Reference is made to the subject solicitation wherein the following additional formal changes are hereby incorporated via release of this ‘track-change’ version of the revised RFP. NYSDOT is releasing this version of the RFP again as an RFP Modification so that all interested parties can account for each RFP revision in order of RFP appearance. Highlights of Changes:

- Attachment 30 ‘Q&A’ now includes responses to questions 324, 352, 354, 376 and 372. As an incentive mechanism, the selected Contractor shall be allowed to keep all revenue generated under C031487 during its entire 20 year term.
- RFP Attachment 13 Cost Proposal has been significantly revised to clarify intent and amend the format, is being re-released and RFP Sections 3.5 and 5.2.1 are similarly revised per revised Attachment 13. Proposers should note the following:
  1) The requirement to propose one monthly composite billing rate has been removed. Payments have been separated by stage and type for ease of administration.
  2) All costs (other than lump sum deliverables and time and material based-cost) have been formatted to be presented on a monthly basis.
  3) Costs for Stage 2 – Monthly Cost for Buses, Bus Facility and Operations Facility shall be equal payments (other than any eligible CPI adjustments) for each month of the 20-year term of the contract
  4) Cost for Stage 3 – Monthly Operations and Maintenance Costing shall be paid on a monthly basis. Such payment shall be in amount equal to the actual revenue miles provided multiplied by the Per Revenue Mile Monthly Billing Rate (Eligible for CPI adjustments).
5) Payment for Monthly Fuel costs for buses during actual provision of revenue miles shall be invoiced and paid separately. (Eligible for monthly fuel rate adjustment.)

6) Payment for the procurement, installation and maintenance for MTA fare collection equipment shall be made on an actual time and materials basis (with no mark-up for overhead or other indirect costs).

7) NYSDOT shall evaluate cost proposals based upon the total projected 20 year costs (including projecting CPI and fuel adjustment rates based upon a projection of such adjustments).

8) Proposers are reminded that all cost must recognize that all revenue collected shall be retained by the selected Contractor. All proposed costs must consider and reflect Operator’s anticipated revenue projections.

- The MetroCard and UniTicket revenue collection method requirements have been further clarified throughout the revised RFP. On board fare payment technology shall include: Integrated Fare Box Unit MetroCard (validated by MetroCard readers), cash; Off board technology shall include: Credit/Debit Card only (no cash, no MetroCard). Final arrangements will be worked out with the selected Contractor.

The September 16, 2016 revised RFP is being released with all RFP Modification #4 changes incorporated with additional revisions shown in ‘track-change’ mode; the September 16, 2016 revised RFP is also being released with all RFP Modification #5 changes incorporated. The C031487 RFP is now final.

Proposals are still due noon September 26, 2016 in NYSDOT Contract Management’s offices. No extension is being granted.

No other provision of the solicitation is otherwise changed or modified.

Bidders must acknowledge receipt of RFP Modification #5 using Form AOR.
Initial Information for Submittal

A. Please note the following **dates and deadlines**:

- **September 26, 2016**: Deadline for the submission of proposals at 12:00 PM (Eastern Time)

- **September 6, 2016**: Deadline for additional questions about the RFP at 12:00 PM (Eastern Time). NYSDOT is opening up a final Q&A round. After reading through RFP Modification #3, potential bidders are encouraged to submit final additional questions or comments regarding the Revised Request for Proposals (RFP).

- **September 9, 2016**: Final Q&A round answers shall be released on September 9, 2016 via RFP Modification #4. NYSDOT has no obligation to respond to any questions submitted after September 9th. However, NYSDOT will listen to any late questions with an option to respond only if such that will clarify and improve responses.

- **September 16, 2016**: Release of RFP Modification #5 and Final Revised C031487 RFP.

B. The RFP previously established that interested parties who wish to submit proposals must attend a mandatory Informational Meeting held on July 20, 2016. The RFP is being changed to undue this mandatory requirements, to that interested parties who did not attend the July 20th meeting are still eligible to submit proposals.

