bid/proposal;
D. allows local subcontractors to meet with appropriate personnel of the Proposer to discuss the Proposer's requirements; and
E. awards subcontracts based on full and complete consideration of all submitted proposals and in accordance with the Proposer's stated objectives.

All Proposers seeking to contract with the County shall, as a condition of award, provide a statement of their subcontracting policies and procedures **(see attached Form A-7.2)**. Proposers who fail to provide a statement of their policies and procedures may not be recommended by the County Manager for award by the Board of County Commissioners.

The term "local" means having headquarters located in Miami-Dade County or having a place of business located in Miami-Dade County from which the contract or subcontract will be performed.

The term "subcontractor" means a business independent of a Proposer that may agree with the Proposer to perform a portion of a contract.

The term "subcontract" means an agreement between a Proposer and a subcontractor to perform a portion of a contract between the Proposer and the County.

1.33 AFFIRMATIVE ACTION/NON DISCRIMINATION OF EMPLOYMENT, PROMOTION AND PROCUREMENT PRACTICES (ORDINANCE NO. 98-30)

In accordance with the requirements of Ordinance No. 98-30, all firms with annual gross revenues in excess of $5 million seeking to contract with Miami-Dade County shall, as a condition of award, have a written Affirmative Action Plan and Procurement Policy on file with the County's Department of Business Development. Said firms must also submit, as a part of their proposals/bids to be filed with the Clerk of the Board, an appropriately completed and signed Affirmative Action Plan/Procurement Policy Affidavit **(see attached Form A-8.2).** Firms whose Boards of Directors are representative of the population make-up of the nation are exempt from this requirement and must submit, in writing, a detailed listing of their Boards of Directors, showing the race or ethnicity of each board member, to the County's Department of Business Development. Firms claiming exemption must submit, as part of their proposal/bids to be filed with the Clerk of the Board, an appropriately completed and signed Exemption Affidavit **(see attached Form A-8.1)** in accordance with Ordinance 98-30. These submittals shall be subject to periodic reviews to assure that the entities do not discriminate in their employment and procurement practices against minorities and women-owned businesses.

It will be the responsibility of each firm to provide verification of their gross annual revenues to determine the requirement for compliance with the Ordinance. Those firms that do not exceed $5 million annual gross revenues must clearly state so in their bid/proposal.

1.34 AFFIDAVIT- PAID FEES, TAXES, PARKING TICKETS AND OBLIGATIONS ARE NOT IN ARREARS

In accordance with Section 2-8.1 (c) of the Miami-Dade County Code, and as amended by County Ordinance No. 00-30, and Section 2-8.1(h) as amended by Ordinance No. 00-67, the Proposer shall certify that all delinquent and currently due fees, taxes, parking tickets and that Proposer is not in arrears on obligations to the County. (See attached **Form A-10**.)

1.35 CODE OF BUSINESS ETHICS

In accordance with Section 2-8.(1) of the Code of Miami-Dade County each person or entity that seeks to do business with Miami-Dade County shall have or shall adopt a Code of Business Ethics ("Code") and shall, prior to execution of any contract between the contractor and the County, submit an affidavit stating that the contractor has adopted a Code that complies with the requirements of Section 2-8.1(i) of the Miami-Dade County Code **(see attached Form A-12)**. Any person or entity that fails to submit the required affidavit shall be ineligible for contract award.

1.36 BANKRUPTCY

Any Proposer who, at the time of proposal submission, is involved in an ongoing bankruptcy as a debtor, or in a reorganization, liquidation, or dissolution proceeding, or if a trustee or receiver has been appointed over all or a substantial portion of the property of the Proposer under federal bankruptcy law or any state insolvency law, may be non-responsive.

1.37 DOMESTIC VIOLENCE LEAVE AFFIDAVIT

Prior to entering into any contract with the County, a firm desiring to do business with the County shall, as a condition of award, certify that it is in compliance with the Domestic Leave Ordinance, 99-5 and Section 11A-60 of the Miami-Dade County Code. This Ordinance applies to employers that have, in the regular course of business, fifty (50) or more employees working in Miami-Dade County for each working day during each of twenty (20) or more calendar work weeks in the current or preceding calendar year. In accordance with Resolution R-185-00, the obligation to provide domestic violence leave to employees shall be a contractual obligation. The County shall not enter into a contract with any firm that has not certified its compliance with the Domestic Leave Ordinance (see attached **Form A-13**). Failure to comply with the requirements of Resolution R-185-00, as well as the Domestic Leave Ordinance may result in the contract being declared void, the contract being terminated and/or the firm being debarred.

1.38 PROMPT PAYMENT

MDT will pay small businesses, including DBEs, and prime contractors will pay subcontractors, including DBEs, for satisfactory performance of their contracts no later than 30 days after a proper invoice has been received. The prime contractor will return retainage payments to the subcontractor, including DBEs, within 30 days of the subcontractor's satisfactory completion of work. The prime contractor will pay subcontractors, including DBEs, within 30 days of the subcontractor's satisfactory completion of work. The prompt payment ordinance and MDT contracting procedures provide for appropriate

penalties for failure to comply with the terms and conditions of MDT contracts. Any delay or postponement of payment among or between the parties may take place only for good cause and with MDT's prior written approval. (49 CFR 26; 13 CFR 121; Florida Law, Chapter 218, Part VII, Prompt Payment Act; Miami Dade County Prompt Payment Ordinance No. 94-40)

1.39 DISPUTES

Except as otherwise provided in this contract, any dispute arising under this contract which is not disposed of by the contract will be decided by the Director of Miami-Dade Transit who will furnish a written copy of the decision to the Contractor. The decision of the Director will be final and conclusive unless, within thirty (30) days from the date of the receipt of such copy, the Contractor furnishes to the County a written appeal addressed to the County Manager. The decision of the County Manager or duly authorized representative will be final and conclusive unless determined otherwise by a court of competent jurisdiction. In connection with any appeal proceeding under this provision, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of the appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the County's decision.

1.40 ORDINANCES, RESOLUTIONS AND/OR ADMINISTRATIVE ORDERS

To request a copy of any ordinance, resolution and/or administrative order cited in this Solicitation, the Proposer must contact the **Clerk of the Board at (305) 375-5126.**

1.41 DELIVERY

Freight and delivery shall be included in the proposed prices.

1.42 AIR POLLUTION

The Proposer and its suppliers must submit evidence to MDT with its proposal that the governing air pollution criteria will be met. This evidence and related documents will be retained by MDT for on-site examination by the Federal Transit Administration (FTA).

1.43 MOTOR VEHICLE SAFETY STANDARDS

The proposed buses must comply with the Federal Motor Vehicle Standards (FMVSS) as established by the Department of Transportation, 49 CFRParts 390 and 571. The Proposer must provide, with its proposal submittal and at the time of delivery, self certification information necessary to meet the FMVSS. Proposer shall describe in writing the content of the certification label contained on the vehicle pursuant to 49 CFR Part 567.

1.44 MOTOR VEHICLE POLLUTION REQUIREMENTS

The Proposer must submit with its proposal a certification in writing that the horsepower of the proposed bus is adequate for the speed, range and terrain in which it will be required to operate and also to meet the demands of all auxiliary power equipment and that the engine meets all Federal, State and local emission standards in effect at the time of manufacture.

1.46 COMPLIANCE WITH FDOT RULE

All equipment furnished under this solicitation shall comply with the Florida Department of Transportation (FDOT) Rule 14-90.007 and 14-90.008. Proposer must provide a statement with its proposal to the effect that the buses to be delivered to MDT are in compliance with said Rule.

1.47 SINGLE PROPOSAL RESPONSE

If only one proposal is received in response to this RFP and it is found by the County to be acceptable, a detailed price/cost proposal may be requested of the single Proposer. A price or cost analysis, or both, possibly including an audit, may be performed by or for the County of the detailed price/cost proposal in order to determine if the price is fair and reasonable. The Proposer has agreed to such analysis by submitting a proposal in response to this RFP. A price analysis is an evaluation of a proposed price that does not involve an in-depth evaluation of all the separate cost elements and the profit factors that comprise a Proposer's price proposal. It should be recognized that a price analysis through comparison to other similar procurements must be based on an established or competitive price of the elements used in the comparison. The comparison must be made to a purchase of similar quantity, involving similar specifications and in a similar time frame. Where a difference exists, a detailed analysis must be made of this difference and costs attached thereto. Where it is impossible to obtain a valid price analysis, it may be necessary to conduct a cost analysis of the proposed price. A cost analysis is a more detailed evaluation of the cost elements in the proposal. It is conducted to form an opinion as to the degree to which the proposed costs represent what the Proposer's performance should cost. A cost analysis is generally conducted to determine whether the Proposer is applying sound management in proposing the application of resources to the contracted effort and whether costs are allowable, allocable and reasonable. Any such analyses and the results therefrom shall not obligate the County to accept such a single proposal; and the County may reject such proposal at its sole discretion.

1.48 PRE-AWARD SURVEY

MDT shall have the right to conduct a pre-award survey of each Proposer. This survey is in addition to the requirements as set forth in 49 CFR 663 Pre-Award and Post-Delivery Audits of Rolling Stock Purchases

1.49 TAXES

The contractor shall be liable for payment of all taxes applicable to the complete bus as delivered and must include these amounts in the price proposal.

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1.50 COMPLIANCE WITH FEDERAL PROVISIONS:

This Procurement is subject to a financial assistance contract between Miami-Dade County (MDC) and the U.S. Department of Transportation (DOT). By reason of such participation, the Proposer (the terms "Vendor, Bidder", "Proposer", "Contractor" and "Offeror" are used interchangeably) is required to agree to the following provisions:

A. NO GOVERNMENT OBLIGATION TO THIRD PARTIES

The Purchaser 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 Purchaser, 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 FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

B. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

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 or submission, the penalties of the Program Fraud Civil Remedies Act of 1986 may apply to the Contractor to the extent the Federal Government deems appropriate.

The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. 5307, the Government reserves the right to impose the penalties of 18 U.S.C. 1001 and 49 U.S.C. 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

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C. 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 (9) dated October, 2002) between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

D. DISCRIMINATION PROHIBITED

The Contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or any other remedy as MDT deems appropriate. (49 CFR Part 26.13(b))

E. NONDISCRIMINATION (GENERAL)

The proposer/bidder will comply with all regulations of the U. S. Department of Transportation, all applicable provisions of the Civil Rights act of 1964, Executive Order 11246 of September 24, 1964 as amended by Executive Order 11375 Executive Order 11625 of October 13, 1971, the Age Discrimination in Employment Act effective June 12, 1968, the rules regulations and relevant orders of the Secretary of Labor, Chapter 760 (Florida Civil Rights Act of 1992, as amended); Dade County Ordinance 75-46 and Articles 3 and 4 of Chapter 11a of the Code of Metropolitan Dade County which prohibit discrimination because of race, sex, color, national origin, religion, age, disability, ancestry, marital status, pregnancy, sexual orientation, or veteran's status of any individual.

F. EQUAL EMPLOYMENT OPPORTUNITY

In connection with the execution of this contract, the contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, disability, ancestry, marital status, pregnancy, sexual orientation, veteran's status, or national origin. The contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, color, sex, age, disability, ancestry, marital status, pregnancy, sexual orientation, veteran's status, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeships. Contractor further agrees to insert a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by MDC setting forth the provisions of this Equal Opportunity clause.

G. DISABILITY NONDISCRIMINATION

It is hereby declared to be the national policy that elderly persons and persons with disabilities have the same right as other persons to utilize mass transportation and services;

that special efforts shall be made in the planning and design of mass transportation facilities and services so that the availability to elderly persons and persons with disabilities of mass transportation which they can effectively utilize will be assured; and that all Federal programs offering assistance in the field of mass transportation (including the programs under this chapter) should contain provisions implementing this policy. (49 U.S.C. Part 5301.[d].) Further, each contractor agrees to insert a similar provision and requirement in each subcontract it awards in the conduct of this project or contract.

H. TITLE VI COMPLIANCE (CIVIL RIGHTS ACT OF 1964)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

(1) Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

(2) Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, religion, color, sex, age, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, religion, color, sex, age, or national origin.

(4) Information and Reports: The contractor shall provide all information and reports required by the regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by Miami Dade County or the Federal Transit Administration (FTA) to be pertinent to ascertain compliance with such regulations, orders and instructions. Where any information required from a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to Miami Dade County, or to the Federal Transit Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

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(5) Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, Miami Dade County shall impose such contract sanctions as it or the Federal Transit Administration may determine to be appropriate, including, but not limited to, withholding of payments to the contractor under the contract until the contractor complies, or cancellation, termination or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The contractor shall include the provisions of paragraph (1) through (6) of this section in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurements as Miami Dade County or the Federal Transit Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request Miami Dade County to enter into such litigation to protect the interests of Miami Dade County, and, in addition, the contractor may request the services of the Attorney General in such litigation to protect the interests of the United States.

I. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

The general contract provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1D, dated April 15, 1996, 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 MDC requests which, would cause MDC to be in violation of the FTA terms and conditions.

J. INTEREST OF MEMBERS OF, OR DELEGATES TO, CONGRESS:

No member of, or delegates to, the Congress of the United States shall be admitted to any share or part of this contract or to any benefit arising therefrom (41 U.S.C. 22).

K. CONFLICT OF INTEREST:

No employee, officer, or agent of MDC shall participate in selection, or in the award or administration of a contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when:

(1) The employee, officer or agent;

(2) Any member of his immediate family; for the purpose of this solicitation and in compliance with the Federal Transit Administration (FTA) Circular 4220.1D immediate family is defined as parents, wife, husband, children, and brothers and sisters.

(3) His or her partner; or

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(4) An organization which employs, or is about to employ any of the above, has a
(5) Financial or other interest in the firm selected for award.

MDC's officers, employees or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from contracts, potential contractors, or parties of subcontracts.

L. FLY AMERICA REQUIREMENTS

The contractor 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 provides that the 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 extend such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

M. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTION"(THIRD PARTY CONTRACTS)

(1) The prospective Lower Tier Participant certifies, by submission of this bid or proposal, that neither it nor its "principals" as defined at 49 C.F.R. 29.105(p) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) If the prospective Lower Tier Participant is unable to certify to the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Instructions for Certification

(1) By signing and submitting this bid or proposal, the prospective lower tier participant is providing the signed certification set out in "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower tier Covered Transaction" in **Attachment G. A proposal which does not include this certificate, may be considered non-responsive.**

(2) The certification in this clause 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, MDC may pursue available remedies, including suspension and/or debarment.

(3) The prospective lower tier participant shall provide immediate written notice to MDC 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 transaction," "participant," "persons," "principal," "proposal," and "voluntarily excluded," as Coverage sections or rules implementing Executive Order 121549 [49 CFR Part 29]. You may contact MDC for assistance in obtaining a copy of these regulations.

(5) The prospective lower tier participant agrees by submitting this proposal 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 MDC.

(6) The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transaction", and the certification form, 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 U.S. General Service Administration.

(8) Nothing contained in the foregoing shall be construed to require establishment of system of records in order to render in good faith the certification required by this clause. 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 Paragraph 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, MDC may pursue available remedies including suspension and/or debarment.

N. AUDIT AND INSPECTION OF RECORDS:

The Contractor agrees that MDC, the Comptroller General of the United States, or any of their duly authorized representatives, shall, for the purpose of audit and examination be permitted to inspect all work, materials, payrolls, and other data and records with regard to the project, and to audit the books, records, and accounts with regard to the project. Further, Contractor agrees to maintain all required records for at least three years after MDC make final payments and all other pending matters are closed.

O. LOBBYING CERTIFICATION AND DISCLOSURE STATEMENTS:

In accordance with 31 U.S.C. 1352, and U.S. DOT regulations, "New Restrictions on Lobbying," 49 C.F.R. Part 20, the Contractor must have provided a certification to the Procuring Agency that the Contractor has not and will not use Federal appropriated funds to pay any person or organization to influence or attempt to influence an officer or employee of any Federal department or agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352.) **(Attachment H) A proposal, which does not include this certificate, may be considered non-responsive.**

P. CLEAN AIR

The contractor agrees to comply with all applicable standards, orders or requirements issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. The Contractor agrees to report each violation to the 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 Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

Q. CLEAN WATER

The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. The Contractor agrees to report each violation to the 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 Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA.

R. RECYCLED PRODUCTS/RECOVERED MATERIALS

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

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S. CARGO PREFERENCE

The Contractor agrees:

(1) To use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels.

(2) To furnish within twenty (20) days following the date of loading for shipments originating within the United States, or within thirty (30) days following the date of loading for shipment originating outside the United States, a legible copy of a rated "on-board" commercial ocean bill-of-lading in English for each shipment of Cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, 400 Seventh Street S.W., Washington, D.C. 20590, marked with appropriate identification of the Project, and to MDC (through the prime Contractor in the case of sub-contracts bill-of-lading).

T. ENVIRONMENTAL PROTECTION

The Contractor agrees to comply with all applicable requirements of the National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321 et seq. , Executive Order no. 11514, as amended, "Protection and Enhancement of Environmental Quality," 42 U.S.C. § 4321 note: FTA statutory requirements at 49 U.S.C. § 5324(b): Council on Environmental Quality regulations pertaining to compliance with the National Environmental Policy Act of 1969, as amended, 40 CFR part 1500 st seq.: the joint FHWA/FTA regulations, "Environmental Impact and Related Procedures," 23 CFR part 771 and 49 CFR part 622, and when promulgated, FHWA/FTA joint regulations, "NEPA and Related Procedures for Transportation Decision making, Protection of Public Parks, Wildlife and Waterfowl Refuges, and Historic Sites, " 23 CFR part 1420 and 49 CFR part 623.

U. ENERGY CONSERVATION:

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 (42 U.S.C. Section 6321 et seq.).

V. BIDDERS/PROPOSERS LIST FORM

As required by 49 CFR 26.11, each Proposer, as a part of its proposal, shall submit a completed Bidders/Proposer List Form, Attachment J, for itself and for each subcontractor or vendor it solicited as part of this proposal. A proposal, which does not include the Bidders/Proposers List Form, may be found to be non-responsive.

W. BUY AMERICA

This procurement is subject to the Federal Transit Administration Buy America Requirements in 49 U.S.C. 5323 (j) (2), Section 165 (b) of the Surface Transportation Assistance Act of 1982, as amended, and the applicable regulations on 49 CFR Part

661. **A Buy America Certificate, in the format attached hereto as Attachment F must be completed and submitted with the proposal. A proposal, which does not include one of these certificates, shall be considered non-responsive.**

X. BUS TESTING PROGRAM

The bus model proposed must comply with the requirements of 49 CFR Part 665 Bus Testing Program. (See Attachment I.)

1.51 DISADVANTAGED BUSINESS ENTERPRISE AFFIRMATIVE ACTION REQUIREMENTS

A. Utilization of DBE Contractors:

1. Affirmative Action Obligation

All projects, with and without Federal Funding.

a. Policy. It is the policy of the Department of Transportation and MDC that DBE Contractors as defined in 49 CFR Part 26 and this Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal Funds under this project. Consequently, the DBE requirements of 49 CFR Part 26 apply to this project.

b. DBE Obligation. Each bidder/proposer agrees to ensure that DBE Contractors as defined in 49 CFR Part 26 and this Provision have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal Funds provided under this project. In this regard all bidders/proposers shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and this Provision to ensure that DBE Contractors have the maximum opportunity to compete for and perform contracts. Bidders/proposers shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of DOT-assisted contracts.

All determinations of compliance or non-compliance of the bidders/proposers with the requirements of this Provision, and of the appropriate consequences of non-compliance, shall be final and binding, except for administrative reconsideration from an adverse decision by MDC as provided in Section 26.53. All determinations shall be final and the result is not administratively appealable to the U.S. Department of Transportation. Nothing in this Provision shall be construed to diminish the legal responsibility or authority of MDC.

2. Stated Goal

A "Stated Goal" is to have portions of the work under the contract performed by qualified DBE firms owned and controlled by individuals who are socially or

economically disadvantaged for prices totaling not less than the percentage of the contract price set out in the Bid/Price Proposal Form. **For the purposes of this contract, the Stated Goal is established by the Transit Vehicle Manufacturer in its DBE submittal made directly to the FTA.**

3. DBE Contractor/Bidder/Proposer

A Bidder or Proposer which is itself a DBE Contractor may, subject to compliance with the applicable requirements of this provision, achieve the stated goal by performing work with its own forces a value at least equal to the percentage goal.

B. Proposal Requirements and Procedures Prior to Contract Award

1. **Each proposer, as part of its proposal and as a condition of responsiveness, shall submit a completed and signed "TVM Certification of Compliance" form as required by 49 CFR 26.49. (See Attachment I of this RFP.)**

The Proposer certifies that it has submitted the goal required by 49 CFR 26.49 to the FTA Administrator and the FTA Administrator has either approved this goal or not disapproved this goal.

2. Bidders/Proposers List Form - As required by 49 CFR 26.11, each proposer, as a part of its proposal, shall submit a completed Bidders/Proposers List Form for itself and for each subcontractor or vendor it solicited as part of this proposal. **A proposal which does not include the Bidders/Proposers List Form may be found to be non-responsive. (See Attachment J of this RFP.)**

SECTION 2.0 - SCOPE OF SERVICES

2.1 INTRODUCTION

The County as represented by Miami-Dade Transit (MDT) is seeking proposals for the manufacture and design, engineering, testing, quality assurance, training, delivery, and spare parts for furnishing up to 400 small low floor transit buses, spare parts and support equipment in accordance with the terms and conditions set forth in this Request for Proposals (RFP). The buses will be purchased over a period of four years as follows:

2004 – 150 buses
2005 – 150 buses
2006 – 50 buses
2007 – 50 buses.

MDT desires to have the buses delivered as early as possible in each calendar year. Consequently, the proposed delivery schedule will be a proposal evaluation factor.

MDT also reserves the option to purchase additional buses, up to 400 above the base quantity, for a period of five years from award of contract.

2.2 REQUIREMENTS

The buses proposed must be of durable, heavy-duty construction with an expected minimum life of ten years/350,000 miles. The buses must be FTA fundable on no less than a ten-year cycle. The vehicles must be new, current year production diesel-powered, air-conditioned, low floor buses which meet all federal, state and local requirements. The buses must seat a minimum of 28 passengers and have two wheelchair positions. These transit vehicles are intended for the widest possible spectrum of passengers, including children, adults, elderly adults and persons with disabilities. The design must reflect the highest possible standard of concern for the welfare and safety of passengers particularly elderly persons and persons with disabilities.

Proposers are encouraged to offer unique and innovative designs and features that, while meeting the specifications contained in this RFP, also meet the following objectives:

- Modern, streamlined and futuristic appearance that will encourage the use of transit by the community
- Include up-to-date, innovative passenger accommodations
- Exceptional in design
- Comfortable, safe and convenient for use by passengers including elderly and disabled persons
- Durable
- Reliable
- Easy to maintain
- Compatible with the South Florida environment

Proposers are also requested to propose dramatic and contemporary exterior paint schemes and graphics designs using the Miami-Dade Transit logo (See Exhibit 3) and also a color scheme for the bus interior. The major colors used in the design of exterior graphics must be those referenced in Section 4.8.10.2 of Part III, Technical Specifications of the RFP. However, other colors may also be used to a lesser extent. Proposers may submit more than one color scheme and/or graphics design.

MDT anticipates changing the type of fareboxes used in its fleet at some point during the contract resulting from this RFP. Consequently, the successful proposer will be required to install the farebox specified in the Notice to Proceed issued for each lot of buses. Adjustments to accommodate this change will be made as described in Section 1.20 of Part II, Special Conditions.

Also, the vehicle design should be such that MDT is able to retrofit buses delivered with the old type of fareboxes easily, quickly and inexpensively.

SECTION 3.0 - PROPOSAL FORMAT

3.1 INSTRUCTIONS TO PROPOSERS

Proposers should carefully follow the format and instructions outlined below, observing format requirements where indicated. All materials (except for plans and schematics, if any) are to be submitted on 8 1/2" X 11" pages, neatly typed on one side only, with normal margins and spacing. All documents and information must be fully completed and signed as required. The original document package must not be bound. The document package copies should be individually bound. Proposals that do not include the required documents may be deemed non-responsive and may not be considered for contract award.

3.2 CONTENTS OF PROPOSAL

The proposal must consist of two separate parts: (A) Technical Proposal, and (B) Price Proposal, as follows:

A. TECHNICAL PROPOSAL

The Technical Proposal shall be written in sufficient detail to permit the County to conduct a meaningful evaluation of the proposed buses. No cost information is to be included with the Technical Proposal. The Technical Proposal must include the following information:

1) Cover Page
The attached **Form A-1** is to be used as the cover page for the Technical Proposal. This form must be fully completed and signed by an authorized officer of the Proposer submitting the proposal.

2) Table of Contents
The table of contents should outline in sequential order the major areas of the proposal. All pages of the proposal, including the enclosures, must be clearly and consecutively numbered and correspond to the table of contents.

3) Exective Summary
Provide a brief summary describing the Proposer's ability to perform the work requested in this RFP; a history of the Proposer's background and experience in providing similar goods and services; the qualifications of the Proposer's personnel to be assigned to this project; the subcontractors or subconsultants and a brief history of their background and experience, and, any other information called for by this RFP which the Proposer deems relevant, including any exceptions to this RFP. This summary should be brief and concise to advise the reader of the products and services offered, experience and qualifications of the Proposer, staff, subcontractors or subconsultants and any other relevant information.

4) Minimum Qualification Requirements

The following are the requirements for qualifying responsible Proposers. All of these requirements must be met, therefore, they are not listed by any particular order of importance. Proposers shall provide documentation which demonstrates their ability to satisfy all of the minimum qualification requirements. Proposers who do not meet the minimum qualification requirements or who fail to provide supporting documentation may not be considered for award.

a) Sufficient financial strength and resources and capability to finance the work to be performed and complete the Contract in a satisfactory manner as measured by: Proposer's financial statements for the two previous fiscal years prepared in accordance with United States Generally Accepted Accounting Principles (GAAP) and audited by an independent certified public accountant authorized to practice in the jurisdiction of either MDT or the Proposer.

b) Ability to secure required bond(s) as evidenced by a letter of commitment from an underwriter confirming that the Proposer can be bonded for the required amount.

c) Willingness of parent company, if any, to provide the required financial guaranty evidenced by a letter of commitment signed by an officer of the parent company having the authority to execute the parent company guaranty.

d) Evidence that the human and physical resources are sufficient to perform the contract as specified and assure delivery of all equipment within the time specified in the Contract, to include:

i) Engineering, management and service organizations with sufficient personnel and requisite disciplines, licenses, skills, experience, and equipment to complete the contract as required and satisfy any engineering or service problems that may arise during the warranty period.

ii) Adequate manufacturing facilities sufficient to produce and factory-test equipment on schedule.

iii) A spare parts procurement and distribution system sufficient to support equipment maintenance without delays and a service organization with skills, experience, and equipment sufficient to perform all warranty and on-site work.

f)) Evidence that Proposer is qualified in accordance with the Quality Assurance provisions contained in Section 5, Part III, Technical Specifications.

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g) Evidence of satisfactory performance and integrity on contracts in making deliveries on time, meeting specifications and warranty provisions, parts availability, and steps Proposer took to resolve any judgments, liens, fleet defects history, and warranty claims. Evidence shall be by client references.

5) Technical Information

All Proposals must contain the following technical information:

a) Technical Approach to include the following:

i) Completed Vehicle Information Sheet Attachment L,
ii) Description and data as they relate to design features,
iii) Minimum life cycle of the proposed vehicle,
iv) Detailed description and explanation of any special features or services offered which affect performance, durability, reliability and ease of maintenance.
v) Detailed description of after market support to include, technical publications, parts service, service and engineering support,
vi) Detailed description of warranties offered and warranty programs,
vii) Pictures or renderings showing all portions of the exterior and interior of the bus and clearly showing proposed paint scheme, graphics and colors used.

b) MDT desires delivery of the 400 transit buses over a period of four years as follows:

2004 – 150 buses
2005 – 150 buses
2006 – 50 buses
2007 – 50 buses.

Assuming award of contract by the end of January 2004, describe how soon after award of contract the first buses will be delivered and the rate of delivery thereafter in detail. MDC desires to have the buses delivered as early as possible in each calendar year.

c) Detailed description of all training that will be offered in conjunction with the purchase of the vehicles. Description should include, but not be limited to, training in operation, diagnostics and maintenance of vehicle and vehicle systems or subsystems. Describe qualifications of training staff which would be assigned to this project.

d) List the names and addresses of all major first tier subcontractors or subconsultants and describe the extent of work to be performed by each first tier subcontractor or subconsultant.

e) The Proposer shall provide the name of the representatives responsible for assisting the County with this solicitation and for providing accurate information upon which the County can rely regarding the Proposer's products, services and any other information as it relates to this solicitation.

f) State the nearest distribution center for parts and components for the repair and maintenance of the buses to be supplied and its policy on transportation costs for parts.

g) Results of tests conducted and certifications including the following:

i) The date that the bus was tested at the Bus Research and Testing Center in Altoona and the results of that test. Note any changes, if any, in configuration or components made or proposed since the bus was tested in Altoona. (See Part III, Technical Specifications 4.2.2.)
ii) Noise test (See Part III, Technical Specifications 1.7.9.1.)
iii) Combustible Materials Certification (See Part III, Technical Specifications 4.9.1.1.)
iv) Plywood Information (See Part III, Technical Specifications 4.3.3.)
v) APTA A/C System Test Results (See Part III, Technical Specifications 4.10.3
vi) Seating Test Results (See Part III, Technical Specifications 4.9.3.3.7.)
vii) Evidence that the governing air pollution criteria will be met.
viii) Self-certification of compliance with Federal Motor Vehicle Safety Standards
ix) Motor vehicle pollution requirements certification
x) Certification of compliance with FDOT Rule 14-90.007 and 14-90.008.

Note: The results of the noise test, plywood information and seating test results do not have to be submitted with the proposal but will be required prior to submittal of Best and Final Offers.

h) Description of how vehicles will operate in a sub-tropical environment such as Miami-Dade County.

i) Detailed description of corporate manufacturing quality assurance program.

j) Date and location that bus model was first placed into mass transportation service.

k) Describe any additional benefits to be provided to MDT, if any.

6) Proposer's Experience and Past Performance

a) Describe the Proposer past performance, experience and facilities. State the number of years that the Proposer has been in existence and the current number of employees.

b) Provide a detailed description of comparable contracts (similar in scope to those requested herein) which the Proposer has either ongoing or completed within the past three years. The description should identify for each contract (i) the client, (ii) description vehicles and services provided (iii) total dollar value of the contract, (iv) customer contact person and phone number for reference.

7) Affidavits/Acknowledgements/Certifications

The Proposer must complete, sign as required, and submit the following documents as part of its Technical Proposal:

Form A-1	Cover Page of Technical Proposal
Form A-2	Affidavit of Miami-Dade County Lobbyist Registration for Oral Presentations **(See Section 1.19.)**
Form A-3	Acknowledgement of Addenda **(See Section 1.8.)**
Form A-4	Disability Nondiscrimination Affidavit
	Form A-7.1
Form A-7.2	Proposer's Disclosure of Fair Subcontracting Policies **(See Section 1.32)**
Form A-8.1	Affirmative Action Plan Exemption Affidavit (if applicable) – **(See Section 1.33.)**
Form A-8.2	Affirmative Action Plan Affidavit **(See Section 1.33.)**
Form A-10	Miami-Dade County Collection of Taxes, Fees and Parking Tickets Affidavit and Individuals & Entities Attesting Being Current In Their Obligations to Miami-Dade County **(See Section 1.34.)**
Form A-12	Code of Business Ethics **(See Section 1.35.)**
Form A-13	Domestic Violence Leave Affidavit **(See Section 1.37.)**
Form B-1	Price Proposal Form (to be submitted separately from the Technical Proposal)
Attachment C	Affidavit and Information Required of Offerors
Attachment D	Overall Federal Regulation Compliance
Attachment E	Compliance With Specifications
Attachment F	Buy America Certification **(See Section 1.50W.)**
Attachment G	Debarment and Suspension Certification **(See Section 1.50M.)**
Attachment H	Lobbying Certification **(See Section 1.50O.)**
Attachment I	Transit Vehicle Manufacturers (TVM) Certification with Disadvantaged Business Regulations **(See Section 1.51B.)**
Attachment J	TVM Bidders/Proposers List **(See Section 1.51B.)**

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Attachment K	Certification with Bus Testing Requirement **(See Section 1.50X.)**
Attachment L	Technical Information Sheet

B. PRICE PROPOSAL

The Proposer must submit the Price Proposal in a separate **sealed** envelope or package (**separate from the Technical Proposal**) clearly marked on the sealed envelope or package "**PRICE PROPOSAL**", together with the Proposer's name, RFP Number and RFP title. The Proposer may submit the separate sealed Price Proposal inside the same container or package together with the separate Technical Proposal. The Proposer's price shall be submitted on **Form B-1 "Price Proposal Schedule"**, and in the manner required on said attachment form; there are no exceptions allowed to this requirement. If the Proposer wishes to submit an alternate pricing, the Proposer must first submit pricing in accordance with the **Form B-1**, and then include a separate alternate pricing in a separate sealed envelope marked "ALTERNATE PRICE PROPOSAL" on the sealed envelope and on the first page of the alternate pricing. Proposers who do not submit pricing in accordance with **Form B-1** will not receive evaluation points for the Price/Cost portion. The alternate pricing will not be scored for evaluation purposes, but may be considered by the County if the Proposer is selected for negotiations. The Price Proposal must contain all information required on the Price Proposal Form. All prices shown shall reflect the total price and include all costs associated with providing all requirements of the RFP solicitation.

Note: The Price Proposal shall consist of one original and ten copies.

3.3 PROPOSAL PREPARATION REQUIREMENTS

Proposers must follow instructions of Section 1.4 "Proposal Submission". The proposal must consist of two separate parts: a) Technical Proposal (original and all copies), and b) sealed Price Proposal (original and all copies). The Technical Proposal must be packaged separately from the sealed Price Proposal, and both must be submitted in a sealed envelope or container that should be addressed as follows:

Proposer's Name
Proposer's Address
Proposer's Telephone Number

Clerk of the Board
Stephen P. Clark Center
111 NW 1st Street, 17th Floor, Suite 202
Miami, FL 33128-1983

RFP No.:
RFP Title:
Proposal Due Date:

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SECTION 4.0 - EVALUATION/SELECTION PROCESS

4.1 INTRODUCTION

Following the opening of the proposal packages, the proposals will be evaluated by an Evaluation/Selection Committee appointed by the County Manager. The Committee will be comprised of appropriate County personnel from multiple departments and members of the community, as deemed necessary, with the appropriate experience and/or knowledge, striving to ensure that the Committee is balanced with regard to both ethnicity and gender.

Contract award will be based on two separate evaluation phases: Technical (Quality) and Price. The Proposer shall ensure that each phase is placed in a separately sealed package. Scoring proposals is based on point totals and not a percentage factor.

4.2 TECHNICAL PROPOSAL EVALUATION

The Evaluation/Selection Committee will first evaluate and rank responsive proposals on the Technical (Quality) criteria listed below. A maximum total of 70 points per each Evaluation/Selection Committee member is possible for all Technical criteria. A Proposer may receive the maximum points or a portion of this score depending on the merit of its proposal, as judged by the Evaluation/Selection Committee in accordance with the criteria listed below: The maximum number of points possible is listed for each evaluation criteria.

	Criteria	**Points**
A.	Vehicle Design Quality: The Selection Committee will evaluate the design concepts and features of the vehicle structure and major systems as they relate to eye appeal, performance, reliability, maintainability, and structural integrity within the South Florida operating and maintenance environment. Areas of examination shall include, but not be limited to, the following: 1. Appearance and overall design 2. Life cycle in terms of years and miles 3. Reliability 4. Durability 5. Ease of maintenance 6. Warranties offered 7. Operator ergonomics 8. Safety features 9. Quality, comfort and safety of passenger accommodations 10. Design factors which will allow MDT to install a new type of farebox with relative ease.	20
B.	Delivery Schedule - Proposer's ability to deliver each lot of buses to be furnished during the years 2004, 2005, 2006 and 2007 as soon as possible after January 1 in each of those years.	15

Criteria	Points
C. After market support to include quality of training programs, technical publications, parts service, warranty programs and service and engineering support.	15
D. Proposer's experience, qualifications, quality assurance program, capabilities, and past performance in providing the type of products and services described in this RFP.	10
E. Quality control program	10

Upon completion of the technical criteria evaluation, rating and ranking, the Committee may choose to conduct presentations with Proposers that the Committee deems to warrant further consideration based on the best rated proposals. Such presentations may require Proposers to make available, at a MDT facility, a bus similar to or, if available, identical to the bus being proposed. Upon completion of the presentations the Committee will re-evaluate, re-rate and re-rank the proposals remaining in consideration based upon the written documents combined with the oral presentations.

4.3 PRICE PROPOSAL EVALUATION

After the Evaluation/Selection Committee-evaluates the Technical Proposals it will then evaluate the Price Proposals of those Proposers remaining in consideration.

The sealed Price Proposal envelopes of the Proposers remaining in consideration will then be opened in the presence of the Evaluation/Selection Committee. Price will be considered separately. and only after the evaluation of the Technical (Quality) Proposals has been completed by the Evaluation/Selection Committee.

The Price Proposal submission will be assigned a maximum of 30 points per Evaluation/Selection Committee member. The Price will be evaluated in the following manner:

A. The responsive proposal with the lowest total price per vehicle year will be given the full weight of 30 points assigned to the price criterion. To obtain a per vehicle year cost the total proposal price including spare parts will be divided by the minimum life cycle years of the proposed bus. For example if the minimum life of the proposed bus is ten years and the price proposed, including spare parts is $200,000, the total proposed price ($200,000) will be divided by ten giving a price per vehicle year of $20,000. If a twelve year bus has a proposed price of $240,000 the per vehicle year price would be $20,000.

B. Every other proposal will be given points proportionately in relation to the lowest per vehicle year price. This point total will be calculated by dividing the lowest per vehicle year price by the price per vehicle year of the proposal being evaluated with the result being multiplied by the maximum weight for price (points) to arrive at a cost score of less than the full score of 30 points for price.

Example: Lowest Per Vehicle Year Price Proposed / Proposer's Per Vehicle Year Proposed Price x Total Points for Price = Price Score

The application of the above formula will result in a uniform assignment of points relative to the criterion of price.

4.4 OVERALL RANKING

The Evaluation/Selection Committee will then determine the overall ranking by adding the Price Proposal evaluation score with the Technical (Quality) evaluation score.

Following the evaluation and ranking of the proposals, the Evaluation/Selection Committee will recommend to the County Manager to allow negotiations to begin with all the responsive and responsible Proposers within competitive range. The competitive range will be determined by the Evaluation/Selection Committee. Upon concurrence of the County Manager, the County may enter into negotiations with all the responsive and responsible Proposers within competitive range.

4.5 BEST AND FINAL OFFERS

After negotiations have been completed, all Proposers who participated in the negotiations will be afforded the opportunity to amend their proposals and make their Best and Final Offer (BAFO). Proposers will be notified of a common date and time for submission of a written BAFO, allowing for a reasonable period of time to prepare the BAFO. No discussions will take place after the request for BAFOs has been issued. Any modification to the initial proposal made by a Proposer in its BAFO shall be identified in its BAFO. If Proposers do not submit a BAFO or a notice of withdrawal, their immediate previous proposal will be construed as their BAFO.

BAFO's will be evaluated in accordance with the same requirements and criteria as the initial proposals, as described in this RFP and applicable addenda issued, if any. The Evaluation/Selection Committee will make appropriate adjustments to the initial scores for any criteria that have been affected by any proposal modifications made in the BAFOs. The Evaluation/Selection Committee will then select the proposal that is determined to be most advantageous to the County based upon the evaluation criteria as described in this RFP.

The contract, resulting from this RFP, which is most advantageous to the County, will be submitted to the Board of County Commissioners for their approval and award of contract. All Proposers will be notified in writing when the County Manager makes a recommendation of award.

4.5 CONTRACT AWARD

Since this project is likely to be funded in whole or in part with one-half percent (1/2 %) surtax proceeds, no award shall be effective and no contractual relationship shall arise with the County unless and until approved by the Board of County Commissioners (BCC) and the Citizens' Independent Transportation Trust (CITT) or in response to the CITT's disapproval, the BCC re-affirms its award by two-thirds (2/3) vote of the Commission's membership.

Further, award of contract will be made only upon acceptable completion of a Pre-Award Audit (49 CFR 663 Pre-Award and Post Delivery Audit of Rolling Stock Purchases).

Miami-Dade Transit

Small Low Floor Buses

Part I – General Conditions

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1.1 - Definitions

The following are definitions of special terms used in this document:

(1) Procuring Agency: Miami-Dade County, Florida

(2) Contracting Officer: The Director, Miami-Dade Transit, administering this Contract on behalf of the County and who has complete and final authority except as limited herein.

(3) Contractor: The successful bidder/proposer who is awarded a contract for providing all buses and equipment described in the contract documents.

(4) Authorized Signee: The person who is executing this Contract on behalf of the Bidder/Contractor and who is authorized to bind the Bidder/Contractor.

(5) Supplier: Any manufacturer, company, or agency providing units, components, or sub-assemblies for inclusion in the bus. Supplier items shall require qualification by type and acceptance in accordance with requirements defined in Part III: Technical Specifications.

(6) Work: The design, engineering, manufacturing, testing, quality assurance, training, and delivery for transit buses and spare parts and special equipment including any and all labor, supervision, materials, machinery, equipment, tools, supplies, and facilities necessary for furnishing transit buses and spare parts and special equipment to MDT as required by this Contract.

(7) MDC: Miami-Dade County, Florida

(8) MDT: Miami-Dade Transit.

(9) Defect: Patent or latent malfunction or failure in manufacture or design of any component or subsystem that causes a bus to cease operating or causes it to operate in a degraded mode.

(10) Related Defect: Damage inflicted on any component or subsystem as a direct result of a defect.

(11) F.T.A: Federal Transit Administration.

(12) NTP: Notice to Proceed

(13) S.A.E.: Society of Automotive Engineers.

(14) P.S.I.: Pounds Per Square Inch.

(15) A.S.T.M.: American Society for Testing and Materials.

(16) Resident Inspector: Authorized Quality Assurance Representative of MDT.

(17) FMVSS: Federal Motor Vehicle Safety Standard

(18) Wet Weight: Basic transit bus including a full compliment of fuel, oil, water and all other required fluids.

(19) GVW: Gross Vehicle Weight

(20) Curb Weight: Weight of vehicle, including maximum fuel, oil and coolant, and all equipment required for operation and required by this Specification, but without passengers or operator.

(21) Seated Load: One hundred fifty (150) pounds for every designed passenger seating position and for the operator.

(22) SWL (Seated Load Weight): Curb weight plus seated load.

1.2 - Contract Documents
Contract No._____ between Miami-Dade County (MDC) and _____ shall include the following, which are incorporated herein:

Addenda, as issued by MDT
Part III - Technical Specifications
Part II – Special Conditions
Part I -General Conditions
Contractor's Proposal, Best and Final Offer and Proposal
Performance Bond
Notice to Proceed

In case of any conflict among these documents where the parties' intended resolution is not clear, the order of precedence shall be as follows:

First, Addenda as issued by MDT
Second, Technical Specifications, Part III
Third, Special Conditions Part II
Fourth, General Conditions, Part I
Fifth, successful Proposer's Best and Final Offer
Sixth, successful Proposer's proposal

1.3 Contract Documents Contain All Terms
These contract documents contain all the terms and conditions agreed upon and no other agreement oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind either party, or to vary any of the terms contained herein unless such change is made in accordance with Paragraph 2.4.2, Change Order Procedure.

1.4 Notice To Proceed
This Contract is funded in part through a grant from the U.S. Department of Transportation, Federal Transit Administration and the State of Florida Department of Transportation. This funding is renewed annually based on the availability of funds to the Government. The Contractor shall not proceed with the construction of any buses or equipment, nor shall the County be liable for any costs incurred, until an appropriate Notice To Proceed has been issued by the MDC Contracting Officer for the specified equipment. Notice To Proceed will be issued by certified mail return receipt requested. This Notice To Proceed shall authorize the manufacture of buses and equipment for the next Lot of the Contract.

1.5 Intentionally Omitted

1.6 Performance Bond
Upon receipt of each Notice to Proceed (NTP), the Contractor shall duly execute and deliver to MDC a Performance Bond in the amount of 20% of the total Notice to Proceed (NTP) value for

each lot. This Bond must be repeated for successive lots and option lots if the option to purchase additional buses is exercised.

The Performance Bond Form supplied by MDC shall be the only acceptable form. An acceptable Performance Bond shall be delivered to MDC within fifteen (15) calendar days after issuance of Notice to Proceed. If the Bidder/Proposer fails to deliver the Performance Bond within this specified time, including granted extensions, MDC shall declare the Bidder/Proposer in default of the contractual terms and conditions and the Bidder/Proposer shall surrender its Bid/Proposal Bond, and MDC shall not accept any proposal from the Bidder/Proposer for a twelve (12) month period following such default.

The following specifications shall apply to the bond required above:

A. All bonds shall be written through surety insurers authorized to do business in the State of Florida as surety, with the following qualifications as to management and financial strength according to the latest edition of Best's Insurance Guide, published by A.M. Best Company, Oldwick, New Jersey:

Bond Amount	BEST Rating	
500,001 to 1,500,000	B	V
1,500,001 to 2,500,000	A	VI
2,500,001 to 5,000,000	A	VII
5,000,001 to 10,000,000	A	VIII
Over 10,000,000	A	IX

B. On contract amounts of $500,000 or less, the bond provisions of Section 287.0935, Florida Statutes (1991) shall be in effect and surety companies not otherwise qualifying with this paragraph may optionally qualify by:

1. Providing evidence that the surety company is licensed to do business in the State of Florida.

2. Providing evidence that the surety company holds a Certificate of Authority authorizing it to write surety bonds in this state.

3. Certifying that the surety is otherwise in compliance with the Florida Insurance Code;

4. Providing evidence that the surety has twice the minimum surplus and capital required by the Florida Insurance Code at the time the solicitation is issued; and

5. Providing a copy of the currently valid Certificate of Authority issued by the United States Department of the Treasury under ss. 31 U.S.C. 9304-9308.

6. Surety insurers shall be listed in the latest Circular 570 of the U.S. Department of the Treasury entitled "Surety Companies Acceptable on Federal Bonds', published annually. The bond amount shall not exceed the underwriting limitations as shown in this circular.

C. For contracts in excess of $500,000 the provisions of sub-paragraph B will be adhered to plus the company must have been listed for at least three consecutive years, or holding a valid Certificate of Authority of at least 1.5 million dollars and on the Treasury List.

D. Surety Bonds guaranteed through U.S. Government Small Business Administration or Contractors Training and Development Inc. will also be acceptable.

E. In lieu of a Performance Bond, an irrevocable letter of credit or a cash bond in the form of a certified cashier's check made out to the Board of County Commissioners in the amount of twenty percent (20%) of the total NTP value, will be acceptable. All interest will accrue to Miami-Dade County during the life of this contract and as long as the funds are being held by Miami-Dade County.

F. The attorney-in-fact or other officer who signs a contract bond for a surety company must file with such bond a certified copy of power of attorney authorizing the officer to do so. The contract bond must be counter signed by the surety's resident Florida agent.

In the case that a surety shall become insolvent, its license revoked or suspended, or in the case of a surety approved on the basis that it is listed as an approved federal surety, that such federal approval is revoked or suspended, the Contractor, within five (5) calendar days after notice by MDC, shall substitute other and sufficient surety or sureties. If the Contractor fails to do so, such failure shall be an Event of Default. In such event as described above, in lieu of declaring the Contractor in default, MDC may negotiate or deduct money for the risk or the purchase of a replacement bond.

If the Contract is terminated in accordance with Section 1.36.2 Termination for Default, this bond will be drawn upon to cover all losses, damages, including damages for delay, liquidated damages, compensatory damages, interest on late payments, expenses, costs, and attorney's fees, including costs and fees for appellate proceedings, that MDC sustains because of a default by the Contractor under the Contract, including but not limited to reprocurement costs, all excess costs to acquire like goods or services, increased price of similar buses, spare parts, ancillary equipment and services, a failure to honor all guarantees and warranties or to cure defects in its work or materials within the time period provided for in this solicitation. The Contractor shall remain liable for any costs which exceed those offset by the Performance Bond in the event of Termination for Default. The bond or irrevocable letter of credit shall reference and incorporate therein all the requirements of this Section 1.6. MDC shall return the Performance Bond or Irrevocable Letter of Credit, as applicable, to the Contractor within ten (10) calendar days after the date of Final Acceptance, as

defined in Part II, Section 1.5, or after the date the last deliverable item is received under this Contract, whichever is later.

1.7 Indemnification

1.7.1 Liabilities Against Procuring Agency

The Contractor shall indemnify, hold harmless and defend MDC and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorney's fees and costs of defense, which MDC or its officers, employees, agents or instrumentalities may suffer as result of claims, demands, suits, causes of actions or proceedings of any kind or nature including, but not limited to, products liability actions and actions alleging negligent manufacture, design or repair of buses, subsystems and components including all work performed pursuant to Contract Warranties, arising out of, relating to or resulting from the performance of this Contract by the Contractor or its employees, agents, servants, partners principals or subcontractors. Contractor shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of MDC, where applicable, including appellate proceedings, and shall pay all costs, judgements, and attorney's fees which may issues thereon. Contractor expressly understands and agrees that any insurance protection required by this Contract or otherwise provided by Contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend MDC or its officers, employees, agents and instrumentalities as herein provided.

1.7.2 Patent Infringement

The Contractor shall defend any suit or proceeding brought against MDC based on a claim that any equipment, or any part thereof, furnished under this Contract constitutes an infringement of any patent, and the Contractor shall pay all damages and costs awarded therein, excluding incidental and consequential damages, against MDT. In case said equipment, or any part thereof, is in such suit held to constitute infringement and use of said equipment or parts is enjoined, the Contractor shall, at its own expense and at its option, either procure for MDC the right to continue using said equipment or part, or replace same with non-infringing equipment, or modify it so it becomes non-infringing. MDC shall advise the Contractor of any impending patent suit and provide all information available.

1.8 Omission

The Contractor shall have the responsibility of supplying all parts and details required to make the bus complete and ready for service even though such details may not be specifically mentioned in the exhibits and/or specifications. The apparent silence of the specifications and any addenda regarding any details or the omission from the specifications of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail and that only materials and workmanship of first quality are to be used.

1.9 Funding Out

MDC's obligation under this Contract is contingent upon the availability of appropriated funds

from which payment for contract purposes can be made. No legal liability on the part of MDC for any payment may arise until funds are made available to the Contracting Officer for this Contract and until the Contractor receives "Notice To Proceed", confirmed in writing by the Contracting Officer. In the event that funding does not become available for this Contract, MDC shall have the right to terminate the Contract in accordance with the Termination procedures specified in Section 1.36 "Termination of Contract" or the right to modify quantities as deemed necessary to reflect the availability of funding. MDC shall not be liable for any costs incurred beyond the currently authorized Lot, as described in each Notice to Proceed.

1.10 Audit and Inspection of Records

The Contractor agrees to permit MDC, the U. S. Department of Transportation, the Comptroller General of the United States or any of their duly authorized representatives to inspect and audit all work, materials, payrolls and other data and records of the Contractor relating to its performance and its subcontracts under this Contract with which Federal funds are used from the date of the Contract through and until the expiration of three (3) years after MDC makes final payments and all other pending matters are closed.

1.11 Compliance with FDOT Rule

All equipment furnished under this Contract shall comply with Florida Department of Transportation (FDOT) Rule 14-90.007 and 14-90.008.

1.12 Laws and Regulations

Contractor shall comply with any and all laws, statutes, ordinances, rules, regulations, and procedural requirements whether federal, state, or local and of any agency or such government, including County and FTA, which relate to or in any manner affect the performance of this Contract.

It is the responsibility of the Contractor to ascertain if any components or section as specified are unsafe or do not meet standards of Society of Automotive Engineers (S.A.E.), Federal Motor Vehicle Safety Standard (F.M.V.S.S.), National Highway Traffic Safety Administration (N.H.T.S.A.), Occupational and Health Administration (O.S.H.A.), National Institute of Occupational Safety Hazards (N.I.O.S.H.) or National Fire Protection Association (N.F.P.A.) standards that apply to this type of equipment and that if any unsafe or poorly designed criteria are contained herein that they be thoroughly explained to MDC. The unit shall conform to all State and Federal safety requirements.

1.13 Rules, Regulations and Licensing Requirements

The Contractor shall comply with all laws; ordinances and regulations applicable to the services contemplated herein, especially those applicable to conflict of interest and collusion. Contractor is presumed to be familiar with all Federal, State and local laws, ordinances, codes, rules and regulations that may in any way affect the goods or services offered, especially Executive Order No. 11246 entitled "Equal Employment Opportunity" and as amended by Executive Order No. 11375, as supplemented by the Department of Labor Regulations (41 CFR, Part 60), the

Americans with Disabilities Act of 1990 and implementing regulations, the Rehabilitation Act of 1973, as amended, Chapter 553 of Florida Statutes and any and all other local, State and Federal directives, ordinances, rules, orders, and laws relating to people with disabilities.

1.14 Quarterly Reporting When Sub-contractors Are Utilized

Contractor is advised that when subcontractors or subconsultants are utilized to fulfill the terms and conditions of this contract, Miami-Dade County Resolution No. 1634-93 will apply to this contract. This resolution requires the Contractor to file quarterly reports as to the amount of contract monies received from the County and the amounts thereof that have been paid by the contractor directly to Black, Hispanic and Women-Owned businesses performing part of the contract work. Additionally, the businesses are required to sign the reports, verifying their participation in the contract work and their receipt of such monies. For purposes of applicability, the requirements of this resolution shall be in addition to any other reporting requirements required by law, ordinance or administrative order.

1.15 Inspector General Reviews

A. Independent Private Sector Inspector General Review

Pursuant to Miami-Dade County Administrative Order 3-20 and in connection with this contract, the County has the right to retain the services of an Independent Private Sector Inspector General ("IPSIG"), whenever the County deems it appropriate to do so. Upon written notice from the County, the Contractor shall make available, to the IPSIG retained by the County, all requested records and documentation pertaining to this contract for inspection and copying. The County will be responsible for the payment of these IPSIG services. The terms of this provision herein, apply to the Contractor, its officers, agents, employees and assignees. Nothing contained in this provision shall impair any independent right of the County to conduct, audit or investigate the operations, activities and performance of the selected Contractor in connection with this contract. The terms of this provision are neither intended nor shall they be construed to impose any liability on the County by the Contractor or third party.

B. Miami-Dade County Inspector General Review

According to Section 2-1076 of the Code of Miami-Dade County, as amended by Ordinance No. 99-63, Miami-Dade County has established the Office of the Inspector General which may, on a random basis, perform audits on all County contracts, throughout the duration of said contracts.

1.16 No Government Obligation to Third Parties

The Purchaser 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 Purchaser, 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 FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

1.17 Program Fraud and False or Fraudulent Statements and Related Acts

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, the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. 5307, the Government reserves the right to impose the penalties of 18 U.S.C. 1001 and 49 U.S.C. 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

1.18 Affirmative Action Requirements

1.18.1 Department of Labor Affirmative Action Requirements

1.18.1.1 Overtime Requirements

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any work week in which he or she is employed on such work to work in excess of forty hours in such work week unless such laborer or mechanic receives compensation at a rate of not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such work week.

.18.1.2 Violation; Liability for Unpaid Wages; Liquidated Damages

In the event of any violation of the clause set forth in subparagraph (b)(1) of 29 CFR Section 5.5, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In

addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such district or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (b)(1) of 29 CFR Section 5.5 in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of eight hours or in excess of the standard work week of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (b)(1) of 29 CFR Section 5.5.

1.18.1.3 Withholding for Unpaid Wages and Liquidated Damages

DOT or the 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 contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor of subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (b)(2) of 29 CFR Section 5.5.

1.18.1.4 Non-Construction Grants

The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates, pay, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the recipient shall require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of DOT and the Department of Labor, and the representatives of DOT and the Department of Labor, and the Contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

1.18.1.5 Subcontracts

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph A. through E. of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs A. through E. of this section.

1.18.2 Equal Opportunity/Nondiscrimination

1.18.2.1 Equal Employment Opportunity

In connection with this contract, the contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, disability, ancestry, marital status, pregnancy, sexual orientation, veteran's status, or national origin. The contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, color, sex, age, disability, ancestry, marital status, pregnancy, sexual orientation, veteran's status, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeships. Contractor further agrees to insert a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by MDC setting forth the provisions of this Equal Opportunity clause.

1.18.2.2 Discrimination Prohibited

The Contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or any other remedy as MDT deems appropriate. (49 CFR Part 26.13(b))

1.18.2.3 Nondiscrimination (General)

The contractor will comply with all regulations of the U. S. Department of Transportation, all applicable provisions of the Civil Rights act of 1964, Executive Order 11246 of September 24, 1964 as amended by Executive Order 11375 Executive Order 11625 of October 13, 1971, the Age Discrimination in Employment Act effective June 12, 1968, the rules regulations and relevant orders of the Secretary of Labor, Chapter 760 (Florida Civil Rights Act of 1992, as amended); Dade County Ordinance 75-46 and Articles 3 and 4 of Chapter 11a of the Code of Metropolitan Dade County which prohibit discrimination because of race, sex, color, national origin, religion, age, disability, ancestry, marital status, pregnancy, sexual orientation, or veteran's status of any individual.

1.18.2.4 Disability Nondiscrimination

It is hereby declared to be the national policy that elderly persons and persons with disabilities have the same right as other persons to utilize mass transportation and services; that special efforts shall be made in the planning and design of mass transportation facilities and services so that the availability to elderly persons and persons with disabilities of mass transportation which they can effectively utilize will be assured; and that all Federal programs offering assistance in the field of mass transportation (including the programs under this chapter) should contain provisions implementing this policy. (49 U.S.C. Part 5301.[d].) Further, each contractor agrees to insert a similar provision and requirement in each subcontract it awards in the conduct of this project or contract.

1.18.3 Disadvantaged Business Enterprise Affirmative Action Requirements

1.18.3.1 Definitions

As used in this Disadvantaged Business Enterprise (DBE) Contractor Participation Provision ("Provision"), the following terms shall have the following meanings (the definitions shall not apply outside of this Provision where inconsistent with those contained elsewhere in the contract documents):

1. Affirmative Action - Positive activities undertaken to eliminate discrimination and effects of past discrimination and to ensure nondiscriminatory practices in the future.

2. Bidder/Proposer - An individual, firm, partnership, corporation, joint venture, or combination thereof submitting a bid/proposal for work.

3. Board - Board of County Commissioners, Miami-Dade County, Florida.

4. Challenge - A formal filing by a third party to rebut the presumption that a particular individual is socially and economically disadvantaged.

5. Commercially Useful Function - Work performed by a DBE firm in a particular transaction that, in light of industry practices and other relevant considerations, has a necessary and useful role in the transaction, i.e., the firm's role is not a superfluous step added in an attempt to obtain credit toward goals. If, in the judgment of Miami-Dade Transit, the firm (even though an eligible DBE) does not perform a commercially useful function in the transaction, **no credit toward the goal may be awarded.**

6. Compliance Monitor - A person designated by the Director of MDT to assist and to make recommendations to MDT with respect to compliance with this Provision.

7. Contract - A legally binding relationship obligating a seller to furnish supplies or services (including, but not limited to, construction and professional services) and the buyer to pay for them; the Contract, executed by MDC and the successful bidder/proposer, of which this Provision is a part. For the purposes of this program, a lease is considered to be a contract.

8. Contract Goal - DBE contractor participation goal established by the Board of County Commissioners for this Contract solicitation.

9. Contract Price - the total price of the successful bidder/proposer as awarded by the Board of County Commissioners.

10. Contracting Officer - The Director of Miami-Dade Transit or his/her designee.

11. Contracting Opportunity - Any decision by Miami-Dade Transit or contractor to institute a procurement action to obtain a product or service commercially (as opposed to intergovernmental actions).

12. Disadvantaged Business Enterprise or DBE - A "for-profit" small business concern--

    a. That is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged as defined in 49 CFR Part 26.5, or in the case of a corporation, in which at least 51 percent of the stock of which is owned by one or more such individuals; and

    b. Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

13. DBE Certification Letter - A letter evidencing that DBE firm(s) have been certified in accordance with 49 CFR Part 26 by the Department of Business Development, 175 N. W. 1st Avenue, 28th Floor, Miami, Florida, 33128, phone 305/349-5960.

14. DBE Contractor Identification Statement - a statement, in the form annexed to this Provision, to be signed by a DBE Contractor and containing certain information with respect to the DBE Contractor.

15. DBE Directory - a list of certified DBE Contractors, which is available from the Department of Business Development, 175 N. W. 1st Avenue, 28th Floor, Miami, FL 33128, 305/349-5960, to aid bidders/proposers, but which is not necessarily a representation by MDC that any such listed DBE Contractor is Qualified to do any particular work.

16. DBE Contractor Unavailability Certification - a written certification, in the form annexed to this Provision, by a DBE Contractor as to its unavailability for certain work.

17. Goal - The numerically expressed objective for this Contract solicitation which contractors are required to make good faith efforts to achieve; a numerical percentage that is not rigid and inflexible and which can be reasonably attained by means of applying every reasonable and sufficient effort to utilize DBE Contractors in the performance of work under this project and in accordance with the terms and requirements of this provision.

18. Letter of Intent - a letter, in the form annexed to this Provision, to be signed by a DBE Contractor with respect to certain work under the Contract.

19. Manufacturer - An individual (or individuals) who owns, operates, or maintains a factory or establishment that produces on the premises the components, materials, or supplies obtained by Miami-Dade Transit, Contractor, or Transit Vehicle Manufacturer.

20. MDC - Miami-Dade County, Dade County or the County as referred to in the Contract Documents.

21. Notice of Opportunity to Meet with the Contracting Officer - a notice to be given to a contractor as to its opportunity to request a meeting with the Contracting Officer with respect to MDC's determination of the contractor's compliance with this Provision.

22. Primary Recipient - A grantee who receives DOT financial assistance and passes all or some of the assistance on to a subrecipient.

23. Qualified - a Contractor is qualified to do specific work if it meets all of the following criteria:

    a. It has or is able to obtain any and all licenses required to do such work;

    b. It has the necessary experience, organization, technical qualifications, skills and facilities to do such work;

    c. It is able to comply with the performance schedule reasonably needed for such work;

    d. It does not have an unsatisfactory record of integrity, judgment and performance;

    e. It is able to meet the applicable equal employment opportunities requirements; and

    f. It is not otherwise ineligible to perform such work under applicable laws and regulations.

24. Recipient - means any entity, public or private, to which financial assistance from the U. S. Department of Transportation (DOT) is extended whether directly or through another recipient, through the programs of the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA), or the Federal Aviation Administration (FAA), or who has applied for such assistance.

25. Regular Dealer means a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular dealer, the firm must engage in, as its principal business, and in its own name, the purchase and sale of the products in question. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock if it owns or operates distribution equipment. Brokers and packagers shall not be regarded as manufacturers or regular dealers within the meaning of this definition.

26. A Small Business Concern, with respect to firms seeking to participate as DBEs in DOT-assisted contracts, is defined in section 3 of the Small Business Act and in Small Business Administration regulations implementing the Act (13 CFR Part 121). Additionally, a small business concern cannot exceed the cap on average annual gross receipts specified in 49 CFR 26.65(b).

27. Socially and Economically Disadvantaged Individual - means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is:

    a. Any individual who a recipient finds to be a socially and economically disadvantaged individual on a case-by-case basis.

    b. Any individual in the following groups, members of which are presumed to be socially and economically disadvantaged:

        (i) "Black Americans," which includes persons having origins in any of the black racial groups of Africa;

        (ii) "Hispanic Americans," which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American or other Spanish or Portuguese culture or origin, regardless of race;

        (iii) "Native Americans," which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

        (iv) "Asian-Pacific Americans," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa,

Guam, the U. S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kirbati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;

(v) "Subcontinent Asian Americans," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;

(vi) Women;

(vii) Any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration (SBA), at such time as the SBA designation becomes effective.

28. Schedule of Participation by DBE Contractors - a schedule, in the form annexed to this Provision, containing certain information with respect to work to be performed by DBE Contractors.

29. Subrecipient - Any entity that receives Federal financial assistance from FTA through a primary recipient.

30. Successful bidder/proposer - the bidder/proposer to which the Contract is awarded.

31. Transit Vehicle is a vehicle used by Miami-Dade Transit, e.g., bus, railcar, or van, for the primary program purpose of public mass transportation; this definition does not include locomotives or ferry boats.

32. Transit Vehicle Manufacturer (TVM) is a manufacturer of vehicles used by FTA recipients for the primary program purpose of public mass transportation (e.g., buses, railcars, vans). The term does not apply to firms which rehabilitate old vehicles or to manufacturers of locomotives or ferry boats. The term also refers to distributors of or dealers in transit vehicles with respect to requirements of Section 26.49 of the regulations.

33. Transportation Improvement Program (TIP) means an annual or biennial listing of capital and operating assistance projects proposed for funding by FTA.

34. Unavailable - a Contractor is unavailable to do specific work if:

a. It has that knowledge of the terms and specifications of the Contract needed to formulate intelligently a bid or proposal to do such work or to decline intelligently an opportunity to formulate such a bid or proposal; and

b. It does not intend, or is unable, to make a bid or proposal because of lack of interest, inability to meet the reasonable and ordinary demands connected with doing such work, unwillingness to meet the specifications for such work, unwillingness to work on this project or in this geographic area, or such other reason as is determined by MDC to be sufficient.

35. Unified Planning Work Program (UPWP) - A listing of planning projects proposed for funding by FTA.

36. U.S. Department of Transportation Regulations - the final rules and regulations published in the Federal Register (Vol. 64, No. 21, P. 5126 et seq.) dated Tuesday, February 2, 1999, entitled PART 26--PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES IN DEPARTMENT OF TRANSPORTATION FINANCIAL ASSISTANCE PROGRAMS.

1.18.3.2 Utilization of DBE Contractors

1.18.3.2.1 Affirmative Action Obligation

All projects, with and without Federal Funding.

(1) Policy. It is the policy of the Department of Transportation and MDC that DBE Contractors as defined in 49 CFR Part 26 and this Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal Funds under this project. Consequently, the DBE requirements of 49 CFR Part 26 apply to this project.

(2) DBE Obligation. The contractor agrees to ensure that DBE Contractors as defined in 49 CFR Part 26 and this Provision have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal Funds provided under this project. In this regard the contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and this Provision to ensure that DBE Contractors have the maximum opportunity to compete for and perform contracts. The contractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of DOT-assisted contracts.

All determinations of compliance or non-compliance of the contractor with the requirements of this Provision, and of the appropriate consequences of non-compliance, shall be final and binding, except for administrative reconsideration from an adverse decision by MDC as provided in Section 26.53. All determinations shall be final and the result is not administratively appealable to the U.S. Department of Transportation. Nothing in this Provision shall be construed to diminish the legal responsibility or authority of MDC.

1.18.3.2.2 Stated Goal

A "Stated Goal" is to have portions of the work under the contract performed by qualified DBE firms owned and controlled by individuals who are socially or economically disadvantaged. **For the purposes of this contract, the Stated Goal is established by the Transit Vehicle Manufacturer in its DBE submittal made directly to the FTA.**

1.18.3.2.3 DBE Contractor

The contractor which is itself a DBE Contractor may, subject to compliance with the applicable requirements of this Provision, achieve the stated goal by performing work with its own forces a value at least equal to the percentage goal.

1.18.3.2.4 Title VI Compliance (Civil Rights Act of 1964)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

(1) Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

(2) Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, religion, color, sex, age, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, religion, color, sex, age, or national origin.

(4) Information and Reports: The contractor shall provide all information and reports required by the regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by Miami Dade County or the Federal Transit Administration (FTA) to be pertinent to ascertain compliance with such regulations, orders and instructions. Where any information required

from a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to Miami Dade County, or to the Federal Transit Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, Miami Dade County shall impose such contract sanctions as it or the Federal Transit Administration may determine to be appropriate, including, but not limited to, withholding of payments to the contractor under the contract until the contractor complies, or cancellation, termination or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The contractor shall include the provisions of paragraph (1) through (6) of this section in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurements as Miami Dade County or the Federal Transit Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request Miami Dade County to enter into such litigation to protect the interests of Miami Dade County, and, in addition, the contractor may request the services of the Attorney General in such litigation to protect the interests of the United States.

1.18.3.3 DBE Requirements and Procedures

1.18.3.3.1 Compliance

FTA shall monitor the compliance of the contractor with the requirements of this Contract. The contractor shall permit FTA and MDC to have access to the premises and to necessary records and other pertinent information as deemed appropriate by FTA and MDC for the purpose of investigating and determining compliance with this provision.

1.18.3.3.2 Sanctions for Violations

If at any time MDC has reason to believe that the contractor is in violation of its obligations under this Provision, or has otherwise failed to comply with this Provision, MDC may, in addition to pursuing any other available legal remedy, commence proceedings to impose sanctions on the contractor. Such sanctions may include, but are not limited to, one or more of the following:

(1). The suspension of any payment or part thereof due the contractor until such time as the issues concerning the contractor's compliance are resolved;

(2). The termination or cancellation of the Contract in whole or in part unless the contractor is able to demonstrate within a reasonable time its compliance with the terms of this Provision; and

(3). The denial to the contractor of the right to participate in any further contracts awarded by MDC for a period of not longer than three (3) years. No such sanction shall be imposed by MDC upon the contractor except pursuant to a hearing conducted by the Contracting Officer.

1.18.3.3.3 Prompt Payment.

MDT will pay small businesses, including DBEs, and prime contractors will pay subcontractors, including DBES, for satisfactory performance of their contracts no later than 30 days after a proper invoice has been received. The prime contractor will return retainage payments to the subcontractor, including DBEs, within 30 days of the subcontractor's satisfactory completion of work. The prompt payment ordinance and MDT contracting procedures provide for appropriate penalties for failure to comply with the terms and conditions of MDT contracts. Any delay or postponement of payment among or between the parties may take place only for good cause and with MDT's prior written approval. (49 CFR 26; 13 CFR 121; Florida Law, Chapter 218, Part VII, Prompt Payment Act; Miami Dade County Prompt Payment Ordinance No. 94-40).

1.18.3.3.4 Prime Contractor DBE Reporting Requirements

The Prime Contractor shall provide to Miami-Dade Transit in a timely fashion copies of the TVM DBE reports it submits to FTA detailing the contractor's use of DBE firms in fulfillment of this contract.

1.19 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 (9) dated October, 2002) between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

1.20 Incorporation of Federal Transit Administration (FTA) Terms

The general contract provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1D, dated April 15, 1996, 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 MDC requests which, would cause MDC to be in violation of the FTA terms and conditions.

1.21 Interest of Members of, or Delegates to, Congress:
No member of, or delegates to, the Congress of the United States shall be admitted to any share or part of this contract or to any benefit arising therefrom (41 U.S.C. 22).

1.22 Conflict of Interest:
No employee, officer, or agent of MDC shall participate in selection, or in the award or administration of a contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when:

(1) The employee, officer or agent;
(2) Any member of his immediate family; for the purpose of this solicitation and in compliance with the Federal Transit Administration (FTA) Circular 4220.1D immediate family is defined as parents, wife, husband, children, and brothers and sisters.
(3) His or her partner; or
(4) An organization which employs, or is about to employ any of the above, has a
(5) Financial or other interest in the firm selected for award.

MDC's officers, employees or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from contracts, potential contractors, or parties of subcontracts.

1.23 Fly America Requirements

The contractor 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 provides that the 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 extend such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

1.24 Clean Air

The contractor agrees to comply with all applicable standards, orders or requirements issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. The Contractor agrees to report each violation to the 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 Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

1.25 Clean Water

The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. The Contractor agrees to report each violation to the 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 Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA.

1.26 Recycled Products/Recovered Materials

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

1.27 Cargo Preference

The Contractor agrees:

(1) To use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels.

(2) To furnish within twenty (20) days following the date of loading for shipments originating within the United States, or within thirty (30) days following the date of loading for shipment originating outside the United States, a legible copy of a rated "on-board" commercial ocean bill-of-lading in English for each shipment of Cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, 400 Seventh Street S.W., Washington, D.C. 20590, marked with appropriate identification of the Project, and to MDC (through the prime Contractor in the case of sub-contracts bill-of-lading).

1.28 Environmental Protection

The Contractor agrees to comply with all applicable requirements of the National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321 et seq. , Executive Order no. 11514, as amended, "Protection and Enhancement of Environmental Quality," 42 U.S.C. § 4321 note: FTA statutory requirements at 49 U.S.C. § 5324(b): Council on Environmental Quality regulations pertaining to compliance with the National Environmental Policy Act of 1969, as amended, 40 CFR part 1500 st seq.: the joint FHWA/FTA regulations, "Environmental Impact and Related Procedures," 23 CFR part 771 and 49 CFR part 622, and when promulgated, FHWA/FTA joint

regulations, "NEPA and Related Procedures for Transportation Decision making, Protection of Public Parks, Wildlife and Waterfowl Refuges, and Historic Sites, " 23 CFR part 1420 and 49 CFR part 623.

1.29 Energy Conservation:
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 (42 U.S.C. Section 6321 et seq.).

1.30 Buy America

This contract is subject to the Federal Transit Administration Buy America Requirements in 49 U.S.C. 5323 (j) (2), Section 165 (b) of the Surface Transportation Assistance Act of 1982, as amended, and the applicable regulations on 49 CFR Part 661

1.31 Bus Testing Program
The buses furnished under this contract must comply with the requirements of 49 CFR Part 665 Bus Testing Program.

1.32 Choice of Law
All questions pertaining to the validity and interpretation of this Contract shall be determined in accordance with the laws of Florida applicable to contracts made and to be performed within the State.

1.33 Jurisdiction
Any litigation which may arise out of this Contract shall be commenced either in the Eleventh Judicial Circuit Court in and for Miami-Dade County, Florida, or in the United States District Court, Southern District of Florida.

1.34 Limitation Of Action
No action shall lie or be maintained by the Contractor against MDC upon any claim arising out of or based on this Contract or by any reason of any act, omission, or requirement of MDC unless such action shall be commenced within six (6) months after the date of Final Acceptance of the final bus to be delivered under this Contract, or if this Contract is terminated unless such action is commenced within six (6) months of the date of such termination by MDC.

1.35 Disputes
Except as otherwise provided in this contract, any dispute arising under this contract which is not disposed of by the contract will be decided by the Director of Miami-Dade Transit who will furnish a written copy of the decision to the Contractor. The decision of the Director will be final and conclusive unless, within thirty (30) days from the date of the receipt of such copy, the Contractor furnishes to the County a written appeal addressed to the County Manager. The decision of the County Manager or duly authorized representative will be final and conclusive unless determined

otherwise by a court of competent jurisdiction. In connection with any appeal proceeding under this provision, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of the appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the County's decision.

1.36 Termination of Contract

1.36.1 Termination for Convenience of MDC

The performance of work under this Contract may be terminated by MDC in accordance with this clause in whole, or from time to time in part, whenever the Contracting Officer shall determine that such termination is in the best interest of the Procuring Agency. Any such termination shall be effected by delivery to the Contractor of a notice of termination, sent by certified mail, return receipt requested. The notice of termination shall specify the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective. After receipt of a notice of termination, and except as otherwise directed by the Contracting Officer, the Contractor shall: stop work under the contract on the date and to the extent specified in the notice of termination, place no further orders or subcontracts for materials, services, or facilities, except as may be necessary for completion of such portion of the work under the contract as is not terminated; terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the notice of termination; assign to the Procuring Agency in the manner, at the time, and to the extent directed by the Contracting Officer, all of the right, title and interest of the Contractor under the orders and subcontracts so terminated, in which case the Procuring Agency shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts, settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the Contracting Officer, to the extent he may require, which approval or ratification shall be final for all the purposes of the clause, transfer title to the Procuring Agency and deliver in the manner, at the times, and to the extent, if any, directed by Contracting Officer the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the work terminated, and the completed or partially completed plans, drawings, information and other property which, if the Contract had been completed, would have been required to be furnished to the Procuring Agency; use its best efforts to sell, in the manner, at the times, to the extent, and at the price(s) directed or authorized by the Contracting Officer, any property of the types referred to above, provided, however, that the Contractor shall not be required to extend credit to any purchaser, and may acquire any such property under the conditions prescribed by and at a price(s) approved by the Contracting Officer, and provided further, that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Procuring Agency to the Contractor under this Contract or shall otherwise be credited to the price or cost of the work covered by this Contract or paid in such other manner as the Contracting Officer may direct; complete performance of such part of the work as shall not have been terminated by the notice of

termination; and take such action as may be necessary, or as the Contracting Officer may direct, for the protection or preservation of the property related to this Contract which is in the possession of the Contractor and in which the Procuring Agency has or may acquire an interest.

Settlement of claims by the Contractor under this Termination for Convenience clause shall be in accordance with provisions set forth in Federal Acquisition Regulations (FAR) 52.249-2 (c), (d), (e), (f), (g), (h), (i), (j), (k), and (l), except that wherever the word "Government" appears it shall be deleted and the word "Procuring Agency" shall be substituted in lieu thereof.

1.36.2 Termination for Default

The Procuring Agency may, by written notice of default to the Contractor, terminate the whole or any part of this Contract if the Contractor fails to make delivery of the supplies or to perform the services within the time specified herein or any extension thereof; or if the Contractor fails to perform any of the other provisions of the Contract, or so fails to make progress as to endanger performance of this Contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of ten (10) calendar days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure. If the Contract is terminated in whole or in part for default, the Procuring Agency may procure, upon such terms and in such manner as the Contracting Officer may deem appropriate, supplies or services similar to those so terminated. The Contractor shall be liable to the Procuring Agency for any excess costs for such similar supplies or services, and shall continue the performance of this Contract to the extent not terminated under the provisions of this clause.

The Contractor shall be liable to MDC for all losses, damages, including damages for delay, liquidated damages, compensatory damages, interest on late payments, expenses, costs, and attorney's fees, including costs and fees for appellate proceedings that MDC sustains because of default by the Contractor, including but not limited to, reprocurement costs, all excess costs to acquire like goods and services, increased price of similar buses, spare parts, ancillary equipment and services, a failure to honor all guarantees and warranties or to cure latent defects in its work or materials within the time periods provided for in this solicitation. The Contractor shall remain liable for any costs which exceed those offset by the Performance Bond in the event of Termination for Default. Except with respect to defaults of subcontractors, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises out of causes beyond the control and without the fault or negligence of the Contractor. If the failure to perform is caused by the default of a subcontractor, and if such default arises out of causes beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either of them, the Contractor shall not be liable for any excess costs for failure to perform, unless the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required delivery schedule.

Payment for completed supplies delivered to and accepted by the Procuring Agency shall be at the contract price. The Procuring Agency may withhold from amounts otherwise due the Contractor

for such completed supplies such sum as the Contracting Officer determines to be necessary to protect the Procuring Agency against loss because of outstanding liens or claims of former lien holders. If, after notice of termination of this contract under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the default was excusable under the provisions of this clause, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to termination for convenience of the Procuring Agency. The rights and remedies of the Procuring Agency provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by the law or under this contract.

If, for any reason, the Contractor should attempt to meet its obligations under this Contract through fraud, misrepresentation or material misstatement, MDC shall, whenever practicable terminate this Contract by giving written notice to the Contractor of such termination and specifying the effective date thereof at least five (5) calendar days before the effective date of such termination. MDC may terminate or cancel any other contracts which such individual or entity has with MDC. Such individual or entity shall be responsible for all direct and indirect costs associated with such termination or cancellation, including attorney's fees and costs. Any individual or entity who attempts to meet its contractual obligations with MDC through fraud, misrepresentation or material misstatement may be debarred from MDC contracting for up to five (5) years.

1.37 Communications

Communications in connection with this Contract shall be in writing and shall be delivered personally; by regular, registered, or certified mail privately operated carrier services such as Federal Express and United Parcel Service are acceptable, or by facsimile transmission with verification and original hard copy to follow addressed to the officer(s) or employee(s) of the County and of the Contractor designated to receive such communications. Telephone calls may be used to expedite communications but shall not be official communication unless confirmed in writing. Facsimile transmission of correspondence shall be followed with a phone call to confirm receipt and immediately followed with an original hard copy, addressed as stated in Section 1.38, official receipt.

1.38 Official Receipt

Communications shall be considered received at the time actually received by the addressee or designated agent.

All notices or other communications to either party by the other shall be deemed given when made in writing and delivered, or mailed to such party at their respective addresses as follows:

To County:

Miami-Dade Transit
Director
111 N. W. First Street – 9th Floor
Miami, Florida 33128

Duplicate copies shall be sent to:

MDT Materials Management Division
3401 NW 31st Street
Miami, Florida 33142
Attn: Chief of Materials Management

and

MDT Bus Maintenance Administration
3311 N.W. 31 Street
Miami, Florida 33142
Attn: Bus Specification Review Committee

To Contractor: To the address as submitted

The above party designations or addresses may be changed from time to time by written notice.

1.39 Assignability

Miami-Dade Transit may assign its rights and obligations under the Contract to any successor to the rights and functions of Miami-Dade Transit or to any governmental agency to the extent required by applicable laws or governmental regulations or to the extent that Miami-Dade Transit deems necessary or advisable under the circumstances. This Assignability Clause shall pertain to any unused portion of the optional buses as specified.

1.40 Assignment

The contractor shall not assign, transfer, or otherwise dispose of this Contract, including any rights, title or interest therein, or their power to execute such Contract to any person, company or corporation without the prior written consent of the County.

Miami-Dade Transit

Small Low Floor Buses

Part II – Special Conditions

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1.1 Delivery

1.1.1 Delivery Schedule of Buses

Delivery of each lot of buses shall be completed within XX days after issuance of a Notice to Proceed. Unless otherwise agreed to, in writing by MDT, the delivery of buses shall take place as follows:

Number of Buses	Year	Delivery Dates
150	2004	
150	2005	
50	2006	
50	2007	

1.1.2 Delivery Items

Item		Quantity
1.0	Small Transit Buses	400 Each
2.1	Spare Tire Rims	1 Per Bus
2.2	Spare Engines	40 Each
2.3	Spare Transmission	40 Each
2.4	Engine Electronic Diagnostic Tools	5 Sets
2.5	Transmission Electronic Diagnostic Tools	5 Sets
2.6	ABS Diagnostic Tools and Spare Parts	5 Sets
2.7	Wheelchair Lift Complete Assembly	10 Each
2.8	Destination Sign Programming Equipment Set	5 Each
2.9	Destination Signs Spare Systems	5 Each
2.10	Destination Sign Spare Parts Sets	5 Each
2.11	Training	1 Lump Sum
3.1	Optional Buses and Spare Parts and Special Equipment (Items 1.0 - 2.11)	Up to 100% of Base Bid

amount

1.1.2 Delivery Of Spare Parts and Ancillary Equipment

Delivery of the spare parts and ancillary equipment listed in Part II, Section 1.1.3 above, shall be delivered in the quantities authorized by each NTP before or at the time the last bus in each lot is delivered.

1.1.3 Bus Delivery Procedure

Delivery shall be determined by signed receipt of the Procuring Agency's designated agent(s), The General Superintendent of MDT Metrobus Maintenance or his designee, at the point of delivery and may be preceded by a cursory inspection of the bus.

Delivery of the buses shall be F.O.B. point of delivery by either Common Carrier Driveway or Rail Transportation.

The buses shall be delivered at a rate not to exceed five (5) buses per day Monday through Friday, (excluding holidays). Hours of delivery shall be 7:30 a.m. through 3:00 p.m. EST. Delivery shall be made to the following address:

Miami-Dade Transit.
Metrobus Maintenance Administration
3300 N. W. 32nd Avenue
Miami, Florida 33142

Delivery costs are the responsibility of the Contractor.

1.2 Manufacture And Delivery of Pilot Bus

The contractor shall provide MDC with a "pilot" bus, for Lot 1 only, built to MDT's specifications. The "pilot" bus shall be delivered to MDC ninety (90) calendar days prior to the start of assembly of the first "production" bus manufactured under this Contract. It is the intention of MDC to place the "pilot" bus into revenue service and evaluate its performance for a period of thirty (30) calendar days. This revenue service test period will not initiate Final Acceptance Procedures as described in Part II, Section 1.5. Toward the end of this period, the Contractor will meet with MDC at their facility in Miami to resolve issues raised during the evaluation. At the conclusion of the thirty (30) calendar days revenue service evaluation period, the "pilot" bus will be returned to the bus manufacturer. The delivery, retrieval and arrangements thereof will be the responsibility of the bus manufacturer and executed at no additional cost to MDC. Upon its return to the bus manufacturer, all infancy failures, any changes due to non-compliance with MDT's specifications, or mutually agreed to design changes will be made to the "pilot" bus. All subsequent buses, purchased under this Contract and/or built in this production order, shall include all changes incorporated into the "pilot" bus. A preliminary acceptance inspection will be performed on the "pilot" bus prior to its initial shipment to MDC. A Pre-Delivery test will be performed on the "pilot" bus (as the first bus of the production order) and all

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other "production" buses prior to their delivery to MDC. The pilot bus will remain at the factory, through production, to be used as the standard for the design configuration. There shall be no departure in the design of the buses of Lot 1 and subsequent lots from the pilot bus unless approved by MDC. A Post-Delivery test for Final Acceptance will be performed at MDT on the "pilot" bus after its delivery to MDC as a "production" bus. The "Pilot" bus shall be delivered to MDC as a "production" bus after incorporation of all changes due to infancy failures, non-compliance with MDT specifications, and mutually agreed design changes.

1.3 Delivery of Production Buses

Prior to the time of delivery, the Contractor will be required to produce the following documents:

1. Manufacturer's statement of origin made out to Miami-Dade County, Florida, 2225 N.W. 72 Avenue, Miami, Florida 33122.

2. Warranty Certifications.

   All documents mentioned above are to be delivered to or hand carried to the Chief of Maintenance Support Services, 3311 N.W. 31st Street, Miami, Florida 33142.

At the time of delivery of the first production bus, the Contractor will be required to produce all the data needed by Miami-Dade County to conduct the Post Delivery Buy America Audit. This data is to be delivered to or hand carried to: Karen MacNeill, Chief of Materials Management, 3401 NW 31 St., Miami, Florida 33142.

Failure to submit the Buy America data as stated above will make the Contractor liable for liquidated and compensatory damages as described in Part II, Section 1.18.

The documents and schedules required by MDT to conduct the Buy America review are as follows:

1. Component listing (sorted by price) reflecting the following:
   a) Product Code or bill of materials, listed by price in descending order.
   b) Description.
   c) Net quantity used per bus.
   d) Unit cost and cost extensions.
   e) Supplier.
   f) Origin of parts.
   g) American and foreign share by percentage and amount.
   h) Total cost per bus.

Component is defined as any article, material, or supply that is directly incorporated into an end product at the final assembly location.

2. Vendor invoices corresponding to the bill of materials
3. Signed Buy America Certificates. (The certificates attest to the origin of the subcomponents and reflect its domestic or foreign content in percentage terms.)
4. Confirmation that the final assembly was completed in the United States.

The manufacturer's list must identify domestic subcomponents for major components used in the content calculation, such as engines, transmissions, and wheelchair lifts.

American made components exported outside the United States are considered parts of the domestic composition of the buses if the parts receive tariff exemptions under 19 CFR.

1.4 Assumption of Risk of Loss

MDT shall assume risk of loss of the bus upon delivery, as defined in Part II, 1.4. Prior to this delivery the Contractor shall have risk of loss of the bus, including any damages sustained during delivery. If the common carrier drive away delivery method is used, drivers shall keep a maintenance log in route and it shall be delivered to MDT with the bus.

1.5 Final Acceptance of Bus

Delivery of the bus to Miami-Dade County does not constitute Final Acceptance for the purpose of payment. Final Acceptance will be determined by signed notification of the procuring agency's Chief, MDT Materials Management Division or designee, and shall be given only after a thorough inspection by MDT indicates that the bus meets all contract specifications and conditions and that the engineering, materials, and workmanship exhibit a level of quality and performance consistent with or exceeding industry standards as further described in Part III. MDT shall conduct Final Acceptance tests on each delivered bus. These tests shall be completed within fifteen (15) working days after bus delivery. MDT shall notify the Contractor in writing of acceptance or non-acceptance within ten (10) working days after completion of tests. Final Acceptance may occur earlier if MDT notifies the Contractor in writing of early acceptance or places the bus in revenue service. If the bus fails these tests, it shall not pass Final Acceptance until the repair procedures defined in Part II, Section 1.6 below have been carried out and the bus retested until it passes.

1.6 Repairs

1.6.1 Repairs After Non-acceptance

MDT may, at its sole discretion, require the Contractor, or its designated representative, to perform the repairs after non-acceptance, or the work may be done by MDT's personnel with reimbursement by the Contractor.

1.6.2 Repairs by Contractor

If MDT requires the Contractor to perform repairs after nonacceptance of the bus, the Contractor's representative must begin work within five (5) working days after receiving notification from MDT of failure of acceptance tests. MDT shall make the bus available to complete repairs timely with the Contractor repair schedule.

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

1.7 Required Pre-Award and Post Delivery Audits and Inspections

This Contract is subject to all of the provision of Pre-Award and Post-Delivery Audit of Rolling Stock Purchases (49 CFR 663). The Contractor shall at all times provide MDC facilities, whether necessary or convenient, for inspecting buses and auditing required documentation. MDC representatives shall be admitted at any time, without delay, to inspect the buses at any place or stage of their manufacture, preparation, shipment or delivery, provided the Contractor is notified one (1) week in advance of the date of the visit.

1.8 Title

Adequate documents for securing the buses in the name of Miami- Dade County, Florida, 2225 N. W. 72nd Avenue, Miami, Florida 33122 shall be provided to MDT at the time of delivery. Following Final Acceptance of each bus, the Contractor warrants that the title shall pass to Miami-Dade County free and clear of all liens, mortgages and encumbrances, financing statements, security agreements, claims, and demands of any character.

1.9 Service and Parts

1.9.1 Engineers

The Contractor shall, at its own expense, have a competent engineering representative(s) available on request to assist MDT's staff in the solution of engineering or design problems within the scope of the specifications that may arise for five (5) years from the date of acceptance of its last purchased bus. This does not relieve the Contractor of responsibilities under Part III: Warranty Provisions.

1.9.2 Spare Parts

The Contractor shall guarantee the availability of replacement parts for these buses for at least a seven (7) year period after the date of Final Acceptance. Spare parts shall be interchangeable with the original equipment and shall be manufactured in accordance with the quality assurance provisions of this Contract.

A parts list containing all bus parts supplied by subcontractors, and other vendors to the Contractor, shall be provided at the time of delivery of the bus(s). This list will contain the recommended order quantity, quantity used per bus, Contractor's part number, description and list price. However, if any part (s) ordered by MDT are not received within 24 hours and a bus is out of service due to lack of part (s), then the Contractor will provide MDT with the Original Equipment Manufacturers (OEM) part number, name, and address within 8 hours following the MDT request.

1.9.3 Parts Provisioning Package

The Contractor shall also furnish and MDC may elect to purchase spare parts, components, modules, consumable, expendable and accessories (hereinafter "parts"), not specifically identified in this contract document, in accordance with the following:

No later than one hundred twenty (120) calendar days prior to delivery of the first production bus, the Contractor shall deliver to MDC a "parts provisioning package" which shall consist of the following:

A recommendation by the Contractor as to the individual quantities for all parts which will be required to support the buses purchased herein during the following periods of operation; twelve (12) months, twenty four (24) months, and thirty six (36) months.

With respect to each part as to which a recommendation is made, the Contractor shall provide MDC with the Contractor's "net bus selling price" for each such item as of the date of the parts provisioning package.

Subsequent to receipt of the parts provisioning package, MDC shall advise the Contractor within ninety (90) calendar days of the quantities of such parts, if any, up to the recommended quantities, which it elects to purchase for the buses purchased hereunder. The price for any such quantities shall be the "bus net selling price" as set forth in the parts provisioning package.

MDC shall have the right at any time after two (2) years from the date of delivery of the parts hereunder to return any unused part(s) purchased hereunder. The Contractor shall reimburse MDC for each part returned hereunder at the price paid by MDC. Any such parts returned by MDC shall be returned to the Contractor freight pre-paid.

Delivery of any parts purchased by MDC hereunder shall commence within thirty (30) calendar days for expendable parts and one hundred twenty (120) calendar days for all other parts.

1.10 Materials/Accessories Responsibility

The Contractor shall be responsible for all materials and workmanship in the construction of the bus and all accessories used, whether the same are manufactured by the Contractor or purchased from its suppliers. This provision excludes equipment leased or supplied by MDT, except

insofar as such equipment is damaged by the failure of a part or component for which the Contractor is responsible or except insofar as the damage to such equipment is caused by the Contractor during the manufacture of the buses.

1.11 Interchangeability

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

1.12 Payment Schedule

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

The Contractor shall be responsible for any and all taxes related to the manufacture and sale of buses, spare parts, etc.

All payments shall be made as provided herein, less any moneys to be withheld as provided below and less any amounts for damages in accordance with Part II, Section 1.18.

The County shall make payments for spare parts and or equipment at the unit prices itemized in the Bid/Proposal Forms (Bid or Proposal Prices), upon the delivery and acceptance of said spare parts and or equipment and within thirty (30) calendar- days of receipt of a proper invoice. Title for spare parts and or equipment shall transfer to the County upon payment. Said title shall be free of all encumbrances.

1.13 Contractor's Invoices

Contractor's invoices shall be submitted to the following address:

MDT Controller's Division
P. O. Box 010791
Miami, Florida 33101-0791
Attention: Accounts Payable

The Contractor's invoice shall include:

Contract number
Line item number invoiced
Number of spare parts/equipment involved, if applicable
Model and serial number of bus invoiced, if applicable
Unit and total prices by line item number
Total invoice amount

1.14 Delays

1.14.1 Unavoidable Delays

The Contractor shall not be liable if performance failure arises out of causes beyond the control and without the fault or negligence of the Contractor ("unavoidable delay"), including, but not limited to, acts of God, war, fires, floods, trade embargo and freight embargo. A delay is unavoidable only if the delay was not reasonably expected to occur in connection with or during the Contractor's performance, and was not caused directly or substantially by acts, omissions, negligence, or mistakes of the Contractor, the Contractor's suppliers, or their agents, and was substantial and in fact caused the Contractor to miss delivery dates, and could not adequately have been guarded against by contractual or legal means. Should a performance failure occur, it will be the responsibility of the Contractor to notify the Contracting Officer in writing and submit proof of the circumstances for non-performance in accordance with Part II, Sections 1.14.1 and 1.14.2, Notification of Unavoidable Delay and Request for Extension. Immediately following the resolution of circumstances responsible for non-performance, the Contractor must re-negotiate delivery schedule unless the Contract has been terminated pursuant to Part I, Sections 1.36.1 or 1.36.2, Termination for Convenience of MDC and Termination for Default.

1.14.2 Notification of Delay

The Contractor shall notify the Contracting Officer as soon as the Contractor has, or should have, knowledge that an event has occurred which will delay deliveries. Within five (5) calendar days, the Contractor shall confirm such notice in writing furnishing as much detail as is available.

1.14.3 Request for Extension of Time Due to Unavoidable Delays

The Contractor agrees to supply, as soon as such data are available, any reasonable proofs that are required by the Contracting Officer to make a decision on any Requests for Extension. The Contracting Officer shall examine the request and any documents supplied by the Contractor and shall determine if the Contractor is entitled to an extension and the duration of such extension. The Contracting Officer shall notify the Contractor of his/her decision in writing.

It is expressly understood and agreed that the Contractor shall not be entitled to damages or compensation, and shall not be reimbursed for losses on account of delays resulting from any cause under this provision.

1.15 Price Adjustment for Regulatory Changes

If price adjustment is indicated, either upward or downward, it shall be negotiated between MDT and the Contractor for changes that are mandatory as a result of legislation or regulations that are promulgated and become effective between the date of contract award and the date of manufacture. Such price adjustment may be audited, where required.

1.16 Price Redetermination-Prospective and Notice to Proceed

General

The unit prices and the total price stated in this Contract shall be periodically redetermined in accordance with this clause, except that the prices for supplies and services ordered by issuance of Notice To Proceed before the first effective date of price redetermination shall remain fixed and in no event shall the total amount paid under this Contract exceed any ceiling price included in the Contract.

1.16.1 Price Redetermination Periods

For the purpose of price redetermination, performance of this Contract is divided into successive periods. These periods shall coincide with the calendar year starting on January 1 and ending December 31. Any buses ordered by issuance of Notice To Proceed prior to the calendar year beginning January 1, 2004, shall be at the base contract price and will not be subject to price redetermination. Beginning January 1, 2005, all buses ordered by issuance of Notice To Proceed during each calendar year shall be based on the price redetermination computed using the specified index value for the month of December of the preceding year.

1.16.2 Data Submission

Not more than forty five (45) calendar days after the first day of each redetermination period, the Contractor shall submit proposed prices for supplies or services that may be ordered by issuance of Notice To Proceed during that period and sufficient data to support the accuracy of the price computations. If the Contractor fails to submit the data required above, within the time specified, MDC may suspend payments under this Contract until the data are furnished. In the event that the Producer Price Index used in Price Redetermination is adjusted or corrected within the first four (4) months of the period, said adjustment will apply retroactively to include the entire period.

1.16.3 Computations Of Prices

Price redetermination shall be based on the U.S. Department of Labor, Bureau of Labor Statistics Producer Price Index as published in the monthly periodical "Producer Price Indexes" for commodity code 1413 Truck and Bus Bodies. The index base shall be taken from the latest version of Producer Price Index for the month of December 2004. In the event that the index for commodity 1413 is discontinued or unavailable, then the Producer Price Index for commodity 141 Motor Vehicles and Equipment shall be substituted. Price redetermination shall be

performed using the latest version of the Producer Price Index for the month of December using the simple percentage method. Price adjustment shall be on a per unit basis as follows:

Base Price X Index for current adjustment = Adjusted Price
Index for December 2004

However, the Adjusted Price shall not exceed the previous year's price by more than five (5%) and shall not exceed the Base Price by more than twenty (20%).

The price adjustment shall apply to all vehicles, spare parts, and special equipment ordered by issuance of Notice To Proceed in the calendar year regardless of actual delivery. Since the Producer Price Index is subject to corrections for a period of four months, the Producer Price Index for December shall be considered final as published in May. In the event that the base for the published indexes changes, the subject calculations shall be converted using the officially released Rebasing factors provided by the Bureau of Labor Statistics.

1.16.4 Contract Modification

Each redetermination of prices shall be evidenced by a modification to this contract, signed by the Contractor and MDC stating the redetermined prices that apply during the redetermination period.

1.16.5 Disagreements

If the Contractor and MDC fail to agree upon redetermined prices for any price redetermination period within sixty (60) calendar days after the date on which the required data are to be submitted, MDC shall promptly issue a decision in accordance with the Disputes clause. Pending final settlement of the disagreement on appeal, by failure to appeal, or by agreement, this decision shall be treated as an executed contract modification. Pending final settlement, prices for subsequent periods, if any, shall continue to be redetermined as provided in this clause.

1.16.6 Termination

If this Contract is terminated, prices shall continue to be established in accordance with this clause for completed supplies and services accepted by MDC and those supplies and services not terminated under a partial termination. All other elements of the termination shall be resolved in accordance with other applicable clauses of this Contract.

1.17 Modifications to Contract

1.17.1 Written Change Orders

Oral change orders are not permitted. No change in this Contract shall be made unless the Contracting Officer gives his prior written approval. Therefore, the Contractor shall be liable for all costs resulting from, and/or for, satisfactorily correcting any specification change not properly ordered by written modification to the Contract and signed by the Director of MDT.

1.17.2 Change Order Procedure
A written change order request can be originated by MDT or the Contractor. Within thirty (30) calendar days after receipt of a written change order request to modify the Contract, the Contractor shall submit to the Director of MDT a detailed price and schedule proposal for the work to be performed. This Proposal shall be accepted or modified by negotiations between the Contractor and the Director of MDT. At that time, a detailed written change order, detailing the modifications, shall be executed in writing by both parties. Disagreements that cannot be resolved within negotiations shall be resolved in accordance with the Contract disputes clause. Regardless of any disputes, the Contractor shall proceed with the work specified in the written change order.

1.18 Damages
It is mutually understood and agreed by and between the parties to the Contract that time is of the essence with respect to the completion of the work and that in case of any failure on the part of the Contractor to complete the Work within the time specified and in accordance with the terms and conditions of the Contract, or any extension thereof, except for any excusable delays as provided in "Unavoidable Delays" (Part II, Section 1.14.1), the County will be damaged thereby. The damages to be paid MDC are both compensatory damages and liquidated damages.

1.19.1 Compensatory Damages
Those damages which will serve to compensate MDC for direct losses incurred as a result of failure on the part of the Contractor to complete the Work within the time specified and in accordance with the terms and conditions of the Contract, or any extension thereof, except for any excusable delays as provided in extension thereof, except for any excusable delays as provided in "Unavoidable Delays" (Part II. Section 1.14.1), and which are definite and can be calculated with reasonable accuracy shall be termed Compensatory Damages. Compensatory Damages due the County shall include, but not be limited to, the following losses:

A. Added maintenance costs incurred by the County to maintain existing MDT fleet.
B. Cost to obtain additional buses to meet fleet requirements.
C. Additional fuel consumption by existing MDT fleet.
D. Increased contract administrative costs
E. Fines imposed for non-compliance with existing laws, ordinances and regulations.

1.19.2 Liquidated Damages
Those damages which are difficult if not impossible to calculate and prove shall be termed Liquidated Damages. Liquidated Damages may include such losses as loss of ridership resulting from reduced confidence in the transit system, negative publicity, loss of public good will as a result of reduced reliability and decreased performance levels.

1.19.3 Liquidated and Compensatory Damages for Late Delivery and Non-Acceptance of Transit Buses
If the Contractor fails to deliver the unit(s) complete per specification and ready for operation

within the time (delivery schedule) specified in the Notice to Proceed and paragraph 1.1.6, it is understood and the Contractor agrees that the amount of one hundred ($100.00) per unit per calendar day to a maximum ten thousand ($10,000.00) per unit may be deducted by MDC from monies due the Contractor for each intervening calendar day of Late Delivery or Non-Acceptance, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any Compensatory Damages incurred by MDC.

Late delivery of buses received on a Monday or the first work day following a holiday will not be assessed liquidated damages for the prior weekend or holiday.

Should the bus fail Final Acceptance Tests, the liquidated damages shall again become assessable beginning on the date of written Notification of Nonacceptance until the defects are corrected and the bus is again presented for acceptance.

The Contractor shall not be liable for any Liquidated or Compensatory Damages if performance failure arises out of causes beyond the control and without the fault or negligence of the Contractor including but not limited to acts of God, war, fires, floods, trade embargo, freight embargo etc. Should a performance failure occur, it will be the responsibility of the Contractor to notify the Contracting Officer in writing and submit proof of the circumstances for non-performance in accordance with paragraphs 2.8.1 and 2.8.2, Notification of Delay and Request for Extension. Immediately following the resolution of circumstances responsible for non-performance, the Contractor must re-negotiate delivery schedule.

1.19.4 Liquidated and Compensatory Damages for Late Delivery of Spare Parts and Ancillary Equipment

If the Contractor fails to deliver the spare parts and ancillary equipment listed in Part II, Section 1.1.2 of this Contract in accordance with the terms stated, the Contractor agrees that the amount of one hundred ($100) per calendar day may be deducted by MDC from monies due the Contractor, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any compensatory damages incurred by MDC.

1.19.5 Liquidated and Compensatory Damages for Failure to Deliver Manuals

If the Contractor fails to deliver manuals as described in Part III, the Contractor agrees that the amount of five thousand ($5,000.00) dollars may be deducted by MDC from monies due the Contractor, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any Compensatory Damages incurred by MDC.

1.19.6 Liquidated and Compensatory Damages for Late Warranty Repairs

If the Contractor fails to complete repairs within the time periods stated in Part III the Contractor agrees that the amount of one hundred ($100.00) dollars per calendar day per bus, to include weekends and holidays for every day the equipment remains out of service may be deducted by MDC from monies due the Contractor, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any Compensatory Damages incurred by MDC.

1.19.7 Liquidated and Compensatory Damages for Late Submittal for the Post Delivery Buy America Data

If the Contractor fails to submit the Post-Delivery Buy America data as described in Part I, Section 1.30 of this Contract, the Contractor agrees that the amount of one hundred ($100.00) dollars per calendar day of such delay may be deducted by Miami-Dade County from monies due the Contractor, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any compensatory damages incurred by Miami-Dade County.