C. Complete proposals are to be submitted to the Designated Contact stipulated in Section 1.4.
RFP RESPONSE FORM

REVISED REQUEST FOR PROPOSALS

Contract #C031487

OPERATION OF THE INTERCOUNTRY BUS RAPID TRANSIT SERVICE FOR
NYSDOT

Please review this RFP, complete the following information, and e-mail to NYSDOT address shown below, by the earliest practical date. This RFP Response form must be submitted along with the two required Procurement Lobbying Law forms (see Attachment 5: Procurement Lobbying Law Compliance) before questions or other communications with the Department regarding this solicitation can be initiated.

______________ WE DO INTEND TO SUBMIT A PROPOSAL

______________ WE DO NOT INTEND TO SUBMIT A PROPOSAL FOR THE FOLLOWING REASONS:

_______________________________________________________________________

_______________________________________________________________________

Name and Address of Organization (Include Zip Code):

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

Date: ________________

Typed Name and Title: ________________________________________________

Telephone: __________________________ Fax: __________________________

E-Mail Address: _______________________________________________________

Please e-mail to: patricia.kappeller@dot.ny.gov
NEW YORK STATE DEPARTMENT OF TRANSPORTATION

REVISED REQUEST FOR PROPOSALS

OPERATION OF THE INTERCOUNTRY BUS RAPID TRANSIT SERVICE FOR NYSDOT

SEPTEMBER 16, 2016

Contract #C031487

1. Introduction  9
   1.1. Purpose  9
   1.2. Background  9
   1.3. Minimum RFP Responsiveness  10
   1.4. Designated Contact  11
   1.5. RFP Modifications  11

2. Civil Rights Requirements  12
   2.1. Minority and Women-owned Business Enterprise Participation  12
   2.3. Diversity Practices  14
   2.4. Title VI Insurance  14

3. Project and Contract Objectives  15
   3.1. Project Objectives  15
   3.2. Contract Objectives  15
   3.3. Definitions and Acronyms  16
   3.4. Mandatory Project Schedule  18
   3.5. Contract Terms and Rate Adjustments  18
   3.6. Service Expansion  19

4. Scope of Services  20
   4.1. Project Overview  20
   4.2. NYSDOT Responsibilities  20
   4.3. Contractor Responsibilities  22
   4.4. Tasks  24
   Stage 1: Planning and Procurement  24
   Stage 2: Operations and Maintenance  31
   4.5. Deliverables  49

5. Proposal Format and Contents  50
   5.1. Part I: Technical and Management Submittal  50
   5.2. Part II: Cost and Administrative Submittal  59
# Proposal Evaluation Process

6.1 Pre-Screening of Proposals

6.2 Evaluation Category Weight Distribution

6.3 Technical & Management Proposal Evaluation (Up to 70 Points)
   6.3.1 General:
   6.3.2 Technical and Management Written Proposal Evaluation (up to 60 Points)
   6.3.3 Reference Checks
   6.3.4 Written Technical Proposal Clarifications