1.19.8 Payment of Damages

The Contractor hereby agrees to pay the liquidated and compensatory damages, and not by way of penalty, to MDC and further authorizes MDC to deduct the amount of the damages from money due the Contractor under the Contract, computed as aforesaid. If the monies due the Contractor are insufficient to cover the amount due and owing to the County, the Contractor shall pay the County the difference or the entire amount, whichever may be the case, within thirty (30) calendar days after receipt of a written demand by the Contracting Officer.

Interest at the rate of 1.5% per month (18% per annum) may be added to the amount of damages which are unpaid thirty (30) calendar days after receipt by the Contractor of a written demand by the Contracting Officer. MDC, at its sole discretion, may in some cases allow damage payments to be made later than is stated above. Doing so shall not be considered as a waiver on the part of MDC of any rights under this Contract.

1.20 Price Adjustment As a Result of a Change in Fareboxes

At some time during the term of this contract, MDT intends to change the model of the fareboxes in its entire fleet from a Cubic Western, Phase III farebox to a Cubic Western Odessey farebox. Consequently, Notices to Proceed issued under this contract will specify the type of farebox to be installed in buses subject to that Notice to Proceed. An adjustment in the price of the buses, either up or down as appropriate, shall be made for buses purchased with the Cubic Western Oddessey farebox. The price adjustment will be made as follows:

1. If there will be a change in the farebox model, MDT shall notify the contractor, in writing, of the model of farebox that will be specified in the next Notice to Proceed a minimum of thirty days prior to the issuance of that Notice.
2. Within fourteen days following notification from MDT, the contractor shall notify MDT of the price change, either up or down, that the contractor will make in the price of each bus as a result of the change in the farebox model. In that notice the contractor shall provide to MDT the cost for the new type of farebox and, separately, any change in the price resulting from the installation process.
3. MDT shall, at its sole discretion, have the option to:
   a) Require the contractor to purchase and install the new type of farebox and make an adjustment in the price of the buses included in subsequent Notices to Proceed. Such adjustment would be calculated by adding or subtracting, as appropriate, (adding, if the cost of the new farebox is greater and subtracting if the cost of the new farebox is

less) the difference in the cost of the old and new fareboxes and any difference resulting from changes in installation costs.

b) Require the contractor to purchase the fareboxes from the farebox manufacturer at a price negotiated by MDT. The price adjustment would be made as described in a) above.

c) MDT will purchase the fareboxes and provide them to the contractor. The price of the fareboxes initially installed (Cubic Western, phase III) as specified above, will be subtracted from the cost of the buses in subsequent Notices to Proceed. Any price changes resulting from the installation process will also be adjusted.

1.21 MDC Furnished Property

Title to MDC furnished property shall remain in MDC. The Contractor shall maintain adequate property control records of MDC furnished property in accordance with sound industrial practice. Unless otherwise provided in this Contract, the Contractor, upon delivery to him of any MDC furnished property, assumes the risk of, and shall be responsible for, any loss thereof or damage thereto except for reasonable wear and tear, and except to the extent that such property is consumed in the performance of this Contract.

The Contractor shall, upon completion of this Contract, prepare for shipment, deliver F.O.B. origin, all MDC furnished property not utilized in the performance of this Contract or not theretofore delivered to MDC, as may be directed or authorized by the Contracting Officer.

Miami-Dade Transit

Small Low Floor Buses

Part II – Special Conditions

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1.1 Delivery

1.1.1 Delivery Schedule of Buses

Delivery of each lot of buses shall be completed within XX days after issuance of a Notice to Proceed. Unless otherwise agreed to, in writing by MDT, the delivery of buses shall take place as follows:

Number of Buses	Year	Delivery Dates
150	2004	
150	2005	
50	2006	
50	2007	

1.1.2 Delivery Items

Item		Quantity
1.0	Small Transit Buses	400 Each
2.1	Spare Tire Rims	1 Per Bus
2.2	Spare Engines	40 Each
2.3	Spare Transmission	40 Each
2.4	Engine Electronic Diagnostic Tools	5 Sets
2.5	Transmission Electronic Diagnostic Tools	5 Sets
2.6	ABS Diagnostic Tools and Spare Parts	5 Sets
2.7	Wheelchair Lift Complete Assembly	10 Each
2.8	Destination Sign Programming Equipment Set	5 Each
2.9	Destination Signs Spare Systems	5 Each
2.10	Destination Sign Spare Parts Sets	5 Each
2.11	Training	1 Lump Sum
3.1	Optional Buses and Spare Parts and Special Equipment (Items 1.0 - 2.11)	Up to 100% of Base Bid

amount

1.1.2 Delivery Of Spare Parts and Ancillary Equipment

Delivery of the spare parts and ancillary equipment listed in Part II, Section 1.1.3 above, shall be delivered in the quantities authorized by each NTP before or at the time the last bus in each lot is delivered.

1.1.3 Bus Delivery Procedure

Delivery shall be determined by signed receipt of the Procuring Agency's designated agent(s), The General Superintendent of MDT Metrobus Maintenance or his designee, at the point of delivery and may be preceded by a cursory inspection of the bus.

Delivery of the buses shall be F.O.B. point of delivery by either Common Carrier Driveway or Rail Transportation.

The buses shall be delivered at a rate not to exceed five (5) buses per day Monday through Friday, (excluding holidays). Hours of delivery shall be 7:30 a.m. through 3:00 p.m. EST. Delivery shall be made to the following address:

Miami-Dade Transit.
Metrobus Maintenance Administration
3300 N. W. 32nd Avenue
Miami, Florida 33142

Delivery costs are the responsibility of the Contractor.

1.2 Manufacture And Delivery of Pilot Bus

The contractor shall provide MDC with a "pilot" bus, for Lot 1 only, built to MDT's specifications. The "pilot" bus shall be delivered to MDC ninety (90) calendar days prior to the start of assembly of the first "production" bus manufactured under this Contract. It is the intention of MDC to place the "pilot" bus into revenue service and evaluate its performance for a period of thirty (30) calendar days. This revenue service test period will not initiate Final Acceptance Procedures as described in Part II, Section 1.5. Toward the end of this period, the Contractor will meet with MDC at their facility in Miami to resolve issues raised during the evaluation. At the conclusion of the thirty (30) calendar days revenue service evaluation period, the "pilot" bus will be returned to the bus manufacturer. The delivery, retrieval and arrangements thereof will be the responsibility of the bus manufacturer and executed at no additional cost to MDC. Upon its return to the bus manufacturer, all infancy failures, any changes due to non-compliance with MDT's specifications, or mutually agreed to design changes will be made to the "pilot" bus. All subsequent buses, purchased under this Contract and/or built in this production order, shall include all changes incorporated into the "pilot" bus. A preliminary acceptance inspection will be performed on the "pilot" bus prior to its initial shipment to MDC. A Pre-Delivery test will be performed on the "pilot" bus (as the first bus of the production order) and all

other "production" buses prior to their delivery to MDC. The pilot bus will remain at the factory, through production, to be used as the standard for the design configuration. There shall be no departure in the design of the buses of Lot 1 and subsequent lots from the pilot bus unless approved by MDC. A Post-Delivery test for Final Acceptance will be performed at MDT on the "pilot" bus after its delivery to MDC as a "production" bus. The "Pilot" bus shall be delivered to MDC as a "production" bus after incorporation of all changes due to infancy failures, non-compliance with MDT specifications, and mutually agreed design changes.

1.3 Delivery of Production Buses

Prior to the time of delivery, the Contractor will be required to produce the following documents:

1. Manufacturer's statement of origin made out to Miami-Dade County, Florida, 2225 N.W. 72 Avenue, Miami, Florida 33122.

2. Warranty Certifications.

   All documents mentioned above are to be delivered to or hand carried to the Chief of Maintenance Support Services, 3311 N.W. 31st Street, Miami, Florida 33142.

At the time of delivery of the first production bus, the Contractor will be required to produce all the data needed by Miami-Dade County to conduct the Post Delivery Buy America Audit. This data is to be delivered to or hand carried to: Karen MacNeill, Chief of Materials Management, 3401 NW 31 St., Miami, Florida 33142.

Failure to submit the Buy America data as stated above will make the Contractor liable for liquidated and compensatory damages as described in Part II, Section 1.18.

The documents and schedules required by MDT to conduct the Buy America review are as follows:

1. Component listing (sorted by price) reflecting the following:
   a) Product Code or bill of materials, listed by price in descending order.
   b) Description.
   c) Net quantity used per bus.
   d) Unit cost and cost extensions.
   e) Supplier.
   f) Origin of parts.
   g) American and foreign share by percentage and amount.
   h) Total cost per bus.

Component is defined as any article, material, or supply that is directly incorporated into an end product at the final assembly location.

2. Vendor invoices corresponding to the bill of materials
3. Signed Buy America Certificates. (The certificates attest to the origin of the subcomponents and reflect its domestic or foreign content in percentage terms.)
4. Confirmation that the final assembly was completed in the United States.

The manufacturer's list must identify domestic subcomponents for major components used in the content calculation, such as engines, transmissions, and wheelchair lifts.

American made components exported outside the United States are considered parts of the domestic composition of the buses if the parts receive tariff exemptions under 19 CFR.

1.4 Assumption of Risk of Loss

MDT shall assume risk of loss of the bus upon delivery, as defined in Part II, 1.4. Prior to this delivery the Contractor shall have risk of loss of the bus, including any damages sustained during delivery. If the common carrier drive away delivery method is used, drivers shall keep a maintenance log in route and it shall be delivered to MDT with the bus.

1.5 Final Acceptance of Bus

Delivery of the bus to Miami-Dade County does not constitute Final Acceptance for the purpose of payment. Final Acceptance will be determined by signed notification of the procuring agency's Chief, MDT Materials Management Division or designee, and shall be given only after a thorough inspection by MDT indicates that the bus meets all contract specifications and conditions and that the engineering, materials, and workmanship exhibit a level of quality and performance consistent with or exceeding industry standards as further described in Part III. MDT shall conduct Final Acceptance tests on each delivered bus. These tests shall be completed within fifteen (15) working days after bus delivery. MDT shall notify the Contractor in writing of acceptance or non-acceptance within ten (10) working days after completion of tests. Final Acceptance may occur earlier if MDT notifies the Contractor in writing of early acceptance or places the bus in revenue service. If the bus fails these tests, it shall not pass Final Acceptance until the repair procedures defined in Part II, Section 1.6 below have been carried out and the bus retested until it passes.

1.6 Repairs

1.6.1 Repairs After Non-acceptance

MDT may, at its sole discretion, require the Contractor, or its designated representative, to perform the repairs after non-acceptance, or the work may be done by MDT's personnel with reimbursement by the Contractor.

1.6.2 Repairs by Contractor

If MDT requires the Contractor to perform repairs after nonacceptance of the bus, the Contractor's representative must begin work within five (5) working days after receiving notification from MDT of failure of acceptance tests. MDT shall make the bus available to complete repairs timely with the Contractor repair schedule.

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

1.7 Required Pre-Award and Post Delivery Audits and Inspections

This Contract is subject to all of the provision of Pre-Award and Post-Delivery Audit of Rolling Stock Purchases (49 CFR 663). The Contractor shall at all times provide MDC facilities, whether necessary or convenient, for inspecting buses and auditing required documentation. MDC representatives shall be admitted at any time, without delay, to inspect the buses at any place or stage of their manufacture, preparation, shipment or delivery, provided the Contractor is notified one (1) week in advance of the date of the visit.

1.8 Title

Adequate documents for securing the buses in the name of Miami- Dade County, Florida, 2225 N. W. 72nd Avenue, Miami, Florida 33122 shall be provided to MDT at the time of delivery. Following Final Acceptance of each bus, the Contractor warrants that the title shall pass to Miami-Dade County free and clear of all liens, mortgages and encumbrances, financing statements, security agreements, claims, and demands of any character.

1.9 Service and Parts

1.9.1 Engineers

The Contractor shall, at its own expense, have a competent engineering representative(s) available on request to assist MDT's staff in the solution of engineering or design problems within the scope of the specifications that may arise for five (5) years from the date of acceptance of its last purchased bus. This does not relieve the Contractor of responsibilities under Part III: Warranty Provisions.

1.9.2 Spare Parts

The Contractor shall guarantee the availability of replacement parts for these buses for at least a seven (7) year period after the date of Final Acceptance. Spare parts shall be interchangeable with the original equipment and shall be manufactured in accordance with the quality assurance provisions of this Contract.

A parts list containing all bus parts supplied by subcontractors, and other vendors to the Contractor, shall be provided at the time of delivery of the bus(s). This list will contain the recommended order quantity, quantity used per bus, Contractor's part number, description and list price. However, if any part (s) ordered by MDT are not received within 24 hours and a bus is out of service due to lack of part (s), then the Contractor will provide MDT with the Original Equipment Manufacturers (OEM) part number, name, and address within 8 hours following the MDT request.

1.9.3 Parts Provisioning Package

The Contractor shall also furnish and MDC may elect to purchase spare parts, components, modules, consumable, expendable and accessories (hereinafter "parts"), not specifically identified in this contract document, in accordance with the following:

No later than one hundred twenty (120) calendar days prior to delivery of the first production bus, the Contractor shall deliver to MDC a "parts provisioning package" which shall consist of the following:

A recommendation by the Contractor as to the individual quantities for all parts which will be required to support the buses purchased herein during the following periods of operation; twelve (12) months, twenty four (24) months, and thirty six (36) months.

With respect to each part as to which a recommendation is made, the Contractor shall provide MDC with the Contractor's "net bus selling price" for each such item as of the date of the parts provisioning package.

Subsequent to receipt of the parts provisioning package, MDC shall advise the Contractor within ninety (90) calendar days of the quantities of such parts, if any, up to the recommended quantities, which it elects to purchase for the buses purchased hereunder. The price for any such quantities shall be the "bus net selling price" as set forth in the parts provisioning package.

MDC shall have the right at any time after two (2) years from the date of delivery of the parts hereunder to return any unused part(s) purchased hereunder. The Contractor shall reimburse MDC for each part returned hereunder at the price paid by MDC. Any such parts returned by MDC shall be returned to the Contractor freight pre-paid.

Delivery of any parts purchased by MDC hereunder shall commence within thirty (30) calendar days for expendable parts and one hundred twenty (120) calendar days for all other parts.

1.10 Materials/Accessories Responsibility

The Contractor shall be responsible for all materials and workmanship in the construction of the bus and all accessories used, whether the same are manufactured by the Contractor or purchased from its suppliers. This provision excludes equipment leased or supplied by MDT, except

insofar as such equipment is damaged by the failure of a part or component for which the Contractor is responsible or except insofar as the damage to such equipment is caused by the Contractor during the manufacture of the buses.

1.11 Interchangeability

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

1.12 Payment Schedule

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

The Contractor shall be responsible for any and all taxes related to the manufacture and sale of buses, spare parts, etc.

All payments shall be made as provided herein, less any moneys to be withheld as provided below and less any amounts for damages in accordance with Part II, Section 1.18.

The County shall make payments for spare parts and or equipment at the unit prices itemized in the Bid/Proposal Forms (Bid or Proposal Prices), upon the delivery and acceptance of said spare parts and or equipment and within thirty (30) calendar- days of receipt of a proper invoice. Title for spare parts and or equipment shall transfer to the County upon payment. Said title shall be free of all encumbrances.

1.13 Contractor's Invoices

Contractor's invoices shall be submitted to the following address:

MDT Controller's Division
P. O. Box 010791
Miami, Florida 33101-0791
Attention: Accounts Payable

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The Contractor's invoice shall include:

Contract number
Line item number invoiced
Number of spare parts/equipment involved, if applicable
Model and serial number of bus invoiced, if applicable
Unit and total prices by line item number
Total invoice amount

1.14 Delays

1.14.1 Unavoidable Delays

The Contractor shall not be liable if performance failure arises out of causes beyond the control and without the fault or negligence of the Contractor ("unavoidable delay"), including, but not limited to, acts of God, war, fires, floods, trade embargo and freight embargo. A delay is unavoidable only if the delay was not reasonably expected to occur in connection with or during the Contractor's performance, and was not caused directly or substantially by acts, omissions, negligence, or mistakes of the Contractor, the Contractor's suppliers, or their agents, and was substantial and in fact caused the Contractor to miss delivery dates, and could not adequately have been guarded against by contractual or legal means. Should a performance failure occur, it will be the responsibility of the Contractor to notify the Contracting Officer in writing and submit proof of the circumstances for non-performance in accordance with Part II, Sections 1.14.1 and 1.14.2, Notification of Unavoidable Delay and Request for Extension. Immediately following the resolution of circumstances responsible for non-performance, the Contractor must re-negotiate delivery schedule unless the Contract has been terminated pursuant to Part I, Sections 1.36.1 or 1.36.2, Termination for Convenience of MDC and Termination for Default.

1.14.2 Notification of Delay

The Contractor shall notify the Contracting Officer as soon as the Contractor has, or should have, knowledge that an event has occurred which will delay deliveries. Within five (5) calendar days, the Contractor shall confirm such notice in writing furnishing as much detail as is available.

1.14.3 Request for Extension of Time Due to Unavoidable Delays

The Contractor agrees to supply, as soon as such data are available, any reasonable proofs that are required by the Contracting Officer to make a decision on any Requests for Extension. The Contracting Officer shall examine the request and any documents supplied by the Contractor and shall determine if the Contractor is entitled to an extension and the duration of such extension. The Contracting Officer shall notify the Contractor of his/her decision in writing.

It is expressly understood and agreed that the Contractor shall not be entitled to damages or compensation, and shall not be reimbursed for losses on account of delays resulting from any cause under this provision.

1.15 Price Adjustment for Regulatory Changes

If price adjustment is indicated, either upward or downward, it shall be negotiated between MDT and the Contractor for changes that are mandatory as a result of legislation or regulations that are promulgated and become effective between the date of contract award and the date of manufacture. Such price adjustment may be audited, where required.

1.16 Price Redetermination-Prospective and Notice to Proceed

General

The unit prices and the total price stated in this Contract shall be periodically redetermined in accordance with this clause, except that the prices for supplies and services ordered by issuance of Notice To Proceed before the first effective date of price redetermination shall remain fixed and in no event shall the total amount paid under this Contract exceed any ceiling price included in the Contract.

1.16.1 Price Redetermination Periods

For the purpose of price redetermination, performance of this Contract is divided into successive periods. These periods shall coincide with the calendar year starting on January 1 and ending December 31. Any buses ordered by issuance of Notice To Proceed prior to the calendar year beginning January 1, 2004, shall be at the base contract price and will not be subject to price redetermination. Beginning January 1, 2005, all buses ordered by issuance of Notice To Proceed during each calendar year shall be based on the price redetermination computed using the specified index value for the month of December of the preceding year.

1.16.2 Data Submission

Not more than forty five (45) calendar days after the first day of each redetermination period, the Contractor shall submit proposed prices for supplies or services that may be ordered by issuance of Notice To Proceed during that period and sufficient data to support the accuracy of the price computations. If the Contractor fails to submit the data required above, within the time specified, MDC may suspend payments under this Contract until the data are furnished. In the event that the Producer Price Index used in Price Redetermination is adjusted or corrected within the first four (4) months of the period, said adjustment will apply retroactively to include the entire period.

1.16.3 Computations Of Prices

Price redetermination shall be based on the U.S. Department of Labor, Bureau of Labor Statistics Producer Price Index as published in the monthly periodical "Producer Price Indexes" for commodity code 1413 Truck and Bus Bodies. The index base shall be taken from the latest version of Producer Price Index for the month of December 2004. In the event that the index for commodity 1413 is discontinued or unavailable, then the Producer Price Index for commodity 141 Motor Vehicles and Equipment shall be substituted. Price redetermination shall be

performed using the latest version of the Producer Price Index for the month of December using the simple percentage method. Price adjustment shall be on a per unit basis as follows:

Base Price X Index for current adjustment = Adjusted Price
Index for December 2004

However, the Adjusted Price shall not exceed the previous year's price by more than five (5%) and shall not exceed the Base Price by more than twenty (20%).

The price adjustment shall apply to all vehicles, spare parts, and special equipment ordered by issuance of Notice To Proceed in the calendar year regardless of actual delivery. Since the Producer Price Index is subject to corrections for a period of four months, the Producer Price Index for December shall be considered final as published in May. In the event that the base for the published indexes changes, the subject calculations shall be converted using the officially released Rebasing factors provided by the Bureau of Labor Statistics.

1.16.4 Contract Modification

Each redetermination of prices shall be evidenced by a modification to this contract, signed by the Contractor and MDC stating the redetermined prices that apply during the redetermination period.

1.16.5 Disagreements

If the Contractor and MDC fail to agree upon redetermined prices for any price redetermination period within sixty (60) calendar days after the date on which the required data are to be submitted, MDC shall promptly issue a decision in accordance with the Disputes clause. Pending final settlement of the disagreement on appeal, by failure to appeal, or by agreement, this decision shall be treated as an executed contract modification. Pending final settlement, prices for subsequent periods, if any, shall continue to be redetermined as provided in this clause.

1.16.6 Termination

If this Contract is terminated, prices shall continue to be established in accordance with this clause for completed supplies and services accepted by MDC and those supplies and services not terminated under a partial termination. All other elements of the termination shall be resolved in accordance with other applicable clauses of this Contract.

1.17 Modifications to Contract

1.17.1 Written Change Orders

Oral change orders are not permitted. No change in this Contract shall be made unless the Contracting Officer gives his prior written approval. Therefore, the Contractor shall be liable for all costs resulting from, and/or for, satisfactorily correcting any specification change not properly ordered by written modification to the Contract and signed by the Director of MDT.

1.17.2 Change Order Procedure

A written change order request can be originated by MDT or the Contractor. Within thirty (30) calendar days after receipt of a written change order request to modify the Contract, the Contractor shall submit to the Director of MDT a detailed price and schedule proposal for the work to be performed. This Proposal shall be accepted or modified by negotiations between the Contractor and the Director of MDT. At that time, a detailed written change order, detailing the modifications, shall be executed in writing by both parties. Disagreements that cannot be resolved within negotiations shall be resolved in accordance with the Contract disputes clause. Regardless of any disputes, the Contractor shall proceed with the work specified in the written change order.

1.18 Damages

It is mutually understood and agreed by and between the parties to the Contract that time is of the essence with respect to the completion of the work and that in case of any failure on the part of the Contractor to complete the Work within the time specified and in accordance with the terms and conditions of the Contract, or any extension thereof, except for any excusable delays as provided in "Unavoidable Delays" (Part II, Section 1.14.1), the County will be damaged thereby. The damages to be paid MDC are both compensatory damages and liquidated damages.

1.18.1 Compensatory Damages

Those damages which will serve to compensate MDC for direct losses incurred as a result of failure on the part of the Contractor to complete the Work within the time specified and in accordance with the terms and conditions of the Contract, or any extension thereof, except for any excusable delays as provided in extension thereof, except for any excusable delays as provided in "Unavoidable Delays" (Part II. Section 1.14.1), and which are definite and can be calculated with reasonable accuracy shall be termed Compensatory Damages. Compensatory Damages due the County shall include, but not be limited to, the following losses:

A. Added maintenance costs incurred by the County to maintain existing MDT fleet.
B. Cost to obtain additional buses to meet fleet requirements.
C. Additional fuel consumption by existing MDT fleet.
D. Increased contract administrative costs
E. Fines imposed for non-compliance with existing laws, ordinances and regulations.

1.18.2 Liquidated Damages

Those damages which are difficult if not impossible to calculate and prove shall be termed Liquidated Damages. Liquidated Damages may include such losses as loss of ridership resulting from reduced confidence in the transit system, negative publicity, loss of public good will as a result of reduced reliability and decreased performance levels.

1.18.3 Liquidated and Compensatory Damages for Late Delivery and Non-Acceptance of Transit Buses

If the Contractor fails to deliver the unit(s) complete per specification and ready for operation within the time (delivery schedule) specified in the Notice to Proceed and paragraph 1.1.6, it is understood and the Contractor agrees that the amount of one hundred ($100.00) per unit per calendar day to a maximum ten thousand ($10,000.00) per unit may be deducted by MDC from monies due the Contractor for each intervening calendar day of Late Delivery or Non-Acceptance, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any Compensatory Damages incurred by MDC.

Late delivery of buses received on a Monday or the first work day following a holiday will not be assessed liquidated damages for the prior weekend or holiday.

Should the bus fail Final Acceptance Tests, the liquidated damages shall again become assessable beginning on the date of written Notification of Nonacceptance until the defects are corrected and the bus is again presented for acceptance.

The Contractor shall not be liable for any Liquidated or Compensatory Damages if performance failure arises out of causes beyond the control and without the fault or negligence of the Contractor including but not limited to acts of God, war, fires, floods, trade embargo, freight embargo etc. Should a performance failure occur, it will be the responsibility of the Contractor to notify the Contracting Officer in writing and submit proof of the circumstances for non-performance in accordance with paragraphs 2.8.1 and 2.8.2, Notification of Delay and Request for Extension. Immediately following the resolution of circumstances responsible for non-performance, the Contractor must re-negotiate delivery schedule.

1.18.4 Liquidated and Compensatory Damages for Late Delivery of Spare Parts and Ancillary Equipment

If the Contractor fails to deliver the spare parts and ancillary equipment listed in Part II, Section 1.1.2 of this Contract in accordance with the terms stated, the Contractor agrees that the amount of one hundred ($100) per calendar day may be deducted by MDC from monies due the Contractor, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any compensatory damages incurred by MDC.

1.18.5 Liquidated and Compensatory Damages for Failure to Deliver Manuals

If the Contractor fails to deliver manuals as described in Part III, the Contractor agrees that the amount of five thousand ($5,000.00) dollars may be deducted by MDC from monies due the Contractor, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any Compensatory Damages incurred by MDC.

1.18.6 Liquidated and Compensatory Damages for Late Warranty Repairs

If the Contractor fails to complete repairs within the time periods stated in Part III the Contractor agrees that the amount of one hundred ($100.00) dollars per calendar day per bus, to include

weekends and holidays for every day the equipment remains out of service may be deducted by MDC from monies due the Contractor, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any Compensatory Damages incurred by MDC.

1.18.7 Liquidated and Compensatory Damages for Late Submittal for the Post Delivery Buy America Data

If the Contractor fails to submit the Post-Delivery Buy America data as described in Part I, Section 1.30 of this Contract, the Contractor agrees that the amount of one hundred ($100.00) dollars per calendar day of such delay may be deducted by Miami-Dade County from monies due the Contractor, not as a penalty, but as liquidated damages. Additionally, the Contractor shall be liable for any compensatory damages incurred by Miami-Dade County.

1.18.8 Payment of Damages

The Contractor hereby agrees to pay the liquidated and compensatory damages, and not by way of penalty, to MDC and further authorizes MDC to deduct the amount of the damages from money due the Contractor under the Contract, computed as aforesaid. If the monies due the Contractor are insufficient to cover the amount due and owing to the County, the Contractor shall pay the County the difference or the entire amount, whichever may be the case, within thirty (30) calendar days after receipt of a written demand by the Contracting Officer.

Interest at the rate of 1.5% per month (18% per annum) may be added to the amount of damages which are unpaid thirty (30) calendar days after receipt by the Contractor of a written demand by the Contracting Officer. MDC, at its sole discretion, may in some cases allow damage payments to be made later than is stated above. Doing so shall not be considered as a waiver on the part of MDC of any rights under this Contract.

1.19 Price Adjustment As a Result of a Change in Fareboxes

At some time during the term of this contract, MDT intends to change the model of the fareboxes in its entire fleet from a Cubic Western, Phase III farebox to a Cubic Western Odessey farebox. Consequently, Notices to Proceed issued under this contract will specify the type of farebox to be installed in buses subject to that Notice to Proceed. An adjustment in the price of the buses, either up or down as appropriate, shall be made for buses purchased with the Cubic Western Oddessey farebox. The price adjustment will be made as follows:

1. If there will be a change in the farebox model, MDT shall notify the contractor, in writing, of the model of farebox that will be specified in the next Notice to Proceed a minimum of thirty days prior to the issuance of that Notice.
2. Within fourteen days following notification from MDT, the contractor shall notify MDT of the price change, either up or down, that the contractor will make in the price of each bus as a result of the change in the farebox model. In that notice the contractor shall provide to MDT the cost for the new type of farebox and, separately, any change in the price resulting from the installation process.
3. MDT shall, at its sole discretion, have the option to:
   a) Require the contractor to purchase and install the new type of farebox and make an

adjustment in the price of the buses included in subsequent Notices to Proceed. Such adjustment would be calculated by adding or subtracting, as appropriate, (adding, if the cost of the new farebox is greater and subtracting if the cost of the new farebox is less) the difference in the cost of the old and new fareboxes and any difference resulting from changes in installation costs.

b) Require the contractor to purchase the fareboxes from the farebox manufacturer at a price negotiated by MDT. The price adjustment would be made as described in a) above.

c) MDT will purchase the fareboxes and provide them to the contractor. The price of the fareboxes initially installed (Cubic Western, phase III) as specified above, will be subtracted from the cost of the buses in subsequent Notices to Proceed. Any price changes resulting from the installation process will also be adjusted.

1.20 DC Furnished Property

Title to MDC furnished property shall remain in MDC. The Contractor shall maintain adequate property control records of MDC furnished property in accordance with sound industrial practice. Unless otherwise provided in this Contract, the Contractor, upon delivery to him of any MDC furnished property, assumes the risk of, and shall be responsible for, any loss thereof or damage thereto except for reasonable wear and tear, and except to the extent that such property is consumed in the performance of this Contract.

The Contractor shall, upon completion of this Contract, prepare for shipment, deliver F.O.B. origin, all MDC furnished property not utilized in the performance of this Contract or not theretofore delivered to MDC, as may be directed or authorized by the Contracting Officer.

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MIAMI-DADE TRANSIT
SMALL LOW FLOOR BUSES

PART III
TECHNICAL SPECIFICATIONS

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MIAMI-DADE TRANSIT
SMALL LOW FLOOR BUSES

PART III
TECHNICAL SPECIFICATIONS

1.0 GENERAL

1.1 Scope

These technical specifications provide a general description and define the requirements for furnishing 400 small low floor buses to MDT for use in transit service. MDT reserves the option to purchase an additional quantity of buses, up to 400 above the base quantity, for a period of five years from award of Contract.

The buses are to be of durable, heavy-duty construction with an expected minimum life of ten (10) years/350,000 miles. The bus must be FTA fundable on no less than a ten-year cycle. Buses with a minimum life of twelve (12) years/500,000 miles may also be proposed. The longer bus life will be taken into consideration in the evaluation/selection process.

These buses shall meet MDT's needs for a small size transit bus and are intended for the widest possible spectrum of passengers, including children, adults, the elderly, and persons with disabilities.

1.2 Vehicle Description

Vehicle shall be a new, current year production diesel powered, air-conditioned, low floor bus. It shall meet all applicable Federal, State, and local requirements. The bus shall have a modern, streamlined, aerodynamic, futuristic appearance with up-to-date, innovative passenger accommodations. Passenger seating capacity shall be twenty-eight (28) seated ambulatory minimum and shall have two wheelchair positions. The design of the vehicle shall reflect the highest standards of concern for the welfare and safety of the elderly and persons with disabilities.

1.3 Definitions

The following are definitions of special terms used in Part III

(1) dBA. Decibels with reference to 0.0002 microbar as measured on the "A" scale.

(2) Audible Discrete Frequency. An audible discrete frequency is determined to exist if the sound power level in any 1/3-octave band exceeds the average of the sound power levels of the two adjacent 1/3-octave bands by 4 decibels (dB) or more.

(3) Standee Line. A line marked across the bus aisle to designate the forward area that passengers may not occupy when the bus is moving.

(4) Free Floor Space. Floor area available to standees, excluding the area under seats, area occupied by feet of seated passengers, the vestibule area forward of the standee line, and any floor space indicated by manufacturer as non-standee areas such as, the floor space "swept" by passenger doors during operation. Floor area of 1.5 square feet shall be allocated for the feet of each seated passenger that protrudes into the standee area.

(5) Curb Weight. Weight of vehicle, including maximum fuel, oil and coolant; and all equipment required for operation and required by this Specification, but without passengers or operator.

(6) Seated Load. One hundred fifty pounds for every designed passenger seating position and for the operator.

(7) Gross Load. One hundred fifty pounds for every designed passenger seating position, for the operator, and for each 1.5 square feet of free floor space.

(8) SLW (Seated Load Weight). Curb weight plus seated load.

(9) GVW (Gross Vehicle Weight). Curb weight plus gross load.

(10) GVWR (Gross Vehicle Weight Rated). The maximum total weight as determined by the vehicle manufacturer, at which the vehicle can be safely and reliably operated for its intended purpose.

(11) GAWR (Gross Axle Weight Rated). The maximum total weight as determined by the axle manufacturer, at which the axle can be safely and reliably operated for its intended purpose.

(12) Heavy Heavy-Duty Diesel Engine (HHDD). Heavy heavy-duty diesel engines have sleeved cylinder liners, are designed for multiple rebuilds, and a rated horsepower that generally exceeds 250.

(13) Medium Heavy-Duty Diesel Engine (MHDD) Medium heavy-duty diesel engines may have sleeved or non-sleeved cylinder liners, may be designed for rebuild, and generally rated from 170 to 250 horsepower

(14) Operator's Eye Range. The 95th-percentile ellipse defined in SAE Recommended Practice J941, except that the height of the ellipse shall be determined from the seat at its reference height.

(15) Fireproof. Materials that will not burn or melt at temperatures less than 2,000°F.

(16) Fire Resistant. Materials that have a flame spread index less than 150 as measured in a radiant panel flame test per ASTM-E 162-90.

(17) Human Dimensions. The human dimensions used in Part III: Technical Specifications are defined in Humanscale 1/2/3, N. Diffrient, A. R. Tilley, J. C. Bardagiy, MIT Press.

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

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

where:

a = the resultant acceleration at the center of gravity of the head form expressed as a multiple of g, the acceleration of gravity.

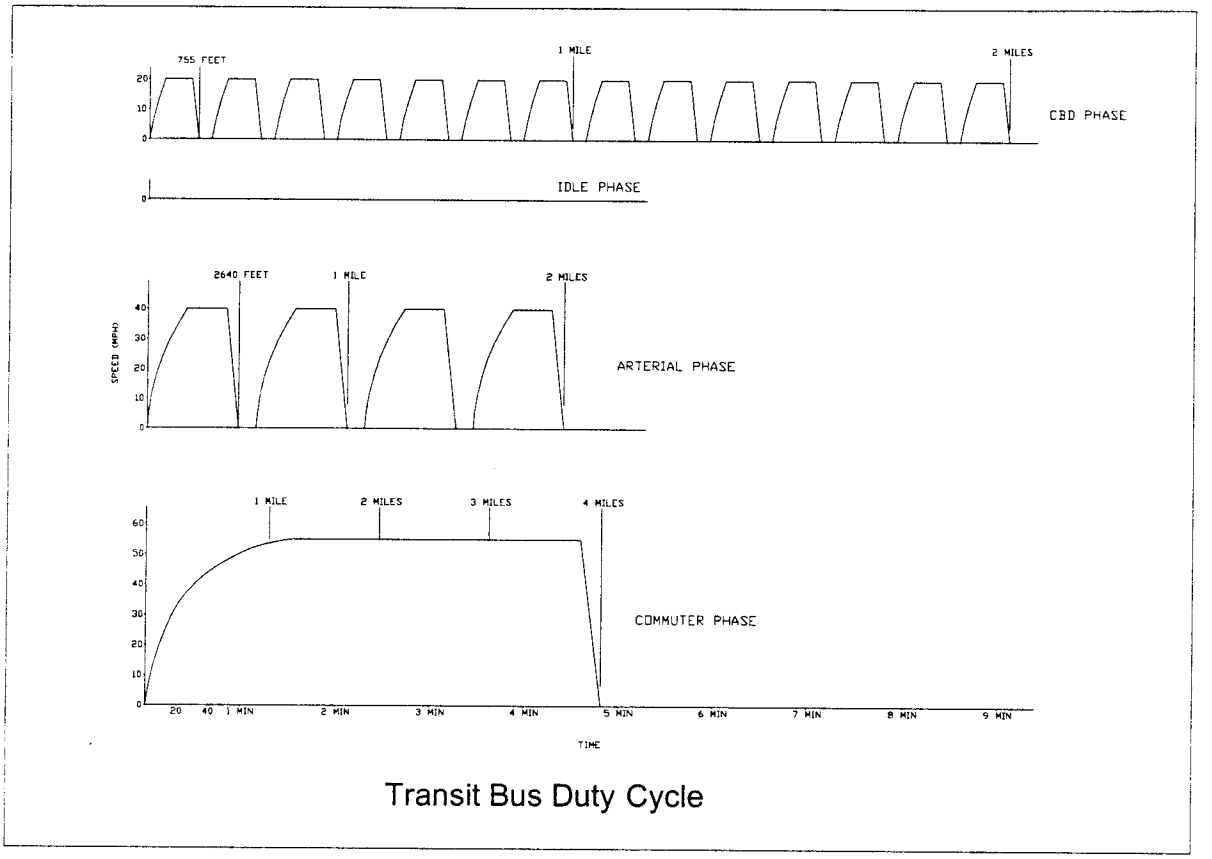
t_1 and t_2 = any two points in time during the impact.

(19) Baseline Configuration Bus. The bus described by Part III: Technical Specifications if no alternatives are selected. Signing, colors, the destination sign reading list and other information must be provided by the Procuring Agency in attachments to Part III: Technical Specifications.

(20) Alternative. An alternative specification condition to the baseline configuration bus. The Procuring Agency may define alternatives to the baseline configuration to satisfy local operating requirements. Alternatives for the baseline configuration will be clearly identified.

(21) 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 Bus 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
Total			14									47-10	51
Average Speed - 17.8 mph													



Transit Bus Duty Cycle

The bus shall be loaded to SLW and shall average approximately 18 mph while operating on this duty cycle. Operation shall continue regardless of the ambient temperature or weather conditions. The passenger doors shall be opened and closed at each stop, and the bus shall be knelt at each stop during the CBD phase. The braking profile shall be:

16 percent of the stops at 3 ft/sec/sec
50 percent of the stops at 6 ft/sec/sec
26 percent of the stops at 9 ft/sec/sec
8 percent of the stops at 12 ft/sec/sec

These percentages of stops shall be evenly distributed over the three phases of the duty cycle. For scheduling purposes, the average deceleration rate is assumed.

A High Density Urban (HDU) Operating Profile representative of operation in a highly populated urban area shall be applicable to the design of buses for Miami-Dade Transit. In addition to the above requirements, this profile shall be taken into account during the design of subsystems such as charging, air, brakes and radiator/coolers. The HDU profile consists of mostly CBD type operating with

some arterial, and minimal commuter. However, number of stops per mile and loading conditions may be greater than those specified for the CBD cycle. The HDU profile is characterized by the following:

Average Speed	9 to 10 mph
Average Idle Time	50%
Percent Time at 0 to 19 mph	80% range
Percent Time at 20 mph & above	20%

Average speed is defined as the miles traveled divided by the hours of engine operation. Much of the "idle" time is due to stop and go nature of the service of the HDU operation. The majority of this idle time is while the bus is in gear and stopped in traffic, or at bus stops as well as frequent brake applications per mile due to traffic congestion and traffic signals.

(22) Class of Failures. Classes of failures are described below.

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

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

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

d. Class 4: Bad Order. A failure that does not require removal of the bus from service during its assignments but does degrade bus operation. The failure shall be reported by operating personnel.

(23) Maintenance Personnel Skill Levels. Defined below are maintenance personnel skill levels used in Part III: Technical Specifications.

a. 5M: Specialist Mechanic or Class A Mechanic Leader
(equivalent to MDT – Bus Technician)
b. 4M: Journeyman or Class A Mechanic
(equivalent to MDT – Bus Mechanic 1 and 2)
c. 3M: Service Mechanic or Class B Servicer
(equivalent to MDT – Bus Mechanic 1 and 2)

d. 2M: Mechanic Helper or Bus Servicer
(equivalent to MDT – Bus Hostler)
e. 1M: Cleaner, Fueler, Oiler, Hostler, or Shifter
(equivalent to MDT – Bus Hostler)

Note: Whenever a specific time is indicated to access components or complete a task, it is assumed the vehicle is in the location where the work is to be performed. All necessary equipment is in its correct position (tools, jacks, vehicle lifts, lighting, fluid recovery systems, etc.) and ready for use.

(24) Standards. Standards referenced in Part III: Technical Specifications are the latest revisions unless otherwise stated.

(25) Wheelchair. A mobility aid belonging to any class of three or four-wheeled devices, usable indoors, designed for and used by individuals with mobility impairments, whether operated manually or powered. A "common wheelchair" is such a device that does not exceed 30 inches in width and 48 inches in length measured two inches above the ground, and does not weigh more than 600 pounds when occupied.

(26) Structure. The structure shall be defined as the basic body, including floor deck material and installation, load bearing external panels, structural components, axle mounting provisions and suspension beams and attachment points.

(27) Low Floor Bus. A bus which, between at least the front (entrance) and rear (exit) doors, has a floor sufficiently low and level so as to remove the need for steps in the aisle between the doors and in the vicinity of these doors.

For a bus with only a single front door, the floor between the front door and forward of the rear axle shall be sufficiently low and level so that steps in the aisle are not required between the front door and just forward of the rear axle or in the vicinity of the front door.

(28) Discrete Signals. A signal which can take only pre-defined values, usually of a binary 0 or 1 nature where 0 is battery ground potential and 1 is a defined battery positive potential.

(29) Analog Signals. A continuously variable signal that is solely dependent upon magnitude to express information content. Note: Analog signals are used to represent the state of variable devices such as rheostats, potentiometers, temperature probes, etc.

(30) Serial Data Signals. Serial data signals are a current loop based representation of ASCII or Alphanumeric data used for transferring information between devices by transmitting a sequence of individual bits in a pre-arranged order of significance. Note: An example is the communication that takes place between two or more electronic components with the ability to process and store information.

(31) Physical Layer. The first layer of the seven-layer International Standards Organization (ISO) Open Systems Interconnect (OSI) reference model. This provides the mechanical, electrical, functional and procedural characteristics required to gain access to the transmission medium (e.g., cable) and is responsible for transporting binary information between computerized systems.

1.4 Abbreviations

The following is a list of abbreviations used in Part III: Technical Specifications.

(1)	ADA	Americans with Disabilities Act
(2)	ANSI	American National Standards Institute
(3)	ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
(4)	ASTM	American Society for Testing and Materials
(5)	EMI	Electromagnetic Interference
(6)	EPA	Environmental Protection Agency
(7)	FMCSR	Federal Motor Carrier Safety Regulations
(8)	FMVSS	Federal Motor Vehicle Safety Standards
(9)	FTA	Federal Transit Administration
(10)	I/O	Input/Output
(11)	ISO	International Organization for Standardization
(12)	JIC	Joint Industrial Council
(13)	LED	Light Emitting Diode

(14) NHTSA National Highway Traffic Safety Administration

(15) OSHA Occupational Safety and Health Administration

(16) RFI Radio Frequency Interference

(17) SAE SAE International

(18) SPI Society of the Plastics Industry

(19) UL Underwriters Laboratories

(20) USDOT United States Department of Transportation

1.5 Referenced Publications

The documents or portions thereof referenced within this specification shall be considered part of the requirements of the specification. The edition indicated for each referenced document is the current edition, as of the date of the issuance of this specification.

1.6 Legal Requirements

The Contractor shall comply with all applicable Federal, state and local regulations. These shall include, but not be limited to, Federal ADA as well as state and local accessibility, safety and security requirements. Local regulations are defined as those below the state level.

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

The bus shall comply with Florida Department of Transportation (FDOT) Rule 14-90.007 and 14-90.008. (See Exhibit 1.)

In the event of any conflict between the requirements of this Specification and any applicable legal requirement, the legal requirement shall prevail. Technical requirements that exceed the legal requirements are not considered to conflict.

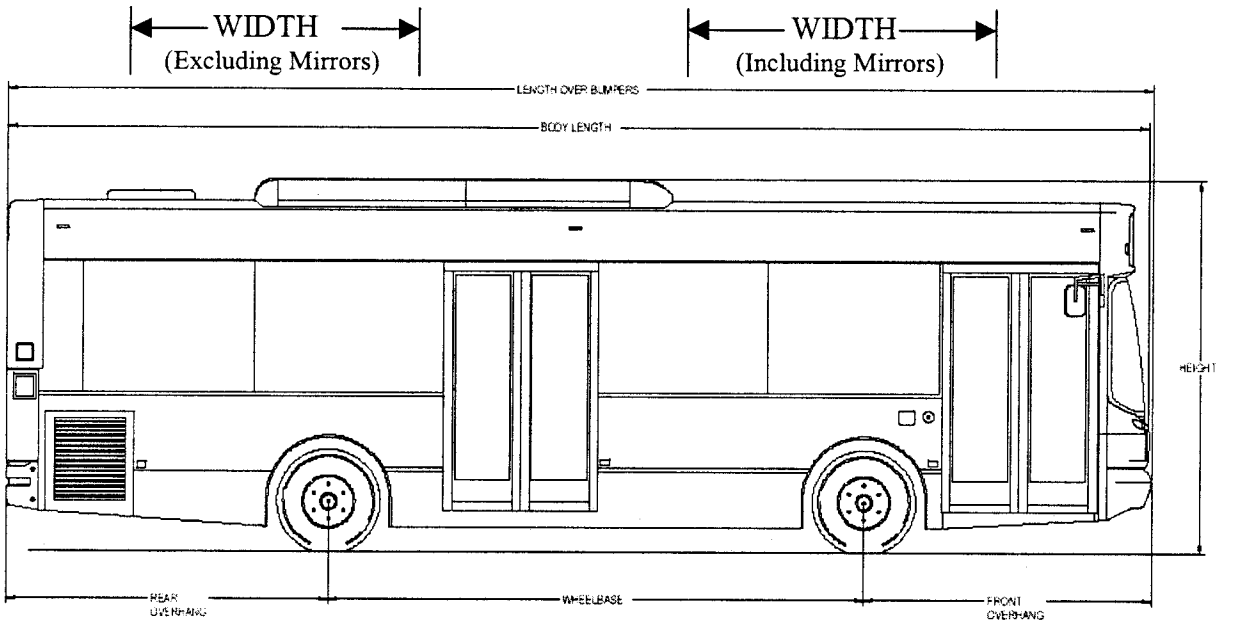
1.7 Overall Requirements

The contractor shall ensure that the application and installation of major bus sub-components and systems are compliant with all such sub-component vendors'

requirements and recommendations. Components used in the vehicle shall be of heavy-duty design and proven in transit service.

1.7.1 Dimensions

With the exceptions of exterior mirrors, marker and signal lights, fender skirts, wipers, ad frames and rubrail, the bus shall have the following overall dimensions as shown in the figure "Transit Bus Exterior Dimensions" at static conditions and design height.



TRANSIT BUS EXTERIOR DIMENSIONS

1.7.1.1 Length

Overall length of buses shall be less than thirty-two (32) feet measured from bumper to bumper.

1.7.1.2 Width

Overall width of buses, excluding mirrors, shall be no greater than one-hundred two (102) inches.

1.7.1.3 Height

Maximum overall height of buses, including all rigid roof mounted items such as A/C, exhaust, etc., shall not exceed one-hundred-twenty-eight (128) inches. The nominal height of buses excluding roof mounted items one-hundred-twenty-four (124) inches or less. Height measurements, including the heights specified below, are on a level surface with air suspension system operating at the design running height, with the bus on the manufacturer's recommended tires correctly inflated.

1.7.1.4 Height At Entry

The maximum acceptable entry step height shall be 14 inches. The maximum acceptable entry step height kneeled shall be 11 inches.

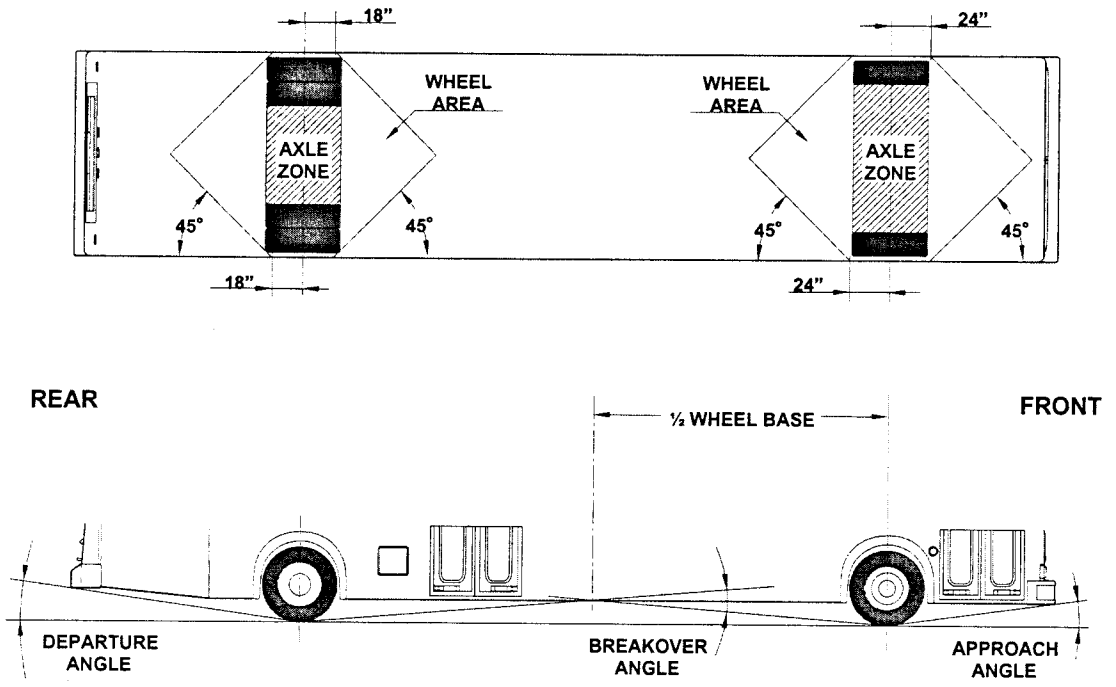
1.7.1.5 Floor Height

Height of the floor above the street shall be no more than 15½ inches measured at the centerline of the front doorway. The floor may be inclined along the longitudinal axis of the bus, and the incline shall be less than 3½ degrees off the horizontal except locally at the door where a maximum 5 degrees slope toward the door is allowed.

It shall be a design goal to reduce the floor height as low as possible to the street level to aid in the boarding and departure of passengers.

1.7.2 Clearances

The bus shall maintain the minimum clearance dimensions as shown in the figure "Transit Bus Minimum Road Clearance" and defined in SAE Standard J689, regardless of load up to the gross vehicle weight rating.



TRANSIT BUS MINIMUM ROAD CLEARANCE

1.7.2.1 Underbody Clearance

The bus shall maintain the minimum clearance dimensions as defined in SAE Standard J689, regardless of load up to the gross vehicle weight (GVW) rating except in kneeling position.

No part of the bus, other than the wheels, tires or mud flaps, shall touch a flat road surface in a stopped condition with a single tire or a dual set fully deflated.

1.7.2.1.1 Ground Clearance

Ground clearance shall be no less than eight-and-one-half (8½) inches except within the wheel area and axle zone. Ground clearance shall be maintained by air ride bags with leveling valves.

1.7.2.1.2 Axle Clearance

Axle zone clearance, which is the projected area between tires and wheels on the same axial centerline, shall be no less than five (5) inches.

1.7.2.1.3 Wheel Area Clearance

Wheel area clearance shall be no less than six-and-one-half (6 ½) inches for the parts fixed to the bus body and five (5) inches minimum for parts that move vertically with the axles.

1.7.2.2 Clearance Angles

Buses shall have a ramp clearance approach angle of no less than eight (8) degrees, a breakover angle of no less than eight (8) degrees, and a departure angle of no less than nine (9) degrees.

The approach angle is the angle measured between a line tangent to the front tire static loaded radius arc and the initial point of structural interference forward of the front tire to the ground.

The breakover angle is the angle measured between two lines tangent to the front and rear tire static loaded radius and intersecting at a point on the underside of the vehicle that defines the largest ramp over which the vehicle can roll.

The departure angle is the angle measured between a line tangent to the rear tire static loaded radius arc and the initial point of structural interference rearward of the rear tire to the ground.

1.7.2.3 Turning Radius

Outside body corner turning radius including the bus bumper shall not exceed thirty-six (36) feet.

1.7.3 Weight

It shall be a design goal to construct each bus as light in weight as possible without compromising of safety, integrity, durability, appearance, comfort or performance. The maximum curb weight shall be 22,000 lbs. The maximum GVWR shall be 30,000 lbs. The Gross Vehicle Weight shall not exceed the bus GVWR.