6.4 Cost Proposal Evaluation (Up to 30 Points)

6.5 Initial Best Value Determination

6.6 Proposal Shortlisting

6.7 Technical Interview Evaluation (10 points)

6.8 Final Written Technical Proposal Evaluation (Re-Scoring)

6.9 Best and Final Offers (BAFO; Optional) & Proposal Withdrawal

6.10 Final Best Value Evaluation

6.11 Consultant Selection Recommendation & Tentative Contract Award

# Administrative Specifications

7.1 Proposal Submission

7.2 State’s Rights

7.3 Contractor Responsibility when Proposing Former NYSDOT Employees

7.4 Method of Payment

7.5 Information for Selected Contractor

7.6 Inquiries and Information

7.7 Protest Procedure

7.8 Tentative Schedule of Key Events

# Attachments

8.1 Attachment 1: Draft Contract

8.2 Attachment 2: Key Personnel Resumes and References

8.3 Attachment 3: Diversity Practices Questionnaire

8.4 Attachment 4: Contractor Information and Certifications

8.5 Attachment 5: Procurement Lobbying Law Compliance

8.6 Attachment 6: Contractor Disclosure Legislation Forms A&B

8.7 Attachment 7: M/WBE Participation Information

8.7 Attachment 7a: M/WBE Subcontractor Participation Solicitation Log

8.8 Attachment 8: SDVOB Participation Information

8.8 Attachment 8a: SDVOB Subcontractor Participation Solicitation Log

8.9 Attachment 9: Solicitation Log Instructions
<table>
<thead>
<tr>
<th>Section</th>
<th>Attachment/Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.10</td>
<td>Attachment 10: New York Business Reporting</td>
<td>140</td>
</tr>
<tr>
<td>8.11</td>
<td>Attachment 11: Form AOR</td>
<td>142</td>
</tr>
<tr>
<td>8.12</td>
<td>Attachment 12: Non-Collusive Bidding Certification</td>
<td>143</td>
</tr>
<tr>
<td>8.13</td>
<td>Attachment 13: Cost Proposal Instructions</td>
<td>146</td>
</tr>
<tr>
<td>8.14</td>
<td>Attachment 14: Reserved</td>
<td>147</td>
</tr>
<tr>
<td>8.15</td>
<td>Attachment 15: Bus Operations Requirements</td>
<td>148</td>
</tr>
<tr>
<td>8.16</td>
<td>Attachment 16: Operating Performance Standards</td>
<td>154</td>
</tr>
<tr>
<td>8.17</td>
<td>Attachment 17: Fleet Maintenance &amp; Service Requirements</td>
<td>159</td>
</tr>
<tr>
<td>8.18</td>
<td>Attachment 18: Customer Satisfaction</td>
<td>167</td>
</tr>
<tr>
<td>8.19</td>
<td>Attachment 19: Stop and Shelter Maintenance</td>
<td>168</td>
</tr>
<tr>
<td>8.20</td>
<td>Attachment 20: Reporting Requirements</td>
<td>171</td>
</tr>
<tr>
<td>8.21</td>
<td>Attachment 21: Transit Service Plan</td>
<td>173</td>
</tr>
<tr>
<td>8.22</td>
<td>Attachment 22: ICM and Transit Operational Framework</td>
<td>196</td>
</tr>
<tr>
<td>8.23</td>
<td>Attachment 23: Technology Specification</td>
<td>206</td>
</tr>
<tr>
<td>8.24</td>
<td>Attachment 24: Liquidated Damages &amp; Incentive Payments</td>
<td>213</td>
</tr>
<tr>
<td>8.25</td>
<td>Attachment 25: NYSDOT ITS Policy</td>
<td>217</td>
</tr>
<tr>
<td>8.26</td>
<td>Attachment 26: Vehicle Specification</td>
<td>223</td>
</tr>
<tr>
<td>8.27</td>
<td>Attachment 27: Service Expansion Plans</td>
<td>319</td>
</tr>
<tr>
<td>8.28</td>
<td>Attachment 28: Fare Collection Technology/MetroCard Integration</td>
<td>320</td>
</tr>
<tr>
<td>8.29</td>
<td>Attachment 29: Design Guidelines for LHTL Vehicles</td>
<td>325</td>
</tr>
<tr>
<td>8.29.</td>
<td>Attachment 30: Q&amp;A</td>
<td>327</td>
</tr>
<tr>
<td>9</td>
<td>ICM</td>
<td>327</td>
</tr>
<tr>
<td>10</td>
<td>Infrastructure Procurement and Maintenance</td>
<td>334</td>
</tr>
<tr>
<td>11</td>
<td>Fare Payment</td>
<td>336</td>
</tr>
<tr>
<td>12</td>
<td>Vehicles</td>
<td>339</td>
</tr>
<tr>
<td>13</td>
<td>Performance Standards/Liquidated Damages</td>
<td>344</td>
</tr>
<tr>
<td>14</td>
<td>Marketing/Advertising</td>
<td>348</td>
</tr>
<tr>
<td>15</td>
<td>Transit Service Planning</td>
<td>348</td>
</tr>
<tr>
<td>16</td>
<td>Staffing</td>
<td>359</td>
</tr>
<tr>
<td>Page</td>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>17</td>
<td><strong>Contract Questions</strong></td>
<td>360</td>
</tr>
<tr>
<td>18</td>
<td><strong>Contract Pricing</strong></td>
<td>368</td>
</tr>
<tr>
<td>19</td>
<td><strong>Proposal Evaluation Process</strong></td>
<td>370</td>
</tr>
<tr>
<td>20</td>
<td><strong>General RFP Clarification Questions and Comments</strong></td>
<td>371</td>
</tr>
<tr>
<td>21</td>
<td><strong>Suggestions for Follow-Up</strong></td>
<td>373</td>
</tr>
<tr>
<td>22</td>
<td><strong>Other Suggestions</strong></td>
<td>375</td>
</tr>
<tr>
<td>23</td>
<td><strong>Identification of Major Risks</strong></td>
<td>377</td>
</tr>
<tr>
<td>24</td>
<td><strong>Attachment 26 Vehicle Specs: Additional Questions (272 through 319)</strong></td>
<td>379</td>
</tr>
</tbody>
</table>
1. **Introduction**

1.1. **Purpose**

After consideration of initial round of questions received, the New York State Department of Transportation (NYSDOT) has revised and is re-releasing this Request for Proposals (RFP) to seek proposals from responsive and responsible Transit Operators to provide a turnkey and expandable intercounty Bus Rapid Transit (BRT) System for the Lower Hudson Transit Link (LHTL) project. NYSDOT intends to make its selection and enter into contract #C031487 with a Contractor that provides Best Value to the State.

1.2. **Background**

NYSDOT, in collaboration with the New York State Thruway Authority (NYSTA) and various local municipalities, is planning to implement the Lower Hudson Transit Link (LHTL) program. The LHTL program will deliver the adopted transit vision for the I-287/Thruway Corridor in Rockland and Westchester Counties. The intercounty BRT is a critical component of the LHTL project.

The LHTL program will link the region along an east-west corridor with:

A. An optimized intercounty BRT system utilizing double-decker transit vehicles;

B. New bus shelters with unified branding; improved pedestrian connections; amenities, including real-time bus arrival information; and off-board ticket vending/fare collection;

C. Signal upgrades along New York State Routes 59 and 119 with technology-focused improvements, including transit signal priority and intelligent signal control, to provide better operating conditions for transit and to allow the operators to predict, adapt, and respond to changing traffic conditions;

D. Ramp metering and queue jump lanes along I-287 to stabilize mainline vehicle flows and allow buses to move past vehicle queues, increasing transit reliability, and the investigation of transit queue jump lanes along Routes 59 and 119; and

E. Integrated Corridor Management (ICM) technology and systems along I-287 and Route 59 in Rockland County and Route 119 in Westchester County, including enhanced
traveler information; advanced monitoring and control equipment to give both the public and all operational partners (NYSDOT, NYSTA, transit operators, etc.) a greater awareness of traffic conditions and incidents along the enhanced transit corridor; and the ability to rapidly respond to changing conditions. The operation of the ICM system will require all partner agencies and operators to be integrated at the Hudson Valley Transportation Management Center (HVTMC) in Hawthorne, NY.