1.7.4 Service Life

Buses shall be designed and constructed to ensure a minimum service life of at least ten (10) years or 350,000 miles in revenue service.

1.7.5 Maintainability

Prime consideration shall be given to the routine problems of maintaining the buses. All bus components and systems, mechanical and electrical, which will require periodic physical work or inspection processes, shall be installed so that a minimum of time is consumed in gaining access to the critical areas. It shall not be necessary to disassemble portions of the bus structure and equipment, such as seats and flooring under seats, in order to gain access to these areas.

Each bus shall be designed to facilitate the disassembly, reassembly, servicing or maintenance thereof, by use of tools and items which are normally available as commercial standard items. Requirements of any special tools must have the concurrence of the MDT.

Test ports shall be provided for commonly checked functions on the bus such as air intake, exhaust, hydraulic, pneumatic, charge-air and engine cooling systems.

The body and structure of all buses shall be designed for ease of maintenance and repair. Individual panels or other equipment which may be damaged in normal service shall be repairable or replaceable. Ease of repair shall be related to the vulnerability of the item to damage in service.

The intervals for performance of all required periodic maintenance must conform with MDT's standard inspection intervals of 6,000 mi., 18,000 mi., and 54,000 mi.

1.7.6 Serviceability

The location for checking and adding fluids, or making adjustments to key components and systems, shall be convenient and easily accessible. Access doors for checking vital fluids on the inside of the bus shall be kept to a minimum. Easy access shall be provided for checking and addition of engine coolant, engine oil, transmission fluid, power steering fluid, windshield washer fluid, and air filter indicator check.

1.7.7 Interchangeability

Components with identical functions shall be interchangeable to the extent practicable. These components shall include, but not limited to, passenger window hardware, interior trim, lamps, lamp lenses, and seat assemblies. Components with non-identical functions shall not be, or appear to be, interchangeable. A component shall not be used in an application for which it was neither designed nor intended.

Any one component or unit used in the construction of these buses shall be an exact duplicate in design, manufacture, and assembly for each bus in each order group in this Contract.

1.7.8 Operating Environment

The bus shall achieve normal operation in temperature ranges of 20 degrees F. to 120 degrees F. at relative humidities between five (5) and one hundred (100) percent.

Speed, gradeability, and acceleration performance requirements shall be met at, or corrected to 85 degrees F., 29.00 inches Hg, and relative humidity of 65 percent.

1.7.9 Noise

1.7.9.1 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 and just prior to transmission upshift. The maximum noise level generated by the bus pulling away from a stop at full power shall not exceed 83 dBA. The bus-generated noise at curb idle shall not exceed 65 dBA. If the noise contains an audible discrete frequency, a penalty of 5 dBA shall be added to the sound level measured. All noise readings shall be taken 50 feet from, and perpendicular to, the centerline of the bus with all accessories operating. Instrumentation, test sites, and other general requirements shall be in accordance with SAE Standard J366. The pull away test shall begin with the front bumper even with the microphone. The curb idle test shall be conducted with the rear bumper even with the microphone. Proposers shall submit test information to MDT with request for approved equals. (See Exhibit)

1.7.9.2 Interior Noise

The combination of inner and outer panels and any material 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 the bus. 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 at any seat location in the bus shall not exceed 83 dBA and the operator 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 (4) 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 feet of the bus path. During the test, the ambient noise level in the test area shall be at least 10 dBA 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. Measurements to be submitted with requests for approved equals. (See Exhibit)

1.7.10 Fire Safety

The bus shall be designed and manufactured in accordance with all applicable fire safety and smoke emission regulations and FMVSS 302.

Materials used in the construction of the Passenger Compartment of the bus shall be in accordance with the Recommended Fire Safety Practices defined in FTA Docket 90A, dated October 20, 1993. Materials entirely enclosed from the passenger compartment, such as insulation within the sidewalls, need not comply. In addition, smaller components and items, such as seat grabrails, switch knobs and small light lenses, shall be exempt from this requirement.

1.7.11 Respect for the Environment

In the design and manufacture of the bus the Contractor shall make every effort to reduce the amount of potentially hazardous waste generated by the Procuring Agency when maintaining the bus in accordance with the procedures contained in the manufacturer's maintenance manuals. The manufacturer shall use, whenever possible, low mercury fluorescent lighting tubes, PCB free ballast units, cleanable filters (unless required otherwise by the Procuring Agency), and non-asbestos brake blocks and gaskets. In accordance with Section 6002 of the Resource Conservation and Recovery Act the Contractor shall use, whenever possible and allowed by the specifications, recycled materials in the manufacture of the bus.

1.7.12 Elderly and Disabled Passengers

The contractor shall comply with all applicable Federal requirements defined in the Americans with Disabilities Act, 49 CFR Part 38, and all state and local regulations regarding mobility-impaired persons.

2.0 PROPULSION SYSTEM

2.1 Performance

2.1.1 Top Speed

The top speed capability of the bus shall be 60 miles per hour on a straight level road at GVWR with all accessories operating.

2.1.2 Gradability

The propulsion system and drive train shall enable the bus to achieve and maintain a speed of 40 mph on a 2½ percent ascending grade and 7 mph on a 16 percent ascending grade. Gradability requirements shall be met on grades with a dry commercial asphalt or concrete pavement at GVWR with all accessories operating.

2.1.3 Acceleration

The buses shall be capable of achieving the following speeds in corresponding time intervals, starting from a stationary condition, on a level grade, all accessories operating, with a seated load weight (SLW) at 150 pound per passenger. Acceleration measurement shall commence when the accelerator is depressed (idle start).

Time (Seconds)	Speed (Miles per Hour)
5.0	10
10.8	20
20.0	30
31.0	40

The acceleration shall be sufficiently gradual and smooth to prevent throwing standing passengers off-balance. The rate of change of acceleration shall be minimized throughout the acceleration/ deceleration range and shall be no greater than 0.3 g/sec. This requirement shall be achieved regardless of driver action.

2.1.4 Range

The operating range of the bus when run on the design operating profile shall be at least 350 miles.

2.1.5 Fuel Economy

The bus shall achieve an average fuel economy of at least 5.0 miles per gallon when run on the Design Operating Profile loaded to SLW. Reference SAE J1376, Fuel Economy Measurement Test (Engineering Type) for Trucks and Buses. The engine shall be adjusted when delivered to provide optimized performance including fuel economy.

2.2 Powerplant

The power plant shall be mounted in a separate compartment. All power plant mounting shall be mechanically isolated to minimize transfer of vibration to the body structure. Mounts shall control movement of the power plant so as not to affect performance of belt driven accessories or cause strain in piping and wiring connections to the power plant. The power plant shall be arranged for accessibility for all routine maintenance. 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. Engine oil, transmission fluid, power steering fluid, hydraulic fluid and coolant fillers shall be arranged so as to ensure simple, efficient filling while tethering the cap and ensuring the filler is closed when filling is completed. All fluid fill locations shall be properly labeled to help ensure correct fluid is added and all fillers shall be easily accessible with standard funnels and automatic dispensing equipment. All filters shall be easily accessible and the filter bases shall be plumbed to assure correct reinstallation. All lubricant sumps shall be fitted with magnetic-type drain plugs.

An engine oil pressure gauge and coolant temperature gauge with drag needle shall be provided in the engine compartment. These gauges shall be easily read during service and mounted in an area where they shall not be damaged during minor or major repairs.

Engine compartment lighting shall be provided to adequately illuminate the area for nighttime service, emergency repairs, or adjustments. Sealed lamp assemblies shall be provided and shall be controlled by a switch located near the rear start controls in the engine compartment

2.2.1 Automatic Fire Suppression

The power plant compartment shall be protected by a Jomarr Vehicle Thermatic Extinguisher System Model VT-20 automatic fire suppression system. The system

shall contain a minimum of 20 pounds of ABC agent, NAF S-111. Four discharge nozzles shall be strategically located in the engine compartment and upper rear compartment. Stainless steel or copper lines shall be used.

The automatic detection and actuation system shall provide 24 hour continuous protection. The system shall shut down the engine when activated. If the system is discharged, a warning lamp mounted on the instrument panel shall light up and an audible alarm shall sound to alert the driver. MDT is to approve location of nozzles and canister prior to production.

2.2.2 Engine

The bus shall be powered by a rear mounted medium heavy duty diesel engine (MHDD) or a heavy heavy duty diesel engine (HHDD). If the MHDD is provided it shall be a turbocharged Cummins ISB02 5.9 liter, 6 cylinder, 4 cycle engine, a turbocharged Mercedes Benz 906, 6.37 liter, 6 cylinder, 4 cycle engine, or a turbocharged Mercedes Benz 904, 4.25 liter, 4 cylinder, 4 cycle engine. If the HHDD is provided it shall be a turbocharged Cummins ISL 8.9/8.3 liter, 6 cylinder, 4 cycle engine.

The engine shall comply with all Federal, State, and Local emission standards applicable at the time of manufacture.

The engine shall meet all requirements of Part III Technical Specifications, including applicable emissions standards, when operating on No. 1 or 2 diesel fuel, as certified by the engine manufacturer.

Certification

The Contractor shall furnish with his proposal, written certification of the following items:

The horsepower of the vehicle is adequate for the speed range and terrain in which it will be required to operate and also to meet the demands of all auxiliary power equipment.

The engine meets all Federal, State, and Local emission standards in effect at time of manufacture.

2.2.2.1 Engine Controls

The engine shall be equipped with an electronically controlled management system, compatible with either 12 or 24-volt power distribution. The engine

control system shall be capable of transmitting and receiving electronic inputs and data from other powerplant/drivetrain components, and broadcasting that data to other vehicle systems. Communication between electronic powerplant/drivetrain components and other vehicle systems shall be made using the Vehicle Area Network.. The engine's electronic management system shall monitor operating conditions and provide instantaneous adjustments to optimize both engine and bus performance. The system shall be programmable to allow optimization of engine performance.

The engine control system shall have onboard diagnostic capabilities able to monitor vital engine functions, store and time stamp out of parameter conditions in memory, and communicate faults and vital conditions to service personnel. Diagnostic reader device connector ports and laptop computer ports, suitably protected against dirt and moisture, shall be provided in operator's area and near or inside engine compartment. The diagnostic ports shall be connected to the J2496 Vehicle Area Network described in Part III Technical Specifications, so that data provided to the port is also accessible to other on-board devices. The on-board diagnostic system shall inform the operator via visual and/or audible alarms when out-of-parameter conditions exist for vital engine functions.

2.2.2.1.1 Engine Protection

The engine control system shall protect the engine against progressive damage. The system shall monitor conditions critical for safe operation and automatically derate power and/or speed and initiate engine shutdown as needed. The on-board diagnostic system, as described in Section 4.9.4.7.2.3, shall trigger an audible alarm and warning light to signal the operator when the engine control unit detects a malfunction and the engine protection system is activated.

Automatic shutdown shall only occur when parameters established for the functions below are exceeded:

Coolant Level
Coolant Temperature
Oil Pressure
Oil Temperature
and when the Fire Suppression system is discharged

A control shall be available to the operator, to allow temporary override (30-45 seconds) of the engine protection/shutdown system if engine power is required to move the bus in emergency conditions.

2.2.2.1.2 Fast Idle

The fast idle device shall be activated and controlled automatically by the engine control system. This device will operate only when the transmission is in neutral.

2.2.2.1.3 Throttle Interlock

Engine throttle operation shall be inhibited, through interlocks, whenever:

1. A passenger door is open
2. The vehicle is kneeled
3. Wheelchair ramp is in operation

2.2.2.1.4 Throttle Control Safety

Failure of the engine throttle control shall not result in an unsafe condition. Loss of air or electrical throttle control shall inhibit throttle.

2.2.2.1.5 Starter Protection

The engine starter shall be protected by an interlock that prevents its engagement when the engine is running.

The starter shall protected by an interlock that prevents its engagement when the transmission is not in neutral (or park).

The starter motor shall be protected from overheat from extended cranking by a timer in the programmable multiplexing system. If a timer cannot be provided, the starter shall be equipped with built-in thermal protection.

2.2.2.1.6 Rear Engine Controls

Engine start/run and throttle controls shall be provided in the powerplant compartment at the rear of the bus to facilitate engine maintenance and diagnostics.

2.2.2.2 Engine Lubrication System

Engine oil system shall incorporate a full flow spin-on filter and a magnetic hex head drain plug in the sump. A running level dip stick shall be provided. A Probalizer gauge plug shall be provided on a main or bypass filter oil line before the filter for oil sampling.

2.2.3 Cooling System

The cooling systems shall be of sufficient size to maintain all engine and transmission fluids and engine intake air at safe, continuous operating temperatures during the most severe operations possible and in accordance with engine and transmission manufacturers' cooling system requirements. The cooling system fan control should sense the temperatures of the operating fluids and the intake air and if either is above safe operating conditions the cooling fan should be engaged. The fan control system shall be designed with a fail-safe mode of "fan on."

2.2.3.1 Engine Cooling

The engine shall be cooled by a water-based, pressure type, cooling system that does not permit boiling or coolant loss during the operations. The cooling system shall have an ambient capacity of at least 120°F with water as coolant while under full load and at sea level operation.

Engine thermostats shall be easily accessible for replacement. When the engine manufacturer recommends coolant filter(s), shutoff valves shall allow filter replacement without coolant loss. Valves shall permit complete shutoff of lines for the heating and defroster units, and water booster pumps. 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 stainless steel surge tank shall be mounted in close proximity to the radiator and shall be equipped with sight glass to determine satisfactory engine coolant level, manual pressure relief valve of the spring loaded button type to safely release pressure or vacuum in the cooling system, and safety type filler cap to add coolant. The sight glass, pressure relief valve, and fill cap shall be no more than 60 inches above the ground and shall be accessible by opening one of the engine compartment's access doors.

An electronic low coolant sensor electrically connected to the water level-warning light shall be provided.

Radiator shall be of adequate size to prevent engine overheating. The radiator shall have a maximum of ten (10) non-louvered plate fins per inch. Fins shall be hemmed on outer face to increase bending resistance. Radiator shall be constructed with welded tube cores and brass or stainless steel removable bolted top and bottom tanks and inlet and outlet fittings. Bottom tank shall be equipped with a wing type drain cock. A vent line to engine water manifold with shut-off valve shall be provided to facilitate bleeding of engine.

The radiator shall be designed so a mechanic can gain access to a substantial portion of the side facing the engine for the purpose of cleaning the radiator in five minutes or less.

The tube and core construction shall not allow any solder in contact with the coolant. The radiator must be free from any evidence of solder bloom for ten (10) years.

Radiator piping shall be stainless steel or brass tubing and, if practicable, hoses shall be eliminated. Necessary hoses shall be made of premium silicone rubber that is impervious to all bus fluids and shall have a polyester cover for abrasion protection. All hoses shall be as short as practicable. All hoses shall be secured with premium, stainless steel constant torque (Breeze) clamps that provide a complete 360° seal. The clamps shall maintain a constant tension at all times, expanding and contracting with the hose in response to temperature changes and aging of the hose material.

Cooling system shall be filled with Shell Rotella Long Life Coolant/Antifreeze (LLC) and deionized water in a 50/50 mixture ratio. Buses will be delivered to MDT with only deionized water and Shell Rotella LLC in the cooling system. No bus will be accepted by MDT that has any conventional anti-freeze or other conditioners or additives in the cooling system.

The cooling fan shall be temperature controlled, allowing the engine to reach operating temperature quickly. The temperature-controlled fan shall idle or not be driven when the coolant temperature falls below the minimum level recommended by the engine manufacturer. If the fan is belt driven, an automatic belt tensioner shall be provided.

No heat producing components or climate control system components shall be mounted between the engine cooling air intake aperture and the radiator.

2.2.3.2 Charge Air Cooling

The charge air cooling system shall provide maximum air intake temperature reduction with minimal pressure loss. The charge air radiator shall be sized and positioned to meet engine manufacturer's requirements. The charge air radiator shall not be stacked ahead or behind the engine radiator and shall be positioned as close to the engine as possible unless integrated with the radiator. Air ducting and fittings shall be protected against heat sources, and shall be configured to minimize restrictions and maintain sealing integrity.

Charge air piping and fittings shall be designed to minimize air restrictions and leaks. Piping shall be as short as possible and the number of bends shall be minimized. Bend radii shall be maximized to meet the pressure drop and temperature rise requirements of the engine manufacturers. The cross section of all charge air piping shall not be less than the cross section of the intake manifold inlet. Any change in pipe diameter shall be gradual to ensure a smooth passage of air and to minimize restrictions. Piping shall be routed away from exhaust manifolds and other heat sources, and shielded as required to meet the temperature rise requirements of the engine manufacturer.

Charge air piping shall be constructed of stainless steel, aluminized steel or anodized aluminum, except between the air filter and turbocharger inlet where piping may be constructed of fiberglass. Connections between all charge air piping sections shall be sealed with a short section of reinforced hose and secured with stainless steel, constant tension clamps that provide a complete 360° seal.

The radiator and charge air cooler shall be of durable corrosion-resistant construction and shall be designed to withstand thermal fatigue and vibration associated with the installed configuration.

The design of the engine cooling system and air to air heat exchanger must be reviewed and approved by the engine manufacturer. Use 120 degree Fahrenheit ambient temperature for design criteria. Approval of the design and performance of the system by the engine manufacturer must be submitted with the proposal along with the design calculations, heat loads, and performance graphs of the radiator, air to air cooler, fan, transmission heat exchanger, and other equipment used in the design.

2.2.3.3 Transmission Cooling

The transmission shall be cooled by a separate heat exchanger sized to maintain operating fluid within the transmission manufacturer's recommended parameters of flow, pressure and temperature. The transmission cooling system shall be matched to retarder and engine cooling systems to ensure that all operating fluids remain within recommended temperature limits established by each component manufacturer at an ambient temperature of 120 degrees Fahrenheit.

2.2.4 Air Induction System

The engine air intake shall be through a removable screen opening at the upper rear corner of the bus. The location of the air intake system shall be designed to minimize the entry of dust and debris and maximize the life of the air filter. The screen opening and the air duct to the cleaner shall be isolated from the primary

body structure for noise attenuation. An air cleaner with a dry type filter element, with graduated restriction indicator, (Filter Minder by Engineer Products Company or approved equal) and silencer assembly incorporating broad bank attenuation centered above 250 Hertz shall be used. The engine air duct shall be designed to minimize water entrance into air induction system. A passage shall be provided so that any water which does find entry into the system, will be automatically drained prior to entry into the air cleaner filter element.

2.2.5 Fuel System

2.2.5.1 General

The fuel system shall consist of the fuel tank(s), filler provisions, fuel pump, filters and lines to deliver the fuel to the engine and all auxiliary equipment required so the fuel system will function under all loading and operating conditions described in this Specification.

2.2.5.2 Fuel Tank

Fuel tank(s) useable capacity shall be sufficient to provide an operating range of at least 350 miles on a fill up of fuel.

The fuel tank(s) shall be securely mounted to the bus to prevent movement during bus maneuvers, but shall be easily removable for cleaning or replacement. The fuel tank(s) shall be equipped with an external, hex head, brass drain plug. It shall be at least 3/8 inch size and shall be located at the lowest point of the tank. The tank(s) shall have an inspection plate or easily removable filler neck to permit cleaning and inspection. The tank(s) shall be baffled internally to prevent fuel sloshing noise regardless of fill level.

The fuel tank shall be made of sufficiently heavy gauge stainless steel to last the life of the vehicle. The tank shall be internally braced and externally supported in such a manner so as to eliminate the possibility of developing vibration fatigue cracks. All openings shall have adequate stiffeners so that a flat surface is presented to the attaching plates.

2.2.5.3 Fueling Provisions

A fuel filler shall be located on the curbside of the bus. The filler shall have a minimum fill rate of 40 gallons per minute of foam-free fuel without spitting back or causing the nozzle to shut off before the tank is full to its usable capacity.

The filler system shall be Emco-Wheaton Posi-Lock 105 Fuel System and shall be recessed into the body so that spilled fuel will not run onto the outside surface of the bus. The fuel filler provided shall be mounted on the fuel tank. The filler tube shall enter the fuel tank at the top and shall include an anti-spill valve. The system provided shall be composed of an Emco-Wheaton filler neck assembly G-45 type, J1201 dust cap (retained to prevent loss), G2256 adapter, G2269 pressure relief valve, G2257 whistle, G2270 level control, and 407493 filler neck flange gasket, all of which must be compatible with the G2266-105 Posi-Lock nozzle.

Provide an E. J. Ward automatic fuel system Vehicle Information Transmitter and antennae (VIT-DCM). Provide a dash mounted odometer display that receives its data from the E. J. Ward system. Contact Mr. Lee Christenson at (210) - 824-7383 for information concerning the system. The Electronic Odometer display may be mounted on a bracket on the dashboard with the radio TCH and Globe transfer cutter. The antennae shall be mounted at the front curbside corner below and behind the front bumper

2.2.5.4 Fuel Pump

The fuel pump shall be mechanically actuated, and be of sufficient capacity to supply the fuel injectors or injection pump with sufficient fuel to operate the engine under normal operating conditions.

2.2.5.5 Fuel Filter

A two stage, primary and secondary filter system shall be provided with necessary check valve for preventing drain back.

The engine shall be equipped with a fuel-priming pump or a check valve fitted in the fuel suction line to aid restarting after fuel filter changes.

2.2.5.6 Fuel Lines

The fuel lines forward of the engine bulkhead shall be in conformance to SAE Standard J1149 Type 1 for copper tubing, corrosion-resistant stainless steel tubing; or SAE Standard J844 for nylon tubing color coded orange.

2.2.6 Exhaust System

An overhead vertical exhaust system with an up stack shall be provided. Exhaust gases and waste heat shall be discharged overhead from the roadside rear of the bus. The exhaust pipe shall be of sufficient height to prevent exhaust gases and waste heat from discoloring or causing heat deformation to the bus roof. The exhaust

outlet shall be designed to prevent rain or water generated from high-pressure washing systems from entering into the exhaust pipe and causing damage to the catalyst. The entire exhaust system shall be adequately shielded to prevent heat damage to any bus component. The exhaust pipe and muffler shall be encapsulated to minimize the transmission of noise and vibration. Exhaust piping shall be constructed of stainless steel or aluminized steel. No flexible tubing shall be used between engine and muffler. Provide a Vibol exhaust vibration balancer.

No passenger or public hazard or discomfort shall result from the exhaust location.

2.2.6.1 Exhaust Emissions

Buses shall conform to the air pollution control standards of the Environmental Protection Agency. Engines shall be certified on No. 1 and No. 2 diesel fuel oil.

2.2.7 Hydraulic System

Accessories may be driven hydraulically. A tamper-proof priority system shall prevent the loss of power steering during operation of the bus if other devices are also powered by the hydraulic system.

The hydraulic system shall demonstrate a mean time between repairs in excess of 50,000 miles. Hydraulic system service tasks shall be scheduled no more frequently than those of other major bus systems. All elements of the hydraulic system shall be easily accessible for service or unit replacement. Critical points in the hydraulic system shall be fitted with service ports so that portable diagnostic equipment may be connected to monitor system operation.

Sensors in the hydraulic system shall indicate on the operator's on-board diagnostic panel conditions of low hydraulic fluid level and hydraulic fluid temperature in excess of that allowable.

Hydraulic lines shall be compatible with the fluid they carry. The lines shall be designed and intended for use in the environment which they are installed. Lines shall be capable of withstanding maximum system pressures and temperatures. Lines within the engine compartment shall be composed of steel tubing where practicable except in locations where flexible lines are specifically required. All hydraulic lines shall meet the requirements of the Technical Specifications

Hydraulic lines of the same size and with the same fittings as those on other piping systems of the bus, but not interchangeable, shall be tagged or marked for use on the hydraulic system only.

2.2.8 Transmission

The transmission shall be an Allison B300R or 2000 automatic shift, with torque converter, retarder and electronic controls or approved equal. Gross input power, gross input torque and rated input speed shall be compatible with the engine. The transmission shall be designed to operate for not less than 300,000 miles on the design operating profile without replacement or major service.

The electronic controls shall be capable of transmitting and receiving electronic inputs and data from other powerplant/drivetrain components and broadcasting that data to other vehicle systems. Communication between electronic powerplant/drivetrain components and other vehicle systems shall be made using the Vehicle Area Network. Electronic controls shall be compatible with either 12 or 24 volt power distribution, provide consistent shift quality, and compensate for changing conditions such as variations in vehicle weight and engine power. A brake pedal application shall be required by the operator to engage forward or reverse range from the neutral position to prevent sudden acceleration of the bus from a parked position. The electronically controlled transmission shall have on-board diagnostic capabilities, be able to monitor functions, store and time stamp out-of-parameter conditions in memory, and communicate faults and vital conditions to service personnel. The transmission shall contain built-in protection software to guard against severe damage. Diagnostic reader device connector ports and laptop computer ports, suitably protected against dirt and moisture, shall be provided in the operator's area and near or inside engine compartment. The diagnostic ports shall be connected to the J2496 Vehicle Area Network described in the Technical Specifications, so that data provided to the port is also accessible to other on-board devices. The on-board diagnostic system shall trigger a visual alarm to the operator when the electronic control unit detects a malfunction.

An electronic transmission fluid level monitoring and protection system shall be provided. This system shall allow a mechanic to accurately determine transmission fluid levels during checking fluid or fluid change and shall be in addition to the manual dipstick. This system shall also provide protection against any damage resulting from improper fluid level conditions.

The transmission filler tube and dipstick shall be accessible from the engine compartment.

Transmission fluid drain plugs shall be of the magnetic type.

The transmission shall be equipped with a retarder designed to extend brake lining service life. The application of the retarder shall cause a smooth blending of both retarder and service brake functions. The retarder shall become partially engaged

(approximately 1/3 of its total application) with a resulting deceleration of no greater than 0.03 g., when the throttle is completely released (zero throttle). Maximum retarder shall be achieved when the brake pedal is depressed prior to engagement of service brakes with a maximum resulting deceleration of approximately 0.13 g. The resulting decelerations specified include the effects of engine braking, wind resistance and rolling resistance..

Jerk, the rate of change of acceleration measured at the centerline, floor level of the bus shall be minimized throughout the shifting of each transmission range and retarder application and shall be no greater than 0.3 g/sec. for a duration of a quarter-second or more.

Deceleration lights shall illuminate when the retarder is activated.

An external transmission oil cooler shall be provided. The cooler shall utilize cooling system fluid to remove heat from transmission oil by transfer through conduction and shall be sized to meet the transmission manufacturer's recommendations under the most severe duty conditions at an ambient temperature of 120 degrees Fahrenheit.

2.2.9 Fluid Lines And Hoses

All fluid lines and air piping shall be rigidly supported to prevent chafing damage, fatigue failures, and tension strain. Lines passing through a panel, frame, or bulkhead shall be protected by grommets (or similar device) that fit snugly to both the line and the perimeter of the hole that the line passes through to prevent chafing and/or wear.

Flexible fuel and oil lines shall be kept at a minimum and shall be as short as practicable. Flexible lines 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 compatible with the fluids they are intended to carry, at all expected temperatures and pressures and shall have standard SAE, JIC or ORS brass or steel, swivel, end fittings. Flexible hoses over 1 inch in diameter shall be in conformance with SAE Standard J100R5. Wherever practicable, hoses shall be Teflon, with steel braided cover with reusable fittings. Flexible hoses and fluid lines shall not touch one another, or any part of the bus.

Hoses/lines shall be secured with heavy-duty stainless steel, full silicone rubber clamps, with appropriate consideration given to expansion of other effects of temperature.

Compression fittings when used shall be standardized as much as practicable to prevent the intermixing of components. Compression fitting components from more than one manufacturer shall not be mixed even if the components are known to be interchangeable.

2.2.10 Drive Line

Drive line components shall be adequate to transmit the maximum delivered torque of the engine as developed through the maximum gear train reductions.

Universal joints shall be of heavy duty design, able to withstand full torque loads and incorporate Zerk or approved equal grease fittings.

The drive shaft shall be capable of transmitting the maximum torque generated by the engine and transmission to the rear axle. A guard for the drive shaft is required. The drive shaft shall be prevented from striking the floor of the bus or the ground in the event of a tube or universal joint failure.

The bus shall be driven by a single heavy-duty axle with a load rating sufficient for the bus loaded to GVWR. The drive axle shall be single reduction type with grease bearings. The lubricant drain plug shall be magnetic type. The differential gear ratio shall provide a top speed of 60 MPH and 10 MPH on a fifteen percent (15%) grade with seated load and air conditioning operating.

A Telma retarder shall be provided on the drive axle to extend brake lining service life. This requirement shall not apply if the transmission is supplied with an integral retarder.

Spare Power Plant Assemblies

Spare Power Plant (Engine/Transmission) Assemblies, with all accessories including A/C Compressor mounted on a cradle ready for installation, shall be provided by the Contractor and priced separately from the bus in the Price Proposal. MDT shall have the option to purchase up to forty (40) Spare Power Plant Assemblies. (NOTE: Prepare engine and transmission for long term storage)

Special Tools and Equipment for Cradle or Engine Changes

The Proposer shall provide a list of special tools and equipment required for cradle or engine changes with his proposal. Sets of Special Tools and Equipment required for Cradle or Engine Changes shall be provided by the Contractor and priced

separately from the bus in the Price Proposal. MDT shall have the option to purchase up to five (5) Sets of Special Tools and Equipment required for Cradle or Engine Changes.

3.0 CHASSIS

3.1 Pneumatic System

The bus air system shall operate all air-powered accessories and the braking system with reserve capacity. New buses shall not leak down more than 5 psi as indicted on the instrument panel mounted air gauges, within 15 minutes from the point of governor cut-off.

Air for the compressor shall be filtered through the main engine air cleaner system. 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 of critical subsystems in case of line failures.

3.1.1 Air Compressor

The engine driven air compressor shall be sized to charge the air system from 40 psi to the governor cutoff pressure in less than 3 minutes while not exceeding the fast idle speed setting of the engine.

3.1.2 Air Lines

Air lines, except necessary flexible lines, shall conform to the installation and material requirements of SAE Standard J1149 for copper tubing with standard, brass, flared or ball sleeve fittings, or SAE Standard J844 for nylon tubing if not subject to temperatures over 200 degrees F. 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
GRAY - Indicates accelerator (if air controlled)

Supports shall prevent movement, flexing, tension, strain and vibration. Copper lines shall be supported and loomed to prevent the lines from touching one another or any component of the bus. To the extent practicable 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. Nylon lines may be grouped and shall be supported at 2-foot intervals or less.

All air lines shall be sloped toward a reservoir and routed to prevent water traps. Grommets shall protect the air lines at all points where they pass through understructure components.

Air lines shall be cleaned and blown out before installation and shall be installed to minimize air leaks.

3.1.2.1 Compressor Lines

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 flexible Teflon hose with a braided stainless steel jacket. End fittings shall be standard SAE or JIC brass or steel, flanged, reusable, swivel type fittings. Flexible hoses shall be as short as practicable 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 2 foot intervals or less.

3.1.3 Air Reservoirs

All air reservoirs shall meet the requirements of FMVSS Standard 121 and SAE Standard J10 and shall be equipped with clean-out plugs and guarded or flush type brass drain valves. An automatic moisture ejector valve (non-heated), Haldex or approved equal, shall be provided on the wet tank and wired to the brake light circuit. The drain valves and automatic moisture ejector valves shall be protected from road hazards by major structural members. Reservoirs shall be sloped toward the drain valve. All drain valves shall discharge below floor level with lines routed to minimize the possibility of water traps in the drain line.

3.1.4 Air Dryer

An air dryer shall prevent accumulation of moisture and oil in the air system. The air dryer system shall include a replaceable desiccant element and automatic moisture drain valve activation device. An electrically heated moisture drain valve is not required. The mounting and location shall allow for easy access and removal. A mechanic shall be able to replace the desiccant in less than 15 minutes.

The system shall include a provision to separate and remove suspended oil from compressed air to prevent damage to, or malfunction of pneumatic system components.

3.1.5 Quick Disconnects

Provision shall be made to apply shop air to the bus air systems using quick disconnect couplings that are compatible with the existing fleet. Aeroequip FD 41-1000-06-04 female quick disconnect couplings shall be provided at easily accessible locations in the engine compartment and near the front bumper area for towing. Retained caps shall be installed to protect fittings against dirt and moisture when not in use. A standard tire inflation type Schrader valve shall also be provided in the engine compartment.

3.2 Brake System

The braking system shall be air operated and shall be designed to insure safe braking performances under normal and emergency conditions, in complete compliance with FMVSS No. 121. The Contractor shall have tested the maximum braking efficiency at wet weight, with full complement of fuel, oil, and water, and without passenger load and within governed reservoir pressure.

If the brake system design offered is not actuated by a conventional "S" type camshaft, it shall require the approval of MDT.

3.2.1 Service Brakes

3.2.1.1 Actuation

Service brakes shall be controlled and actuated by an air system meeting the requirements of FMVSS 121, on the date of manufacture. Force to activate the brake pedal control shall be an essentially linear function of the bus deceleration rate and shall not exceed 50 pounds at a point 7 inches above the heel point of the pedal to achieve maximum braking. The heel point is the location of the driver's heel when the foot is rested flat on the pedal and the heel is touching the floor or heel pad of the pedal.

A microprocessor controlled Automatic 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 maximum tire mileage and equal friction material wear rate at all wheel locations. Actuation of ABS shall override the operation of the brake retarder.

3.2.1.2 Brake Components

The entire service brake system, including friction material, shall have a minimum overhaul or replacement life of at least 30,000 miles with a brake retarder on the design operating profile. Brakes shall be self-adjusting throughout this period. Visible stroke indicators shall be provided to allow service personnel to easily identify when the brakes are not in correct adjustment.

Replaceable wheel bearing seals shall run on replaceable wear surfaces or be of an integral wear surface sealed design. Wheel bearing and hub seals shall not leak or weep lubricant for 100,000 miles when running on the design operating profile.

The brake system material and design shall be selected to absorb and dissipate heat quickly so the heat generated during braking operation does not glaze brake linings. The heat generated shall not increase the temperature of tire beads and wheel contact area to more than that allowed by the tire manufacturer.

3.2.1.2.1 Friction Material

The bus shall be equipped with brake drums on both the front and rear axles, disc brakes on both the front and rear axles, or brake drums on the rear axle and disc brakes on the front axle. The brake drums shall allow machining to ¼ inch diameter oversize and brake discs shall allow machining the surfaces up to 1/8 inch each side to obtain smooth surfaces.

The brake linings shall be made of non-asbestos material. In order to aid maintenance personnel in determining extent of wear, a provision such as a scribe line or chamfer indicating the thickness at which replacement becomes necessary, shall be provided on each brake lining.

3.2.1.2.2 "S" Camshaft Brakes

Camshafts for conventional "S" cam type brakes shall have not less than 0.001 inch thick hard chrome plating on the shaft section.

Brake camshaft bushings shall be bronze bushings press-fitted into brake spider. Zerk fittings shall be installed and be easily accessible from either a pit or a hoist.

Brake shoes shall be fabricated steel and the shoe table surfaces shall be machined smooth. The surface on which the brake blocks bear shall be given two (2) coats of protective zinc chromate paint. Brake shoes shall have press-fitted bronze anchor pin bushings. Zerk fittings shall be installed and be easily accessible from either a pit or hoist.

Brake shoe anchor pins shall have not less than 0.001 inch thick hard chrome plated wear surfaces, and shall be locked in non-rotating position.

The brake chamber shall have a water drain hole at the bottom in the non-pressure side. Angle of mounting shall be such that the water will not tend to run into the brake actuating rod aperture.

The brakes shall be self-adjusting. Automatic slack adjusters shall be used. The slack adjusters shall be Haldex or approved equal.

Brake drums shall be heavy flanged, ribbed type, with vent holes of sufficient rigidity to resist vibration and distortion. Drum walls shall be heavy enough so that it may be machined to 1/4" oversize on the diameter. Brake drums shall be cleaned of rust preventive material prior to installation. Brake drums shall be finished with nominal 125 micro-inch finish, and wall thickness concentricity shall be within 1/32". Brake drums shall have ample clearance with the hubs to prevent excessive heating of tires.

The brake blocks shall be certified as complying with FMVSS No. 121. Brake lining shall be bonded. Blocks shall also have a grooved wear line. Brake blocks shall be the non-asbestos, nonmetallic type.

3.2.2 Parking /Emergency Brake

The parking brake system shall be in complete compliance with FMVSS No. 121. With parking brakes fully applied, the vehicle shall remain stationary facing uphill or facing downhill on a smooth, dry Portland cement concrete roadway with a twenty percent (20%) grade when loaded to GVWR.

The parking brake shall be a spring-operated system, actuated by a valve that exhausts compressed air to apply the brakes. Once applied, the parking brake shall be held in the applied position solely by mechanical means. The parking brake may be manually enabled when the air pressure is at the operating level per FMVSS 121. An emergency brake release shall be provided to release the brakes in the event of automatic emergency brake application. The parking brake valve button will pop out when air pressure drops below requirements of FMVSS 121. The driver shall be able to manually depress and hold down the emergency brake release valve to release the brakes and maneuver the bus to safety. Once the operator releases the emergency brake release valve, the brakes shall engage to hold the bus in place. Parking brake control and emergency brake release valves shall be located within easy reach of the driver.

3.3 Suspension

The front and rear axle suspensions shall be fully pneumatic type. The basic suspension system shall last the life of the bus without major overhaul or replacement. Normal replacement items such as bushings, shock absorbers, and air springs shall be easily and quickly replaceable. 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.

The suspension system shall include provisions for stabilizing and damping so as to produce an acceptable ride quality. The air suspension shall act to keep the floor height nearly constant under all load conditions.

At least two (2) air springs shall be provided per axle, with heavy duty hydraulic shock absorbers on each side of each axle. Radius rods and other stabilizing devices shall be provided as necessary at the axles to control lateral, longitudinal and torsional movement of the suspension system.

3.3.1 Springs And Shock Absorbers

3.3.1.1 Travel

The suspension system shall permit a minimum wheel travel of 3 inches in jounce (upward) and 3 inches in rebound (downward). Elastomeric bumpers shall be provided at the limit of jounce travel. Rebound travel may be limited hydraulically within the shock absorbers and may be supplemented by elastomeric bumpers. Suspensions shall incorporate appropriate leveling valves for automatic height control so that regardless of load the bus height relative to the center line of the wheels does not change more than $\pm$ 1/2 inch at any point from the specified height. The valves shall have a damping or compensating feature to prevent excessive consumption of air during rapid axle fluctuations. The leveling valve mechanism and exhaust ports shall be protected from road dirt. A minimum of two (2) leveling valves shall be provided for the drive axle, and one leveling valve for the other axle.

3.3.1.2 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 bus motion to 4 cycles or less after hitting road perturbation.

3.3.2 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 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 on the bus serviced by standard fittings.

3.3.3 Kneeling

A kneeling system controlled by the driver shall lower the bus entrance a minimum of three (3) inches, measured at the longitudinal center line of the front door, during loading or unloading operations regardless of load up to GVWR. Release of the kneeling control switch at anytime will completely stop the lowering motion and hold height of the bus at that position. Brake and throttle interlock shall prevent bus movement when the bus is kneeled. The kneeling control shall be disabled when the bus is in motion. The bus shall be capable of kneeling in a maximum of 5 seconds from time the control is actuated. After kneeling, the bus shall be capable of rising within 2 seconds to a height permitting the bus to resume service and shall rise to the correct operating height within 7 seconds regardless of load up to GVWR. Selecting the "Ride Height" position will allow the system to raise the floor to normal ride height without the driver having to hold the switch. 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. The time to kneel and rise shall be adjustable from outside the bus, and shall require only hand tools.

An indicator visible to the driver shall be illuminated during the kneeling operation and shall remain illuminated until the bus is raised to a height adequate for safe street travel. An audible warning alarm will sound simultaneously with the operation of the kneeling system to alert passengers and bystanders. An external warning light with an amber lens mounted near the entrance door will be provided. It shall flash when the kneel feature is operating. Kneeling shall not be operational while the wheelchair ramp is deployed or in operation.

3.4 Steering

3.4.1 Strength

Fatigue life of all steering components shall exceed 1,000,000 miles. No element of the steering system shall sustain a Class I failure when one of the tires hits a curb or strikes a severe road hazard. Inadvertent alternations of steering as a result of striking road hazards are steering failures.

3.4.2 Turning Radius

Outside body corner turning radius including the bumper shall not exceed 36 feet.

3.4.3 Steering Effort

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 until the wheels are approaching close to the steering stops. Steering effort shall be measured with the bus at GVWR, 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 (7) turns of the steering wheel lock-to-lock.

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

3.4.4 Steering Wheel

The steering wheel shall be no less than 16 inches and no more than 20 inches in diameter. The rim diameter shall be 7/8 to 1¼ inches and shaped for firm grip with comfort for long periods of time. The steering wheel and spokes shall not interfere with the driver's visibility of the road or dash instruments. The steering wheel shall be constructed of black plastic or synthetic resin with metal core. The steering wheel shall be removable with a standard or universal puller. The steering column shall have full tilt and telescoping capability allowing the operator to easily adjust the location of the steering wheel.

3.5 Axles

Both the front and rear axles shall be load rated for design distribution including a minimum 130% of seated capacity (average passenger = 150 pounds). Wheel bearings shall be grease lubricated not oiled.

The front axle shall be solid beam or independent design with a load rating sufficient for the bus loaded to GVWR. All friction points on the front axle shall be equipped with replaceable bushings or inserts and lubrication fittings easily accessible from a pit or hoist.

The rear drive axle shall be a heavy-duty single reduction axle with a load rating sufficient for the bus loaded to GVWR. The axle shall be designed to operate for not less than 300,000 miles on the design operating profile without replacement or major repairs. The differential gear ratio shall provide a top speed of 60 MPH. Transfer of gear noise to the bus interior shall be minimized. Wheel bearings shall be grease lubricated. Replaceable wheel bearing seals shall run on replaceable wear surfaces or be of an integral wear surface sealed design. The drain plug shall be magnetic type.

3.6 Wheels and Tires

3.6.1 Wheels

Wheels shall be hub-piloted, brushed aluminum, and shall resist rim flange wear. Wheels shall be suitable for tubeless type tires and shall be compatible with tire size and tire load-carrying capacity. All wheels shall be interchangeable. Front wheels and tires shall be balanced as an assembly.

Spare Wheels

Spare wheels shall be provided by the Contractor and shall be priced separately from the bus in the Price Proposal. MDT shall have the option to purchase up to 400 spare wheels.

3.6.2 Tires

Tires shall be suitable for the conditions of transit service and sustained operation at the maximum speed capability of the bus. The tire size shall be compatible with the wheels, and of a load range adequate for the gross vehicle weight rating of the bus. Load on any tire at GVWR shall not exceed tire supplier's rating. The tires shall be interchangeable on the bus. All valve stems shall be readily accessible on the side of the bus for servicing and maintenance.

All tires will be provided under a lease agreement between MDT and the tire supplier at no cost to the bus manufacturer.

4.0 BODY

4.1 Design

The bus shall have an aerodynamic, sleek, modern appearance. The design shall be clean, smooth, compact, correctly proportioned and properly balanced. Detailing shall be kept simple. Add-on devices and trim shall be minimized and, where necessary, integrated into the basic design. Exterior panels shall be sufficiently stiff to minimize vibration, drumming, or flexing while the bus is in service. The exterior and body features, including grills 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 bleed out onto the bus after leaving the washer. When panels are lapped, the upper and forward panels shall act as a watershed. The rear cap panels may be lapped otherwise if entry of moisture into the vehicle interior is prevented by other means. The body, windows, and hatches shall be sealed to prevent leaking of air, dust, or water under normal operating conditions and during cleaning in automatic bus washers for the service life of the bus. Accumulation of spray and splash on any window of the bus, generated by the bus's wheels on a wet road, shall be minimized.

4.1.1 Crashworthiness

The body structure shall be constructed so as to form a safety cage surrounding the passenger compartment.

The bus body and roof structure shall withstand a static load equal to 150 percent of the curb weight evenly distributed on the roof with no more than a 6-inch reduction in any interior dimension. Windows shall remain in place and shall not open under such a load. These requirements must be met without components such as roof mounted air conditioning installed.

The bus shall withstand a 25-mph impact by a 4,000-pound automobile at any point, excluding doorways, along either side of the bus with no more than 3 inches 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 35 inches from ground level shall withstand a static load of 2,000 pounds applied perpendicular to the bus by a pad no larger than 5 inches

square. This load shall not result in deformation that prevents installation of new exterior panels to restore the original appearance of the bus.

4.1.2 Firewalls

The passenger and engine compartments shall be separated by a bulkhead(s) that shall, by incorporation of fireproof materials in its construction, be a firewall. This firewall shall preclude or retard propagation of an engine compartment fire into the passenger compartment and shall be in accordance with the Recommended Fire Safety Practices defined in FTA Docket 90A, dated October 20, 1993. Only necessary openings shall be allowed in the firewall, and these shall be fireproofed. Any passageways for the climate control system air shall be separated from the engine compartment by fireproof material. Piping through the bulkhead shall have copper, brass, or fireproof fittings sealed at the firewall with copper or steel piping on the engine side. Wiring may pass through the bulkhead only if connectors or other means are provided to prevent or retard fire propagation through the firewall. Conduit and bulkhead penetrations 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. If floor or any other part of the bus is incorporated in the design to act as a firewall, the same shall meet all requirements of this section.

4.1.3 Insulations

A. Materials

The 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 nonhygrosopic and resistant to fungus and breeding of insects. The insulation materials used inside the engine compartment shall be fire resistant and shall not absorb or retain oils or water. It shall be a minimum of one (1) inch thick.

B. 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 sufficient to meet the interior temperature requirements. The bus body shall be

thoroughly sealed so that drafts cannot be felt by the driver or passengers during normal operation with the passenger doors and windows closed.

C. Sound Insulation

The combination of inner and outer panels and any material used between them shall provide sufficient sound insulation as to insure compliance with the interior and exterior sound level requirements of the Specification.

4.1.4 Corrosion

The bus shall not corrode from atmospheric conditions and road salts. The vehicle shall be constructed using only inherently corrosion-resistant materials and fasteners to minimize deterioration. The structure shall not require corrosion-preventive coatings or after-treatments either during construction or throughout the service life of the vehicle. It shall maintain structural integrity and maintain original appearance throughout its service life, provided it is maintained in accordance with the procedures specified in the Contractor's service manual. All joints and connections of dissimilar metals shall be corrosion-resistant and shall be protected from galvanic corrosion. Representative samples of all materials and connections shall withstand a 2-week salt spray test in accordance with ASTM Procedure B-117 with no visual or structural detrimental effects to normally visible surfaces, and no significant structural degradation or weight loss of over 1 percent for other members or components. An anticorrosion undercoat such as Isoclad, or Tectyl 340, shall be applied under the floor area and other areas requiring greater protection. The Contractor shall submit a corrosion protection plan with approved equal submissions.

4.1.5 Materials and Construction

Body materials shall be selected and the body fabricated to achieve reduced maintenance, extend durability, and provide consistency of appearance throughout the life of the bus. Exterior body panels shall be stainless steel, aluminum, or reinforced fiberglass.

The Contractor shall submit with his proposal, a detailed description and specification of the body frame structure, paneling, and doors, with particular reference to the materials to be used.

General Material and Construction Requirements:

1. Upon the request of MDT, the Contractor shall submit samples of materials for examination, test, and concurrence.

2. Samples requested or required by the Specifications shall be delivered F.O.B. to: MDT, 3401 NW 31 Street, Miami, FL 33142
ATTN: Bus Proposal Evaluation/Selection Committee (Fred Shields)

3. All materials, specialties, equipment, component parts and accessories shall be manufactured using U.S. customary units of measurement and shall comply with the standard or specification of the appropriate U. S. technical or professional society or trade association or U.S. Government. All tests shall be conducted using U.S. customary units of measure. Any exception to this shall be specifically concurred by MDT.

4. Any one part or unit used in the construction of these buses shall be an exact duplicate in manufacture and design and construction as each of the buses in this Contract, unless a change is agreed upon by MDT.

5. No rejected or repaired components shall be installed on a bus during production.

6. All interior and exterior fiberglass reinforced plastic panels and assemblies shall meet the flammability requirements of FMVSS-302.

7. Reinforced fiberglass plastic components shall be color pigmented throughout, not just on the surface. Exceptions require the concurrence of MDT. The fiberglass plastic components shall not have resin rich or resin poor sections.

8. All insulation, plastics and synthetic material shall be fire retardant and self-extinguishing.

9. Lumber shall be thoroughly air seasoned or kiln dried; shall be straight grained; and shall be free from rot, knots, checks and other defects which may impair its strength or durability or mar its appearance. Lumber shall be dressed on all sides to full dimensions. Wood of any type shall not be used except where specified.

10. Aluminum surfaces not otherwise protected shall be anodized.

11. All steel bolts, nuts, screws, and washers shall be stainless steel, cadmium plated, or zinc plated, except where otherwise requested. The thickness and method of cadmium coating shall conform to ASTM Specification No. A165, latest revision for Type TS coating. All cap screws, nuts and bolts shall be of SAE, Grade 5 material, unless the application requires a higher grade

material. The "Grade Specification" for bolts and cap screws used on accessories shall be waived, provided the bolts and cap screws meet the acceptance standard successfully used, on such accessories, in the transportation industry.

Bolt projections through nuts shall not be excessive. Should there be a reason for excessive bolt projection, the bolts shall be double nutted. Bolts used with nylon insert lock nuts shall be sized to extend more than two threads beyond the nut.

12. All sheet metal screws shall comply with ASTM and ASM recommendations relative to quality and installation.

13. Bosses on units of light construction, with threaded sections in which fittings or pipes are connected, shall have hexagon or square shoulders that can be held with a wrench so as to eliminate damage to the unit.

14. All copper tubing shall be industry standard. The same fittings must be used in the same location throughout the order of buses. Long tubing nuts shall be applied where space conditions permit.

15. Pipe fitting shall be of heavy duty type and shall be designed to withstand the maximum pressure that could be generated under normal or overload conditions, within the air or fluid system of which they are a component.

16. Flexible hoses used for air, oil and water shall be Teflon with braided stainless steel jacket and standard SAE brass or steel fittings, unless otherwise specified herein.

17. Tee fittings shall be installed in all air lines regulated by an air pressure regulator for the purpose of testing for proper pressure.

18. All piping, tubing, cables, and wiring shall be properly bracketed.

19. All burrs and sharp edges shall be dressed so as to prevent injury to passengers, operators and maintenance personnel.

20. Clevises shall be removable and not welded to the rods. Exceptions require the concurrence of MDT.

21. Surfaces to which springs are attached shall be of such a pattern as to prevent excessive grooving or wearing of the parts.

22. Mounting of assemblies and sub-assemblies including the power plant and accessories shall be mechanically isolated to minimize the transmission of vibration of the body structure.

23. Mounting of major assemblies including engine, transmission, axles, power steering and suspension components shall be such that dismounting shall be easily carried out by conventional shop methods.

24. All components, assemblies, and sub-assemblies shall be readily accessible for service, repair, removal and replacement.

25. Drain and filler plugs on rear axle, transmission drain plugs, and engine drain plugs shall be of the magnetic type, have hexagon heads, and be of high strength material.

26. All grease and oil fittings shall be readily accessible for lubrication.

27. The engine oil, transmission oil and power steering filler positions shall be equipped with permanent identification tags.

28. All air, oil and water lines and openings into equipment units shall be sealed, plugged or adequately protected against entrance of contaminants until connected.

29. The engine supplied by the Contractor shall incorporate the latest available technology.

30. Specific manufacturer's recommendations as to the adjustment and settings shall be provided to MDT before the delivery of the first bus. Items such as air spring heights, voltage regulator, governors, engine tune-up data and any pertinent data shall be furnished to allow time to prepare service and inspection forms for initial bus inspection.

31. All welding shall conform to American Welding Society standard quality procedures and where visible have a finished appearance. The Contractor shall supply design prints of all critical weld areas to MDT for production inspection purposes.

4.2 Structure

4.2.1 Strength And Fatigue Life

The structure of the bus shall be designed to withstand the transit service conditions typical of an urban duty cycle throughout its service life without fatigue damage that is sufficient to cause Class 1 or Class 2 failure. The structure shall also withstand impact and inertial loads due to normal street travel throughout the service life of the bus without permanent deformation or damage.

Any proposer, whose bus is involved in a structurally related fleet failure (number of failures exceeding 20% of fleet), in any transit property in the U.S. in the last five years, must verify that it has completed a detailed investigation of the failure, and corrected the complete bus structure to insure that the failure will not reoccur.

All failures involving basic body, structure, axles, and suspension, are considered structurally related failures for purposes of this specification.

The bus shall incorporate all severe service, heavy-duty bus features available on the model proposed.

4.2.2 Altoona Testing

Prior to acceptance of first bus, the structure of the bus shall have undergone appropriate structural testing and/or analysis, including FTA required Altoona testing, to ensure adequacy of design for the urban transit service. Any items that required repeated repairs or replacement must undergo the corrective action with supporting test and analysis. A report clearly describing and explaining the failures and corrective actions taken to ensure any and all such failures will not occur shall be submitted with the proposal technical submittals.

4.2.3 Distortion

The bus, at GVWR and under static conditions, shall not exhibit deformation, or deflection that impairs operation of doors, windows, passenger escape mechanisms, steering mechanism, or other mechanical elements. Static conditions include the vehicle at rest with any one wheel or dual set of wheels on a 6-inch curb or in a 6-inch deep hole or with any one tire or any dual set completely deflated.

Adapter Sets for Lifting the Bus

MDT uses a Joyce Dayton lift model 2MP12-12S-0-202. This lift is capable of handling buses with wheelbases from 202 inches minimum to 304 inches maximum. Adapter sets for lifting the bus with this lift system shall be provided by the Contractor and priced separately from the bus in the Price Proposal. MDT shall have the option to purchase up to ten (10) sets of adaptors.

The Contractor shall provide instructions for hoisting the bus with a 4-post wheel lift system including specifications for dimensional requirements for the tire lifting pads.

4.3 Floor

4.3.1 Floor Design

The floor shall be essentially a continuous flat plane, except at the wheel housings and platforms. The floor height above the street in the aisle near the entry door, except for platforms, shall be no more than 15½ inches to eliminate steps and facilitate boarding and de-boarding of passengers.

The floor may be either a bi-level design or a flat/sloped floor design.

The bi-level design shall consist of two levels; a forward lower level that includes the entrance door area and an aft raised level extending to the rear settee riser. The forward lower level floor may be inclined up to 1½ degrees off the horizontal along the longitudinal axis of the bus. The aft upper level floor height may be raised to a height approximately 18 inches above the lower level. The upper level floor shall be allowed an increased slope not to exceed 3½ degrees off the horizontal.

The flat/sloped floor design shall consist of a single low sloped floor. The forward portion of the floor including the entrance door area may be inclined up to 1½ degrees off the horizontal along the longitudinal axis of the bus. The aft portion of the floor, beginning approximately two-thirds of the aisle length aft of the entry door and extending to the rear settee riser, the floor may be sloped but shall not exceed 5½ degrees off the horizontal.

All floor measurements have to be with the bus at the design ride height and on a flat, level surface.

The floor shall not have any abrupt level changes except for clearly marked and illuminated steps as described in these Technical Specifications.

The floor covering shall be butt jointed and securely cemented to the plywood floor with Armstrong No. D-220 Collodin adhesive 8/1465-211 or equal floor cement, by either the roller or spray method of application, laid and rolled to comply with the floor covering and adhesive manufacturer's recommendations. The gap in the butt joints shall not exceed 1/16 inch. Joints shall be sealed with color-matched sealant to prevent water from penetrating joints.

After setting period, the floor shall be closely inspected for bubbles, separations, or other irregularities, and remedial action taken.

4.3.6 Platforms

Trim shall be provided along top edges of platforms unless integral nosing is provided. Trim installed along edges of platforms shall be constructed of stainless steel or clear anodized aluminum. Except where otherwise indicated, covering of platform surfaces and risers shall be same material as specified for floor covering. Raised areas such as for providing space for under-floor installation of components shall be limited. Such raised areas shall be constructed in accordance to these specifications.

4.3.6.1 Operator's Platform

The operator's platform shall be of a height that, in a seated position, the operator can see an object located at an elevation of 42" above the road surface, 24" from the leading edge of the bumper. Notwithstanding this requirement, the platform height shall not position the operator such that the operator's vertical upward view is less than 15 degrees. A warning decal or sign shall be provided to alert operator to the change in floor level.

4.3.6.2 Farebox Platform

If the driver's platform is higher than 12 inches, then the farebox is to be mounted on platform of suitable height to provide accessibility for operator without compromising passenger's access.

4.3.7 Steps and Stepwells

4.3.7.1 Entry Step

The maximum initial entry step height into the bus that MDT will accept is 14.0 inches. Higher entry step heights are not acceptable. The maximum acceptable entry step height with the bus kneeled shall be 11.0 inches

4.3.7.2 Aisle Step or Platform

If the vehicle is of a bi-level floor design, an intermediate step or platform shall be provided along the center aisle of the bus to facilitate passenger traffic between the upper and lower floor levels. This intermediate step shall be cut into the rear platform and shall be approximately the aisle width, between 11 inches and 18 inches deep, and approximately one half the height of the upper level relative to the lower level. The horizontal surface of this platform shall be covered with yellow ribbed rubber in accordance to these specifications, and shall be sloped slightly for drainage. A warning decal or sign shall be provided at the immediate step or platform area to alert passengers to the change in floor level.

4.3.7.3 Stepwell Structure

Stepwells shall be constructed of stainless steel or anodized aluminum to prevent corrosion. One piece molded fiberglass construction will be accepted provided that it is shown to be adequately reinforced to minimize step deflection and warranted to last the life of the bus. Step risers shall not exceed 10 inches in height and tread surface shall be no less than 11 inches deep. All step tread areas must be covered with a non-slip material. Proposer must state which stepwell described above will be furnished. Proposers proposing to utilize stepwells constructed of fiberglass must submit documentation to MDT for approval on strength, structural integrity and suitability for use in MDT's service area.

4.4 Wheel Housing

4.4.1 Wheel Housing Construction

Wheel housings shall be fire-resistant and constructed of stainless steel. The wheel housings shall be securely mounted and sealed to the bus body structure. Wheel housings, as installed and trimmed, shall withstand impacts of a 2 inch steel ball with at least 200 ft. lbs. of energy without penetration.

Wheel housings shall have sufficient sound insulation to minimize tire and road noise and meet the noise requirements of these specifications.

Design and construction of front wheel housings shall allow for the installation of radio/electronic equipment storage compartment on interior top surface or its use as a luggage rack. Wheel housings shall be adequately reinforced where seat pedestals are installed.

The finish of the front wheel housings shall be scratch-resistant and complement interior finishes of the bus. If fiberglass wheelhouse covers are provided, then

they shall be color-impregnated to match interior finishes. The lower portion extending to approximately 12 inches above floor shall be equipped with additional more resistant coating or stainless steel protective trim.

4.4.2 Wheel Housing Clearance

Sufficient clearance and air circulation shall be provided around the tires, wheels, and brakes to preclude overheating when the bus is operating on a central business district (CBD) operating profile.

Interference between the tires and any portion of the bus shall not be possible in maneuvers up to the limit of tire adhesion with weights from curb weight to GVWR on any type surface.

4.4.3 Splash Aprons

Splash aprons, composed of 1/4 inch minimum composition rubberized fabric, shall be installed behind each wheel and shall extend downward to within 3 inches of the road surface. Apron widths shall be no less than tire widths. Splash aprons shall be bolted to the bus under structure. Splash aprons and their attachments shall be inherently weaker than the structure to which they are attached. Splash aprons and their attachments shall not be included in the road clearance measurements. Other splash aprons shall be installed where necessary to protect bus equipment.

4.5 Doors

One (1) door shall be provided in the bus for passenger ingress and egress. The door shall be located on the curbside in the front of the bus, such that the driver is able to collect and monitor the collection of fares. The door and doorway shall comply with ADA requirements.

4.5.1 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 panel construction shall be of aluminum, stainless steel, or reinforced non-metallic composite materials. The doors, when fully opened, shall provide a firm support and shall not be damaged if used as an assist by passengers during ingress or egress. Passenger assist handles shall be installed on the door panels. Doors shall be non-rattling in closed position.

4.5.2 Dimensions

The door clear width shall be no less than thirty-two (32) inches with the doors fully opened. Clear width shall be measured between door-mounted passenger assists. The door opening height shall be no less than seventy-six (76) inches. Projections on doors and in entry area shall not form a hazard to passengers.

4.5.3 Door Glazing

The upper section and the lower section of the door shall be glazed for no less than one half the respective door opening area of each section. The edge of a 6 inch high curb shall be visible to the seated driver through the closed door when the bus is more than 12 inches from the curb.

The front door panel glazing material shall be a nominal ¼ inch laminated safety glass conforming to the requirements of ANSI Z26.1 Test Grouping 2 and the Recommended Practices defined in SAE J673.

4.5.4 Projection

The door projection beyond the side of the bus when open shall not exceed six (6) inches. The closing edge of each door panel shall have no less than two (2) inches of soft weather stripping. The hard surfaces of the doors shall be at least four (4) inches apart. The door, when closed, shall be effectively sealed to prevent the entrance or exit of air and water. The front panel edge shall lap over rear panel edge by a minimum of one-half (1/2) inch.

4.5.5 Door Height Above Pavement

It shall be possible to open and close the passenger door when the bus, loaded to GVWR, is parked with the tires touching an 8 inch high curb on a street sloping toward the curb so that the left side wheels are 5 inches higher than the right side wheels.

4.5.6 Door Controls

The door shall be controlled by the operator from a door control switch located on the driver's left hand side. The handle shall be removable and can be utilized for use in opening access panels.

A control or valve in the driver's compartment shall dump the air from the door mechanism to provide manual operation of the door with the bus shut down.

When the power is cut to the door, either by this control or by shutting the bus off through the run switch, the doors shall not slam closed.

A door master power switch in the door motor compartment shall, when set in the "off" position, deactivate the interlock. Door master power switch shall be permanently labeled. The door master power switch shall accessible without the use of tools.

4.5.7 Interlocks

To preclude movement of the bus, an accelerator interlock shall remove throttle control, returning engine to idle speed and a brake interlock shall engage the brakes when the door control is activated.

The door must be wired to a speed sensor so that the interlock can not be activated and the door can not be opened at a speed above 4 mph. Air pressure shall be relieved by means of a quick release air valve to prevent lag in releasing brakes when doors are closed. The braking effort shall be adjustable with hand tools only. The adjustment device shall be enclosed in tamper proof housing if located inside the bus. The braking effort shall be adjusted to limit deceleration level.

With the master run switch in the off position and the door open, the door, the interlock, and the stop lights must not be energized.

4.5.8 Closing Force

The closing force shall be limited to avoid injury to a passenger caught in a closing door. A maximum force of 25 pounds shall be required for a passenger to free himself after having the door close upon him.

4.5.9 Actuators

Door actuators shall be adjustable so that the door opening and closing speeds can be independently adjusted from 2 seconds to 4 seconds. Actuators and the complex door mechanism shall be concealed from passengers, but shall be easily accessible for servicing. Actuators shall exhaust air below floor level. Actuators shall provide smooth even door operation and prevent door slamming at the end of its travel.

4.5.10 Door Lock

Locked door shall require a force of more than 200 pounds to open manually. When the locked door is manually forced to open, damage shall be limited to the

bending of minor door linkage with no resulting damage to the doors, motors, and mechanism.

4.5.11 Emergency Operation

In the event of an emergency, it shall be possible to open the door manually from inside the bus using a force of not more than 25 pounds after actuating an unlocking device at the door. The unlocking device shall be clearly marked as an emergency-only device and shall require two distinct actions to actuate. Bilingual instructions, approved by MDT, shall be installed at the device. When the door emergency device is actuated, the brake and accelerator interlocks shall be activated, thereby removing throttle control and stopping the bus. The brakes shall not be applied until the bus speed falls below 4 MPH.

A handle or assist shall be provided on the door panel at a convenient location to assist manual operation of the door after the emergency handle has been pulled.

4.6 Windows

4.6.1 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 windshield glazing material shall have a 1/4-inch nominal thickness laminated safety glass conforming to the requirements of ANSI Z26.1 Test Grouping 1A and the Recommended Practices defined in SAE J673. The glazing material shall have single density tint. The upper portion of the windshield above the operator's field of view shall have a dark, shaded band with a minimum luminous transmittance of 6 percent when tested in accordance to ASTM D-1003.

The windshield shall permit an operator's field of view as referenced in SAE Recommended Practice J1050. The windshield shall be designed and installed to minimize external glare as well as reflections from inside the bus.

4.6.2 Driver's Side Window

The driver's side window shall be a two-piece sliding type and open sufficiently to permit the seated driver to easily adjust the left outside rear view mirror. This window section shall not be lockable in the close position and shall slide rearward in tracks or channels designed to last the service life of the bus. The driver's side window shall not be bonded in place and shall be easily replaceable. The glazing

material shall be nominal 1/4 inch, laminated safety glass, with medium gray tint, conforming with the requirements of ANSI Z26.1 Test Grouping 2 and the Recommended Practices defined in SAE J673.

4.6.3 Passenger Side Windows

All passenger side windows shall be non-opening type windows, fixed in position, except is as necessary to meet emergency escape requirements.

All side windows shall be easily replaceable without disturbing adjacent windows. Windows shall be designed and constructed to enable a mechanic to remove and replace a window in less than 3 minutes. Glazing in the assembly shall be replaced without removing the window from its installed position on the bus or manipulation of the rubber molding surrounding the glazing. Windows shall be mounted so that flexing or vibration from engine operation or normal road excitation is not apparent. All fasteners and hardware are to be made from stainless steel.

Side windows shall extend from the shoulder height of a 5th percentile, seated, female passenger to the eye level of the 95th percentile, standing male passenger. Vertical mullions between windows, including the trim, shall not exceed 7 inches in width.

The side windows shall be designed to withstand pressure loading of 35 lb/ft2 with a safety factor of 2.5 against failure. Windows are to be produced in accordance to the FMVSS 217 Retention & Release Specification, FMVSS 302 Flammability of interior material, and FMVSS 205, Glazing materials.

Glazing Material

Side window glazing material shall be 1/2-inch nominal thickness cell cast acrylic with an abrasion resistant coating on both sides of the window. Windows must be formed prior to application of abrasion resistant coating. The material shall conform with 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 per cent. The windows shall be tinted gray tint number 2538. The maximum solar energy transmittance shall not exceed 37 percent, as measured by ASTM E-424, and the luminous transmittance shall be 16 percent to 17 percent as measured by ASTM D-1003. Window glazing over the destination signs shall not be tinted.

Emergency Egress

The passenger side windows shall meet the requirements of FMVSS 217, bus window retention and release. The high force application, which is straight perpendicular to window surface, as described in FMVSS 217, shall have a magnitude between 30 and 60 pounds. Passenger side windows shall be provided with an emergency push out feature, which shall be designed for quick resetting by the operator while the bus is in service. The windows shall be hinged and captive and shall not fall out on the street after being pushed out. In addition, the sash frame shall be installed with a retaining feature that will prevent the sash frame from being released unless it is intentionally pushed out. It shall also be equipped with a positive locking device that must be manually released before the window can be pushed out. This device shall be of sturdy design, not prone to breakage by mishandling. The side sash construction and installation shall require approval by MDT.

A bilingual, English and Spanish, "Emergency Push Out" metal instruction plate shall be furnished and installed with rivets at each release mechanism by the Contractor. The location, wording, and installation of the instruction plate require approval by MDT prior to production. (See Exhibit)

Scratch Shield Sacrificial Liner

All passenger side windows shall be equipped with a clear acrylic anti-vandalism sacrificial liner that shall be easily removable in the event of vandalism. This material shall withstand normal cleaning practices. The installation of the liner shall not trap dirt or debris between the liner and window and shall prevent clouding or fogging. A mechanic without the use of any specialized tools shall be able to easily remove and replace the acrylic liner in 1 minute or less. The liner must be replaceable without removing the window from its installed position on the bus and without the removal or manipulation of the window assembly's rubber molding. The exterior glazing shall mount securely in the extrusion with or without the sacrificial liner installed in the window assembly.

4.7 Roof Hatch/Ventilator

A combination emergency escape hatch / ventilator shall be provided in the roof of the bus approximately over the rear axle. The hatch size shall be approximately 23" x 23". The hatch shall be easily opened and closed manually and shall contain bilingual operating instructions. The hatch shall be capable of being positioned as a ventilator scoop with either the leading or trailing edge open, or with all four edges raised simultaneously. Roof hatches shall be sealed to prevent entry of water when closed.

4.8 Exterior

4.8.1 Pedestrian Safety

Exterior protrusions greater than 1.2 inches and within 80 inches of the ground shall have a radius no less than the amount of the protrusions. The left side rearview mirror and required lights and reflectors are exempt from the protrusion requirement. No part of the right side rear view mirror may be within 80 inches of the ground.

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 and handholds.

Exterior lights and audible warnings shall conform to the requirements found elsewhere in these Technical Specifications.

4.8.2 Panels

Exterior body panels shall be stainless steel, aluminum, or fiberglass to resist rust and corrosion. Only exterior panels that are above the rubrail level may be structural components. Lower exterior panels shall be repairable or easily replaceable. If offered, lower exterior panels shall be removable resilient, impact resistant panels for protection against minor impacts and scratches.

4.8.3 Bumpers

Front and rear bumpers shall be black Romeo Rim (or approved equal) "Help" type energy absorbing bumper system with anti-ride slope feature and wrap around ends to protect all corners. Construction shall be a polyurethane elastomer shell material, to provide for high tear resistance, tensile strength puncture resistance, and low temperature flexibility. It shall be filled with a controlled cellular polyurethane foam.

Characteristics shall be:

Flexural Modules	225,000 psi ambient 95,000 psi at 120 degrees C, ASTM method D790.
Tensile Strength	5,000 psi minimum, ASTM method D638, D412.
Elongation	550% minimum, ASTM method D412.

Durometer	85-87 shore minimum, ASTM method D2240.
Tear Strength	1,000 psi minimum
Cold Flex	Minimum 1/4" Mandrel after 12 hours at -60 degrees F.
Puncture Resistance	750 pounds minimum, SAE method J918C.

Bumper height, with the bus at normal ride height, shall be 26 ± 2 inches to the top of the bumper. Bumper height shall be such that when one bus is parked behind another, a portion of the bumper faces will contact each other.

The bumper shall be independent of all power systems of the bus and shall not require service or maintenance in normal operation during the service life of the bus.

4.8.4 Rubrails

Rubrails composed of flexible, resilient material shall be provided to protect both sides of the bus body from damage caused by minor sideswipe accidents with automobiles. Rubrails shall have vertical dimensions of no less than 2 1/2 inches with the center line no higher than 33 inches above the ground. The rubrails shall be capable of withstanding impacts of 200 ft. lbs. of energy from a steel faced spherical missile no less than 9 inches in diameter with no visible damage to the rubrails, retainer, or supporting structure. The rubrail may be discontinued at doorways. A damaged portion of the rubrail shall be replaceable without requiring removal or replacement of the entire rubrail.

4.8.5 Fender Skirts

Features to minimize water spray from the bus in wet conditions shall be included in wheel housing design. Any fender skirts shall be unbreakable and easily replaceable. They shall be flexible if they extend beyond the allowable body width. Wheels and tire shall be removable without disturbing the fender skirts.

4.8.6 Rain Gutters

Rain gutters shall be provided to prevent water flowing from the roof onto the side windows and passenger door. 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 adequate for proper operation, no less than 0.25 square inches.

4.8.7 Exterior Compartments and Access Doors

Conventional hinged doors shall be used for the engine compartment and for all auxiliary equipment compartments including doors for checking the quantity and adding to the engine coolant, engine oil, and transmission fluid. Access openings shall be sized for easy performance of tasks within the compartment including tool operating space. Access doors shall be of rugged construction, and shall be capable of withstanding severe abuse throughout the life of the bus. 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 bus washer operations. All access doors shall be retained in the open position by props or counterbalancing with over center springs or pins. Doors with top hinges shall have safety props stored behind the door, on the door frame, or integral with the springs. Hinges shall be stainless steel or rubber and shall last the service life of the bus. Springs shall be corrosion-resistant and shall last for the service life of the bus. Latch handles shall be flush with or recessed behind the body contour and shall be sized to provide an adequate grip for opening. Access doors, when opened, shall not restrict access for servicing other components or systems. Small access doors shall not incur damage if the door is opened up to 180 degrees so that it is folded flat against the bus body. Large access doors shall hinge up and out of the way or fold flat against the bus body and shall be easily opened by one person. A counter-balance, spring, or gas cylinder system shall assist opening large doors. Major access doors shall be equipped with locks requiring a nominal 5/16 inch, 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. The lock for the engine compartment door shall latch automatically when the door is shut.

4.8.8 Battery Compartment

The battery compartment shall be well vented, self-draining, and located towards the rear of the bus close to the engine. It shall be accessible only from the outside of the bus. All components within the battery compartment, and the compartment itself, shall be protected from damage or corrosion from the electrolyte. The battery tray shall be stainless steel. A locking device shall retain the battery tray in the stowed position. The inside surface of the battery compartment's access door shall be electrically insulated, as required, to prevent the battery terminals shorting on the door if the door is damaged in an accident or if a battery comes loose.

4.8.9 License Plates

Provisions shall be made to mount a standard size U.S. license plate per SAE J686 on the rear of the bus. These provisions shall flush mount or recess the license

plate so that they can be cleaned by automatic bus washing equipment without being caught by the brushes. License plates shall be mounted at the lower center or lower street side of the rear of the bus and shall not allow a toehold or handhold for authorized riders.

4.8.10 Finish And Color

4.8.10.1 Finish

All exterior surfaces shall be smooth and free of visible fasteners, wrinkles and dents. Exterior surfaces to be painted shall be properly cleaned and primed, as appropriate for the paint used, prior to application of paint to assure a proper bond between the basic surface and successive coats of original paints for the service life of the bus. Paint shall be applied smoothly and evenly with the finished surface free of dirt, run, 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. The bus exterior shall be painted with a PPG epoxy primer, 1-1.5 mils dry film, and a PPG DGHS graffiti resistant topcoat, minimum 2 mils dry film. A comparable Dupont paint system will be accepted as approved equal.

The exterior finish shall meet the following requirements:

SPECIFICATION	TEST METHOD
Salt Spray Resistance - Minimum 500 hours	ASTM B117
Adhesion - 90%	ASTM D3359-93 Method B
Humidity Resistance - 90% after 24 hr. recovery	ASTM D1735
Impact Resistance - No cracking at 40 lbs.	ASTM D2794
Film Hardness by Pencil Test - Minimum HB-F hardness	ASTM D3363

Accelerated Weathering by UV - 85% gloss retention after 500 hours QUV	ASTM D4587
Specular Gloss - 90 plus using 20 degree gloss meter	ASTM D523-89

Proposers shall submit Test Reports or Certifications of Compliance for the paint products that will be supplied, with their Requests for Approved Equals.

4.8.10.2 Color Scheme

Proposers are requested to propose dramatic and contemporary color schemes and graphics for the exterior of the bus. The predominant colors that must be used in the design of graphics are blue and green. (PMS numbers for colors to be issued by addendum at a later date.) No specific colors are required as a background color on the exterior of the bus or the interior of the bus. Striping and graphics shall not be silk-screened.

4.8.10.2.1 Decals and Numbering

Logo

A "Miami-Dade Transit" logo must be incorporated into the graphics to be used on the exterior of the bus. The logo must be displayed, at minimum, on the curb side of the bus and the front of the bus. The colors to be used in the logo are blue and green. (PMS numbers for colors to be issued by addendum at a later date). (See Exhibit 3 for sample of the logo).

Bus Numbering

A five-digit identification number assigned to the vehicle by MDT will be placed by the Contractor below the front windshield on the right side of the front panel, over front entry door, over driver's window, at the left and right side near the rear of the bus, and on the top curbside of the rear. Decal vehicle numbers shall be 4" high Helvetica Bold black on the sides and front, white on the rear. The vehicle identification number shall be painted on the roof of the bus using black 24" Swis721 Bt numerals.

Exterior Decals

Decals shall be provided in compliance with the ADA requirements defined in 49 CFR Part 38, Subpart B, 38.27. A "Wheelchair" decal with a blue background and

4.9.1.1 Materials

Materials shall be selected on the basis of maintenance, durability, appearance, safety, flammability, and tactile qualities. Materials shall be strong enough to resist everyday abuse and vandalism and shall be resistant to scratches and markings.

All plastic and synthetic materials used inside the bus shall be fire resistant to comply with FMVSS-302.

Materials used in the construction of the Passenger Compartment of the bus shall be in accordance with the Recommended Fire Safety Practices defined in FTA Docket 90A, dated October 20, 1993. Materials entirely enclosed from the passenger compartment, such as insulation within the sidewalls, and smaller components and items, such as switch knobs and small light lenses, shall be exempted from this requirement.

The Contractor shall certify that combustible materials to be used in the construction of these buses have been tested by a recognized testing laboratory and that the results are within the recommended limits as specified by the Federal Transit Administration.

4.9.2 Panels

Interior panels may be integral with, or applied to, the basic bus structure. They shall be decorated in accordance with the interior specified. Use of moldings and small pieces of trim shall be minimized, and all parts shall be functional.

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 or cross-recessed head screws.

4.9.2.1 Sidewall Panels

Interior sidewall trim panels shall be .125 inch thick melamine or approved equal. It shall permit easy removal of paint, greasy fingerprints, and ink from felt tip pens. Panels shall be easily replaceable and tamper resistant. They shall be reinforced, as necessary, to resist vandalism and other rigors of transit bus service. Colors and patterns shall be selected by MDT prior to construction. Interior mullion trim, moldings, and trim strips shall be stainless steel, anodized aluminum

or plastic, colored to coordinate with the trim panels. Individual trim panels and parts shall be interchangeable to the extent practicable. Untrimmed areas shall be painted and finished.

4.9.2.2 Headlining

Headlining panels shall be white melamine or approved equal. Headlining shall be supported to prevent buckling, drumming, or flexing and shall be secured without loose edges. Headlining materials shall be treated or insulated to prevent marks due to condensation where panels are in contact with metal members. Moldings and trim strips, as required to make the edges tamperproof, shall be stainless steel, aluminum, or plastic, colored to complement the ceiling material. 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.

4.9.2.3 Rear Bulkhead

The rear bulkhead and rear interior surfaces shall be materials suitable for exterior skin, painted and finished to exterior quality, or paneled with melamine type material or plastic, and trimmed with stainless steel, anodized aluminum, or plastic. Colors, patterns, and materials shall match or coordinate with the balance of the bus interior.

The rear bulkhead paneling shall be contoured in such a way that it shall not have a tendency to collect trash. Any air vents in this area shall be louvered to reduce air flow noise and to reduce the probability of trash or litter being thrown or drawn through the grille. The panel, or sections thereof, shall be removable to service components located on the rear bulkhead.

4.9.2.4 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 from protrusions that are hazardous to passengers standing or walking in the bus during rapid decelerations. Paneling across the front part of the bus and any trim around the driver's compartment shall be formed metal or plastic material. Formed metal dash panels shall be painted and finished to exterior quality. Plastic dash panels shall be vandal-resistant, replaceable, and reinforced to support dash mounted communications and fare collection equipment required by MDT. All colored, painted and plated parts forward of the driver's barrier shall be finished with a dull matte black color.

4.9.2.5 Interior Advertising Card Racks

Interior advertising card racks are to be provided along each side of vehicle to accommodate eleven by twenty-eight inch (11" x 28") advertising cards. Butt joints of panel sections must be covered with trim strips.

An ad frame to accommodate approximately twenty-one by twenty-two inch (21" x 22") advertising card signs shall be provided on the driver's barrier.

Four (4) "Take One" boxes shall be installed in the interior passenger compartment. The boxes shall be aluminum, painted satin black, approximately 4½" wide x 5½" high x 1" deep. Exact locations will be determined prior to production.

4.9.2.6 Interior Access Panels

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. Access doors shall be hinged with props, as necessary, to hold the doors out of the mechanic's way.

Panel fasteners shall be standardized so that only one tool is required to service all special fasteners within the bus. Access doors for the door actuator compartment shall be secured with quarter turn latches operable with the door control handle, and shall prevent entry of mechanism lubricant into the bus interior. All fasteners that retain access panels shall be captive in the cover.

4.9.3 Passenger Accommodations

4.9.3.1 Headroom

Headroom above the aisle and at the centerline of the aisle seats shall be no less than 78 inches in forward of the rear raised area tapering to no less than 69 inches forward of the rear settee. At the centerline of the window seats, headroom shall be no lower than 65 inches. Headroom at the back of the rear bench seat may be reduced to a minimum of 51 inches, but it shall increase to the 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 paneling.

4.9.3.2 Passenger Assists

4.9.3.2.1 General Requirements

Passenger assists in the form of full closed grip vertical stanchions or handholds, shall be provided for the safety of standees and for entering and exiting of passengers. Passenger assists shall be convenient in location, shape and size for both the 95th percentile male and the 5th percentile female standee. Starting from the entrance door and moving anywhere in the bus 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 or the other without losing support. Excluding those mounted on the seats and doors, the assists shall be between 1-1/4 and 1-1/2 inches in diameter with radii no less than 1/4 inch and shall permit a full closed hand grip with no less than 1-1/2 inches of knuckle clearance around the assist. A crash resulting in a one-foot intrusion shall not produce sharp edges, loose rails or other potentially dangerous conditions associated with a lack of structural integrity of the supporting brackets. Assists shall be 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 stainless steel with fittings and fasteners to match the tubing. Exceptions shall be only plastic grab rails on seat backs and panels, to comply with head impact criteria, and stanchions at center aisle stairs, which shall be high contrast yellow powder coated or nylon coated.

Assists shall withstand a force of 300 pounds applied over a 12 inch 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 flush with the grabrails and stanchions located throughout the bus. The number, mounting, location and arrangement of all passenger assists shall require concurrence of the MDT.

4.9.3.2.2 Doorway Assists

The entry door shall be fitted with assists no less than 3/4 inch in width and shall provide at least 1-1/2 inches of knuckle clearance between the assists and their mountings. Assists shall be on both sides of the door and shall be easily grasped by a 5th percentile female boarding from street level. Door assists shall be functionally continuous with the horizontal front passenger assist and the vertical assist on the front modesty panel or wheel house.

4.9.3.2.3 Stanchions/Vestibule Assists

The aisle side of the driver's barrier and the modesty panels or wheel housings shall be fitted with vertical passenger assists that are functionally continuous with the overhead assist and that extend to within 36 inches of the floor. These assists shall have sufficient clearance from the barrier to prevent inadvertent wedging of a passenger's arm. A horizontal passenger assist of stainless steel metal tubing shall be located across the front of the bus, around the farebox, and shall prevent passengers from sustaining injuries on the farebox 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 inches above the floor or the average step tread surface. The assist at the front of the bus 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, front modesty panel, or wheel house.

Unless passenger seating is provided on top of wheel housing, passenger assists shall be mounted across and around the exposed sides of the wheel housings which shall be designed to prevent passengers from sitting on wheel housings and effectively retain items, such as bags and luggage, placed on top of wheel housing.

Except for seats that flip up to accommodate wheelchair securement, assists shall extend from near the leading edge of longitudinal seats and shall be functionally continuous with the overhead assist. Assists shall be staggered across the aisle from each other where practicable.

4.9.3.2.4 Overhead Assists

Except forward of the standee line location a continuous, full closed 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 on both sides of the aisle. The assist shall be no less than 72 inches above the floor. No more than five percent of the full closed grip feature shall be lost due to assist supports. Four nylon web straphangers shall be provided on the overhead assists over the wheelchair securement areas on both sides of the aisle.

4.9.3.3 Passenger Seats

4.9.3.3.1 Seating Arrangement

The bus shall have a passenger seating capacity of not less than 28 with two wheelchair securement positions. The seating arrangement in the bus shall be such that seating capacity is maximized. Passenger seats shall be arranged in a transverse, forward facing configuration, except that aisle facing flip-up seats shall be provided at the wheelchair securement areas. Aisle facing seats may be allowed at wheel housings if needed for passenger access and comfort. Hip-to-knee room shall be no less than 28 inches where practicable. In order to maximize seating capacity, minor variations in hip-to knee room may be allowed in limited areas with MDT approval, but shall not be less than 26.5 inches. Foot room shall be no less than 14 inches. Seats immediately behind the wheel housings and modesty panels may have foot room reduced, provided the wheelhouse is shaped so that it may be used as a footrest or the design of modesty panel effectively allows for foot room. Barriers or modesty panels shall be provided in front of the first forward facing seats on both sides of the bus. If a bi-level floor is used, barriers or modesty panels shall be provided at the elevation change in front of the upper level seats. The aisle between the seats shall be no less than 20 inches wide at seated passenger hip height. A detailed seat layout with alternatives shall be submitted to MDT for review and approval with Requests for Approved Equal submittals.

4.9.3.3.2 Seat Design

Passenger seats shall be of a cantilever design with vandal resistant removable inserts, American Seating "Metropolitan" model, Freedman Seating "CitiSeat" model, or approved equal. The seats must be approved by MDT in the Approved Equals process prior to technical proposal evaluation.

The general design of the seat shall offer superior product and functional values with features providing optimum comfort and safety for the passenger. The design of the seat shall be based on requirements defined to obtain a structure which will conform to the strength, performance, and dynamic tests specified in the Testing and Strength Requirements Section. The passenger seat, frame, and its supporting structure shall be constructed and mounted so that space under the seat is maximized to increase wheelchair maneuvering room and is completely free of obstructions to facilitate cleaning. The lowest part of the seat assembly that is within 12 inches of the aisle shall be at least 10 inches above the floor. The underside of the seat and the sidewall shall be configured to prevent debris accumulation.

The two-passenger transverse seats shall be fixed, forward-facing cantilever type, designed, engineered and installed in accordance with layout drawings. The use

of pedestals shall be limited to areas which cannot be supported by the side wall of the bus. Longitudinal, flip-up, and rear settee seats shall conform to the same general design as the two-passenger transverse seats. Longitudinal and rear settee backs shall be individual to correspond in configuration to transverse seat backs and are to be mounted on a common frame. All visible steel (cantilever frame and pedestals if applicable) and mounting hardware shall be stainless steel. All materials used in the seat assembly shall meet the flammability requirements of Federal Motor Vehicle Safety Standard No. 302.

4.9.3.3.3 Grab Rails

The seatback of each transverse seat shall have an energy absorbing grab rail or handhold fabricated of a molded plastic material no less than 7/8 inch in diameter. 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 usable 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. Seat back handholds shall not be included in the design of longitudinal seats. The handhold shall not be a safety hazard during severe decelerations. The handhold shall be readily replaceable but attached securely to provide adequate and firm support. The overall design of the handhold shall be aesthetically pleasing and shall enhance the general appearance of the seat.

Armrests shall be included on the ends of each set of longitudinal seats except where they abut the rear of a transverse seat, a modesty panel, a wheelchair barrier, the operator's barrier, 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 1-1/2 to 3-1/2 inches of the end of the seat cushion. Armrests shall not be included in the design of transverse seats. Provide tubular stainless steel armrests on the rear ends of any longitudinal seats immediately in front of the rear cross-seats. Armrests shall be located from 7 to 9 inches above the seat cushion surface and shall be free from sharp protrusions that form a safety hazard.

4.9.3.3.4 Panels

Panels shall be color coordinated, vandal-resistant, able to withstand or repel repeated vandalism from marking pens and similar writing instruments, and shall not be damaged by repeated applications of commonly-used graffiti-removal chemicals.

The back panel shall be made of high impact strength thermoplastic or ABS sheet of 1/8 inch nominal thickness, of a color and texture compatible with the chosen color scheme. The back panel shall cover the rear of the seat back frame, and shall be free of sharp corners and protrusions. Back panel may be separate or integral with seat shell. The rear areas shall be recessed for increased passenger knee clearance.

4.9.3.3.5 Interchangeability

Seat assemblies and components of identical seats shall be mechanically interchangeable.

4.9.3.3.6 Upholstery and Color

Proposers are requested to propose an interior color scheme that is practical and coordinates with the proposed exterior paint scheme.

MDT will make final selection of seat and fabric colors prior to production.

4.9.3.3.7 Technical Data

The contractor shall submit, at the time of Requests for Approved Equals, Certified Test Reports as evidence of compliance with the specifications and test requirements contained herein. The data shall substantiate the performance, reliability, and compliance with the safety performance established by the Transportation industry as a required level of excellence in seating. The test reports shall contain a record of the Static Load Tests, the Performance Tests, and Dynamic Tests. The reports must show test diagrams, photos of the tests, and load results on representative seats completely assembled and fastened to a fixture simulating the vehicle attachment. The test data for each test shall describe the test procedure and test equipment, the resultant deflection, the permanent deformation, and statement of inspection and compliance with specification requirements. The analysis shall indicate values relating to energy absorption and moderation of the magnitude of energy to the passengers. The analysis shall also substantiate the seat structure crash-worthiness relating to deformation characteristics and the strength required to prevent disintegration.

4.9.3.3.8 Testing and Strength Requirements

All testing shall be conducted on a representative transverse seat using a simulated bus floor, cantilever mounting device, and pedestal mounting device to correlate the results with conditions expected in normal usage of the seat.

Static Load Tests

Seat
The seat assembly shall withstand static vertical forces of 500 pounds applied to the top of the seat cushion in each seating position with less than 1/4-inch permanent deformation in the seat or its mountings.

Seat Back
The seat assembly shall withstand static horizontal forces of 500 pounds, forward and rearward, evenly distributed along the top of the seat back with less than 1/4-inch permanent deformation in the seat or its mountings.

Handhold and Armrest
Seat back handhold and armrests shall withstand static horizontal (forward and rearward) and vertical (downward) forces of 250 pounds applied anywhere along their length with less than 1/4-inch permanent deformation.

Performance Tests

Drop Impact Test
Seats at both the aisle and window seating positions shall withstand 4,000 vertical drops of a 40-pound sandbag without visible deterioration. The sandbag shall be dropped 1,000 times each from heights of 6, 8, 10, and 12 inches.

Swinging Impact Test
The seat backs at the aisle position and at the window position shall withstand repeated impacts of two 40-pound sandbags without visible deterioration. One sandbag shall strike the front 40,000 times and the other sandbag shall strike the rear 40,000 times. Each sandbag shall be suspended on a 36-inch pendulum and shall strike the seat back 10,000 times each from distances of 6, 8, 10, and 12 inches.

Squirming Impact Test
Seat cushions shall withstand 100,000 randomly positioned 3-1/2-inch drops of a squirming, 150-pound, smooth-surfaced, buttocks-shape striker with only minimal wear on the seat covering and no failures to seat structure or cushion suspension components.

Handhold and Armrest Impact Test
Seat back handhold and armrests shall withstand 25,000 impacts in each direction of a horizontal force of 125 pounds with less than 1/4-inch permanent deformation and without visible deterioration.

Dynamic Tests

Knee Injury Protection
All transverse objects, including seat backs, modesty panels, and longitudinal seats in front of forward facing seats, shall not impart a compressive load in excess of 1,000 pounds onto the femur of passengers ranging in size from a 5th-percentile female of a 95th-percentile male during a 10g deceleration of the bus. This deceleration shall peak at .05 ±.015 seconds from initiation.

Occupant and Frontal Crash Protection
Permanent deformation of the seat resulting from two 95th-percentile males striking the seat back during this 10g deceleration shall not exceed 2 inches, measured at the aisle side of the seat frame at height H. Seat back should not deflect more than 14 inches, measured at the top of the seat back, in a controlled manner to minimize passenger injury. Structural failure of any part of the seat or sidewall shall not introduce a laceration hazard.

Head Injury Protection
The upper rear portion of the seat back and the seat back handhold immediately forward of transverse seats shall be constructed of energy absorbing materials. During a 10g deceleration of the bus, the HIC number (as defined by SAE Standard J211a) shall not exceed 400 for passengers ranging in size from a 6 year old child through a 95th percentile male.

Specification for High Impact Thermoplastic

Physical Property	Specification	Test Method
Tensile Yield Strength	4400 – 6000 PSI	ASTM D-638
Flexural Modulus	220,000 – 333,000 PSI	ASTM D-790
Flexural Yield Strength	6200 – 97000 PSI	ASTM D-790
Izod Impact Resistance	3 – 8 ft/lb/ 1/8Notch	ASTM D-256
Specific Gravity	1.04 – 1.40	ASTM D-792
Hardness (Rockwell)	R 81 – 105	ASTM D-785

4.9.3.3.9 Sample

MDT may request a production 2-passenger transverse seat from any prospective seat supplier, to be delivered to MDT during the Approved Equals process prior to technical proposal evaluation. Seat will then be dismantled to determine life cycle costs and evaluate necessary repair techniques. Upon request, MDT shall reassemble and return to the supplier.

4.9.3.4 Accessibility Provisions

4.9.3.4.1 General

The design and construction of the bus shall be in accordance with all requirements defined in 49 CFR, Part 38, Subpart B: ADA Accessibility Specifications for Transportation Vehicles - Buses, Vans and Systems. With Requests for Approved Equals submittals, the Contractor shall provide a plan, including layout drawings for entry, maneuvering, parking, and exiting of wheelchair passengers, to show compliance with ADA regulations.

4.9.3.4.2 Wheelchair Ramp

A Lift-U model LU-6 fold-out type or approved equal, electrically powered wheelchair ramp system compliant with requirements defined in 49 CFR Part 38, Subpart B, §38.23c shall provided. The ramp shall provide ingress and egress for a passenger in a wheelchair from a level street or curb. The wheelchair loading system shall be located at the front door. The ramp shall be of a simple hinged, flip-out type design. When the ramp is in the stored position no tripping hazards shall be presented and any resulting gaps shall be minimized. There shall be no obstructions, obstacles, edges, or gaps on the ramp or the adjacent floor surface, greater than ¼ inch in height or width, except for ramp side barriers specifically required by the A.D.A.

The loading platform shall be covered with a replaceable or renewable, nonskid material and shall be fitted with devices to prevent the wheelchair from rolling off the sides during loading or unloading. A passenger or attendant, standing on the ramp platform, shall be able to easily obtain support during the entire loading or unloading operation by grasping passenger assists provided for this purpose.

The controls shall be simple to operate and the ramp operation shall be under the control of the operator. The ramp shall be electrically controlled and operated without any hydraulic assist. The ramp controls shall be clearly marked and consist of spring-loaded momentary switches which when released by the operator, shall cause the ramp motion to stop in any position while deploying or

stowing. The ramp shall not be capable of operation until the bus parking brake is on, the transmission is in neutral, and the doors are in the fully open position. When the doors are open the bus throttle and brake interlocks shall be activated. The bus shall be prevented from moving while the ramp is deployed by the throttle and brake interlock. The bus shall not be able to move until the ramp is fully stowed. In the event of a failure, the interlocks shall be released by setting the door master power switch in the "OFF" position. The ramp shall be inhibited from folding when a passenger is on the ramp.

Deployment or storage of the ramp shall require no more than 15 seconds. The device shall function without failure or adjustment for 500 cycles. In the event of loss of power to the ramp, the ramp shall be easily operated manually with minimal effort. The manual operation of the ramp shall not require more than 20 lbs. of force.

The manufacturer must certify ramps to meet or exceed all A.D.A. and F.T.A. requirements, including D.O.T.-T-93-03. Submit proposed ramp system to MDT for approval with Requests For Approved Equals.

Spare Wheelchair Ramps

Spare Wheelchair Ramps (Complete Assembly) shall be provided by the Contractor and priced separately from the bus in the Price Proposal. MDT shall have the option to purchase up to ten (10) Spare Wheelchair Ramps.

4.9.3.4.3 Wheelchair Securement

Two (2) forward-facing wheelchair securement locations, as close to the loading system as practical, shall be provided. A four belt wheelchair restraint system, American Seating ARM, Q-Straint Slider Track, or approved equal, shall be provided. Belts shall be Q-Straint QRT or approved equal. All belts shall be retractable and permanently mounted. A convenient retractable belt storage system is to be incorporated in the overall securement system so that all belts are easily stored out of the way when not in use. A retractable lap belt shall be provided for each of the two securement locations. Parking space and securement system shall be compliant with ADA requirements.

4.9.3.5 Stop Request Signal

A passenger "Stop Requested" signal system that complies with applicable ADA requirements defined in 49 CFR, Part 38.37 shall be provided. It shall be easily accessible to all passengers seated or standing, including wheelchair passengers and passengers at the rear of the bus. The system shall consist of a heavy-duty

pull cable, chime, and interior sign message. The pull cable shall be located the full length of the bus on the sidewalls at approximately 63 inches above the floor. Yellow plastic covered steel pull cables shall activate switches. At each wheelchair parking position and priority seating positions additional provisions shall be included to allow a passenger in a mobility aid to easily activate "Stop Requested" signal. Stop Request provisions located in the wheelchair parking area shall be no higher than 4 feet above the floor. Instructions shall be provided to clearly indicate function and operation of these signals. A heavy-duty "Stop Request" signal button shall be installed on a stanchion at the standee line near the door and clearly identified as "Passenger Signal."

A chime signal, audible to the driver and to passengers anywhere inside the bus, shall be provided. A single chime shall sound when the system is first activated from an ambulatory position. A double chime shall sound when the system is first activated from wheelchair passenger areas. A stop requested sign shall be installed overhead in the front entry area visible to passengers and driver. The sign shall illuminate when the system is activated and shall remain lit until the door is opened. Separate dashboard indicator lights for stop request and wheelchair stop request shall illuminate when the corresponding signal is activated.

4.9.4 Operator's Provisions

4.9.4.1 Operator's Area

Surfaces forward of the driver's barrier shall be finished with a dull matte finish to eliminate glare.

To the extent practicable, dash panels and side control panels shall be configured to preclude use for storage or placement of items such as coffee cups, etc.

4.9.4.2 Operator's Barrier

A barrier or bulkhead between the driver and the left front passenger seat shall be provided. The barrier shall eliminate glare from interior lighting during night operation. The barrier shall extend from the floor level to the ceiling and prevent passengers from reaching the driver or driver's personal effects.

4.9.4.3 Operator's Seat

Operator's seat to be a USSC 9100 ALX pneumatic suspension seat. This is a high back model and shall have no arm rest. Installation of the seat shall not interfere with any of the adjustment features of the seat. The driver's seat shall be

upholstered with a Craftex X-11 transit black cloth and F-040 black vinyl on boxing and nosings. The driver's seat must come equipped with the longest retractable safety belt offered by the manufacturer. The driver's seat shall have a seat belt, meeting requirements of Federal Motor Vehicle Safety Standard No. 207 and No.210. The seat belt shall have an automatic ratcheting retractor on the left-hand side, and the mating part on the right-hand side shall be as short as possible. Seat belt shall be black.

The seat frame shall be of satin finish stainless steel, box type, tubular construction, reinforced where necessary to prevent failure due to vibration and shall be readily removable from the base.

The total travel measured for the operator's seat, from fully retracted to fully extended position in its guideway, shall be a minimum of 11 inches.

With the seat fully lowered and in fully forward position, the horizontal distance measured between the edge of the seat cushion and the fixed steering column housing shall be a minimum of six (6) inches. (See Exhibit)

4.9.4.4 Coat Hook

A driver's metal coat hook shall be mounted in a location convenient to the driver (location to be determined by MDT at time of manufacture).

4.9.4.5 Visors

Adjustable roller type sunscreens shall be provided over the operator's windshield and the operator's side window. The sunscreen shall be capable of being lowered to the midpoint of the operator's window. When deployed, the screen shall be secure, stable and shall not rattle, sway or intrude into the operator's field of view due to the motion of the coach or as a result of air movement. Once lowered, the screen shall remain in the lowered position until returned to the stowed position by operating a release mechanism. Sunscreens shall be of a durable, rugged design. The sunscreen fabric shall be black. Sunscreens shall be opaque, but may have portions that allow visible light transmittance.

4.9.4.6 Mirrors

4.9.4.6.1 Exterior Mirrors

The bus shall be equipped with a corrosion resistant, 8" X 8" minimum, exterior rearview mirror on each side of the bus. Exterior mirrors shall have spring loaded arms designed to permit mirror to be moved out of the way to preclude damage by

automatic bus washing equipment. Curbside mirror shall be electrically remote controlled with a heavy duty four directional switch. Curbside mirror will also have a three inch convex mirror mounted in he lower right corner of the flat mirror. No part of the right side mirror shall be within 80 inches from the ground,

All mirrors and brackets shall be B & R or approved equal.

All mirror locations must be approved by MDT prior to production.

4.9.4.6.2 Interior Mirrors

Mirrors shall be provided for the driver to observe passengers throughout the bus without leaving his seat and without shoulder movement. Interior mirrors shall not be in the line of sight to the right side exterior mirror.

Interior mirrors shall include a 4" x 16" drivers rearview mirror and a 6" convex mirror at the front right corner near the ceiling.

4.9.4.7 Operator Controls and Instrumentation

4.9.4.7.1 Operator Controls

All switches and controls necessary for the operation of the bus, except door master power switch 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.

The door 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 wiring at these controls, and instruments shall be dust and water resistant consistent with bus washing practices.

4.9.4.7.1.1 Engine Run Controls

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

1. OFF-
   All electrical systems off, except power available for the interior lights (on position), turn signal lights, hazard lights, horn, fire protection, radio, farebox, AVLS, and engine/transmission ECU if required.

2. RUN-
   All electrical systems and engine on, except the headlights, passenger interior lights, parking lights and marker lights.

3. NIGHT/RUN-
   All electrical systems and engine on.

4. CL/ID
   All electrical systems off, except those listed in OFF, plus stop lights, and marker lights. Provide a list of electrical systems which will provide power when switch is in ID/CL position.

4.9.4.7.1.2 Accelerator

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

4.9.4.7.1.3 Windshield Wipers and Washers

Windshield Wipers

Two (2) air-operated heavy duty Sprague Super Challenger (or approved equal) windshield wipers shall be provided. The following features shall be incorporated: variable speed, self-parking type, intermittent operation feature, 5/8 inch diameter shaft with crown nut attaching wiper arm to pivot shaft. Motors shall be easily accessible for inspection, maintenance and replacement. Wiper motors shall be piped so air will exhaust below floor.

Electric wiper motors will be accepted by MDT.

Windshield Washers

Windshield washers shall be Sprague air-operated type with a minimum one (1) gallon reservoir that is fillable from outside of the bus. Windshield washer control shall be conveniently located to driver.

4.9.4.7.2 Instrumentation

4.9.4.7.2.1 Gauges And Lights

The speedometer, air pressure gauges, (primary and secondary air tanks) and certain indicator lights shall be located on the front cowl, immediately ahead of the steering wheel. The steering wheel spokes 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 for the instruments, indicators or other controls shall be minimized. Instruments and indicators shall be easily readable in direct sunlight. Indicator lights immediately in front of the driver shall include:

High headlamp beam

Right turn

Left turn

Hazard warning (may be common with turn signal indicators)

A/C Start (stop)

Parking brake applied

Service brakes applied

Stop request

Wheelchair stop request

Kneel

All instruments shall be of the direct readout type.

4.9.4.7.2.2 Instrument Panel

The instrument panel shall include an electric speedometer indicating no less than 60 mph and calibrated in maximum increments of 5 mph. The speedometer shall be a rotating pointer type, with a dial deflection of 220 degrees to 270 degrees and 40 mph near the top of the dial. The speedometer shall be sized and accurate in accordance with SAE Recommended Practice K678. The instrument panel shall also include gauge(s) with indicators for primary and secondary air tanks and voltmeter(s) to indicate the operating voltage across the bus batteries. Oil pressure and water temperature indicators shall be incorporated. The instrument panel and wiring shall have sufficient length and be routed to permit service without stretching or chafing the wires.

4.9.4.7.2.3 On Board Diagnostic

Critical systems or components shall be monitored with a built-in diagnostic system. This diagnostic system shall have visual and audible indicators. 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 loud enough for the driver to be aware of its operation and to be inclined to discontinue operation of the bus. Malfunction and other indicators shall be supplied as a minimum on all buses as follows:

Visible Indicator	Audible Alarm	Function
Low Eng Oil	Yes	Engine Oil Pressure Low
Low Trans Oil	Yes	Transmission Oil Level Low
Hot Eng	Yes	Engine Coolant Temperature High
Low Air	Yes	Air System Pressure Low In Primary Or Secondary Reservoirs
Low Water	Yes	Radiator Water Level Low
Gen	No	Generator Not Charging

Hot Trans	Yes	Hot Transmission
Batt	No	Battery Low Voltage
A/C Stop	No	Compressor Off At High/Low Switch (if applicable)
Parking Brake	Yes	Parking Brake On And Transmission Is In Any Position Other Than "Neutral" Or"Park"
Fire	Yes (This alarm shall be a bell, separate from the other audible alarm(s)	Over TemperatureIn Engine Compartment

4.9.4.8 Emergency Equipment

4.9.4.8.1 Fire Extinguisher

The Contractor shall furnish and install one (1) general model #TCP5JH, or approved equal, ABC rated, 5 pounds, dry chemical type extinguisher with special non-kink, 12 inch hose assembly.