The LHTL project will introduce a coordinated, high-quality regional transit system to serve trips between Rockland County, Westchester County, and Manhattan with an emphasis on enhanced bus service to serve bi-county trips and longer distance intra-county trips. The system will conveniently connect major concentrations of residential, employment, commercial, entertainment, medical, and educational land uses and provide key connections to existing bus and rail systems. The overall vision for the Lower Hudson Transit Link is an integrated and comprehensive program of short-, medium-, and long-term transit improvements that:

A. Increases the attractiveness and ridership of local transit and the new regional BRT system through improved frequency, availability, and accessibility throughout the Lower Hudson Valley, as well as the provision of increased amenities for passengers;

B. Reduces transit travel times along the corridor and improves reliability and safety for all travelers;

C. Increases access to jobs, housing, and other transportation options, resulting in more transit riders;

D. Maximizes the use of existing infrastructure and modifies that infrastructure to better accommodate transit services and to benefit all users;

E. Complements investments made in building the New New York Bridge (NNYB) to support a transit system; and

F. Allows for further incremental improvements as conditions or opportunities warrant.

1.3. Minimum RFP Responsiveness

Any Firm that does not provide all of the following by the RFP deadline will be determined to be non-responsive and will be removed from further consideration (prior to the technical evaluation of proposals):

Part I of the Proposal – Technical and Management submission

- Requirements as per Section 5.1
- Requirement as per Table 5.1

Part II of the Proposal – Cost and Administrative submission
Completion of all applicable attachments:

- Certification of completed online vendor responsibility questionnaire
- Requirement as per Table 5.2

All Proposers must have sufficient financial capacity to complete the project. NYSDOT is the sole judge in determining compliance with meeting the RFP’s minimum requirements.

1.4. Designated Contact

Potential responders are advised that under New York State Finance Law Section 139-j, communication on procurements can be made only to designated contact persons. The Department’s Primary Designated Contact for this procurement is:

Patricia Kappeller  
New York State Department of Transportation  
Contract Management Bureau  
50 Wolf Road, 6th Floor  
Albany, NY 12232, USA  
E-mail: patricia.kappeller@dot.ny.gov

The above-named person, as the Department’s Designated Contact for this procurement, shall be the Department’s only point of contact and source of information for this procurement.

1.5. RFP Modifications

If necessary, NYSDOT will issue modifications to modify conditions or requirements of this RFP. Proposers are advised to visit the NYSDOT web site (https://www.dot.ny.gov/portal/page/portal/doing-business/opportunities/consult-opportunities) regularly to check for modifications. All parties who have expressed interest in RFP C031487 shall receive an e-mail alerting them to any RFOP updates from RFP Modification #3 on. The final RFP modification will be posted on NYSDOT’s web site not later than seven calendar days prior to the proposal due date. If an additional modification is required within seven days of the proposal due date, the proposal due date shall be revised such that there will be seven days from the final modification to the proposal due date.
2. Civil Rights Requirements

2.1. Minority and Women-owned Business Enterprise Participation

While not indicative of a proposer’s individual merit (technical excellence, proposer’s ability, experience, etc.), NYSDOT encourages the participation of certified Minority Business Enterprises and Women-Owned Business Enterprises in this solicitation. The level of Minority Business Enterprises (MBE) and Women-Owned Business Enterprises (WBE) participation will be relevant to the process of selecting proposals that will best achieve the overall goals of the Department. A directory of certified MBEs and certified WBEs is available from Empire State Development’s searchable database website: http://www.esd.ny.gov/MWBE.html.

New York State has established a combined MBE and WBE participation goal of 23% for this solicitation. Only meaningful participation by either a prime contractor who is certified as an M/WBE or inclusion of subcontractor(s) who is/are certified as an M/WBE counts toward the M/WBE participation goal. Meaningful participation is defined as providing commercially useful functions or services. These services should:

- Result in a product or service distinguishable from the Prime Contractor’s product or service or be a part of the services provided by the Prime Contractor,

- Be for scope of service elements which can be and are completely performed, supervised and managed by the MBE and/or WBE Contractor, and/or

- Perform significant tasks which can be considered commercially marketable.

Interested proposers should verify their attainment of the above established M/WBE participation goal by completing Attachment 7: M/WBE Participation Information.