The fire extinguisher shall be located on the front curbside wheelwell housing if practical. Mounting to be approved my MDT at the time of bus manufacture. Mounting of the extinguisher shall be rigid and such as to prevent vibration and noise. The mounting shall be a Spring-Grip bracket manufactured by Brooks Equipment or approved equal.

On the outside of the fire extinguisher there shall be a metal label indicating that the fire extinguisher has been listed and approved by the Underwriter's Laboratories and Factory Mutual Laboratories. A sticker with the date the extinguisher was last inspected shall be placed visibly on the unit.

4.9.4.8.2 Reflector Triangles

Provide three (3) highway warning triangles in a reusable plastic container, K.D. Pt#610-4645.

Provide accompanying mounting bracket K.D. part #616-9000. Signs shall meet all existing Federal DOT regulations covering emergency roadside signs and disabled vehicles. Locate signs on the front curbside wheelwell housing, if practical.

4.10 CLIMATE CONTROL

4.10.1 General Requirements

An interior climate control system shall maintain the interior of the bus at a level suitable for the climatological conditions found in the Miami, Florida area. The heating, ventilating, and cooling systems shall maintain an average passenger compartment temperature between 65 degrees and 75 degrees Fahrenheit with a relative humidity of 50 percent or less. The system shall maintain these conditions in ambient humidities of 85 percent while the bus is running on a central business district duty cycle with a full standee load of passengers. The interior temperature, from front to rear of the bus, shall not vary more than ± 5 degrees Fahrenheit from the average.

Outside openings for air intakes shall be located to ensure cleanliness of air entering the climate control system particularly with respect to exhaust emission from the bus and adjacent traffic.

The air outlets for the circulation of the conditioned air shall have even distribution and minimal temperature differential or drafts by use of overhead outlet design.

There must be an auxiliary multi-speed blower in the driver's compartment to assure that a sufficient amount of conditioned air is available to the driver under all operating conditions. The driver's air outlet shall have adjustable louvers to control the direction of airflow and a damper to shut off air flow to the driver. Louvers shall be ruggedly designed and shall hold their position by means of a positive mechanical latching device. Submit sample louver with request for approved equals.

Screened defroster opening or approved equal shall be full width across bottom of windshield so that the entire windshield will be kept free from frost or fog.

4.10.2 Heating System

An adequate system of heating shall be provided to give maximum comfort to passengers and drivers.

Main heating system shall be thermostatically controlled. Heater water pump to operate only when gradustat or defroster requires heat. This system shall have a capacity of at least 60,000 BTU's at 100 degrees water-to-air temperature differential.

Driver's heater and defroster shall consist of a separate dash heater for driver's comfort and a blower for windshield defrosting. A heater unit of at least 30,000 BTU's output at 100 degrees water-to-air temperature differential is required for this application. A two-speed blower shall have an air volume of 500 CFM minimum with separate switch and manual valve to control water flow.

Heater water lines shall be annealed copper, and be heavily insulated. Use slip fit soldered joints at all line joints. Heater radiator cores to be constructed entirely of copper and brass. Tanks shall be minimum 0.040 inch brass and core tubes shall have a 0.006 inch wall thickness. A condenser type heater core, which is a multi-circuit, copper tube aluminum fin type, with coil tubes of 0.020-inch wall copper tube and fins which are 0.0085-inch aluminum, may be used.

All water used in the bus heating system shall be from the bus main engine cooling system. A Rotron brushless ECDC water circulating pump shall be used. The pump shall be of a sealess design not requiring annual bearing replacement and shall be readily accessible for service and inspection.

4.10.3 Air Conditioning

The unit furnished shall be supplied by the Thermo-King Corporation.

System capacity shall be a minimum of 80,000 BTU with 2,000 CFM at 0.5" of water static in duct. The system shall provide a net cooling at 100 degrees F. ambient to 75 degrees F. at 50 percent relative humidity holding temperature. The system shall be thermostatically controlled and provide for air flow to be directed into the driver's console area as well as the passenger compartment.

Distribution of cooled air is to be made through full length longitudinal ducts above the windows. Outlet shall exhaust air to the bus center line also downward over the window glass.

The condenser shall be located to efficiently transfer heat to the atmosphere, and shall not ingest air warmed by the bus mechanical equipment above the ambient temperature or discharge air into any other system of the bus. No condenser installation below belt line will be accepted. The condenser fans and evaporator blowers shall use Rotron ECDC brushless motors.

The air conditioning system shall meet the modified Houston pulldown, stabilization, and profile tests (Paragraphs 8.0, 5.0 & 6.0 respectively) as developed by the Body and Accessories working group of the APTA bus equipment and maintenance committee. The location of interior and ambient temperature probes shall be modified to accommodate a small bus. The tests in Para. 5.3.1 shall be conducted with the new location of temperature probes. Vendor shall submit test results with the proposal.

4.10.4 Ventilation

Ventilation will be provided by a combination roof escape hatch / ventilator described elsewhere in these specifications.

4.11 Lighting

4.11.1 Exterior Lighting

All exterior lights must be of a waterproof design and meet U.S./DOT requirements.

The bus shall be provided with "sealed beam" automotive headlights of counter sunk type having tilt ray features which shall be controlled by a button dimming switch mounted on the floor (not through the floor), convenient to operator's left foot. Sealed beam units shall be of latest type and have low beam rating of 600-hour life. Daylight running headlights shall be provided.

All exterior lights with the exception of the headlamps shall be Dialight LED potted, shock protected lamps, or approved equal. The lights shall have a remote ground. The light shall be sealed to prevent entry and accumulation of moisture or dust. Each lamp shall be replaceable in less than 5 minutes. Lamps and fixtures shall be interchangeable to the extent practicable.

Two (2) white LED back-up lights shall be provided and controlled automatically by the reverse gear selector. 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. Back-up lamps shall be Dialight LED, or approved equal.

Directional signals shall be operated by self-canceling momentary foot switches (left, right, or both) or pedestal type housing on the left of the steering column. Directional signal tell-tale lights shall be located on dash. Flasher operation shall be controlled by the bus multiplex system. In addition to the momentary foot switch, a heavy duty toggle switch or rocker switch near the door control shall activate the hazard warning lights. Hazard warning lights shall operate automatically with the engine run switch on, when the transmission is in gear and the door is open.

Two hazard lamps at the rear of the bus shall be visible from behind when the engine service doors are opened.

Two 7" minimum combination stop and tail lights and two 7" minimum amber directional signal lights, both Dialight LED or approved equal, shall be provided at rear of bus. In addition to the standard rear directional signals, upper directional signals shall be mounted at least eight feet (8') above the street. Upper signals shall be minimum four inches (4") diameter amber LED.

Turn signal lights shall be provided on both sides of the bus and shall be of the armored LED type with amber lenses. The side turn signals shall be located opposite each other and in line.

Identification lights (Michigan marker lights, individual type) shall be mounted at the front and rear center of the roof crown panels. Front lights shall be amber LED and rear lights shall be red LED. All marker lights must be designed so that water will not intrude into the interior of the bus.

Four roof marker lights shall be installed. The two forward lights shall be amber LED, the two rear lights shall be red LED.

A deceleration alert system shall be installed on the rear engine access door. The system shall have two (2) 7 inch LED amber deceleration lights and one (1) 7 inch LED red stop light surface mounted in the center of the door at a height to be determined prior to manufacture. The amber lights shall flash quickly (twice as fast as directional lights) when the master switch is in the "run" positions only and the accelerator is released. When the brakes are applied, the amber lights shall continue to flash and the center stop light will come on with the other stop lights. The lights shall conform to the National Highway Safety Codes.

A JKA Company LED illuminated "STOP" sign shall be installed in the center of the rear engine access door and shall come on with the other stop lights.

Front entrance area and curb lights at the door shall activate only when the doors open and master run switch is in the "Night Run or Lights" positions, and shall illuminate the street surface to a level of no less than 1 foot candle for a distance of 3 feet outward from the step tread edge . The lights shall be in accordance with the latest provisions of 49 CFR 609.15. Lights shall be shielded to protect passengers' eyes from glare.

Wheelchair ramp service area lights shall be white LED and shall conform to ADA requirements.

4.11.1.1 Service Compartment 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 start controls in the engine compartment. Necessary lights, located in other service compartments, shall be provided with single pole contact switches on the light fixture or convenient to the light.

4.11.2 Interior Lighting

Interior is to be lighted by sections of fluorescent tubes mounted end to end on both sides of the ceiling along the aisle. Fluorescent lights shall be controlled by a three-position switch. When "OFF", all fluorescent lamps are extinguished regardless of the master run switch position. When "ON", all fluorescent lamps are illuminated regardless of the master run switch position. When in "NORMAL" with the master run switch in "NIGHT RUN", the lamps are all illuminated when the entry door is OPEN. When the entry door is closed, the first forward lamp on each side is automatically extinguished. Fluorescent lights shall be powered by individual inverter ballasts, one per tube, mounted to the inside face of the lamp housing or behind the advertising card racks. Ballasts shall be enclosed with fire-proof material. They should be inaudible with an operating frequency above 18,000 Hz. Interchangeability of fluorescent lamps, lenses, fixtures, and power supplies shall be maximized. Ballasts shall have reverse polarity protection, integrated circuit breaker/automatic thermal protection, and be designed and warranted for a minimum of 5 years service.

4.11.2.1 Floor Lighting

The floor surface in the aisle shall be illuminated to no less than 10 foot-candles. Floor surface in the vestibule shall be illuminated to no less than 4 foot-candles

with the front door open and to no less than 2 foot-candles with the front door closed. Fluorescent lighting shall not be installed above the driver's side window and the front door. Lamp fixtures and lenses shall be fire resistant and shall not drip flaming material onto seats or interior trim if burned. The fixtures shall be sealed to prevent accumulation of dust and insects, but shall be easily openable on hinges for cleaning and service. The lenses shall be retained in a closed position and, if threaded fasteners are used, they must be captive in the lens with cross recessed type heads.

4.11.2.2 Step Lighting

If an aisle step between lower and upper floor levels is used, LED step lights shall be illuminate shall illuminate in all engine run positions. These lights shall be water proof, low-profile to minimize tripping, and shielded to protect passengers' eyes from glare.

4.11.2.3 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 10 to 15 foot candles. This light shall be controlled by a switch that is convenient to the driver. Power for this light must be turned off when the master switch is in the "off" position.

5.0 ELECTRICAL, ELECTRONIC, AND DATA COMMUNICATIONS SYSTEMS

5.1 Electrical System

The bus shall be equipped with a programmable multiplexing system manufactured by I/O Controls or approved equal. The multiplex system main controller and zone modules shall have spare inputs and outputs to accommodate future bus modifications.

Spare Multiplex Parts Sets

Spare Multiplex Parts Sets (Complete bus system with data cabling) shall be provided by the Contractor and priced separately from the bus in the Price Proposal. MDT shall have the option to purchase up to twenty (20) Spare Multiplex Parts Sets.

Sets of Multiplex Diagnostic and Programming Tools

The Proposer shall provide a list of the special multiplex diagnostic and programming tools required to maintain the programmable multiplexing system with his proposal.

Sets of Multiplex Diagnostic and Programming Tools shall be provided by the Contractor and priced separately from the bus in the Price Proposal. MDT shall have the option to purchase up to ten (10) Sets of Multiplex Diagnostic and Programming Tools.

5.1.1 Alternator

The alternator must be able to produce enough output to handle the electrical demands of the vehicle without drawing current from the battery when the engine is at an idle, all accessories (to include A/C) are on, and master switch in night run position. Submit total electrical load versus alternator output at idle to MDT with requests for approved equals.

Alternator over-voltage output protection shall be provided.

If the alternator is belt driven, the manufacturer must supply a belt that will last a minimum of one (1) year or 50,000 miles. If a belt is utilized, an automatic belt tensioning device must be incorporated with the unit. The belt must not require retensioning after initial installation. This requirement shall remain in effect and warranted for all belts installed through the useful life of the bus.

5.1.2 Batteries

Provide maintenance-free Delco 1150 batteries or Delco RoadGang (Part # 19049940, Model DR31-2150A, CCA 700, RC 180) batteries. (Battery compartment design shall conform to the requirements of the Technical Specifications)

The battery terminal ends and cables shall be color-coded with red for the primary positive, black for negative, and another color for any intermediate voltage cables. Battery cables shall be flexible and sufficiently long to reach the batteries with tray in the extended position without stretching or pulling on any connection and shall not lie directly on top of the batteries. Except as interrupted by the master battery 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.

Provide a terminal block in the battery compartment for powering systems,such as the DC-DC converter that require constant power when battery cutoff switch is off.

5.1.3 Master Battery Switch

A single master switch shall be provided near the battery compartment for the disconnecting of all battery positives (12V & 24V) except systems as specified. The location of the master battery switch shall be clearly identified on the exterior access panel. Access to the cut-off switch shall not require the use of keys or tools and be accessible in less than 10 seconds for de-activation

Turning the master switch "OFF", with the powerplant operating, shall not damage any component of the electrical system. The master switch shall be capable of carrying and interrupting the total circuit load.

5.1.4 Starter Motor

The starter motor shall be 24 volt operated by a solenoid controlled by a start switch on the driver's control panel. Starting motor is to be wired so that engine can not be started when bus is in gear. A protective circuit shall be provided to prevent starter engagement with engine running.

A jump start plug, Anderson Power Products 350 amp receptacle (SB-350 6320G1) shall be provided in the rear engine compartment. Submit location of jump start plug to MDT for approval with requests for approved equals.

5.1.5 Wiring

All general purpose wiring shall be cross linked polyethylene insulated or approved equal. Wiring shall be hot stamped numbered as well as color coded.

Battery cable from battery to starter shall be 4/0 gauge with minimum of 0.075 inch wall plastic insulation.

The wiring harnesses shall incorporate 10% spare wires.

Main wiring harness shall be loom covered and concealed within the body for protection from elements and excessive heat.

All cables, and harnesses shall be secured to prevent chafing or shorting against each other or any part of the vehicle. Clamps shall be rubber or PVC clad aircraft type.

Grommets or other protective material shall be installed at points where wiring penetrates metal structures.

All wiring shall start and end at a junction block or component.

All terminal ends shall end on stud/nut or screw type junction blocks. Only tin/lead covered, non-insulated, brazed seam, copper terminals will be used underneath the bus, in the engine compartment, and heater compartment. All terminals and adjoining wire shall be covered with heat shrink tubing that has an inner meltable liner. The heat shrink will also act as a stain relief. The heat shrink shall be applied with a heat gun. A flame is not acceptable.

Multiple pin type connectors shall be provided to permit rapid disconnect of multiple circuits for engine, transmission, and closure door wiring. Directional signal switch shall have inline connectors.

All inline and bulkhead connectors are to be of the weather pack sealed type.

Multi-pin connectors shall be protected internally from corrosion with silicone dielectric grease (Dow Corning #4).

All circuits except the engine emergency shut-off and speedometer circuits must be protected by reset circuit breakers that clearly indicate their position when tripped. Each breaker must be labeled. Circuit breakers must have plastic dust caps.

Spare Main Wiring Harness Assemblies

Spare main wiring harness assemblies shall be provided by the Contractor and priced separately from the bus in the Price Proposal. MDT shall have the option to purchase up to five (5) main wiring harness assemblies.

5.1.6 Circuit Protection

All branch circuits, except battery-to-starting motor and battery-to-generator/alternator circuits, shall be protected by circuit breakers or fuses sized to the requirements of the load. Electronic circuit protection for the cranking motor shall be provided to prevent engaging of the motor for no more than 30 seconds at a time to prevent overheating. The circuit breakers or fuses shall be easily

5.2 Intelligent Vehicle Area Network

A Vehicle Area Network (VAN) shall be provided on the bus to accommodate present and future MDT electronic systems. The VAN will make data available to technicians to assist with diagnostics, allow sharing of data among on-board electronic systems, and allow transfer of data to MDT in real time or to be stored for retrieval later. The VAN will primarily be utilized for communication among Information Level equipment such as passenger information, fare collection, passenger counting, and radio/AVL equipment, but will also allow monitoring of information from Drivetrain Level and Multiplex Level equipment.

The VAN shall consist of 4 device access boxes (DAB's) and associated cable assemblies which shall satisfy the interface requirements and standards for connecting present and future bus equipment and devices in accordance with SAE J2496 and 1708J. The DAB's shall be located in the communications equipment box, in the driver's dash area, in the curbside A/C duct aft of the passenger door, and in the curbside A/C duct at the rear bulkhead. DAB types and connectors shall be selected to accommodate the specified information level equipment as a minimum. If suppliers of specified equipment cannot at the time of manufacture accommodate or connect to and utilize the VAN, connectors shall be provided to facilitate future retrofit or replacement of specified equipment. This includes future addition of compliant passenger counter and fare collection equipment. The VAN shall be connected to the diagnostic port of the engine, transmission, and automatic/antilock braking system. The 24 hour power shall be from the specified DC-DC converter. Engine run (ignition) power shall come from the bus engine run switched power.

5.3 Electronic Destination Signs

General

An electronic destination sign system shall be furnished and installed by the Contractor.

All necessary hardware, brackets and electrical wires shall be included by the Contractor to ensure that the installation is complete and operational.

A wiring schematic showing the proposed electrical hook up to the bus electrical system and vehicle area network must be supplied to MDT.

A list of the routes to be displayed will be supplied by MDT for programming the memory of the computer and transfer unit.

5.4.1 Conduit

Contractor shall provide and install a 2-1/2 inch ID conduit or an equivalent inner wall channel space from the radio box to the radio control head mounting location. Conduit or channel design shall facilitate installation of the radio control cable by the "pull through" method in both initial and future installations to facilitate repair and replacement. Conduit shall be rust and water proof.

5.4.2 Transit Control Head

The Transit Control Head has the following dimensions:

Height - 4 inches
Length - 10 inches
Width - 2.5 inches

The TCH has to be mounted in such a way that the driver will have a full view of the TCH display and the mounting of this unit will not impede the view of the road. The proposed mounting location is to be reviewed and approved by MDT prior to production.

5.4.3 Handset and Cab Speaker

The Handset must be mounted at waist level (driver seated) requiring minimal body movement, located in front of the driver, and requiring minimal eye movement when locating the handset.

The Cab speaker must be mounted so the driver can hear an announcement when the volume has been lowered.

MDT will provide all Inter-Connect drawings. Mounting locations must be approved by MDT prior to production.

5.4.4 Antennas

The Contractor shall supply and mount a low profile 800 MHz antenna (Antenna Specialist ASP-930T) with RG58 coax cable and TNC connector to the radio.

The Contractor shall supply and mount a GPS antenna w/gasket (Trimble 502 Model 18334) with RG58 coax cable and F Type male connector to the VLU.

The Contractor shall mount the GPS antenna (P/N 801-3200-000) and cable supplied with the Stop Announcement System.

All antenna cables must be run in 1 inch diameter conduit to the radio box. Removable access covers shall be provided in the ceiling of the bus in order to allow access to the antenna and conduit. Three antennas shall be installed on every bus. Antenna locations shall be as close as possible to the center line of the bus and have a separation of approximately 3 feet. All mounting locations must be approved by MDT prior to bus manufacture.

5.4.5 Emergency Transmit Switch

Contractor shall provide and install a Silent Alarm switch. The switch shall activate the Silent Alarm function of the radio system and destination sign. The switch shall be a red push button double pole switch with guard ring, manufactured by OTTO Engineering, part P/N P4-624122. The push button must be red and have a protective collar to prevent accidental activation. The installation and location of the switch must be approved by MDT prior to production.

An emergency anti-highjack function shall be provided which will activate the throttle interlock and the transmission auto neutral features when inputs are provided by the radio system. (The transmission "auto neutral" feature is activated when the transmission "auto neutral" input wire is grounded.) The radio VLU will utilize two of its normally open dry contacts to provide ground inputs to the I/O Controls programmable logic system. One contact will provide the signal to activate the anti-highjack function to disable the bus. The bus will remain disabled until the other contact provides a signal to de-activate the anti-highjack function.

The intent of these specifications is to have the Contractor provide and install a complete and functional radio system.

5.5 Automatic Announcement System

The Contractor shall provide a Digital Recorders Inc. DR500C stand alone stop announcement system (Part # 901-1000-000). This stand-alone system, which includes all hardware, antenna, interfaces, and interior sign is to be provided and installed by the bus manufacturer. The interior sign shall be interfaced with the voice annunciation system (DR500C) and shall take destination and route information from the DR500C and display it visibly. The display shall meet all ADA requirements for interior signage (Lettering of 3" high and ADA compliant). The sign shall be 27' x 2" x 4" and shall display a single line message. Messages shall be shown streaming or by any of three single frame modes with automatic centering. The sign shall have programmable speed, delays, and looping, pollable

busy status, and forced reset capability. Sign enclosure shall be black powder paint finished and aluminum matted finished to reduce glare. The system shall be constructed to withstand the harsh environmental conditions found in transit applications. A DR500C controller head shall be provided which will interface with the DR500C unit and the onboard keypad of the Twin Vision or equal bus destination sign to provide route information to both the DR500C and destination sign to limit keypad entry by the driver. The data supplied by MDT for all routes, runs, and time points information, shall be provided by the Manufacturer on a master PCMCI card. Each unit shall be provided with a Blank PCMCIA card with enough memory to allow for 20% growth expansion.

Regulated 13.6 volts DC power shall be provided for the stop announcement system by the output of the dedicated electronics systems power supply.

Access to connect or disconnect cables to the voice annunciator must be provided without having to remove racks, shelves, or equipment.

The Manufacturer shall provide all software and cables/interface to monitor and troubleshoot the system using a laptop computer.

The DR500C will provide the pre-amplification for the PA System.

5.6 Public Address System

Contractor shall provide a public address system with a minimum of eight (8) 5", 40 watt, 4 ohm interior speakers in the ceiling or lighting panels and one (1) exterior weather proof speaker at the front door. The speakers shall compatible with the DR500C and capable of producing clear, high quality announcements. A 3-way selector switch must be provided for the manual P.A. system (inside/both/outside) so that the driver may select inside or outside or inside/outside announcements. The amplifier from the DR500C voice annunciator system shall be used for all audio functions of the P.A. system. Ambient noise level sensing capability will be incorporated such that the volume of automatic announcements as well as the volume of manual announcements is automatically adjusted to compensate for the ambient noise level.

The system must be capable of accepting several different audio input sources. A foot operated DRI Stealth microphone mounted on the steering column or front dashboard shall be provided so the driver will be able to make hands free announcements. The Stealth microphone will have priority over the automatic next stop system. The P.A. system will interface with the radio system so that announcements originating from the radio can be made. The radio system handset will also be used to make announcements by the driver. The system must also

have an auxiliary jack for a hand-held microphone. The auxiliary jack shall be wired such that the Stealth microphone is rendered inoperable whenever a handheld microphone connector is engaged in the jack. The Contractor shall provide one (1) hand-held microphone with extra-flexible twenty foot (20') cable with each buses.

The installation must be approved by MDT prior to production

5.7 Fare Collection

5.7.1 Farebox

An Electronic Farebox shall be furnished and installed by the Contractor. All necessary hardware and electrical wires shall be included by the Contractor to ensure that the installation is complete and operational.

The electronic farebox shall be a Cubic Western phase III, fully equipped with all modules and circuit boards and cashbox. The farebox must be 100% operationally and physically compatible with the existing fareboxes in the MDT fleet.

Fare Box Location

Contractor shall provide unencumbered space to accommodate a Cubic Western Phase III farebox with auxiliary drop box. This space shall be as forward as practicable so that the installed device shall not restrict traffic in the passenger area and shall allow the driver to easily view the coin and bill drop window and viewing ramp. This space shall not restrict access to the driver's area and/or operation of driver controls. It shall permit easy removal of the cash box from the farebox. The Contractor shall provide a farebox Floor Mounting Plate (which consists of the stainless steel plate with studs and nuts) for the mounting of the farebox. A mechanical base mount designed and provided by the Contractor may substitute for the Floor Mounting Plate so long as it allows the farebox to be mounted securely. The farebox will not be recessed in the dash. The specific location of the farebox and mounting plate shall require the approval of MDT.

Farebox Wiring

The Contractor shall provide wiring to accommodate the Cubic Western Phase III Farebox. A 12 Volt-DC constant power supply with a 15 amp circuit breaker protection shall be provided from the output of the Wilmore 24VDC-13.6VDC converter. Power shall be available with the master run switch in any position including off. The farebox power wiring must be a multi stranded, two conductor, sheathed, red/black pair, 14 gauge wire. A Power/Alarm Cable Assy., Cubic Western P/N 827-8025, which includes connectors and terminals, shall be provided by the Contractor.

The Contractor shall provide wiring to accommodate the alarm function of the Cubic Western Phase III Farebox. A 3 pair (6 conductor) color coded cable of 22 gauge stranded wire shall be installed from the farebox alarm output point to the Bus Alarm Termination Block. This cable is not available through Cubic Western. No splices are permitted in power and alarm cables. Farebox wiring must be approved by MDT prior to production (including alarm wiring).

5.7.2 Transfer Cutter

The Contractor shall provide a transfer cutter (See Exhibit) mounted forward and to the right of the driver. Mounting and exact location will be determined by MDT at the time of bus manufacture.

5.8 CCTV Surveillance System

A CCTV surveillance system shall be provided and installed by the Contractor. The surveillance system shall be a Kalatel MobileView® III DVR (digital video recorder) system.

The system shall record from four (4) cameras (color, infrared, and B/W) and have capability for additional cameras. The system shall store digital images on a compact vehicle-mounted digital video recorder (DVR) with an Ethernet port for field access with a laptop computer. The DVR is contained in an inner and outer enclosure. The inner enclosure houses the DVR and has a "quick disconnect" for removal from the outer enclosure (docking station). The docking station shall be mounted on a slide out tray in the communications equipment box. The DVR shall be capable of continuous image recording at a user-defined recording rate and can store at least seven days of images (18-hr days). The DVR shall support up to six user-defined inputs and two outputs. The DVR shall record audio and provide synchronized audio output during image playback. The system shall have an ambient noise cancellation circuit to eliminate recording the ambient noise inside the vehicle.

Regulated 13.6 volts DC power shall be provided for the DVR system by the output of the dedicated electronics systems power supply. The DVR supplies filtered power to cameras. The DVR is self-regulating and internally protected from power surges and is environmentally monitored for internal temperature.

The bus shall be equipped with 4 CCTV cameras as follows:

1. A low LUX camera mounted below the destination sign compartment near the top of the windshield, forward facing. The camera shall be a color

camera with the capability to capture images in ambient lighting at night. If necessary, the camera may switch to black and white under very low lighting conditions. The field of view shall include the street in front of the bus, overhead traffic signal while stopped at an intersection, and pedestrians on the sidewalk or at the curb approximately 8 feet in front of the bus. (4.0mm if practicable) The mounting shall be such as to prevent camera vibration, water intrusion, interference with the driver's visibility, and shall minimize color shift due to the tinting at the top of the windshield. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. (A plastic dome housing is not acceptable.)

2. A color camera with infrared capability flush mounted in the panel above the driver facing the farebox and entry door. The camera shall be housed in an "angled down" box. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall wide angle (2.9mm if practicable) and include the driver, the farebox, and the entire entry door opening. The vestibule area shall be illuminated by an infrared emitter under low light conditions.

3. A color camera shall be flush mounted in the front destination sign door facing rearward. The camera shall be housed in a shallow, waterproof box that will not interfere with the destination sign. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall include the entire length of the bus interior (6.0mm if practicable).

4. A color camera shall be surface mounted on the centerline of the bus ceiling at the rear bulkhead. The camera shall be forward facing. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall include the entire length of the bus interior (6.0mm if practicable).

A system status indication shall be provided on the dashboard through the I/O Controls warning indicator LED display.

5.9 Communications Equipment Box

Provide a lockable communications equipment box in the forward most streetside compartment. The box shall accommodate radio (including VLU), CCTV, DR500C voice annunciator/PA, DC-DC converter, and other electronic equipment. The equipment shall be mounted in the box on slide-out trays or racks. The trays or racks shall slide out so that the equipment is completely out of the radio box and access to wires, cables, and hard drive is easily accessible. The

trays or racks must lock in the stowed position. Provide a terminal block with 16 terminal posts on the radio tray (location to be approved by MDT Communications). Terminal lugs 1 and 2 must have constant 12VDC. Lugs 4 must have switched 12VDC-ignition voltage. Terminal lug 6 must be power ground. Lugs 7 through 16 will be used as needed. Equipment shall be mounted with sufficient room to easily secure cables and so that securing the cable to the equipment requires orienting the screwdriver from above or toward the bus centerline. The box shall be sealed to prevent intrusion of dust and water. The box must have an access door that is lockable with a ChicagoLOCK 1454 key. The design of the communications equipment box must be approved by MDT prior to production.

Provide a 24VDC power outlet in the compartment, powered only when the engine is running, for use with a 24VDC to 120VAC-15AMP inverter.

6.0 WARRANTY

6.1 Warranty Requirements

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

6.1.1 Complete Bus

The bus is warranted and guaranteed to be free from defects for one year beginning on the date that the bus is put into service (after the post delivery test of each bus). During this warranty period, the bus shall maintain its structural and functional integrity. The warranty is based on regular operation of the bus under the operating conditions prevailing in the MDT locale.

6.1.2 Subsystems and Components

Specific subsystems and components are warranted and guaranteed to be free from defects and related defects for the time and/or mileages given.

Bus with a ten year minimum life.

If a bus with a minimum ten year life is proposed the following warranty periods and/or mileage apply:

	Whichever Occurs First	
ITEM	YEARS	MILEAGE
Floors	10	350,000
Basic Body Structure	10	300,000
Engine	5	250,000
Transmission	5	unlimited
Radiator	5	unlimited
A/C System	3	150,000
Drive Axle and Drive Shaft	2	100,000
Suspension Components	3	150,000
Wheelchair Ramp	3	150,000
Inverter Ballasts	5	unlimited

Bus with a twelve year minimum life.

If a bus with a minimum twelve year life is proposed the following warranty periods and/or mileage apply:

	Whichever Occurs First	
ITEM	YEARS	MILEAGE
Floors	12	500,000
Basic Body Structure	12	500,000

Engine	5	250,000
Transmission	5	unlimited
Radiator	5	unlimited
A/C System	3	150,000
Drive Axle and Drive Shaft	2	100,000
Suspension Components	3	150,000
Wheelchair Ramp	3	150,000
Inverter Ballasts	5	unlimited

6.2 Voiding of Warranty

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

6.3 Exceptions to Warranty

The warranty shall not apply to scheduled maintenance items and items furnished by MDT such as radios except if such equipment may be damaged by the failure of a part or component for which the Contractor is responsible.

6.4 Detection of Defects

If MDT detects a defect within the warranty periods, it shall promptly notify the Contractor's representative. Within five working days after receipt of notification, the Contractor's representative shall either agree that the defect is in fact covered by warranty, or reserve judgement until the subsystems or component is inspected by the Contractor's representative, or is removed and examined at MDT's property or at the Contractor's plant.

At that time the status or warranty coverage on the subsystem or component shall be mutually resolved between MDT and the Contractor. Work necessary to effect the repairs shall commence within ten (10) working days after receipt of notification by the Contractor.

6.5 Scope of Warranty Repairs

When warranty repairs are required, MDT and the Contractor's representative shall agree within five (5) days after notification, by the Contractor's representative to MDT that the defect is in fact covered by warranty, on the more 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, MDT reserves the right to commence repairs.

6.6 Fleet Defects

A fleet defect is defined as a failure of an identical subsystem of components; (i.e. transmission, engine, drive axle, A/C compressor, wheelchair ramp, steering box/boxes and structure) covered by the warranty and occurring in the warranty period to 20% of the purchased buses.

To illustrate application, if the cylinder kits failed in 20% of the buses, a fleet defect would apply. However, if the engines of 20% of the buses failed due to failure of 5 cylinder kits, 5 oil pump, and 5 valves, the fleet defect would not be applicable. The regular warranty would still apply.

6.7 Scope of Warranty Provisions

The contractor shall correct a fleet defect under the warranty provisions. After correcting the defect, the Contractor shall promptly undertake and complete a work program reasonably designed to prevent the occurrence of the same defect in all other buses purchased under this contract. The work program shall include inspection and/or correction of the potential or defective parts in all of the buses. The warranty on items determined to be fleet defects shall be extended for the same time/or miles as the original warranty. This extended warranty shall begin on the date a fleet defect is repaired on an individual bus.

MDT shall make the bus available to complete repairs in a timely manner in keeping with the Contractor's repair schedule. The Contractor's repair schedule shall be reasonable and designed to cause a minimal disruption of revenue service.

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

The contractor shall provide at his own expense all necessary updates to the maintenance manuals and all other technical data relating to the bus, specific subsystems, and components affected by the correction of the defect. This requirement is to insure that the bus, subsystem and components maintain their structural and functional integrity throughout the extended warranty period.

6.8 Repairs by MDT

6.8.1 Parts Used

If MDT performs the warranty-covered repairs, it shall correct or repair the defect and any related defects using Contractor-supplied 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 shall be submitted by MDT to the Contractor for reimbursement or replacement of parts. The Contractor shall provide forms for these reports.

6.8.2 Contractor Supplied Parts

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

6.8.3 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 shall be paid by the Contractor. Materials shall be returned within sixty (60) days from the date of failure in accordance with the Contractor's instructions.

6.8.4 Reimbursement for Labor

MDT shall be reimbursed by the Contractor for labor. The amount shall be determined by multiplying the number of man-hours actually required to diagnose and correct the defect by the current rate per hour, first class mechanic, straight wage rate, plus seventy percent (70%) fringe benefits, plus the cost of towing the

bus if such action was in the normal service area. These wage and fringe benefit rates shall not exceed the rates in effect in MDT's service garage at the time the defect correction is made. Labor required to correct fleet defects shall be reimbursed at one and one-half (1 1/2) the actual rate in effect at the time the campaign is made, plus seventy percent (70%) fringe benefits.

6.8.5 Reimbursement for Parts

MDT shall be reimbursed by the Contractor for defective parts and for parts that must be replaced to correct the defect. The reimbursement shall be at the invoice cost of the part(s) at the time of repair and shall include taxes where applicable and twenty-five percent (25%) handling costs.

6.9 Warranty After Replacement/Repairs

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

6.10 Contractor's Representative and Service Technician

The Contractor shall be responsible to have a knowledgeable individual, conversant with its bus and componentry, meet no less than once each month at the MDT offices in Miami, Florida to deal with day-to-day problems which may occur during the "Basic Bus Warranty" period. During the period of "Bus Delivery" this requirement shall be "full time". The Contractor's Representative shall have authority to settle disputes, agree on corrective measures and shall be empowered to bind the Contractor to any and all agreements he makes. This provision shall continue in force until relinquished or amended in writing by MDT.

In addition, the Contractor shall provide at its own expense, a full-time service technician/mechanic on site at MDT facilities, to perform warranty repairs and supply technical support for a period of one year minimum, beginning from the date of acceptance of the last bus of each lot of buses delivered. This requirement applies to each and every lot of buses delivered.

6.11 Subcontractor Warranties

With respect to all warranties, expressed or implied, from subcontractors, manufacturers or suppliers of work performed and materials furnished under this contract, the Contractor shall:

1) Obtain all warranties that would be given in normal commercial practice;

2) Require all warranties to be executed, in writing, for the benefit of MDT, if directed by the MDT.

3) Enforce all warranties for the benefit of MDT, if directed by MDT.

In the event the Contractor's warranty has expired, MDT may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

7.0 QUALITY ASSURANCE

7.1 Quality Assurance Program

A Quality Assurance Program, consistent with ANSI/ASQC C1 (1985) shall be implemented by the Contractor to assure control of the design, production and documentation of the transit buses.

7.1.1 Quality Assurance Plan

A Quality Assurance Plan shall be submitted by the Contractor to MDT for review. It shall describe techniques to be used to document system design, test and inspection procedures, configuration management activities, and control of procurement, material, and manufacture. The relationship between Contractor quality control personnel, and management, shall be defined to the extent necessary to verify that quality assurance requirements will be enforced and necessary corrective actions will be approved and implemented, and adequate data will be available for MDT quality audits.

7.2. Resident Inspector

MDT shall be represented at the Contractor's plant by Resident Inspector(s). They shall monitor, in the Contractor's plant, the manufacture of transit buses built under this procurement. The Resident Inspector(s) shall be authorized to approve the pre-delivery acceptance tests and to release the buses for delivery.
Upon request to the Contractor's Quality Assurance Supervisor, the Resident Inspector(s) shall have access to the Contractor's quality assurance files related to this procurement. These files shall include drawings, material standards, parts lists, inspection processing and reports, and records of defects.

No less than 30 days prior to the beginning of bus manufacture, the Resident Inspector(s) shall meet with the Contractor's quality assurance manger. They shall review the inspection procedures and check-lists. The Resident Inspector(s) may

begin monitoring bus construction activities two weeks prior to the start of bus fabrication.

The Contractor shall provide office space for the Resident Inspector(s) in close proximity to the final assembly area. This office space shall be equipped with desks, outside and interplant telephones, beepers, file cabinets, chairs, and clothing lockers sufficient to accommodate the Resident Inspector staff and shall have access to a photocopy machine, telefax machine, internet, and secretarial service. The presence of these Resident Inspector(s) in the plant shall not relieve the Contractor of its responsibility to meet all of the requirements of this procurement.

7.2.1 Equipment Use By Resident Inspectors

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

7.3 Acceptance Tests

Responsibility

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

7.3.1 Pre-Delivery Tests

The Contractor shall conduct acceptance tests at its plant on each bus following completion of manufacture and before delivery to MDT. These pre-delivery tests shall include visual and measured inspection, as well as testing the total bus operation. The tests shall be conducted to ensure that the completed buses have attained the desired quality and have met the requirements in the Technical Specifications. The tests shall be conducted in accordance with written tests plans and shall be recorded on appropriate test forms provided by the Contractor. The pre-delivery tests shall be scheduled with sufficient notice so that they may be witnessed by the Resident Inspectors, who may reject the results of the tests. The results of pre-delivery tests, or any other tests, shall be filed with the assembly inspection records for each bus. The underfloor equipment shall be made available for inspection by the Resident Inspectors using a pit or bus hoist provided by the Contractor. A hoist, scaffold, or elevated platform shall be

provided by the Contractor to easily and safely inspect bus roofs. Delivery of each bus shall require written authorization of a Resident Inspector. Authorization forms for the release of each bus for delivery shall be provided by the Contractor. An executed copy of the authorization shall accompany the delivery of each bus.

7.3.1.1 Inspection - Visual and Measured

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

7.3.1.2 Total Bus Operation

Total bus operation shall be evaluated during road tests. The purpose of the road tests is to observe and verify the operation of the bus as a system and to verify the functional operation of the subsystems that can be operated only while the bus is in motion. Each bus shall be driven for a minimum of 25 miles during the road tests. The plan shall be submitted to MDT for approval. Observed defects shall be recorded on test forms. The bus shall be retested when defects are corrected and adjustments are made. This process shall continue until defects or required adjustments are no longer detected. Results shall be pass/fail for these bus operations tests.

7.3.2 Post-Delivery Tests

MDT shall conduct acceptance tests on each delivery bus. These test shall be completed within 15 days after bus delivery and shall be conducted in accordance with written test plans. The purpose of these tests is to identify defects that have become apparent between the time of bus release and delivery to MDT. The post-delivery tests shall include visual inspection and bus operations. Buses that fail to pass the post-delivery are subject to nonacceptance. MDT shall record details of all defects on the appropriate forms and shall notify the Contractor of nonacceptance of each bus within 10 days after completion of the tests. The defects detected during these tests shall be repaired in a manner that has been mutually agreed upon. Final acceptance rests with MDT, in Miami, following the post-delivery tests.

7.3.2.1 Visual Inspection

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

7.3.2.2 Bus Operation

The road tests for total bus operation are similar to those conducted at the Contractor's plant. Operational deficiencies of each bus shall be identified and recorded, and corrected prior to final acceptance.

8.0 TRAINING OF BUS MAINTENANCE AND TRANSPORTATION PERSONNEL

The Contractor shall provide an approved instruction program for designated Transportation and Maintenance personnel in the proper methods of operating, maintaining and servicing buses provided to MDT by the Contractor. The training program shall be divided into two (2) complete sections, one for Maintenance personnel and the other for Transportation personnel.

Sixty (60) days before the scheduled delivery date of the first bus, schedules and lesson plans shall be provided for MDT approval for both the Maintenance and Transportation training programs. As part of the lesson plan, the Contractor shall include the name of the instructors. Utilization of vendor presenters is encouraged and supported by MDT. The Contractor is responsible for scheduling and costs of vendor presenters. As part of the training schedule, Contractor shall inform MDT of any equipment needed to make the presentation, such as audio/visual equipment, blackboards, wipe boards, flip charts, overhead or slide projectors.

8.1 Maintenance Training

The Contractor shall provide a complete training and instruction program for MDT's designated mechanics, service personnel, and supervisors covering preventative maintenance, troubleshooting, and repair of the buses the Contractor will be providing MDT. The instruction program shall be in self-contained modules, or subject areas, with each module divided into two (2) phases, a pre-delivery phase and a post-delivery phase. Each module or subject shall be covered at least twice, unless otherwise noted. The pre-delivery training must be completed by the scheduled delivery of the first bus. It is MDT's intent that the post-delivery phase of each module be designed as hands on troubleshooting on an

actual bus. As an example, MDT may mandate thirty-two (32) hours of training for a particular module or subject area which may be divided into sixteen (16) hours of pre-delivery training and sixteen (16) hours of post-delivery training.

Many of the classes will be held during MDT's three (3) shifts of operation. Exact schedules will be negotiated between MDT's training personnel and the Contractor.

MDT will limit the number of personnel in each class to twenty (20) or less so that class size will be manageable. Personnel attending each module or class will be designated by MDT with a list of attending individuals available to Contractor. All attendance records will be kept by MDT's Training Division.

The Maintenance training and instruction program shall cover (but not be limited to) the following areas:

A.	Orientation	I.	Suspension, Steering, Axles
B.	Electrical	J.	Body
C.	Engine & Fuel System	K.	Parts
D.	Transmission	L.	Service Instruction
E.	Air Conditioning	M.	Ramp Equipment
F.	Doors	N.	Towing
G.	Brakes	O.	Fire Suppression
H.	Air System	P.	Other systems not herein listed but supplied

Contractor shall inform MDT of any special equipment that requires training before the bus is put into revenue service.

8.2 Maintenance Training Program Content

8.2.1 Orientation Module

Advantages and Strong Points of the Bus.

Visuals of Production System of the Bus.

Compartment-by-Compartment Tour of the Bus.

Special Components or Features of the Bus.

The orientation module will consist only of a pre-delivery session with no post-delivery instruction. MDT suggests that the orientation module be limited to three (3) or four (4) hours with one (15) minute break. The orientation module shall be repeated four (4) times.

8.2.2 Electrical/Electronics

Location of all key electrical components found on the bus.

Explanation of the wiring diagram and wiring codes with copies of wiring diagrams given to each attendee.

Explanation of the charging system along with basic troubleshooting of the system.

Explanation of the Exterior and Interior Lighting system along with basic troubleshooting of the system.

Explanation of the safety shutdown system, including the warning indicators, along with basic troubleshooting of system.

Contractor shall provide a module consisting of a minimum of two (2) eight hour days of pre-delivery classroom instruction, followed by a minmum of two (2) eight hour days troubleshooting on a bus. The electrical module shall be taught twice.

8.2.3 Engine and Accessories

Explanation of the engine and the location of key components.

Explanation of the engine driven accessories.

Explanation of the fuel, air, lubrication, and cooling systems.

Explanation of engine tune-up procedures.

Basic troubleshooting procedures for the engine.

The emphasis of any engine module should be basic troubleshooting and preventative maintenance procedures. The basic engine course shall consist of two (2) eight (8) hour days of pre-delivery classroom instruction and two (2) eight hour days of post-delivery classroom instruction on a bus. The engine course shall be taught at least twice.

8.2.4 Transmission and Controls

Explanation of the Transmission.

Explanation of the electronic control system.

Basic troubleshooting of the transmission.

Overhaul of the transmission (taught as a separate course at date to be determined later).

The transmission training course shall consist of basic troubleshooting and preventative maintenance. The course shall consist of a minimum of one (1) eight (8) hour day of pre-delivery classroom instruction and one (1) eight (8) hour day of trouble shooting on the bus. The transmission module shall be taught at least twice.

8.2.5 Air Conditioning

Explanation of the Air Conditioning system and the location of all key air conditioning components (handouts required).

Explanation of the Air Conditioning Electrical System.

Explanation of the Air Conditioning Compressor along with basic

troubleshooting and preventative maintenance of the air conditioning compressor.

Basic troubleshooting of the air conditioning system.

Preventative maintenance of the air conditioning system.

MDT will require a minimum of one (1) eight (8) hour day of pre-delivery classroom instruction and one (1) eight (8) hour day of post-delivery instruction on the troubleshooting. The air conditioning module shall be taught twice.

8.2.6 Doors

Explanation of the door system and the location of all door components.

Explanation of the door electrical system.

Proper door adjusting procedures.

Basic troubleshooting of the door system.

Rebuilding of the door motors (may be taught as a separate course).

The door module shall consist of four (4) hours of pre-delivery classroom instruction and four (4) hours of hands-on post-delivery troubleshooting. The door module shall be taught twice.

8.2.7 Brakes

Explanation of the Brake System.

Basic brake system repair, including adjustments to brakes.

The brake module shall consist of four (4) hours of pre-delivery classroom instruction and (4) hours of post-delivery instruction on the brake system on the bus. The brake module shall be taught twice.

8.2.8 Air System

Explanation of the air system with the location of all air system components.

Basic troubleshooting of the air system.

Preventative Maintenance of the air system.

The Contractor shall provide an air system module consisting of four (4) hours of pre-delivery classroom instruction and four (4) hours of post-delivery troubleshooting instruction on a bus. The air system module shall be taught twice.

8.2.9 Suspension, Steering, Axles

Explanation of the suspension system.

Basic repair to the suspension system.

Basic troubleshooting of the suspension system.

Explanation of the steering system.

Basic troubleshooting of the steering system.

Explanation of the axles.

MDT requires a minimum of four (4) hours of pre-delivery classroom instruction and four (4) hours of post-delivery troubleshooting instruction on a bus. Suspension, Steering and Axle module shall be taught twice.

8.2.10 Body

Explanation of the body and the attachment method of exterior panels.

Basic repair of the exterior panels.

MDT requires that the body module be a minimum of four (4) hours of pre-delivery training and four (4) hours of post-delivery instruction on a bus. The body module shall be taught twice.

8.2.11 Parts

Explanation of the Parts Manual and how it is divided.

Explanation of the parts numbering system.

Orientation to the bus and components on the bus.

Practice in finding parts in the Parts Manual.

MDT requires the Parts module to be a minimum of four (4) hours of pre-delivery instruction. No post-delivery instruction will be required. The Parts module shall be taught once.

8.2.12 Service Instruction (For Service, Fueling, and Cleaning Personnel)

Operator Compartment.

Controls and Switches.

Warning Indicators and gauges.

Seat Adjustment.

Door Control.

Wheelchair Ramp Operation.

Walk Around Inspection.

Compartment by Compartment Explanation of Service Points.

Mirror Adjustments.

Climate Control System.

This program will be presented once at each garage where buses will assigned, not to exceed five (5) times of four (4) hours each.

8.2.13 Wheelchair Ramp

Explanation of the Ramp System, mechanisms and controls.

Inspection and Periodic Maintenance of the Wheelchair Ramp mechanism.

Trouble shooting of hydraulic and electrical components.

The Contractor shall provide comprehensive training on this critical system. The training program shall consist of four (4) hours of pre-delivery instruction and eight (8) hour of post-delivery instruction. Each class shall be taught four (4) times to allow for small class size.

8.2.14 Towing

The Contractor shall provide lifting and towing instruction for MDT's road service personnel consisting of two (2) four-hour classes utilizing MDT's towing equipment and an actual bus.

8.2.15 Fire Suppression

Location of key components on the bus.

Theory of operation.

Explanation of Electrical Wiring.

Basic Troubleshooting.

Preventative Maintenance.

The Fire Suppression training shall consist of four (4) hours of post-delivery instruction taught twice.

8.3 Transportation Training

8.3.1 The Contractor shall provide complete training and instruction for MDT designated Bus Operator Instructors, Street Supervisors and Dispatchers. The program shall include, but not be limited to the following:

Operator Compartment.

Controls and Switches.

Warning Indicators and Gauges.

Seats Adjustment.

Door Control.

Walk Around Inspection.

Compartment-by-Compartment Explanation.

Mirror Adjustments.

Climate Control system.

Driving Instruction.

Turns.

Braking.

Transmission.

Backing.

Wheelchair Ramp Equipment.

Controls.

Safety.

Emergency Procedures.

Securing Wheelchairs and Riders.

Loading and Unloading.

The Transportation Training Program shall consist of a four (4) hour module on the bus. Each trainee will be given an opportunity to operate the bus with the Contractor's instructor on board. The Contractor shall provide the Transportation Training Program twice.

8.4 Training Program Aids

The Contractor shall provide fifty (50) sets of instructional material hand-outs for each pre-delivery and post-delivery training module as listed in paragraph 14.1 items B through P. The Orientation program shall be supplied with 100 hand-outs. This instructional material will be kept by the individuals to allow them to retain and remember salient areas of training and instruction modules. MDT will work with the Contractor to help develop this instruction. The Contractor shall write all instructional material in clear, simple English, keeping in mind that many individuals in the training course have minimum literacy skills (6th grade reading level).

The use of slides, view graphs and other visuals is required in the pre-delivery training classes to allow the trainees the opportunity to see the actual location of the components, the size of the components and the physical appearance of the subject.

MDT reserves the right to duplicate, at its expense, all films, slides, view graphs, tapes and handouts for its sole use in follow-up reinforcement training at the option of MDT's Training Division. Unless an Instructor objects in writing, MDT reserves the right to video tape/or audio tape all Contractor and vendor presentations for its sole use without further costs, obligation or liability to MDT.

8.5 Training Facilities

All training will be conducted at MDT facilities or facilities secured by MDT. The Contractor shall inform MDT in the lesson plans of any special facilities needed. MDT will assist the Contractor in the set up and tear down of training aids and models used in the presentations.

8.6 Training Instructors

All training instructors shall be competent to teach the course area they are instructing. Further, all instructors shall speak English and have a complete understanding of the English language. If the instructor or vendor presenter lacks the skill or knowledge to provide instruction, or cannot communicate with the students, MDT reserves the right to request that the instructor be replaced and the area of training be repeated.

8.7 Supervisor Training

In addition to the in-depth training described above, the Contractor shall provide a series of four (4) short courses of four (4) hours each for Maintenance Supervisors. These courses shall be designed to give the Maintenance Supervisors an overview of each system listed in section 14.2 Maintenance Training Program Content. The class size will be kept to a manageable number. The courses are intended to allow the supervisors to better understand the bus and how to troubleshoot some of the common problems. MDT will work with the Contractor to develop these supervisory training courses.

8.8 Data Communications Systems Training

Separate from the Maintenance and Transportation training described above, the Contractor shall provide and arrange for one-hundred (100) hours of training for Systems Maintenance Technicians, to be given by the suppliers of the various Data Communications Equipment provided with the buses. This training shall include in-depth component level repair and programming. Classes and times will be determined by the Chief, Field Engineering and Systems Maintenance.

8.9 Time Limits

MDT will not request nor shall the Contractor be required to provide more than five hundred (500) hours of instruction.

MDT reserves the right to reduce the hours specified where its works force already possesses adequate knowledge of a particular system or specific equipment. In this case, the Contractor will be released from the excess class hours.

8.10 Training Hours Summary

Maintenance Summary	Pre-Delivery	Post-Delivery
Orientation	4 X 4 = 16	---
Electrical	2 X 16 = 32	2 X 16 = 32
Engine & Fuel	2 X 16 = 32	2 X 16 = 32
Transmission	2 X 8 = 16	2 X 8 = 16

Air Conditioning	2 X 8 = 16	2 X 8 = 16
Doors	2 X 4 = 8	2 X 4 = 8
Brakes	2 X 4 = 8	2 X 4 = 8
Air System	2 X 4 = 8	2 X 4 = 8
Steering , Suspension, Axles	2 X 4 = 8	2 X 4 = 8
Body	2 X 4 = 8	2 X 4 = 8
Parts	1 X 4 = 4	---
Maintenance Service Instruction	---	5 X 4 = 20
Wheelchair Equipment	4 X 4 = 16	4 X 8 = 32
Towing	---	2 X 4 = 8
Fire Suppression	---	2 X 4 = 8
	---	---
Total Maintenance	**172 Hours**	**204 Hours**
Transportation	**---**	**2 X 4 = 8**
Supervisory Orientation	**---**	**4 X 4 = 16**
Data Communications Systems Training	**---**	**100 Hours**
GRAND TOTAL	**172 Hours**	**328 Hours**

COMBINED TOTALS **500 Hours**

The training program provided by the Contractor shall be priced separately from the bus in the Price Proposal. MDT shall have the option to purchase the training program.