Please complete the following table for the prime firm and all subcontractors (Contractor team composition): please identify each firm’s legal name, checking if they are an Empire State Development (ESD)-certified MBE and/or an ESD-certified WBE, and indicating each firm’s percentage of the total project cost for the contract. Please keep in mind that only ESD-certified MBE and/or certified WBE prime Contractors and/or ESD certified MBE and/or certified WBE subcontractors are eligible to participate toward attainment of this state-funded procurement.

Further, participation by a certified MBE and/or WBE prime Contractor as well as certified MBE and/or WBE subcontractors may count towards the M/WBE participation goal.

If the combined percentage of total salary for all certified MBEs and/or all certified WBEs proposed is less than the combiner 23% M/WBE participation goal, then the proposing prime
The firm is required to fill out and submit the Participation Solicitation Log (Error! Reference source not found.; one for each goal not attained), and is required to submit a M/WBE Goal Attainment Explanation Letter.

Contract#: C031487

<table>
<thead>
<tr>
<th>Firm Legal Name</th>
<th>NYS ESD Certified MBE/WBE</th>
<th>% of Total Contract Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MBE</td>
<td>WBE</td>
</tr>
<tr>
<td>A. Prime Contractor</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>B. Subcontractor(s)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
## 8.7 Attachment 7a: M/WBE Subcontractor Participation Solicitation Log

*(Good Faith Effort Documentation)*

<table>
<thead>
<tr>
<th>Contract No.</th>
<th>Combined 23% M/WBE Participation Goal</th>
<th>Page Number of</th>
</tr>
</thead>
<tbody>
<tr>
<td>C031487</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prime Firm Name/Address/Zip Code</th>
<th>Contact Person</th>
<th>Telephone Number (Include Area Code)</th>
<th>E-Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solicited Company Name and Contact Person</th>
<th>Telephone (With Area Code)</th>
<th>Federal Employer ID #</th>
<th>Work Types Being Solicited</th>
<th>Types and Dates of Contacts</th>
<th>Contact Result(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


8.8 Attachment 8: SDVOB Participation Information

Please complete the following table for the prime firm and all subcontractors (contractor team composition): please identify each firm’s legal name, checking if they are a NYS Office of General Services Certified SDVOB, and indicating each firm’s percentage of the total salary for the contract. Please keep in mind that only certified SDVOB prime Contractors are eligible to participate toward attainment of this state-funded procurement.

Further, participation by a certified SDVOB Contractor may count towards the SDVOB participation goal.

If the combined percentage of total salary for all certified SDVOBs proposed is less than the 3% SDVOB participation goal, then the proposing prime firm is required to fill out and submit the Participation Solicitation Log (Error! Reference source not found.; one for each goal not attained), and is required to submit a SDVOB Goal Attainment Explanation Letter.

Contract#: C031487

<table>
<thead>
<tr>
<th>Firm Legal Name</th>
<th>NYS Office of General Services Certified SDVOB</th>
<th>% of Total Contract Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Prime Contractor</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>B. Subcontractors</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
### 8.8  Attachment 8a: SDVOB Subcontractor Participation Solicitation Log

*(Good Faith Effort Documentation)*

<table>
<thead>
<tr>
<th>CONTRACT NO.</th>
<th>PARTICIPATION GOAL</th>
<th>PAGE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRIME FIRM NAME/ADDRESS/ZIP CODE</th>
<th>CONTACT PERSON</th>
<th>TELEPHONE NUMBER (INCLUDE AREA CODE)</th>
<th>E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOLICITED COMPANY NAME AND CONTACT PERSON</th>
<th>TELEPHONE (WITH AREA CODE)</th>
<th>FEDERAL EMPLOYER ID #</th>
<th>WORK TYPES BEING SOLICITED</th>
<th>TYPES AND DATES OF CONTACTS</th>
<th>CONTACT RESULT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8.9 Attachment 9: Solicitation Log Instructions

SOLICITATION LOG INSTRUCTIONS

(Good Faith Effort Documentation)

To be deemed responsive to this solicitation, Contractors whose proposed M/WBE/SDVOB participation does not meet the established participation goal must document and report their efforts to solicit participation by certified M/WBE/SDVOB in this Non-Architecture/Non-Engineering contract. The Solicitation Log is used for this purpose.

PLEASE NOTE: For RFP’s with MBE/WBE/SDVOB goals, only Operators or subcontractors certified by New York State Empire State Development and/or New York State Office of General Services SVDOB Program may count toward goal attainment.

Guidance concerning Good Faith Efforts in meeting M/WBE/SDVOB participation goals is located at the end of this section.

The logs are to be filled out and submitted with the proposing firm’s Cost and Contract Proposal. In order for a proposal to be determined as responsive when the M/WBE/SDVOB participation goals are not attained at all or only partially attained, then the proposer must complete all sections of these forms and submit Solicitation Logs, along with a Goal Attainment Explanation Letters, documenting the firm’s Good Faith Effort. A separate Solicitation Log must be submitted for each Participation Goal established in the RFP.

***DBE CERTIFICATION IS A FEDERAL PROGRAM CERTIFICATION.***

IT IS SEPARATE AND DISTINCT FROM THE NEW YORK STATE MBE/WBE/SDVOB PROGRAMS. PLEASE DO NOT CONFUSE THE TWO. FIRMS WITH QUESTIONS REGARDING THESE PROGRAMS ARE ENCOURAGED TO SUBMIT WRITTEN QUESTIONS.

**CONTRACT NO:** Enter NY State DOT contract number (Example: C012345).

**PARTICIPATION GOAL:** Enter applicable MBE/WBE/SDVOB participation goals percentage as stated in the proposal.

**PAGE NO.:** Enter 1 of 1; or 1 of 2 and 2 of 2; etc. Use additional forms as needed.

**PRIME NAME/ADDRESS/ZIP CODE:** Enter name of the Prime Contractor, its address and zip code.

**CONTACT PERSON:** Enter the name of the person your firm has designated as the authorized contact person for this solicitation.
CONTACT PERSON TELEPHONE AND E-MAIL: Enter area code, phone number and e-mail address for the person your firm has designated as the authorized contact person for this solicitation.

MBE/WBE/DBE CONTRACTORS SOLICITED:

SOLICITED COMPANY NAME AND CONTACT PERSON: Enter name of solicited firm and name of the individual associated with the firm to whom the solicitation inquiry was sent.

TELEPHONE (With Area Code): Enter TELEPHONE number of the solicited firm.

FEDERAL EMPLOYER ID #: Enter the Federal Employer Identification Number of the solicited firm.

WORK TYPE(S) BEING SOLICITED: Enter the work type(s) or Commercial Useful Function for which this firm has been solicited in connection with the Scope of Services for this contract. NOTE: Commodity type codes are provided for every certified firm listed in the ESD M/WBE Registry.

TYPES AND DATES OF CONTACT: Enter dates on which your firm contacted the solicited firm, either by mail (date solicitation sent), telephone (including date and time of call) or other person-to-person contacts. Identify the type of contact by prefacing each date with ‘M’ if a mail contact; ‘T’ if a telephone call; and “D” if a direct meeting with the firm.

CONTACT RESULT(S): Enter the code(s) which indicates the result(s) of your solicitation.

*** USE ADDITIONAL PAGES AS NEEDED ***

A description of the codes to use is as follows:

CODE DESCRIPTION:

1  This firm is unavailable to participate in the contract for the reason(s) stated on the DBE Solicitation Response. (Attach explanation to the Log.)

2  This firm is no longer in business. (NOTE: If this action is checked, attach your explanation as to why the solicitation was sent to the firm and how evidence that it was no longer in business was obtained. Attach the returned envelope showing that it was undeliverable, for instance.