9.0 MANUALS, PARTS CATALOGS, AND PUBLICATIONS

9.1 Operator's Manual

The manual shall contain all information needed for the operation of the vehicle. The manuals shall be bus specific. It shall include general vehicle familiarization material, location, function, and operation of all controls, gauges, indicators and switches; emergency procedures; trouble symptoms and diagnosis methods; safety devices and precautions. One (1) manual per bus shall be provided.

9.2 Maintenance Manuals

The manuals shall contain complete data required for routine and periodic maintenance of all parts of the bus, including but not limited to the following:

1. General Operation Description.

2. Troubleshooting guide covering all mechanical, electrical, and electronic components (including Air Conditioning).

3. Preventive maintenance, lubrication, and adjustment requirements.

4. Wiring and schematic diagrams and schedules for wire and cable sizes and ratings, plus locations in the bus, of electrical and electronic components, including electronic engine and transmission components and air conditioning.

5. Air and hydraulic system diagrams showing locations in the bus of air and hydraulic components.

6. Detailed, illustrated procedures for all component change-out and rebuilding, plus servicing, adjusting, testing, and run-in information.

7. Body and structural information and material specifications for major accident repairs.

One (1) maintenance manual per bus shall be provided.

9.3 Heavy Repair Maintenance Manual

The manual shall contain a detailed analysis of each component of the bus so that maintainers can effectively and safely service, inspect, maintain, adjust, troubleshoot, repair, replace, and overhaul the bus. The manuals shall be bus specific. One (1) manual per bus shall be provided.

9.4 Parts Catalogs

The catalog shall enumerate, describe, and illustrate every component with its related parts including the OEM suppliers number, the Contractor's number, and the commercial equivalents. The illustrated parts catalog shall be bus specific. Cutaway and isometric exploded drawings shall be used to permit identification of all parts. Parts common to different components (as for example bolts, nuts, and washers) shall bear the Contractor's part number. Each part or component shall be identified as being part of the next larger assembly. One (1) Parts Catalog per bus shall be delivered to MDT not less than two (2) weeks prior to delivery of the first bus.

9.5 Changes And Revisions

Following the publication of each manual required herein, the Contractor shall provide revisions covering any changes, whether required by change of design or procedures or due to error, and these revisions shall be kept current during the entire basic warranty period. Manual revisions shall be furnished to MDT before or coincidental with the arrival of any altered parts or components. Upon expiration of the basic warranty period, revisions shall be furnished to the Authority, free of charge, as required until the bus is ten (10) years old.

9.6 Parts Cross Reference List

The Contractor shall furnish a complete bill of materials of all parts/components used in the assembly of the bus. This list shall include as minimum, bus manufacturer's part number, part description, name of original part manufacturer and manufacturer's part/identifying number.

9.7 Service Bulletins

Fifteen sets of bus service bulletins shall be provided by the Contractor. Paper size shall be 8 1/2 X 11" and contained in pin binders. Updates and revisions shall be provided at no cost to MDT and shall be provided over 10 year life of the vehicle.

10.0 SPARE PARTS

10.1 General

The Contractor shall guarantee the availability of replacement parts for the acquired buses for at least twelve (12) years after the date of acceptance of the last bus delivered to MDT. Spare parts shall be interchangeable with the original equipment and shall be manufactured in accordance with the highest quality assurance practices in the industry. Spare parts shall be obtainable through commercial distribution channels to the maximum extent practicable, minimizing captive sole-source distribution practices.

10.2 Recommended Spare Parts List

The Contractor shall prepare and submit to MDT not less than sixteen (16) weeks prior to delivery of the first bus, a recommended spare and replacement parts list. This listing will become a working document to be used by MDT in the procurement of spare and replacement parts. The spare and replacement parts list shall group parts by the sub-system of the vehicle system. The listing for each item shall give complete ordering and procurement information for that item. Long lead-time items shall be specifically noted. Each item listing shall contain at least the following information: item name, description, rating, price, manufacturer's name, part number, and drawing reference number. Items that are common to more than one (1) sub-system shall be suitably cross referenced. The Contractor shall recommend the absolute minimum essential quantity of spare parts required to perform normal routine maintenance and to maintain the operation of the fleet assuming standard failure rates of component units. The Contractor shall state the expected failure rate of major components to the extent practicable.

<u>Spare Body Parts Sets</u>

The Proposer shall provide a list of the most commonly used body parts with his proposal. The list shall include as a minimum:

Front and rear bumpers
Skirt panels
Front cap
Rear left and right corner panels
Compartment doors and hinges
Engine door
Windshields
Door panels and glazing
Window glazing

MDT shall review the list and determine the parts and quantities that will be included in each Spare Body Parts Set. Spare Body Parts Sets shall be provided by the Contractor and shall be priced separately from the bus in the Price Proposal. MDT shall have the option to purchase up to ten (10) Spare Body Parts Sets.

11.0 SPECIAL TOOLS AND EQUIPMENT

The Contractor shall prepare and submit to MDT not less than sixteen (16) weeks prior to the delivery of the first vehicle, a recommended tool and equipment list. This listing will become a working document to be used by MDT to plan for the deployment, servicing and maintenance of the acquired vehicles. The tool list shall identify those items of equipment necessary for the removal and reinstallation of all units and component parts of the buses. Tools and equipment not available through normal commercial distribution channels shall be specifically noted.

12.0 TECHNICAL INFORMATION TO BE FURNISHED

Any areas not called out within this specification shall meet the requirements of the Federal White Book specification for advance design buses. All White Book requirements with regard to safety are incorporated herein by reference. The enclosed Technical Information Questionnaire (See Exhibits), plus a response to each numbered paragraph in the specification as to whether or not the Proposer is in compliance with the specifications are to be completed by all prospective Proposers. Proposers shall submit all required information at the same time the proposal is due. The Technical Proposal (Envelope No. 1) will be evaluated before the Price Proposal (Envelope No. 2) is opened. The Price Proposal (Envelope No. 2), therefore, must be in a separate, sealed envelope and will be opened only if the Proposer is in compliance with the entire specification including any approved equals. All buses provided under this procurement shall conform to the specifications, addenda, references, and attachments within normal engineering and manufacturing tolerances.

ATTACHMENTS

Proposal Checklist

Subject	Form and/or Section	Time of Submittal
Cover Page for Technical Proposal	Attachment Form A-1 RFP, Section 3.2	With proposal
Affidavit of Miami-Dade County Lobbyist Registration for Oral Presentation	Attachment Form A-2 RFP, Section 1.19	With proposal
Acknowledgement of Addenda	Attachment Form A-3 RFP, Section 1.8	With proposal
Disability Nondiscrimination Affidavit	Attachment Form A-4 RFP, Section 1.50 G	With proposal
Proposal Security Bond	RFP, Section 1.9	With proposal
Proposer's Disclosure of Subcontractors and Suppliers	Attachment Form A7.1 RFP, Section 1.31	With proposal
Proposer's Disclosure of Subcontracting Policies	Attachment Form A 7.2 RFP, Section 1.31	With proposal
Affirmative Action Plan Exemption Affidavit	Attachment Form A-8.1 RFP, Section 1.33	With proposal
Affirmative Action Plan/Procurement Policy Affidavit	Attachment Form A-8.1 RFP, Section 1.33	With proposal
Miami-Dade County Collection of Taxes, Fees and Parking Tickets Affidavit	Attachment Form A-10 RFP, Section 1.34	With proposal
Subject	**Form or Section**	**Time of Submittal**

Code of Business Ethics Affidavit	Attachment Form A-12 RFP, Section 1.35	With proposal
Domestic Violence Leave Affidavit	Attachment Form A-13 RFP, Section 1.37	With proposal
Affidavit and Information Required of Offerors	Attachment C RFP, Section 3.2	With proposal
Overall Federal Regulation Compliance	Attachment D **RFP**, Section 3.2	With proposal
Compliance With Specifications	Attachment E RFP, Section 3.2	With proposal
Buy America Certification	Attachment F-1 and F-2 RFP, Section 1.50W	With proposal
Debarment and Suspension Certification	Attachment G RFP, Section 1.50M	With proposal
Lobbying Certification	Attachment H RFP, Section 1.50O	With proposal
TMV Certification of Compliance With Disadvantaged Business Regulations	Attachment I RFP, Section 151B	With proposal
TVM Bidder's/Proposer's List	Attachment J RFP, Section 1.51B	With proposal

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Subject	Form or Section	Time of Submittal
Certification of Compliance with Bus Testing Requirement	Attachment K RFP, Section 1.50X	With proposal
Self-certification of Compliance With Federal Motor Vehicle Safety Standards	RFP, Section 1.43	With proposal and with delivery
Motor Vehicle Pollution Requirements Certification	RFP, Section 1.44	With proposal
Certification of Compliance With FDOT Rule 14-90.007 and 14-90.008.	RFP, Section 1.46	With proposal

Technical Information

Technical Information Sheet	Attachment L RFP, Section 3.2	With proposal
Altoona Bus Testing	Part III, Technical Specifications 4.2.2	With proposal
Noise Test Results	Part III, Technical Specifications 1.7.9.1 & 1.7.9.2	Approved Equals
Structural Drawings		With proposal
Combustible Materials Certification	Part III, Technical Specifications 4.9.1.1	With proposal
Plywood Information	Part III, Technical Specifications 4.3.3	Approved Equals
Quality Assurance Plan	Part III, Technical Specifications 7.1.1	With proposal
APTA A/C System Test Results	Part III, Technical Specifications 4.103	Approved Equals

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Subject	Form or Section	Time of Submittal
Seating Test Results	Part III, Technical Specifications 4.9.3.3.7	Approved Equals
Towing Procedure	Part III, Technical Specifications 4.2.5	Approved Equals
Plywood information	Part III, Technical Specifications 4.3.3	Approved Equals
Paint test reports/certifications	Part III, Technical Specifications 4.8.10.1	Approved Equals
Seat Layout	Part III, Technical Specifications4.9.3.3.1	Approved Equals
Seat Test Reports	Part III, Technical Specifications 4.9.3.3.7	Approved Equals
Wheelchair accommodation plan	Part III, Technical Specifications 4.9.3.4.1	Approved Equals
Wheelchair Ramp	Part III, Technical Specifications 4.9.3.4.2	Approved Equals
Drivers HVAC Louvers	Part III, Technical Specifications 4.10.1	Approved Equals
Electrical Loads	Part III, Technical Specifications 5.1.1	Approved Equals
Jump start.plug location	Part III, Technical Specifications 5.1.4	Approved Equals
Cooling system approval	Part III, Technical Specifications 2.2.3.2	Approved Equals
Corrosion Pprotection Plan	Part III, Technical Specifications 4.1.4	Approved Equals
Body structure materials	Part III, Technical Specifications 4.1.5	Approved Equals
Step well construction	Part III, Technical Specifications 4.3.7.3	Approved Equals
A/C Pull down test	Part III, Technical Specifications 4.10.3	Approved Equals

Subject	Form or Section	Time of Submittal
Quality Assurance Plan	Part III, Technical Specifications 7.1.1	With proposal
Bus total operation test plan	Part III, Technical Specifications 7.3.1.2	With proposal
Recommended spare parts list	Part III, Technical Specifications 10.2	16 weeks prior to delivery of the first bus
Recommended tool list	Part III, Technical Specifications 11.0	16 weeks prior to delivery of the first bus

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Form A-1

PROPOSER'S NAME (Name of firm, entity or organization):

FEDERAL EMPLOYER IDENTIFICATION NUMBER:

NAME AND TITLE OF PROPOSER'S CONTACT PERSON:

Name: Title:

MAILING ADDRESS:

Street Address: _____

City, State, Zip: _____

TELEPHONE:	***FAX:***	***E-MAIL ADDRESS:***
(_____) _____	(_____) _____	_____

PROPOSER'S ORGANIZATIONAL STRUCTURE:

____ Corporation ____ Partnership ____ Proprietorship ____ Joint Venture

____ Other (Explain): _____

IF CORPORATION,

Date Incorporated/Organized: _____

State Incorporated/Organized: _____

States registered in as foreign corporation: _____

PROPOSER'S SERVICE OR BUSINESS ACTIVITIES OTHER THAN WHAT THIS SOLICITATED REQUEST FOR:

LIST NAMES OF PROPOSER'S SUBCONTRACTORS OR SUBCONSULTANTS FOR THIS PROJECT:

PROPOSER'S AUTHORIZED SIGNATURE

The undersigned hereby certified that this proposal is submitted in response to this solicitation.

Signed By: _____ Date: _____

Print Name: _____ Title: _____

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Form A-2

AFFIDAVIT OF MIAMI-DADE COUNTY LOBBYIST REGISTRATION FOR ORAL PRESENTATION

(1) ProjectTitle:_____ ProjectNo.:_____
(2) Department: _____
(3) Firm/Proposer's Name: _____
Address: _____ Zip: _____
Business Telephone: (____) _____

(4) List All Members of the Presentation Team Who Will Be Participating in the Oral Presentation:

NAME	TITLE	EMPLOYED BY	TEL. NO.

(ATTACH ADDITIONAL SHEET IF NECESSARY)

The individuals named above are Registered and the Registration Fee is not required for the Oral Presentation ONLY. Proposers are advised that any individual substituted for or added to the presentation team after submittal of the proposal and filling by staff, MUST register with the Clerk of the Board and pay all applicable fees.

Other than for the oral presentation, Proposers who wish to address the county commission, a county board or county committee concerning any action, decision or recommendation of county personnel regarding this solicitation MUST register with the Clerk of the Board (Form BCCFORM2DOC) and pay all applicable fees.

I do solemnly swear that all the foregoing facts are true and correct and I have read or am familiar with the provisions of Section 2-11.1(s) of the Code of Metropolitan Dade County as amended.

Signature of Authorized Representative: _____
Title: _____
STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____,
by_____, a _____, who is personally known
(Individual, Officer, Partner or Agent) (Sole Proprietor, Corporation or Partnership)
to me or who has produced _____ as identification and who did/did not take an oath.

_____
Signature of person taking acknowledgement)

_____
(Name of Acknowledger typed, printed or stamped)

_____ _____
(Title or Rank) (Serial Number, if any)

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Form A-3

ACKNOWLEDGEMENT OF ADDENDA

Instructions: Complete Part I or Part II, whichever is applicable.

PART I: Listed below are the dates of issue for each Addendum received in connection with this solicitation.

Addendum #1, Dated _____, 200___

Addendum #2, Dated _____, 200___

Addendum #3, Dated _____, 200___

Addendum #4, Dated _____, 200___

Addendum #5, Dated _____, 200___

Addendum #6, Dated _____, 200___

Addendum #7, Dated _____, 200___

Addendum #8, Dated _____, 200___

Addendum #9, Dated _____, 200___

PART II:

____ No Addendum was received in connection with this solicitation.

Authorized Signature:_____ Date: _____

Print Name: _____ Title: _____

Federal Employer Identification Number: _____

Firm Name: _____

Address: _____

City/State/Zip: _____

Telephone: _____ Fax: _____

Form A-4
DISABILITY NONDISCRIMINATION AFFIDAVIT

CONTRACT REFERENCE: _____

NAME OF FIRM, CORPORATION, OR ORGANIZATION: _____

AUTHORIZED AGENT COMPLETING AFFIDAVIT: _____

POSITION: _____ PHONE NUMBER: (____) _____

I, _____, being duly first sworn state:

That the above named firm, corporation or organization is in compliance with and agrees to continue to comply with, and assure that any subcontractor, or third party contractor under this project complies with all applicable requirements of the laws listed below including, but not limited to, those provisions pertaining to employment, provision of programs and services, transportation, communications, access to facilities, renovations, and new construction.

The Americans with Disabilities Act of 1990 (ADA), Pub. L. 101-336, 104 Stat 327, 42 U.S.C. 12101-12213 and 47 U.S.C. Sections 225 and 611 including Title I, Employment; Title II, Public Services; Title III, Public Accommodations and Services Operated by Private Entities; Title IV, Telecommunications; and Title V, Miscellaneous Provisions.

The Rehabilitation Act of 1973, 29 U.S.C. Section 794

The Federal Transit Act, as amended 49 U.S.C. Section 1612

The Fair Housing Act as amended, 42 U.S.C. Section 3601-3631

_____
Signature

_____
Date

SUBSCRIBED AND SWORN TO (or affirmed) before me on _____
(Date)

by _____. He/She is personally known to me or has
(Affiant)

presented _____ as identification.
(Type of Identification)

_____ _____
(Signature of Notary) (Serial Number)

_____ _____
(Print or Stamp Name of Notary) (Expiration Date)

Notary Public _____ Notary Seal
(State)

A-4 - Rev. 1/2/98

FORM A-7.1
SUBCONTRACTOR/SUPPLIER LISTING
(Ordinance 97-104)

Firm Name of Prime Contractor/Proposer _____ **RFP Name** _____

RFP Number _____

This form, or a comparable listing meeting the requirements of Ordinance No. 97-104, **MUST** be completed by all bidders and proposers on County contracts for purchase of supplies, materials or services, including professional services which involve expenditures of $100,000 or more, and all bidders and proposers on County or Public Health Trust construction contracts which involve expenditures of $100,000 or more. **This form, or a comparable listing meeting the requirements of Ordinance No. 97-104, must be completed and submitted even though the bidder or proposer will not utilize subcontractors or suppliers on the contract. The bidder or proposer should enter the word "NONE" under the appropriate heading of Form A-7.1 in those instances where no subcontractors or suppliers will be used on the contract.** A bidder or proposer who is awarded the contract shall not change or substitute first tier subcontractors or direct suppliers or the portions of the contract work to be performed or materials to be supplied from those identified except upon written approval of the County.

Business Name and Address of First Tier Subcontractor/Subconsultant	Principal Owner	Scope of Work to be Performed by Subcontractor/Subconsultant	(Principal Owner) Gender	Race
Business Name and Address of Direct Supplier	**Principal Owner**	**Supplies/Materials/Services to be Provided by Supplier**	**(Principal Owner) Gender**	**Race**

I certify that the representations contained in this Subcontractor/Supplier Listing are to the best of my knowledge true and accurate.

Signature of Proposer's Authorized Representative	Print Name	Print Title	Date

(Duplicate if additional space is needed)

Form A-7.1(new 5/7/99)

FORM A-7.2

FAIR SUBCONTRACTING POLICIES (Ordinance 97-35)

FAIR SUBCONTRACTING PRACTICES

In compliance with Miami-Dade County Ordinance 97-35, the Proposer submits the following detailed statement of its policies and procedures for awarding subcontracts:

I hereby certify that the foregoing information is true, correct and complete.

Signature of Authorized Representative: _____

Title: _____ Date: _____

Firm Name: _____ Fed. ID No. _____

Address: _____ City/State/Zip: _____

Telephone: (____)_____ Fax: (____)_____

Form A-7.2 Rev. 2/13/01

FORM A-8.1
AFFIRMATIVE ACTION PLAN
EXEMPTION AFFIDAVIT
(Ordinance 98-30)

Project No. _____
Project Name: _____

I being duly first sworn, upon deposes that _____ has a Board of Directors
Name of Company

which is representative of the population make-up of the nation and hereby claims exemption in accordance with the requirements of Ordinance 98-30. Said bidder has a current Board of Directors Disclosure form, as required by Ordinance 98-30, processed and approved for filing with the Miami-Dade County Department of Business Development (DBD) under the file No. _____ and the expiration date of _____.

Witness: _____ _____
Signature Signature

Witness: _____ By: _____
Signature Legal Name and Title

The foregoing instrument was acknowledged before me this _____ day of _____, 20 ____

FOR A CORPORATION, PARTNERSHIP OR JOINT VENTURE:

By: _____ having the title of _____

with _____.

☐ a corporation ☐ partnership ☐ joint venture

PLEASE NOTE:

Ordinance 98-30 requires that firms that have annual gross revenues in excess of five (5) million dollars to have an affirmative action plan and Procurement Policy on file with the County. Firms that have Boards of Directors that are representative of the population make-up of the nation are exempt and must complete the affidavit.

For questions regarding these requirements contact the Miami-Dade County Department of Business Development at (305) 349-5960.

THIS EXEMPTION AFFIDAVIT MUST BE PROPERLY EXECUTED BY THE BIDDER AND RETURNED TO:

MIAMI-DADE COUNTY
DEPARTMENT OF BUSINESS DEVELOPMENT
COURTHOUSE CENTER
175 NW 1ST AVENUE
28TH FLOOR
MIAMI, FLORIDA 33128

FORM A-8.2
AFFIRMATIVE ACTION PLAN/PROCUREMENT POLICY AFFIDAVIT
(Ordinance 98-30)

I being duly first sworn, upon oath deposes that _____ has a current Affirmative Action Plan and/or
Name of Company
Procurement Policy, as required by Ordinance 98-30, processed and approved for filing with the Miami-Dade County Department of Business Development (DBD) under the file No. _____ and the expiration date of _____.

Witness: _____ _____
Signature Signature

Witness: _____ By: _____
Signature Legal Name and Title

The foregoing instrument was acknowledged before me this _____ day of _____, 20 _____

FOR AN INDIVIDUAL ACTING IN HIS OWN RIGHT:
By: _____

FOR A CORPORATION, PARTNERSHIP OR JOINT VENTURE:

By: _____ having the title of _____

with _____.

☐ a _____ corporation ☐ partnership ☐ joint venture.

☐ **DOES NOT APPLY-MY COMPANY'S REVENUE IS LESS THAN $5 MILLION**

_____ _____
Signature Date

PLEASE NOTE:
Ordinance 82-37 requires that all property licensed architectural, engineering, landscape architectural, and land surveyor, have an affirmative action plan on file with the County.
Ordinance 98-30 requires that firms that have annual gross revenue in excess of five (5) million dollars have an affirmative action plan and procurement policy on file with the County. If your firm does not have an annual gross revenue in excess of five (5) million dollars: check the above, sign and return this affidavit only. Firms that have a Board of Directors that are representative of the population make-up of the nation are exempt and must complete and return THE EXEMPTION AFFIDAVIT only.

For questions regarding these requirements, please contact the Miami-Dade County Department of Business Development at 305-349-5960

THIS AFFIDAVIT MUST BE PROPERLY EXECUTED BY THE BIDDER AND RETURNED TO:
MIAMI-DADE COUNTY
DEPARTMENT OF BUSINESS DEVELOPMENT
COURTHOUSE CENTER
175 NW 1ST AVENUE
28TH FLOOR
MIAMI, FLORIDA 33128

A-8.2 Rev. 3/2/00

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Form A-10
PROPOSER'S AFFIDAVIT THAT MIAMI-DADE COUNTY TAXES, FEES AND PARKING TICKETS HAVE BEEN PAID
(Section 2-8.1(c) of the Code of Miami-Dade County, as amended by Ordinance No. 00-30)
and
THAT PROPOSER IS NOT IN ARREARS TO THE COUNTY
(Section 2-8.1(h) of the Code of Miami-Dade County, as amended by Ordinance No. 00-67)

I,_____, being first duly sworn, hereby state and certify that the foregoing statements are true and correct:

1. that I am the Proposer (if the Proposer is an individual), or the _____(fill in the title of the position held with the Proposer) of the Proposer.

2. that the Proposer has paid all delinquent and currently due fees or taxes(- including but not limited to, real and personal property taxes, utility taxes, and occupational taxes)collected in the normal course by the Miami-Dade County Tax Collector, and County issued parking tickets for vehicles registered in the name of the above proposer, have been paid.

3. that the Proposer is not in arrears in excess of the enforcement threshold under any contract, final non-appealable judgement, or lien with Miami-Dade County, or any of its agencies or instrumentalities, including the Public Health Trust, either directly or indirectly through a firm, corporation, partnership or joint venture in which the Proposer has a controlling financial interest For purposes hereof, the term "enforcement threshold" means any arrearage under any individual contract, non-appealable judgement, or lien with Miami-Dade County that exceeds $25,000 and has been delinquent for greater than 180 days. For purposes hereof, the term "controlling financial interest" means ownership, directly or indirectly, of ten per cent or more of the outstanding capital stock in any corporation, or a direct or indirect interest of ten per cent or more in a firm, partnership, or other business entity.

By: _____ _____ , 20 _____

Signature of Affiant Date

_____ __/__-__/__/__/__/__/__/__/__/__

Printed Name of Affiant and Tile Federal Employer Identification Number

_____

Printed Name of Firm

_____

Address of Firm

SCRIBED AND SWORN TO (or affirmed) before me this _____ day of_____, 20 ____.

by _____. He/She is personally known to me or has presented

_____ _____

Signature of Notary Serial Number

_____ _____

Print or Stamp Name of Notary Expiration Date

Notary Public – State of _____

Notary Seal

A-10 Rev. 10/23/00

Form A-12
Code of Business Ethics

In accordance with Section 2-8.1(i) of the Miami-Dade County Code, each person or entity that seeks to do business with the County shall adopt a Code of Business Ethics ("Code") and shall, prior to execution of any contract between the contractor and the County, submit an affidavit stating that the contractor has adopted a Code that complies with the requirements of Section 2-8.1(i) of the Miami-Dade County Code. Any person or entity that fails to submit the required affidavit shall be ineligible for contract award. The Code of Business Ethics shall apply to all business that the contractor does with the County and shall, at a minimum, require that the contractor:

- Comply with all applicable governmental rules and regulations including, among others, the Miami-Dade County Conflict of Interest and Code of Ethics Ordinance and the False Claims Ordinance.
- Comply with all applicable rules and regulations regarding Disadvantaged Business Enterprises, Black Business Enterprises, Hispanic Business Enterprises and Women Business Enterprises (hereinafter collectively Minority Business Enterprises, "MBEs') and Community Small Business Enterprises (CSBE5) and shall specifically prohibit the following practices:

    - Pass-through Requirements. The Code shall prohibit pass-throughs whereby the prime firm requires that the MBE or CSBE firm accept payments as a MBE or CSBE and pass through those payments or a portion of those payments to another entity including, but not limited to the owner/operator of the prime firm;
    - Rental Space, Equipment or Flat Overhead Fee Requirements. The Code shall prohibit rental space requirements, equipment requirements, and/or flat overhead fee requirements, whereby the prime firm requires the MBE or CSBE firm to rent space or equipment from the prime firm or charges a flat overhead fee for the use of space, equipment, secretary, etc.;
    - Staffing Requirements. The Code shall prohibit the prime firm from mandating, as a condition to inclusion in the project, that a MBE or CSBE hire, fire, or promote certain individuals not employed by the prime firm, or utilize staff employed or previously employed by the prime firm.
    - MBE or CSBE staff utilization. The Code shall prohibit the prime firm from requiring the MBE or CSBE firm to provide more staff than is necessary and then utilizing the MBE or CSBE staff for other work to be performed by the prime firm.
    - Fraudulently creating, operating or representing MBE or CSBE. The Code shall prohibit a prime firm including, but not limited to, the owners/operators thereof from fraudulently creating, operating or representing an entity as a MBE or CSBE for purposes of qualifying for certification as a MBE or CSBE.

- The Code shall also require that on any contract where MBE or CSBE participation is purported, the contract shall specify essential terms including, but not limited to, a specific statement regarding the percent of participation planned for MBEs or CSBEs, the timing of payments and when the work is to be performed.

- The failure of a contractor to comply with its Code of Business Ethics shall render any contract between the contractor and the County voidable, and subject violators to debarment from future County work pursuant to Section 10-38(h)(2) of the Code. The Inspector General shall be authorized to investigate any alleged violation by a contractor of its Code of Business Ethics.

CODE OF BUSINESS ETHICS

[Section 2-8.1(i), Code of Miami-Dade County]

I, being duly sworn, hereby state and certify that this firm has adopted a Code of Business Ethics that is fully compliant with the requirements of Section 2-8.1(1) of the Code of Miami-Dade County as amended. I further acknowledge that failure to comply with the adopted Code of Business Ethics shall render any contract with Miami-Dade County voidable, and subject this firm to debarment from County work pursuant to Section 10-38(h)(2) of the Code of Miami-Dade County as amended. I further acknowledge that failure to submit this affidavit shall render this firm ineligible for contract award.

By:_____ _____ 20 ____

Signature of Affiant Date

_____ _____

Printed Name and Title of Affiant Federal Employer Identification Number

_____

Printed Name of Firm

_____

Address of Firm

SUBSCRIBED AND SWORN TO (of affirmed) before me this _____day of_____ ,20 ____

He/She is personally known to me or has presented_____as identification.

Type of Identification

_____ _____

Signature of Notary Serial Number

_____ _____

Print or Stamped Name of Notary Expiration Date

Notary Public, State of _____

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FORM A-13
MIAMI-DADE COUNTY
DOMESTIC VIOLENCE LEAVE AFFIDAVIT

(County Ordinance No 99-5 and Resolution No. R-185-00)

I, _____, being first duly sworn state:
Affiant

That in compliance with Ordinance No. 99-5, Resolution No. R-185-00 and the Code of Miami-Dade County, Florida, the following information is provided and is in compliance with all items in the aforementioned legislation.

As an employer having, in the regular course of business, fifty (50) or more employees working in Miami-Dade County for each working day during each of twenty (20) or more calendar work weeks in the current or preceding calendar year, do hereby certify to be in compliance with the Domestic Leave Ordinance, codified at 11A-60 et. seq., of the Miami-Dade County Code, and that the obligation to provide domestic violence leave to employees shall be a contractual obligation.

By: _____ _____ 200 ___
Signature of Affiant Date

_____ ___/___-___/___/___/___/___/___/___/___/
Printed Name of Affiant and Title Federal Employer Identification Number

_____
Printed Name of Firm

_____
Address of Firm

SUBSCRIBED AND SWORN TO (or affirmed) before me this _____ day of _____, 200 ___

He/She is personally known to me or has presented _____ as identification.
Type of Identification

_____ _____
Signature of Notary Serial Number

_____ _____
Print or Stamp Name of Notary Expiration Date

Notary Public – State of _____

Notary Seal

a:\family leave affidavit.doc
REVISED 04/01/98

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FORM B-1

Price Proposal Form

Miami-Dade Transit
Small Low Floor Buses

1.0 400 Each Small Low Floor Buses, as specified in the RFP and technical proposal and delivered F.O.B. MDT, Miami, Florida

Each..... $_____
Total..... $_____

Bus Make and Model Proposed:_____

Optional Buses
Miami-Dade County, at its sole option, may increase the quantity of buses purchased up to an additional 400 buses above the base quantity of 400 buses by issuance of a Notice to Proceed in accordance with the provisions of the Contract Documents.

2.0 **Optional Spare Parts and Special Equipment**
If purchased, the items listed below shall be delivered F.O.B. MDT, Miami, Florida, in accordance with the proposed delivery schedule.

2.1 40 Each Power Plant (Engine/Transmission) Assemblies with all accessories including A/C Compressor mounted on a Cradle ready for installation. NOTE: Prepare engine and transmission for long term storage.

Each..... $_____
Total..... $_____

2.2 5 Each Sets of Special Tools and Equipment required or Cradle or Engine Changes.

Each..... $_____
Total..... $_____

2.3 400 Each Spare Wheels

Each..... $_____
Total..... $_____

2.4 10 Each Adapter Sets for Lifting the Bus

Each..... $_____
Total..... $_____

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2.5 10 Each Wheelchair Ramp Complete Assembly.

Each..... $_____
Total..... $_____
Make and Model No._____

2.6 20 Each Spare Multiplex Parts Sets (Complete bus system with data cabling)

Each..... $_____
Total..... $_____

2.7 10 Each Sets of Multiplex Diagnostic and Programming tools.

Each..... $_____
Total..... $_____

2.8 5 Each Main Wiring Harness Assembly.

Each..... $_____
Total..... $_____

2.9 5 Each Spare Destination Sign Sets (Complete system)

Each..... $_____
Total..... $_____
Make and Model No._____

2.10 10 Each Spare Body Parts Sets.

Each..... $_____
Total..... $_____

2.11 Lump Sum Training Program.

Lump Sum..... $_____

SUB-TOTAL ITEM 1.0
(Buses, F.O.B. Delivered)..... $_____

SUB-TOTAL ITEMS 2.1 thru 2.11
(SPARE PARTS)..... $_____

TOTAL BASE PROPOSAL
(Total Items 1.0 thru 2.11)..... $_____

Note: The Proposer shall enter a price for each item listed above. The quantities listed are estimates to be used for the purpose of comparison. Miami-Dade County reserves the right, at its sole option, to purchase the items in quantities other than those listed or to elect not to purchase some or all of the items listed.

2e3

I hereby declare and affirm under the penalty for perjury:

A. That I am the Proposer (if the Proposer is an individual), a partner in the Proposal (if the Proposer is a partnership), or an officer or employee of the corporation (if the Proposer is a corporation);

B. That this Proposal has been arrived at by the Proposer independently and has been submitted without collusion or sham [fraud] and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment, or services described in the solicitation, designed to limit independent offering or competition;

C. That the contents of the Proposal have not been communicated, directly or indirectly, by the Proposer or its employees or agents to any person not an employee or agent of the Proposer or its surety or any bond furnished with the proposal and will not be communicated to any such person prior to the official opening of the Proposal and

D. That the Proposer has fully informed itself regarding the accuracy of the statements made in this Proposal and that this Proposal is in accordance with the specifications, terms and conditions set forth in Request for Proposals No. 407 and all addenda issued thereto and will accept any awards made to it as a result of this Proposal.

Firm Name_____

Street Address_____

City_____

State & Zip Code_____

Telephone Number_____

Authorized Agent_____

Title of Officer_____

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Attachment C

AFFIDAVIT AND INFORMATION REQUIRED OF PROPOSERS

I hereby declare and affirm under the penalty for perjury:

A. That I am the Proposer (if the Proposer is an individual), a partner in the Offer (if the Proposer is a partnership), or an officer or employee of the corporation (if the Proposer is a corporation);

B. That the attached Offer(s) have been arrived at by the Proposer independently and have been submitted without collusion or sham [fraud] and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment, or services described in the invitation to Offer, designed to limit independent offering or competition;

C. That the contents of the Offer(s) have not been communicated, directly or indirectly, by the Proposer or its employees or agents to any person not an employee or agent of the Proposer or its surety or any bond furnished with the Offer(s), and will not be communicated to any such person prior to the official opening of the Offer(s); and

D. That I have fully informed myself regarding the accuracy of the statements made in the affidavit.

SIGNATURE_____

NAME _____

TITLE _____

FIRM NAME_____

DATE _____

Attachment D

OVERALL FEDERAL REGULATION COMPLIANCE

All contractual provisions required by USDOT/FTA, as set forth in USDOT/FTA Circular 4220.1D, as amended, and outlined in SECTION E: USDOT/FTA Terms and Conditions, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all USDOT/FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in the contract with the successful Proposer. The selected Contractor shall not perform any act, fail to perform any act, or refuse to comply with any Procuring Agency requests which would cause the Procuring Agency to be in violation of USDOT/FTA or Wisconsin Department of Transportation grant terms and conditions.

SIGNATURE _____

NAME _____

TITLE _____

FIRM NAME _____

DATE _____

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Attachment E

COMPLIANCE WITH SPECIFICATIONS

The Proposer hereby certifies that it will comply with the technical specifications issued by the Procuring Agency. **The Proposer warrants and certifies that of the following three paragraphs, paragraph A or B or C is true (check one ONLY):**

A.____The Proposer hereby states that it will comply with the specifications in all areas. (This means that there are no exceptions to the City's technical specifications, no matter how minor. If you have any doubts, check paragraph C.

B.____The Proposer hereby states that it will comply with the specifications in all areas except those where requests for approved equals and/or exceptions were approved by the Procuring Agency prior to Offer submission.

C.____The Proposer hereby states that it will comply with the specifications in all areas except those noted in its response as not being granted by the Procuring Agency in the requests for approved equals and/or exceptions process. The Proposer understands that those exceptions to the specifications may be considered not responsive and may be rejected by the Procuring Agency.

SIGNATURE_____

NAME _____

TITLE _____

FIRM NAME_____

DATE _____

Attachment F

BUY AMERICA CERTIFICATION FOR THE PROCUREMENT OF BUSES, OTHER ROLLING STOCK, AND ASSOCIATED EQUIPMENT

A Buy America Certificate must be completed and submitted with the Offer. Any offer that does not include the certificate will be considered non-responsive. A false certification is a criminal action in violation of 18 U.S.C. § 1001.

PLEASE SIGN ONLY ONE OR THE OTHER CERTIFICATION TO AVOID BEING FOUND NON-RESPONSIVE.

CERTIFICATE OF COMPLIANCE WITH 49 U.S.C. 5323(j)(2)(C)

The prospective proposer certifies that it **will** comply with the requirements of 49 U.S.C. Section 5323(j)(2)(C) Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and the applicable regulations in 49 C.F.R. 661.

SIGNATURE _____

NAME _____

TITLE _____

FIRM NAME _____

DATE _____

CERTIFICATE OF NON-COMPLIANCE WITH 49 U.S.C. 5323(j)(2)(C)

The prospective proposer certifies that it **cannot** comply with the requirements of 49 U.S.C. Section 5323(j)(2)(C), Section 165(b)(3) of the Surface Transportation Act of 1982, as amended, but it may qualify for an exception pursuant to 49 U.S.C. Sections 5323 (j)(2)(B) or (j)(2)(D), Sections 165(b)(2) or (b)(4) of the Surface Transportation Act, as amended, and the applicable regulations in 49 C.F.R. 661.7. [If grounds for a waiver exist, it may only be applied for by a Procuring Agency and not by the prospective proposer.]

Describe the nature of the potential exception:

SIGNATURE _____

NAME _____

TITLE _____

FIRM NAME _____

DATE _____

Attachment G

DEBARMENT AND SUSPENSION CERTIFICATION (Only Offers Exceeding $100,000)

The potential proposer certifies, by submission of this offer and to the best of its knowledge and belief, that neither it nor its "principals," as defined at 49 C.F.R. Part 29.105(p), and its subcontractors:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

2. If the prospective proposer is unable to certify the statement above, it shall attach an explanation, and indicate that it has done so, by place an "X" in the following space: ___.

C. Furthermore, the potential proposer certifies that it will provide immediate written notice to the Procuring Agency if, at any time during the course of the proposed contract, it learns that this certification was erroneous when submitted or has been erroneous by reason of changed circumstances.

THE POTENTIAL PROPOSER CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF EACH STATEMENT OF ITS CERTIFICATION AND EXPLANATION, IF ANY.

SIGNATURE_____

NAME _____

TITLE _____

FIRM NAME_____

DATE _____

Attachment H

LOBBYING CERTIFICATION (Only Offers Exceeding $100,000)

The prospective proposer certifies, to the best of its knowledge and belief, that:

A. 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 a Federal department or agency, a Member of the U. S. Congress, an officer or employee of the U. S. Congress, or an employee of a Member of the U. S. 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 or any cooperative agreement, and the extension, continuation, renewal, amendment, or modification thereof.

B. 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).

C. 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 is placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 3801 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

THE PROSPECTIVE PROPOSER CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF EACH STATEMENT OF ITS CERTIFICATION AND DISCLOSURE, IF ANY. IN ADDITION, THE PROSPECTIVE PROPOSER UNDERSTANDS AND AGREES THAT THE PROVISIONS OF 31, U.S.C. § 3801 ET SEQ. APPLY TO THIS CERTIFICATION AND DISCLOSURE, IF ANY.

SIGNATURE

NAME

TITLE

FIRM NAME

DATE

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Attachment I

TRANSIT VEHICLE MANUFACTURERS (TVM)

CERTIFICATION OF COMPLIANCE

WITH DISADVANTAGED BUSINESS REGULATIONS

PROCUREMENT OF SMALL TRANSIT BUSES

This procurement is subject to the provisions of 49 CFR Part 26.49. Accordingly, the following certification must be completed and submitted with the proposal, as a condition of responding to this solicitation. **A proposal which does not include the certification will not be considered.**

TVM Certification

The proposerer, if **a transit vehicle manufacturer**, hereby certifies that it has complied with the requirements of 49 CFR Section 26.49 by submitting an annual DBE goal to the Federal Transit Administration (FTA). The goal has either been approved or not disapproved by FTA.

Date _____ Company _____

Signature _____ Title _____

The proposer, if **a non-manufacturer-supplier**, hereby certifies that the manufacturer of the transit vehicles to be supplied has complied with the above-referenced requirement of 49 CFR Part 26.49.

Date _____ Company _____

Signature _____ Title _____

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Attachment J

INFORMATION FOR MDT PROPOSERS LIST

Request for Proposals (RFP)Description: _____ RFP No. 407
DBE Goal? Yes _____ No _____ DBE Goal Percent _____ %

For MDT use only: Was the subject contract awarded to this prime? Yes _____ No _____

Instructions to Proposers: **Prime must complete a form for itself and must provide a form for each firm which was contacted as a potential subcontractor. An authorized representative of each firm must complete and sign the affidavit.**

PROPOSER INFORMATION.

Firm Name _____ F.E.I.N.* _____

Street _____ Suite No. _____

City _____ State _____ Zip Code _____

Submitted as Prime Proposer? Yes _____ No _____ If No, enter name of Prime _____

Year Firm Founded _____ Annual Gross Receipts of Firm $_____

Phone No. _____ FAX No. _____ Email _____

(SIC--Standard Industrial Classification code number by the Small Business Administration. Reference 13 Code of Federal Regulations 121. See attached list of two-digit codes.)

COMPLETE ONE OF THE FOLLOWING:
For Goods, equipment and non-professional services, use appropriate two-digit SIC codes: _____
For construction work, check one: Building--SIC 15 ___ Heavy--SIC 16 ___ Specialty Trades--SIC 87 ___
For all professional services (Architectural, engineering, accounting, etc.) SIC 87 ____

DBE INFORMATION
Certified in Miami-Dade County as DBE? Yes _____ No _____ If Yes, enter expiration date: ____/____/_____.

Ethnicity: (Circle one) Black Hispanic Native American Asian-Pacific American
Subcontinent Asian American Other _____

Gender? Male _____ Female _____

DBE Commitment by Prime: _____%

AFFIDAVIT
I affirm that the information submitted is correct to the best of my knowledge.

_____ _____ _____ _____
Signature Name printed or typed Title Date

*Federal Employer Identification Number MDTA 8/8/01

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Attachment K

CERTIFICATE OF COMPLIANCE WITH BUS TESTING REQUIREMENT

The undersigned certifies that the vehicles offered in this procurement comply and will, when delivered, comply with 49 U. S. C. § 5323(c) and FTA's implementing regulation 49 CFR Part 665 according to the indicated one of the following three alternatives.

(Mark one and only one of the three blank spaces with an "X")

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

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

C. _____ The vehicle is a new model and will be tested and the results will be submitted to the Procuring Agency prior to acceptance of the first bus.

The undersigned understands that misrepresenting the testing status of a vehicle acquired with Federal financial assistance may subject the undersigned to civil penalties as outlined in the U. S. 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

NAME

TITLE

FIRM NAME

DATE

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TECHNICAL INFORMATION QUESTIONNARE

The Proposer shall submit for review by MDT a completely filled-in Vehicle Technical Information form below to confirm that the proposed vehicle and components are in compliance with the requirements of Request for Proposals.

A. BUS MANUFACTURER_____
Bus Model _____

B. UNDERSTRUCTURE MANUFACTURER_____
Model Number _____

C. BASIC BODY CONSTRUCTION

1. Type _____

2. Tubing or frame member Thickness & Dimensions
   a. Overstructure _____
   b. Understructure _____

3. Skin Thickness and Material
   a. Roof _____
   b. Sidewall _____
   c. Skirt Panel _____
   d. Front End _____
   e. Rear End _____

D. DIMENSIONS

1. Overall Length
   a. Over Bumpers _____Ft._____In.
   b. Over Body _____Ft._____In.

2. Overall Width
   a. Over Body excluding Mirrors _____In.
   b. Over Body including Mirrors - driving position _____In.
   c. Over Tires Front Axles _____In.
   d. Over Tires Rear Axles _____In.

3. Height
   a. Overall Height (maximum) _____In.
   b. Overall Height (main roof line) _____In.

4. Angle of Approach _____Deg.

5. Breakover Angle _____Deg.

6. Angle of Departure _____Deg.

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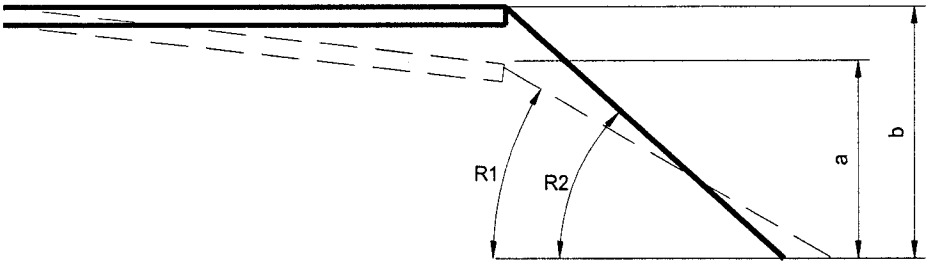
7. Doorway Dimensions

a.	Width Between Door Posts	_____ in
b.	Door Width Between Panels	_____ in
c.	Clear Door Width	_____ in
d.	Doorway Height	_____ in
e.	Knuckle Clearance	_____ in

8. Step Height from Ground (measured at center of doorway)



	Front Doorway, Empty	Ramp Angle
(Kneeled)	a._____inches	R1_____ deg.
(Unkneeled)	b._____inches	R2 _____deg.

9. Interior Head Room (center of aisle)

a.	Front Axle Location	_____In.
b.	Drive Axle Location	_____In.

10. Aisle Width Between Transverse Seats (minimum) _____In.

11. Floor Height Above Ground (centerline of bus)

a.	at Front door	_____In.
b.	at Front Axle	_____In.
c.	at Drive Axle	_____In.
d.	at Rear door	___N/A__In.

12. Minimum Ground Clearance (between bus and ground, with bus unkneeled)

a.	Excluding Axles	_____In.
b.	Including Axles	_____In.

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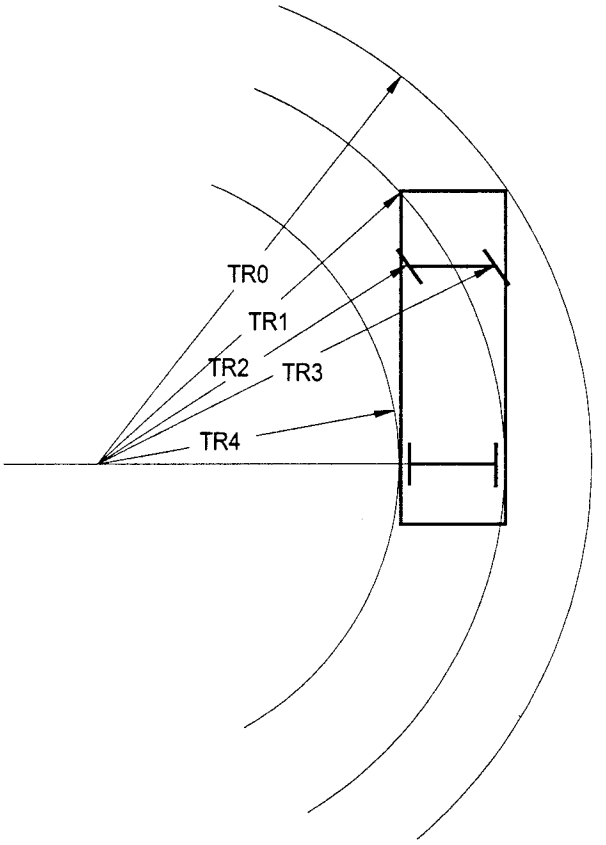
13. Horizontal Turning Envelope (see diagram below)

a.	Outside Body Turning Radius, TR0 (including bumper)	_____Ft.	_____In.
b.	Front Inner Corner Radius, TR1	_____Ft.	_____In.
c.	Front Wheel Inner Turning Radius, TR2	_____Ft.	_____In.
d.	Front Wheel Outer Turning Radius, TR3	_____Ft.	_____In.
e.	Inside Body Turning Radius, TR4 (including bumper)	_____Ft.	_____In



14. Wheelbase _____In.

15. Overhang, Centerline of Axle Over Bumper

a.	Front	_____Ft.	_____In.
b.	Rear	_____Ft.	_____In.

16. Floor

a.	Interior Length	_____Ft.	_____In.
b.	Interior Width (excluding coving)	_____Ft.	_____In.
c.	Total Standee Area		_____Sq. Ft.
d.	Minimum distance between Wheelhouses:		
	Front:		_____In.
	Rear:		_____In.
e.	Maximum interior floor slope (from horizontal)	_____Deg.	

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17. Passenger Capacity Provided

a. Total Maximum Seating _____
b. Standee Capacity _____
c. Minimum Knee to Hip Room _____ In.
d. Minimum Foot Room _____ In.

E. WEIGHT OF BUS

	No. of People	Front Axle Left	Right	Total	Rear Axle Left	Right	Total	TOTAL BUS
Empty Bus Full Fuel and Farebox	0							
Fully Seated Full Fuel and Farebox	_____ + Driver							
Fully Loaded Standee and Fully Seated Full Fuel and Farebox	_____ + Driver							
Crush Load (1.5xFully Loaded)	_____							
GVWR								
GAWR								

F. ENGINE

1. Manufacturer _____
2. Type _____
3. Model Number _____
4. No. of Cylinders _____
5. Bore _____ In.
6. Stroke _____ In.
7. Displacement _____ Cu. In.
8. Compression Ratio _____
9. Injector Type and Size _____
10. Net S.A.E. Horsepower _____ HP at _____ RPM
11. Net S.A.E. Torque _____ lb. ft. at _____ RPM
12. Crankcase Oil Capacity
    a. New Engine, dry _____ gals.
    b. New Engine, wet _____ gals.
13. Turbocharger, Make & Model _____
14. Maximum Speed, no load _____ RPM
15. Maximum Speed, full load _____ RPM

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16. Speed at Idle _____RPM
17. Speed at Fast Idle _____RPM
18. Engine Information/graphs to be attached with this form:
    Engine speed vs. road speed
    Torque vs. engine speed
    Horsepower vs. engine speed
    Fuel consumption vs. engine speed.
    Vehicle speed vs. time (both loaded and unloaded)
    Vehicle speed vs. grade (both loaded and unloaded)
    Acceleration vs. time
    Change of acceleration vs. time.

G. TRANSMISSION

1. Manufacturer _____
2. Type _____
3. Model Number _____
4. Speeds _____
5. Gear Ratios Forward _____ Reverse _____
6. Shift Speeds
   a. 1st - 2nd _____ mph
   b. 2nd - 3rd _____ mph
   c. 3rd - 4th _____ mph
   d. 4th - 5th (if applicable) _____ mph
   e. 5th - 6th (if applicable) _____ mph
7. Fluid Capacity [Including heat exchanger and filter(s)] _____

H. VOLTAGE REGULATOR

1. Manufacturer _____
2. Model _____

I. VOLTAGE EQUALIZER

1. Manufacturer _____
2. Model _____

J. ALTERNATOR

1. Manufacturer _____
2. Type _____
3. Model _____
4. Output at Idle _____Amps
5. Output at Maximum Speed _____Amps
6. Maximum Warranted Speed _____rpm
7. Speed at Idle _____rpm
8. Drive Type _____

K. STARTER MOTOR

1. Manufacturer _____
2. Type _____
3. Model _____

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L. AIR COMPRESSOR

1. Manufacturer _____
2. Type _____
3. Rated Capacity _____ cfm
4. Capacity, at Idle _____ cfm
5. Capacity, at Maximum Speed _____ cfm
6. Maximum Warranted Speed _____ rpm
7. Speed Idle _____ rpm
8. Drive Type _____ rpm
9. Governor
   a) Cut-in Pressure _____ psi
   b) Cut-Out Pressure _____ psi

M. AXLE, FRONT

1. Manufacturer _____
2. Type _____
3. Model Number _____
4. Gross Axle Weight Rating _____ lbs.
5. Axle Load _____ lbs.

N. AXLE, REAR

1. Manufacturer _____
2. Type _____
3. Model Number _____
4. Gross Axle Weight Rating _____ lbs.
5. Axle Load _____ lbs.
6. Axle Ratio _____

O. SUSPENSION SYSTEM

1. Manufacturer _____
2. Type: Front _____
   Rear _____
3. Springs: Front _____
   Rear _____

P. WHEELS AND TIRES

1. Wheels
   a. Make _____
   b. Size _____
   c. Capacity _____ lbs.
   d. Material _____

2. Tires
   a. Manufacturer _____
   b. Type _____
   c. Size _____
   d. Load Range/Air Press. _____ lbs/p.s.i.

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Q. STEERING, POWER

1. Pump
   a. Manufacturer & Model No. _____
   b. Type _____
   c. Relief Pressure _____psi

2. Booster/Gear Box
   a. Manufacturer & Model No. _____
   b. Type _____
   c. Ratio _____

3. Power Steering Fluid Capacity _____gals

4. Maximum Effort at Steering Wheel _____lbs
   (unloaded stationary coach on dry asphalt pavement)

5. Steering Wheel Diameter _____in.

R. BRAKES

1. Make of Fundamental Brake System _____

2. Brake Chambers Vendor's Size & Part No.
   a. Front _____
   b. Rear _____

3. Brake Operation Effort _____

4. Slack Adjuster's Vendor's Type & Part No.
   a. Front
      1) Right _____
      2) Left _____
   b. Rear
      1) Right _____
      2) Left _____
   c. Length
      1) Front Take-up _____In.
      2) Rear Take-up _____In.

5. Brake Drums/Discs
   a. Front
      1) Manufacturer _____
      2) Part Number _____
      3) Diameter _____in.
   b. Rear
      1) Manufacturer _____
      2) Part Number _____
      3) Diameter _____In.

6. Brake Lining Manufacturer _____
   Type _____

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7. Brake Lining Identification
   a. Front
      1) Forward _____
      2) Reverse _____
   b. Rear
      1) Forward _____
      2) Reverse _____

8. Brake Linings Per shoe
   a. Front _____
   b. Rear _____

9. Brake Lining Widths
   a. Front _____ In.
   b. Rear _____ In.

10. Brake Lining Lengths
   a. Front _____ In.
   b. Rear _____ In.

11. Brake Lining Thickness _____ In.

12. Brake Lining Area Per Axle
   a. Front _____ Sq. In.
   b. Rear _____ Sq. In.

S. COOLING SYSTEM

1. Radiator/Charge Air Cooler
   a. Manufacturer _____/_____
   b. Type _____/_____
   c. Model Number _____/_____
   d. Number of Tubes _____/_____
   e. Tubes Outer Diameter _____ In.
   f. Fins Per Inch _____ Fins
   g. Fin Thickness _____ In.

2. Total Cooling and Heating System Capacity _____ Gals

3. Radiator Fan Speed Control _____ Type

4. Surge Tank, Capacity _____ Qts.

5. Engine Thermostat Temperature Setting
   a. Initial Opening _____ ° F
   b. Fully Closed _____ ° F

6. Overheat Alarm Temperature Sending Unit Setting _____ ° F

7. Shutdown Temperature Setting _____ ° F

T. AIR RESERVOIR CAPACITY

1. Supply Reservoir _____ Cu. In.
2. Primary Reservoir _____ Cu. In.

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3. Secondary Reservoir _____Cu. In.
4. Parking Reservoir _____Cu. In.
5. Accessory Reservoir _____Cu. In.
6. Other Reservoir Type _____Cu. In.

U. HEATING, VENTILATING AND AIR CONDITIONING EQUIPMENT

1. Heating System Capacity _____B.T.U.
2. Air Conditioning Capacity _____B.T.U.
3. Ventilating Capacity _____cfm
4. Compressor
   a. Manufacturer & Model _____
   b. No. of Cylinders _____
   c. Drive Ratio _____
   d. Maximum Warranted Speed _____r.p.m.
   e. Operating Speed _____r.p.m.
   f. Weight _____lbs.
   g. Oil Capacity
      1) Dry _____gals.
      2) Wet _____gals.
   h. Refrigerant _____Type _____Lbs.

5. Condenser
   a. Manufacturer & Model _____
   b. No. of Rows _____
   c. No. of Fins/In. _____
   d. O.D. of Tube _____In.
   e. Fin Thickness _____In.

6. Condenser Fan
   a. Manufacturer & Model _____
   b. Fan Diameter _____In.
   c. Speed Maximum _____RPM
   d. Flow Rate (maximum) _____CFM

7. Receiver
   a. Manufacturer & Model _____
   b. Capacity _____Lbs.

8. Condenser Fan Drive Motors
   a. Manufacturer _____
   b. Model _____
   c. Type _____
   d. Horse Power _____HP
      Operating Speed _____ r.p.m.

9. Evaporator Fan Drive Motors
   a. Manufacturer _____
   b. Model _____
   c. Type _____
   d. Horse Power _____HP
   e. Operating Speed _____r.p.m.

10. Evaporator(s)
   a. Manufacturer & Model _____
   b. Number of Rows _____

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c. No. of Fins/In. _____
d. Outer Diameter of Tube _____In.
e. Fin Thickness _____In.
f. Number of Evaporator _____

11. Expansion Valve
Manufacturer & Model _____

13. Filter-Drier
Manufacturer & Model _____

14. Heater Cores
a. Manufacturer & Model _____
b. Capacity _____B.T.U.
c. Number of Rows _____
d. Number of Fins/In. _____
e. Outer Diameter of Tube _____In.
f. Fin Thickness _____In.
g. Number of Heater Cores _____

15. Floor Heater Blowers
a. Heater Blower Motors
1) Manufacturer & Model _____
2) Horsepower _____HP
3) Speed(s) _____r.p.m.
b. Heater Blower Wheel
Manufacturer & Model _____
Capacity _____cfm
c. Cores
Manufacturer & Model _____
Capacity _____B.T.U.
Number of Rows _____
Number of Fins/In. _____Fins
Outer Diameter of Tube _____In.
Fin Thickness _____In.
Number of Heater Cores _____

16. Controls
a. Manufacturer & Model _____
b. Type _____

17. Driver's Heater
a. Manufacturer _____
b. Model No. _____
c. Capacity _____B.T.U.

18. Ventilation System
a. Manufacturer & Model _____
b. Type _____

19. Coolant Heater
Make & Model _____N/A_____

Capacity (B.T.U) _____N/A_____

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V. INTERIOR LIGHTING

1. Manufacturer _____
2. Type _____
3. Number of Fixtures _____
4. Size of Fixtures _____
5. Power Pack _____

W. DOORS

1. Front
   a. Manufacturer of Operating Equipment _____
   b. Type of Door _____
   c. Type of Operating Equipment _____

2. Rear – N/A
   a. Manufacturer of Operating Equipment _____N/A_____
   b. Type door _____N/A_____
   c. Type of Operating Equipment _____N/A_____

X. PASSENGER WINDOWS

1. Manufacturer _____
   Model _____
2. Type _____
3. Number: (Side) _____
   (Rear) _____
4. Sizes: _____ _____ _____
5. Glazing: Type _____
   Thickness _____
   Color of Tint _____
   Light Transmission _____

Y. MIRRORS

	Size	Type	Manufacturer	Mfg. Part #	Model No.
Right Side Exterior	____	____	_____	_____	_____
Left Side Exterior	____	____	_____	_____	_____
Center Rearview	____	____	_____	_____	_____
Front Entrance Area	____	____	_____	_____	_____
Upper Right Hand Corner	____	____	_____	_____	_____
Rear Exit Area	____	____	_____	_____	_____
Other	____	____	_____	_____	_____

Y. SEATS

1. Manufacturer _____
2. Model _____
3. Type _____

Z. PAINT

Manufacturer _____
Type _____

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AA. WHEELCHAIR RAMP EQUIPMENT

1. Manufacturer & Model No. _____
2. Type _____
3. Capacity _____ Lbs.
4. Dimensions
   a. Width of Platform _____ In.
   b. Length of Platform _____ In.
5. System Fluid Capacity _____ Qts. (if applicable)
6. Type Fluid Used _____ (if applicable)
7. Operating Hydraulic Pressure _____ (if applicable)
8. Hydraulic Cylinders _____ psi (if applicable)
   A) Size _____ (if applicable)
   B) Number _____ (if applicable)

BB. WHEELCHAIR SECUREMENT EQUIPMENT

1. Manufacturer & Model No. _____

CC. DESTINATION SIGNS

1. Manufacturer _____
2. Type _____
3. Character Length
   - Front Destination _____ In.
   - Front Run Number _____ In.
   - Side Destination _____ In.
   - Rear Route _____ In.
4. Character Height
   - Front Destination _____ In.
   - Front Run Number _____ In.
   - Side Destination _____ In.
   - Rear Route _____ In.
5. Number of Characters
   - Front Destination _____ In.
   - Front Run Number _____ In.
   - Side Destination _____ In.
   - Rear Route _____ In.
6. Message Width
   - Front Destination _____ In.
   - Front Run Number _____ In.
   - Side Destination _____ In.
   - Rear Route _____ In.

DD. ELECTRICAL

1. Multiplex System
   a. Manufacturer _____
   b. Model No. _____

2. Batteries
   a. Manufacturer _____
   b. Model No. _____
   c. Type _____

EE. PASSENGER INTERIOR LIGHTING

Manufacturer _____
Model No. _____

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FF. COMMUNICATION SYSTEM

1. GPS/Voice Announcement System
   Manufacturer _____
   Model No. _____

2. P.A. System

		Manufacturer	Model No.	
a.	Amplifier	_____	_____	
b.	Microphone	_____	_____	
c.	Int. Speakers	_____	_____	(number ___)
d.	Ext. Speaker	_____	_____	(number ___)

GG. CCTV SYSTEM
   Manufacturer _____
   Model No. _____
   Cameras _____
   _____
   _____
   _____
   _____
   _____
   _____

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EXHIBITS

EXHIBIT 1

FDOT RULE 14.90.007/.008

CHAPTER 14-90 EQUIPMENT AND OPERATIONAL SAFETY STANDARDS GOVERNING PUBLIC-SECTOR BUS TRANSIT SYSTEMS

14-90.001 Scope.
14-90.002 Definitions.
14-90.003 Department Responsibilities and Authority.
14-90.004 Bus Transit System Operational Standards.
14-90.0041 Physical Examinations for Drivers.
14-90.005 Transit Bus Accidents.
14-90.006 Operational and Driving Requirements.
14-90.007 Equipment and Devices Required.
14-90.008 Standards for Accessible Buses.
14-90.009 Public-sector Bus Safety Inspection Procedures.
14-90.010 Safety Certification.
14-90.011 Inspection of Buses by Law Enforcement Officers.
14-90.012 Suspension of Operation.

14-90.001 Scope.

These rules provide the minimum equipment and operational safety standards for all governmentally owned bus transit systems and privately owned or operated bus transit systems operating in this state which are financed wholly or partly by State funds; all bus transit systems designated as a Community Transportation Coordinator pursuant to Chapter 427, Florida Statutes; and all privately owned or operated bus transit systems under contract with any of the aforementioned systems. These rules shall not apply to nonpublic-sector buses as defined in Rule Chapter 14-108, F.A.C., buses used for the transportation of migrant workers, or school buses subject to the provisions of Chapters 234 and 316, Florida Statutes. These rules shall be in addition to all applicable Federal Motor Vehicle Safety Standards and State of Florida Uniform Traffic Control Laws, Chapter 316, Florida Statutes. Every bus transit system shall be knowledgeable of and comply with all safety standards contained in this rule chapter which are applicable to that system's operations. Every driver and employee shall be instructed regarding, and shall comply with, all applicable standards contained in this rule chapter. Nothing in this rule chapter shall be construed to prohibit a bus transit system from establishing and implementing more stringent requirements relating to safety of equipment and operations and employee safety and health.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 334.044(12), (21), 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 11-10-92, 8-2-94.

14-90.002 Definitions.

(1) "Accessible Bus" means any vehicle readily accessible to and usable by individuals with disabilities and meeting the requirements of Title 49, Code of Federal Regulations, Part 38, Subpart B – Buses, Vans, and Systems.

(2) "Bus" means any motor vehicle as defined in subsection 316.003(21), Florida Statutes, other than a taxicab, designed, constructed and used for the transportation of persons for compensation. For purposes of this rule chapter, buses are designated in two categories.

(a) Type 1. Over 22 feet in length.

(b) Type 2. 22 feet or less in length. This category shall include all such paratransit type vehicles, i.e., minibuses, vans, modified vans, station wagons, etc., when used for the transportation of persons for compensation.

(3) "Bus Driver" means any person who drives and is in actual physical control of a bus on a street or highway which is being used for the transportation of persons for compensation.

(4) "Bus Transit Systems" means those systems defined in subsections 14-90.002(5), (10) and (13), F.A.C.

(5) "Bus Transit System Created Pursuant to Chapter 427, Florida Statutes", means any public or private transportation entity designated as a Community Transportation Coordinator pursuant to Chapter 427, Florida Statutes, which provides coordinated transportation services or ensures such services are provided by a transportation operator or private contract bus transit system.

(6) "Department" means the State of Florida, Department of Transportation.

(7) "Drive" or "Operate" are terms which include all time spent at the driving controls of a bus in operation.

(8) "FMVSS" means Federal Motor Vehicle Safety Standards in effect at the time the bus or component is manufactured.

(9) "For Compensation" means a return in money, property or of anything of value for service in transporting persons or property by buses over public highways, whether paid, received or realized, directly or indirectly, and shall specifically be deemed to include any profit in money, goods or things realized from such transportation.

(10) "Governmentally Owned Bus Transit System" means any governmentally owned entity or agency, financed wholly or partly by state funds, that owns, operates, leases, or controls buses.

(11) "Manufacturer of the Chassis" means the original manufacturer of the chassis or the manufacturer of any integral type of bus.

(12) "On Duty" means the status of the driver from the time he or she begins work, or is required to be in readiness to work, until the time the driver is relieved from work and all responsibility for performing work. "On Duty" includes all time spent by the driver as follows:

(a) Waiting to be dispatched at bus transit system terminals, facilities or other private or public property, unless the driver has been relieved from duty by the bus transit system.

(b) Inspecting, servicing or conditioning any vehicle.

(c) Driving.

(d) Remaining in readiness to operate a vehicle (Stand-by).

(e) Repairing, obtaining assistance, or remaining in attendance in or about a disabled vehicle.

(13) "Privately Owned or Operated Bus Transit System That is Financed Wholly or Partly by State Funds" means any private entity or agency that receives operational or capital funding from the state and owns, operates, leases, or controls buses that provide transportation services available for use by the general riding public.

(14) "Privately Owned or Operated Bus Transit System Under Contract" means a private entity or agency which owns, operates, leases, or controls buses or taxicabs and provides transportation services under contract for a bus transit system for compensation where such transportation consists of continuous or recurring transportation under the same contract. This term shall hereinafter be referred to as "private contract bus transit system".

(15) "Public-sector Bus" means a bus which is owned, operated, leased, or controlled by a bus transit system.

(16) "Safe Condition" means a condition where hazards are reduced to the lowest level feasible through the most effective use of available resources and substantial compliance exists with all safety rules, regulations and requirements.

(17) "Safety Certification" means a formal statement or documentation declaring, verifying or attesting that safety requirements are incorporated in designs, construction, procurement activities, training and operation of a transit system.

(18) "Safety Review" means an on-site assessment to determine if a bus transit system has adequate safety management controls in place and functioning that meet safety standards provided and incorporated by reference in this rule chapter.

(19) "Seven Consecutive Days" means the period of seven consecutive twenty four hour days beginning on any day at a time designated by the bus transit system for a 24 hour period.

(20) "System Safety Program Plan (SSPP)" means a documented organized approach and guide to accomplishing a system safety program.

(21) "Taxicab" means any motor vehicle of a nine passenger capacity or less, including the driver, engaged in the general transportation of persons for compensation on occasional trips, not on a regular schedule or between fixed termini or over regular routes, and such vehicle does not provide transportation services as a result of a contractual agreement with a bus transit system.

(22) "Trailer Bus" means a trailer or semitrailer designed or used for the transportation of more than 10 persons, e.g., tram buses.

(23) "Twenty-four Hour Period" means any 24 consecutive hour period beginning at a time, designated by the bus transit system, from the terminal or location from which the driver is normally dispatched.

(24) "Unsafe Condition" means any condition which endangers human life or property.

(25) "Work Period" means the duration between the time a driver first reports for duty and the time a driver is completely relieved of all duties and is permitted to go off duty for a minimum of eight consecutive hours. The terms "work period" and "on duty" have the same meaning or intent in this rule chapter.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 11-10-92.

14-90.003 Department Responsibilities and Authority.

(1) The Department shall:

(a) Assure that each bus transit system develops a SSPP that complies with the minimum established standards set forth in this rule chapter.

(b) Assure that all transit buses operated by each bus transit system have received safety inspections at least annually in accordance with standards set forth in this rule chapter.

(2) The Department shall:

(a) Conduct a safety review of any bus transit system which is believed to be in noncompliance with its SSPP or providing passenger service operations in an unsafe condition.

1. Copies of any noncompliance review report shall be provided to the affected transit system.

2. Reports shall state actions required and time allowed for such corrective actions.

(b) Require suspension of system service if continued operation of the system, or a portion thereof, poses an immediate danger to public safety.

(3) The Department reserves the right to conduct on-site safety reviews of a bus transit system's safety performance, including but not limited to review of operational, maintenance and safety inspection records.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 11-10-92.

14-90.004 Bus Transit System Operational Standards.

(1) Each bus transit system shall:

(a) Develop a SSPP that complies, at a minimum, with established safety standards set forth in this rule chapter. The SSPP plan shall consist of safety considerations and standards for the following:

1. Management;
2. Vehicles and equipment;
3. Operational functions;
4. Driving requirements;
5. Maintenance;
6. Equipment for transporting wheelchairs;
7. Training;
8. Federal, State, and Local regulations, ordinances or laws;
9. Private contract bus transit system(s) that provide(s) continuous or recurring transportation services for compensation as a result of a contractual agreement with the bus transit system.

(b) Implement and comply with the SSPP during the operation of the system.

(c) Require that all operable transit buses be inspected at least annually in accordance with established standards.

(d) Assure that safety inspections are performed by personnel qualified by the bus transit system, as specified in subsection 14-90.009(2), F.A.C.

(e) Annually submit a safety certification to the Department verifying the adoption of a SSPP in accordance, at a minimum, with established standards set forth in this rule chapter.

(f) Annually submit a safety certification to the Department verifying compliance with its adopted SSPP and that safety inspections have been performed by a qualified entity at least annually on all buses operated by the system.

(g) Require immediate suspension of affected system service operations, if, at any time, continued operation of the system or a portion thereof, is believed not safe for passenger service or poses a potential danger to public safety.

(2) Bus transit systems that engage in a contract with a private contract bus transit system(s) pursuant to subparagraph 14-90.004(1)(a)9. shall:

(a) Establish minimum safety standards pursuant to paragraph 14-90.004(1)(a), F.A.C., which apply to private contract bus transit system(s), as defined in subsection 14-90.002(14), F.A.C.

(b) Monitor and assure the private contract bus transit system(s) comply(s) with established safety standards while engaged in a contract pursuant to subsection 14-90.004(2), F.A.C.

(3) Bus transit systems shall:

(a) Require that all buses be operated at all times in compliance with applicable traffic regulations, ordinances, and laws of the jurisdiction in which they are being operated.

(b) Require proof of valid license for all employees who drive buses in accordance with Chapter 322, Florida Statutes, and maintain a current legible photostatic record of each driver's license.

(c) Establish driver training and testing to demonstrate an employee's capabilities to safely operate each different type of bus or bus combination before driving on a street or highway unsupervised, i.e., buses requiring different skills for drivers to safely and properly drive. Driver training and testing shall include:

1. Explicit instructional and procedural training regarding operational and driving requirements, defensive driving, equipment inspection and handling of emergencies.
2. A road test of sufficient duration to enable the person who gives it to evaluate the skill of the person who takes it at handling the bus, and associated equipment, that the bus transit system intends for the person to operate.
3. The road test shall be given by the bus transit system or a person designated by it.
4. The road test shall be given by a person who is competent to evaluate and determine whether the person who takes the test has demonstrated the capability of operating the vehicle, and associated equipment, that the bus transit system intends for the person to drive.

(d) Establish driver training for operation of special equipment on buses, such as wheelchair lifts, ramps and wheelchair securement devices, as applicable.

(e) Provide written operational and safety procedures to all drivers before driving on a street or highway unsupervised.

(f) Maintain a current record of the different types of buses and bus special equipment each driver is capable of driving and operating.

(g) Maintain a record of each driver's work period which shall include documentation of the following:

1. Total days worked;
2. On-duty hours;
3. Driving hours;
4. Time of reporting on and off duty each day.

(h) Notwithstanding the provisions of Sections 316.193, 316.1931, 316.1932, 316.1933, 316.1934, Florida Statutes, pursuant to driving under the influence, each bus transit system shall establish a drug-free workplace policy statement in accordance with Title 49, Code of Federal Regulations, Part 29, "Government-wide Requirements for Drug-Free Workplace (Grants)", Drug Free Workplace Act.

(i) Assure that the SSPP provides for the prevention of an employee to drive, move or cause to be driven or moved, on any street or highway, any bus:

1. Which is in such unsafe condition as to endanger any person or property.

2. Which does not contain those safety parts or is not at all times equipped with safety equipment and devices in proper condition and adjustment as required by Chapter 316, Florida Statutes, and this rule chapter.

3. Which is equipped in any manner in violation of Chapter 316, Florida Statutes, and this rule chapter.

4. The provisions of this subsection shall not apply to personnel authorized by the bus transit system to temporarily drive, move, or road test a bus to perform repairs or maintenance services and it has been determined that such temporary operation does not create an unsafe operating condition or create a hazard to public safety.

(j) Require that drivers write and submit a daily bus inspection report pursuant to subsections 14-90.006(7) and (8), F.A.C.

(4) Bus Maintenance. All buses operated shall be properly maintained and equipped with all required parts necessary to ensure such buses are in safe and proper operating condition at all times. Bus transit systems shall assure:

(a) That all buses operated, and all parts and accessories on such buses, including those specified in Rules 14-90.007 and 14-90-008, F.A.C., and any additional parts and accessories which may affect safety of operation, including frame and frame assemblies, suspension systems, axles and attaching parts, wheels and rims, and steering systems, are regularly and systematically inspected, maintained and lubricated at a minimum in accordance with the standards developed and established in the SSPP to ensure they are in safe and proper operating condition.

(b) A method of indicating the types of inspections, maintenance and lubrication intervals to be performed on each bus and the date or mileage when these services are due. Maintenance inspections required shall be more comprehensive than daily inspections performed by the driver.

(c) That proper preventive maintenance is performed when a bus is assigned away from the system's regular maintenance facility, or when maintenance services are contracted.

(d) The maintenance of records providing written documentation of preventive maintenance, regular maintenance, inspections, lubrication and repairs performed for each bus under their control. Such records shall be maintained by the system for at least four years and include at a minimum the following information:

1. Identification of the bus, including make, model, license number or other means of positive identification and ownership.

2. Date, mileage and type of inspection, maintenance, lubrication or repair performed.

3. Date, mileage and description of each inspection, maintenance or lubrication intervals performed.

4. If not owned by the bus transit system the name of any person or lessor furnishing any bus.

5. The name and address of any entity or contractor performing an inspection, maintenance, lubrication or repair.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 11-10-92.

14-90.0041 Physical Examinations for Drivers.

(1) Bus transit systems shall establish physical examination requirements for all new and current employees who drive (will drive) buses as defined in subsections 14-90.002(2) and (3), F.A.C. As part of the physical examination requirements, all employees who are bus drivers must receive an initial physical examination and one at least once every two years.

(a) Physical examinations shall be performed by the examining physician according to the instructions, and recorded by the physician on Department of Transportation Form Number 775-030-01, "Physical Examination for Public-Sector Bus Driver", 07/92, which is hereby incorporated by reference. Copies of Form Number 775-030-01 are available from the Florida Department of Transportation, Public Transit Office, 605 Suwannee Street, Mail Station 26, Tallahassee, Florida 32399-0450.

(b) Physical examinations may be performed and recorded in a form adopted by the bus transit system provided the physical examination requirements and the form adopted by the bus transit system meet or exceed that provided by Department Form Number 775-030-01. The physical examination shall be performed and recorded by a physician meeting the requirements of paragraph 14-90.0041(1)(b), F.A.C.

1. Physical examinations shall be performed by a Doctor of Medicine or Osteopathy licensed by the State of Florida.

2. An ophthalmologist or optometrist licensed by the State of Florida may perform so much of the examination as pertains to visual acuity, field of vision, and color recognition.

(c) Bus transit systems shall have on file proof of physical examination dated within the past 24 months.

(2) Records and results of physical examinations of employee bus drivers shall be maintained by the bus transit system for a minimum of four years.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 11-10-92.

14-90.005 Transit Bus Accidents.

(1) Each bus transit system shall establish and maintain a comprehensive accident reporting, evaluation and record maintenance system.

(2) Notification of Transit Bus Accidents: Every bus transit system shall give the Department notice of each accident involving the death of a person.

(a) The Department shall be notified by telephone or in person of each accident involving a fatality by the end of regular working hours on the next regular working day following such occurrence.

(b) A written copy of local or state accident investigation reports of each accident involving a fatality shall be submitted to the Department within 30 days after the accident occurs.

(c) If a person dies within 30 days after an accident, the bus transit system shall, within 24 hours after the death, give written notice of the death to the Department.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 11-10-92.

14-90.006 Operational and Driving Requirements.

(1) Bus transit systems shall not permit a driver to drive a bus when such driver's license has been suspended, cancelled or revoked. Bus transit systems shall require a driver who receives a notice that his or her license to operate a motor vehicle has been suspended, cancelled or revoked to notify his or her employer of the contents of the notice immediately, or no later than the end of the business day following the day he or she received it.

(2) Public-sector buses shall be operated at all times in compliance with applicable traffic regulations, ordinances and laws of the jurisdiction in which they are being operated.

(3) The driver of a bus shall not be permitted or required to drive more than 12 hours in any one 24-hour period, or drive after having been on duty for 16 hours in any one 24-hour period, or drive more than 70 hours in any period of seven consecutive calendar days.

(a) A driver who has reached the maximum 12 driving hours or 16 hours on duty time shall be required to have a minimum of eight consecutive hours off duty time within any one 24-hour period.

(b) A driver's work period shall begin from the time a driver first reports for duty for his or her employer.

(4) A driver may be permitted to drive for more than the regulated hours if the hours are necessitated by adverse conditions resulting from weather, road or traffic, or emergencies resulting from an accident, medical reasons or disaster.

(5) The driver of a bus may be permitted to exceed his or her regulated hours in order to reach a regularly established relief point, provided the additional driving time does not exceed one hour.

(6) No driver shall drive a bus when his or her ability is so impaired, or so likely to be impaired, by fatigue, illness or other causes, as to make it unsafe for the driver to begin or continue driving. Bus transit systems shall not permit or require any driver to drive a bus when his or her ability is so impaired by such condition as to make it unsafe for the driver to begin or continue driving.

(7) Bus transit systems shall require each driver to submit a daily written report indicating the condition of the bus and listing all defects and deficiencies likely to affect safe operation or cause mechanical malfunctions.

(a) Prior to operation of a bus, or no less than daily if the bus is so operated, an inspection or test shall be made of the following parts and devices to ascertain that they are in safe condition and in good working order:

1. Service brakes;
2. Parking brakes;
3. Tires and wheels;
4. Steering;
5. Horn;
6. Lighting Devices;
7. Windshield Wipers;
8. Rear vision mirrors;
9. Passenger doors;
10. Exhaust System;
11. Equipment for transporting wheelchairs;
12. Safety and Emergency equipment.

(b) Bus transit systems shall retain records of daily bus inspections a minimum of two weeks.

(8) A bus with passenger doors in the open position shall not be operated with passengers aboard. The doors shall not be opened until the bus is stopped. A bus with inoperable passenger doors shall not be operated with passengers aboard.

(9) During darkness, interior lighting and lighting in stepwells on buses shall be sufficient for passengers to enter and exit safely.

(10) Passenger(s) shall not be permitted in the stepwell(s) of any bus while the bus is in motion, or occupy an area forward of the standee line as required in subsection 14-90.007(14), F.A.C.

(11) Standee passenger(s) shall not be permitted on buses not designed and constructed for that purpose.

(12) Buses shall not be refueled in a closed building. The fueling of buses when passengers are being carried shall be reduced to the minimum number of times necessary during such transportation.

(13) With passenger(s) aboard, the bus transit system shall require the driver to be properly secured to the driver's seat with a restraining belt at all times while the bus is in motion.

(14) Buses shall not be left unattended with passenger(s) aboard for longer than 15 minutes.

(15) Buses shall not be left unattended in an unsafe condition with passenger(s) aboard at any time.

(16) The provisions of subsections 14-90.006(8), (9), (10), (11), (12), F.A.C., shall not apply to persons testing or training a driver, maintenance personnel or a sales or manufacturer's representative.

(17) Buses carrying passengers shall stop at all railroad grade crossings in compliance with Section 316.159, Florida Statutes.

(18) Whenever a bus 80 or more inches in width or 30 feet or more in length is stopped (except when lawfully stopped to pick up or discharge passengers) or disabled upon a roadway or adjacent shoulder, warning lights and devices shall be displayed as required by Section 316.301, Florida Statutes.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 5-31-89, 11-10-92.

14-90.007 Equipment and Devices Required.

At the time of manufacture, every public-sector bus operated on or over the streets and highways of this State shall be equipped in compliance with applicable Federal Motor Vehicle Safety Standards (Title 49 C.F.R. Part 571); and the State of Florida Uniform Traffic Control Laws (Chapter 316, Florida Statutes); (available from the Florida Department of Transportation, Public Transit Office, 605 Suwannee Street, Mail Station 26, Tallahassee, Florida 32399-0450), which regulations are hereby incorporated by reference and made a part of these rules. With the exception of certain date of manufacture exemptions, as specified herein, every public-sector bus operated on or over the streets and highways of this State shall be equipped as follows:

(1) Horn. The horn must be capable of emitting sound audible under normal conditions from a distance of not less than 200 feet and having an activating device which is easily accessible to the driver.

(2) Windshield Wipers. There must be the same number of windshield wipers as originally equipped at time of manufacture, or equipped with adequate number of wipers to properly clean the windshield(s). The wipers shall be activated by a device(s) easily accessible to the driver.

(3) Mirrors. There must be two exterior rear vision mirrors, one at each side. The mirrors shall be firmly attached to the outside of the bus and so located as to reflect to the driver a view of the highway to the rear along both sides of the vehicle. Each exterior rear vision mirror, on Type I buses, manufactured on or after February 7, 1988, shall have a minimum reflective surface of 50 square inches and the right (curbside) mirror shall be located on the bus so that the lowest most part of the mirror and its mounting is at a minimum of 80 inches above the ground. All Type I buses shall, in addition to the above requirement, be equipped with an inside rear-view mirror capable of giving the driver a clear view of seated or standing passengers, and buses having a passenger exit door that is located inconveniently for drivers visual control shall be equipped with an interior mirror, or a combination of mirrors, enabling the driver to view the passenger exit door during egress of passenger(s). The exterior right (curbside) rear vision mirror and its mounting on Type I buses may be located lower than 80 inches from the ground, provided such buses are used exclusively for paratransit operations, as defined in Section 341.031, Florida Statutes. In lieu of interior mirrors, trailer buses and articulated buses may be equipped with closed circuit video systems or adult monitors in voice control with the driver.

(4) Wiring and Battery. Electrical wiring shall be maintained so as not to come in contact with moving parts, heated surfaces or be subject to chafing or abrasion which may cause insulation to become worn. Every Type I bus manufactured on or after February 7, 1988, shall be equipped with a storage battery(ies) electrical power main disconnect switch. The disconnect switch shall be practicably located in an accessible location adjacent to or near to the battery(ies) and be legibly and permanently marked for identification. Every storage battery on each public-sector bus shall be mounted with proper retainers or securement devices in a compartment which provides adequate ventilation and drainage.

(5) Service Brakes, Parking Brakes. Braking systems shall comply with subsections 316.261(1), (2), (3), (8), (9), (10), or Section 316.262, Florida Statutes, as applicable, and shall be maintained in good working order in compliance with Section 316.263, Florida Statutes.

(a) All Type I buses having a rear passenger exit door shall be equipped with a rear exit door/brake interlock that automatically applies the brake(s) on the bus upon driver activation of the passenger exit door to the open position. Interlock brake application shall remain activated until deactivation by the driver and the rear exit door returns to the closed position. The exit door interlock on such buses shall be equipped with an identified override switch enabling emergency release of interlock function and shall not be located within reach of the seated driver.

(b) Air pressure application to the brake(s) during interlock operation on buses equipped with rear exit door/brake interlock, shall be regulated at the original equipment manufacturer's specifications.

(6) Warning Devices. Every bus using compressed air, vacuum or a combination thereof, shall be equipped with gauges and warning signal devices as required by subsection 316.261, Florida Statutes. These required warning devices shall not have override switches.

(7) Directional Signals. Every bus shall be equipped with electrical turn signal devices which shall meet the requirements of subsection 316.234(2), Florida Statutes.

(a) Lamps shall be located and mounted as widely spaced laterally as practical.

(b) Lenses on lamps may be single faced, double faced or incorporated into the parking lamp assembly. Lenses shall indicate white or amber to the front and red or amber to the rear.

(8) Hazard Warning Signals. Every bus manufactured on or after January 1, 1964, shall be equipped with a vehicular hazard warning signal operating unit.

(a) Signals shall operate independently of the ignition, master or equivalent switch.

(b) The operating unit shall cause to flash simultaneously sufficient turn signal lamps as required by FMVSS 108, "Lamps, Reflective Devices and Associated Equipment", (Title 49 C.F.R. Part 571, Section 108, effective October 2, 1986).

(c) Buses manufactured on or after February 7, 1988, that are equipped with engine or other access door(s) that obscure hazard warning signals with the door(s) raised or in the open position, shall be equipped with rear auxiliary hazard warning signals, which when lighted, shall be visible from a distance of 500 feet to the rear of the bus. Auxiliary hazard warning signals may be activated and operated independently of the main hazard warning signals on the bus.

(9) Stop Lamp. There must be at least two lamps on the rear of the bus which shall display red or amber light upon application of the service (foot) brakes or air activated parking brakes, or activation of the passenger exit door control to open position and application of the brake(s) as required in paragraph 14-90.007(5)(a), F.A.C. The lamps shall be visible from a distance of no less than 300 feet to the rear of the bus and shall be securely mounted.

(10) Tail Lamps. There must be at least two tail lamps which are in compliance with Section 316.221, Florida Statutes.

(11) Head Lamps. There must be at least two head lamps mounted in equal number on each side. The head lamps shall be in proper adjustment in compliance with Sections 316.220 and 316.237, Florida Statutes.

(12) Clearance Lamps, Identification Lamps, Marker Lamps, Backup Lamps, and Reflectors. Such lamps and reflectors in the kind, size and number and shall be mounted to comply with the requirements for Sections 316.2225, 316.224, 316.225, 316.226, Florida Statutes.

(13) Deceleration Lights. Buses may be equipped with a deceleration lighting system in accordance with subsection 316.235(5), Florida Statutes, which cautions following vehicles that the bus is slowing, preparing to stop, or stopped.

(14) Standee Line and Warning. Every bus designed and constructed to allow standees, shall be plainly marked with a line of contrasting color at least two inches wide or equipped with some other means to indicate any passenger is prohibited from occupying a space forward of a perpendicular plane drawn through the rear of the driver's seat and perpendicular to the longitudinal axis of the bus. A sign shall be posted at or near the front of the bus stating that it is a violation for a bus to be operated with passengers occupying an area forward of the line.

(15) Handrails and Stanchions. Every bus designed and constructed to allow standees shall be equipped with overhead grab rails for standee passengers. Overhead grab rails shall be continuous, except for a gap at the rear doorway, and terminate into vertical stanchions or turn up into a ceiling fastener. Every Type I and Type II bus designed for carrying more than 16 passengers shall be equipped with grab handles, stanchions or bars at least 10 inches long and installed to permit safe on-board circulation, seating and standing assistance, and boarding and unboarding by elderly and handicapped persons. Type I buses shall be equipped with a safety bar and panel directly behind each entry and exit stepwell.

(16) Flooring, Steps and Thresholds. Flooring, steps and thresholds on all buses shall have slip resistant surfaces without protruding or sharp edges, lips and overhangs, to prevent tripping hazards. All step edges and thresholds shall have a band of color(s) running the full width of the step or edge which contrasts from the step tread and riser, either light-on-dark or dark-on-light.

(17) Doors. Power activated doors on all buses shall be equipped with a manual device designed to release door closing pressure.

(18) Emergency Exits. Every Type I bus shall be equipped with emergency door(s) or exits, or side windows or roof hatches as required by FMVSS No. 217 "Bus Window Retention and Release" (Title 49 C.F.R. Part 571, Section 217, effective August 26, 1982). Every Type I bus equipped with an auxiliary door for emergency exit shall be equipped with an audible alarm or light indicating to the driver, should the door become ajar or opened while the engine is running. Every Type II bus shall be equipped with at least one emergency door or push-out escape window either at the rear of the bus or on each side, to the rear of the driver's seat. All emergency exits shall function properly, shall be periodically tested to ensure proper performance and shall be marked by a visible sign indicating "Emergency Exit" or "Emergency Door". Supplemental security locks operable by a key are prohibited on emergency exit doors unless these security locks are equipped and connected with an ignition interlock system or an audio visual alarm located in the driver's compartment. Any supplemental security lock system used on emergency exits shall be kept unlocked whenever a bus is in operation.

(19) Tires and Wheels. Tires shall be properly inflated in accordance with manufacturer's recommendations.

(a) No bus shall be operated with a tread groove pattern depth:

1. Less than 4/32 (1/8) of an inch, measured at any point on a major tread groove for tires on the steering axle of all buses. The measurements shall not be made where tie bars, humps, or fillets are located.

2. Less than 2/32 (1/16) of an inch, measured at any point on a major tread groove for all other tires of all buses. The measurements shall not be made where tie bars, humps, or fillets are located.

(b) No bus shall be operated with recapped, regrooved or retreaded tires on the steering axle.

(c) Wheels shall be visibly free from cracks, distortion and missing, cracked or broken mounting lugs.

(20) Suspension. The suspension system of all buses, including springs, air bags and all other suspension parts as applicable, shall be free from cracks, leaks or any other defect which would or may cause its impairment or failure to function properly.

(21) Exhaust System. The exhaust system of all buses shall be maintained in compliance with Section 316.272, Florida Statutes.

(22) Steering and Front Axle. The steering system of all buses shall have no indication of leaks which would or may cause its impairment to function properly, and shall be free from cracks and excessive wear of components that would or may cause excessive free play or loose motion in the steering system and above normal effort in steering control.

(23) Seat Belts. Every bus shall be equipped with an adjustable driver's restraining belt in compliance with the requirements of FMVSS 209, "Seat Belt Assemblies" (Title 49 C.F.R. Part 571, Section 209, effective September 5, 1986) and FMVSS 210 "Seat Belt Assembly Anchorages" (Title 49 C.F.R. Part 571, Section 210, effective August 19, 1986).

(24) Safety Equipment. Every bus shall be equipped with one fully charged dry chemical or carbon dioxide fire extinguisher, having at least a 1A:BC rating and bearing the label of Underwriter's Laboratory, Inc.

(a) Each fire extinguisher shall be securely mounted on the bus in a conspicuous place or a clearly marked compartment and readily accessible.

(b) Each fire extinguisher shall be maintained in efficient operating condition and equipped with some means of determining if it is fully charged.

(c) Every Type I bus shall be equipped with portable red reflector warning devices in compliance with Section 316.300, Florida Statutes.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 11-10-92, 8-2-94.

14-90.008 Standards for Accessible Buses.

(1) Equipment installed on any bus for the purpose of transporting individuals with disabilities shall meet the requirements set forth in Title 49 Code of Federal Regulations, Transportation for Individuals With Disabilities, Part 38, Subpart A – General, subsections 38.1, 38.2, 38.3 and Subpart B – Buses, Vans and Systems, subsections 38.21, 38.23, 38.25, 38.27, 38.29, 38.31, 38.33, 38.35, 38.37, and 38.29.

(a) Installation of a wheelchair lift or ramp shall not cause the manufacturer's gross vehicle weight rating, gross axle weight rating, or tire rating to be exceeded on the accessible bus.

(b) Except in locations within 3 1/2 inches of the bus floor, all readily accessible exposed edges or other hazardous protrusions of parts of wheelchair lift assemblies or ramps that are located in the passenger compartment of accessible buses shall be padded with energy absorbing material to mitigate injury in normal use and in case of accident. This requirement shall also apply to parts of the bus associated with the operation of the lift or ramp.

(c) The controls for operating the lift shall be at a location where the bus driver or lift attendant has a full view, unobstructed by passengers, of the lift platform, its entrance and exit, and the wheelchair passenger, either directly or with partial assistance of mirrors. Lifts located entirely to the rear of the driver's seat shall not be operable from the driver's seat, but shall have an override control at the driver's position that can be activated to prevent the lift from being operated by the other controls (except for emergency manual operation upon power failure).

(d) The installation of the wheelchair lift or ramp and its controls and the method of attachment in the accessible bus body or chassis shall not diminish the structural integrity of the accessible bus nor cause a hazardous imbalance of the bus. No part of the assembly, when installed and stowed, shall extend laterally beyond the normal side contour of the bus nor vertically beyond the lowest part of the rim of the wheel closest to the lift.

(e) Each wheelchair lift or ramp assembly shall be legibly and permanently marked by the manufacturer or installer with the following minimum information:

1. The manufacturer's name and address.

2. The month and year of manufacture.

3. A certificate that the wheelchair lift or ramp and its installation conforms to State of Florida requirements applicable to accessible buses.

(2) Wheelchair lifts and their controls shall be inspected and maintained as required in paragraphs 14-90.004(3)(a), (b), (c), (d), F.A.C. Instructions for normal and emergency operation of the lift or ramp shall be carried or displayed in every accessible bus.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 11-10-92.

14-90.009 Public-Sector Bus Safety Inspection Procedures.

(1) Each bus transit system shall require that all buses operated by such bus transit system, and all buses operating under contract with the transit system, be inspected at least annually in accordance with bus inspection procedures set forth in this section.

(2) It shall be the bus transit system's responsibility to ensure that each individual performing a bus safety inspection under subsection 14-90.009(4), F.A.C., is qualified as follows:

(a) Understands the requirements set forth in Rules 14-90.007, 14-90.008, 14-90.009, F.A.C., and can identify defective components.

(b) Is knowledgeable of and has mastered the methods, procedures, tools, and equipment used when performing an inspection.

(c) Has at least one year of training and/or experience as a mechanic or inspector in a vehicle maintenance program and has sufficient general knowledge of buses owned and operated by the bus transit system to recognize deficiencies or mechanical defects.

(3) Each public-sector bus receiving a safety inspection shall be checked for compliance with the safety devices and equipment requirements as referenced or specified herein. Specific operable equipment and devices as required by this rule chapter include the following (as applicable to Type I or II bus(es)):

(a) Horn;
(b) Windshield Wipers;
(c) Mirrors;
(d) Wiring and Battery(ies);
(e) Service and Parking Brakes;
(f) Warning Devices;
(g) Directional Signals;
(h) Hazard Warning Signals;
(i) Lighting Systems and Signaling Devices;
(j) Handrails and Stanchions;
(k) Standee Line and Warning;
(l) Doors and Interlock Devices;
(m) Stepwells and Flooring;
(n) Emergency Exits;
(o) Tires and Wheels;
(p) Suspension System;
(q) Steering System;
(r) Exhaust System;
(s) Seat Belts;
(t) Safety Equipment;
(u) Equipment for Transporting Wheelchairs.

(4) A safety inspection report shall be prepared by the individual(s) performing the inspection which shall include the following:

(a) Identification of the individual(s) performing the inspection.
(b) Identification of the bus transit system operating the bus.
(c) The date of the inspection.
(d) Identification of the bus inspected.
(e) Identification of the equipment and devices inspected including the identification of equipment and devices found defective, and describe the results of the inspection.

(5) Records of annual safety inspections shall be retained a minimum of four years by the bus transit system for future compliance review.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87, Amended 11-10-92.

14-90.010 Safety Certification.

(1) Each bus transit system shall annually submit to the Department a safety certification which verifies the following:

(a) The adoption of a SSPP in accordance, at a minimum, with established standards set forth in the rule chapter.
(b) Compliance with its adopted SSPP.
(c) Performance of safety inspections on all buses operated by the system in accordance with Rule 14-90.009, F.A.C.

(2) The safety certification shall include:

(a) The name and address of the bus transit system, and the name and address of the entity(ies) which has (have) performed safety inspections, if different from that of the bus transit system.

(b) A statement signed by an officer or person directly responsible for management of the bus transit system attesting to compliance with paragraphs 14-90.010(1)(a), (b), (c), F.A.C.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2) FS. History–New 9-7-87.

14-90.011 Inspection of Buses by Law Enforcement Officers.

Annual safety certification and compliance with this rule chapter shall not preclude any law enforcement officer or Department designee from inspecting equipment for compliance with the provisions of Chapter 316, Florida Statutes, and this rule chapter.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2), 316.610 FS. History–New 9-7-87.

14-90.012 Suspension of Operation.

If the Department determines that a bus transit system is not in compliance with the provisions of this rule chapter and the continued operation of the system, or a portion thereof, is not safe for passenger service or is posing a potential danger to public safety, the Department shall initiate the following actions to suspend the affected system service.

(1) Notify the affected bus transit system, by certified mail, of specific non-compliance items or unsafe conditions. The notification shall establish the following:

(a) A specific timetable for correction of non-compliance items or unsafe conditions.

(b) A requirement that the bus transit system certify in writing to the Department of completion and implementation of corrective action in accordance with the timetable.

(2) Conduct an on-site review if the transit system does not certify correction of specific non-compliance items in accordance with paragraphs 14-90.012(1)(a) and (b), F.A.C., and establish a resolution and timetable for correction of safety items.

(3) Initiate legal action to suspend affected passenger service operations if the bus transit system fails to comply with the resolution and timetable established during the on-site review.

(4) The affected passenger service operations shall be suspended until the Department has substantiated compliance by the bus transit system.

Specific Authority 334.044(2), 341.061(2)(a) FS. Law Implemented 341.041(3), 341.061(2), 316.610 FS. History–New 11-10-92.

EXHIBIT 2

Performance and Payment Bond Form

MIAMI-DADE COUNTY, FLORIDA
PERFORMANCE AND PAYMENT BOND

STATE OF FLORIDA)
SS
COUNTY OF MIAMI-DADE

KNOW ALL MEN BY THESE MEANS THAT

_____, as Principal, and

_____,

a corporation organized under the laws of the State of _____, with its home office in the city of _____, as Surety (said Principal and said Surety hereinafter collectively being referred to as Obligor), are held and finally bound unto Miami-Dade County, Florida, acting by and through the BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, and their successors in office, hereinafter called the Obligee, in the sum of $_____lawful money of the Unite States of America, for the payment whereof to the Obligee, the Principal and Surety respectively bind themselves, their successors, heirs, and assigns, jointly and severally, finally by these present.

Signed, sealed and dated this _____ day of _____, 20_____.

WHEREAS the Principal and Obligee have entered into a written contract, hereinafter called the "Contract" for

_____

_____

as evidenced by contract and specifications made a part thereof, entered into between the Principal and the Obligee on the _____. 20____ a copy of which Contract may be attached hereto and is hereby referred to and made a part thereof.

NOW, THEREFORE, the conditions of the foregoing obligation is such that the Principal shall indemnify the Obligee for all loss that the Obligee may sustain by reason of the Principal's failure to comply with any of the terms of the Contract, then this obligation shall be void; otherwise, it shall remain in full force.

THIS BOND shall also be security for the performance by the Principal and Surety of the following additional covenants and obligations, and the recitals and references herein contained shall constitute a part of this Bond and obligation:

1. Said Principal (Contractor) shall well and truly perform, carry out and abide by all terms, conditions and provisions of said Contract and furnish complete the items therein specified in accordance with the terms thereof; and the Obligor herein shall and does hereby agree to indemnify the Obligee and hold it harmless of, from and against any and all liability, and claim and to pay any and all losses, cost, including but not limited to, re-procurement costs, increased price of similar coaches, spare parts, ancillary equipment and services and all excess costs to acquire like goods or services, damage, including damages for delay, liquidated damages, compensatory damages, interest on late payments, or expense and attorneys' fees including appellate proceedings, which said Miami-Dade County, Florida may incur or which may accrue or be imposed upon either thereof by reason of any negligence, default and/or misconduct on the part of the said contractor and _____agents, servants, and/or employees, in, about or on account of the performance of said Contract by the said contractor, and shall repay to and reimburse to the said Miami-Dade County, Florida, promptly upon demand all sums of money, each and every, reasonably paid out or expended by the said Obligee on account of the failure and/or refusal of said contractor to carry out, do, perform and/or comply with any of the terms and provisions of said Contract at the time and in the manner therein provided.

2. The Principal will make payments to all persons supplying Principal labor, material and supplies used directly or indirectly by the Principal and/or subcontractor(s) of the Principal in the prosecution of the work provided for in said Contract.

3. Each and every person, natural and artificial, for whose benefit this bond has been executed as disclosed by the text of this bond and of said Contract, specifications, drawings and all papers, and of said agreement and instruments attached and made a part of said Contract, and each and every person, natural and artificial, supplying labor, material or supplies in furtherance of said Contract, shall have the same several rights of suit or action upon this bond as if he or they were the Obligee or Obligees herein specifically mentions, and the obligations hereof shall be several as to the rights of said persons or said Obligees hereof.

4. In each and every suit brought against the Obligee upon this bond in which the Plaintiff shall be successful, there shall be assessed therein against the Obligor herein, in favor of the Plaintiff therein, reasonable counsel fees, which the Obligor hereby expressly agrees to pay as part of the cost and expense of such suit.

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IN WITNESS whereof the principal and the surey have executed these presents this _____ day of _____, 20___

WHEN THE PRINCIPAL IS AN INDIVIDUAL:

Signed, sealed and delivered in the presence of _____
(Signature of Individual)

_____

_____ _____
(Two Witnesses) (Printed name of Individual)

WHEN PRINCIPAL IS SOLE PROPRIETORSHIP OR OPERATES UNDER TRADE NAME:

Signed, sealed and delivered in the presence of _____
(Name of Firm)

_____ _____
(Signature of Individual)

_____ _____
(Two Witnesses) (Printed name of Individual)

WHEN PRINCIPAL IS A PARTNERSHIP:

Signed, sealed and delivered in the presence of _____
(Name of Firm, a Partnership)

_____ _____
(Signature of One Partner)

_____ _____
(Two Witnesses) (Printed name of Partner)

WHEN PRINCIPAL IS A CORPORATION:

Signed, sealed and delivered in the presence of _____
(Name of Corporation)

_____ (Affix Corporate Seal)
(President of Vice President)

_____
(Secretary)

Attest:

_____ _____
(Corporate Surety)

Countersigned: _____
(Business Address)

_____ By: _____
Florida Resident Agent (Corporate Seal)

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CORPORATE PRINCIPAL CERTIFICATION

I_____, certify that I am the Secretary of the corporation named as principal in this bond; that _____, who signed the bond on behalf of the principal, was then _____ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing body.

(Corporate Seal)

STATE OF FLORIDA)
SS
COUNTY OF MIAMI-DADE

Before me, a Notary Public, duly commissioned, qualified and acting. Personally appeared:

_____

To me well know, who being by me first duly sworn upon oath says the he/she is the Attorney-in-fact for the _____

_____and that he/she has been authorized by

_____to excute the foregoing bond on behalf of the Contractor named therein in favor of Miami-Dade County, Florida.

Subscribed and sworn to before me this _____day of _____, A.D. 20_____.

_____

Notary Public, State of _____at Large.

My commission expires _____.

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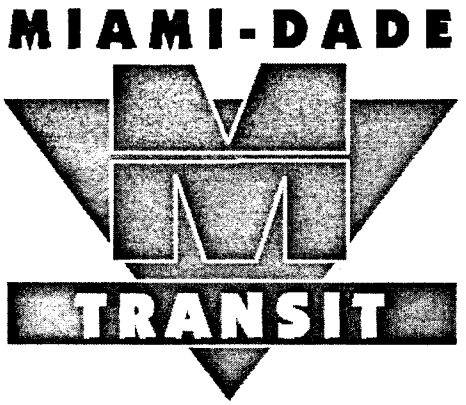
EXHIBIT 3

Miami-Dade Transit Logo


MIAMI-DADE
TRANSIT