3  The soliciting Prime Contractor was unable to reach this firm after having a telephone conversation to follow-up on the participation solicitation inquiry. (NOTE: Indicate in the Types and Dates of Contact column the dates and times at which follow-up was attempted.)

4  This firm did not respond to repeated telephone messages. (NOTE: Indicate in the Types and Dates of Contact column the dates and times at which messages were left.)
For participation to count towards the M/WBE goal set for this solicitation, the offered MBE and/or WBE participating firm must be currently certified by Empire State Development. If the proposal does not meet the 23% percent combined M/WBE participation goal, the firm must provide evidence of a good faith effort by completing Attachment 7a: M/WBE Subcontractor Participation Solicitation Log. Additionally, if the firm does not meet the specified goal, the firm must include in its submission a Goal Attainment Explanation Letter explaining why the firm was unable to meet the applicable M/WBE (in full or if partially), which serves to substantiate the firm’s good faith effort. The letter should include sufficient justification as to why the goal was not met or was met partially and should at a minimum address the following factors: the potential firm’s method of accomplishing the work, the subcontracting opportunities associated with the proposed approach and scope of services, and the availability of certified firms for the work to be performed by either a prime contractor or via subcontract.

A prime contractor that is an M/WBE still must make a good faith effort to include M/WBE subcontractors in their proposal. Only participation by certified MBE and/or WBE subcontractors may count towards the contract participation goal. Participation by a certified MBE or WBE prime contractor does not count towards meeting the contract goal (participation by a certified MBE or WBE prime contractor helps to meet the State’s corporate M/WBE goal).

The above forms and letter must be included in Part II: Cost and Contract submission. Firms are advised to refer to Section 6.1.2 for the procedure the Department will follow in evaluating a firm’s proposed MBE and WBE participation.

### 2.2 Service-Disabled Veteran-Owned Business Program (SDVOB)

New York State has established participation goal of 3% for this solicitation. Only meaningful participation by either a prime contractor who is certified as an SDVOB or inclusion of subcontractor(s) who is/are certified as an SDVOB counts toward the SDVOB participation goal. Meaningful participation is defined as providing commercially useful functions or services.

These services should:

- Result in a product or service distinguishable from the Prime Contractor’s product or service or be a part of the services provided by the Prime Contractor,
- Be for scope of service elements which can be and are completely performed, supervised and managed by the SDVOB Contractor, and/or
- Perform significant tasks which can be considered commercially marketable.
A listing of current certified SVDOBs and how a firm can become certified as a SDVOB, please visit the New York State Office of General Services: http://ogs.ny.gov/core/sdvoba.asp.

Interested proposers should verify their attainment of the above established SDVOB participation goal by completing Attachment 8: SDVOB Participation Information. For participation to count towards the SDVOB goal set for this solicitation, the offered SDVOB participating firm must be currently certified by Empire State Development. If the proposal does not meet the 3% percent SDVOB participation goal, the firm must provide evidence of a good faith effort by completing Attachment 8a: SDVOB Subcontractor Participation Solicitation Log.

Additionally, if the firm does not meet the specified goal, the firm must include in its submission a Goal Attainment Explanation Letter explaining why the firm was unable to meet the applicable SDVOB (in full or if partially), which serves to substantiate the firm’s good faith effort. The letter should include sufficient justification as to why the goal was not met or was met partially and should at a minimum address the following factors: the potential firm’s method of accomplishing the work, the subcontracting opportunities associated with the proposed approach and scope of services, and the availability of certified firms for the work to be performed by either a prime contractor or via subcontract.

A prime contractor that is an SDVOB still must make a good faith effort to include SDVOB subcontractors in their proposal. Only participation by certified SDVOB subcontractors may count towards the contract participation goal. Participation by a certified SDVOB prime contractor does not count towards meeting the contract goal (participation by a certified SDVOB prime contractor helps to meet the State’s corporate SDVOB goal).

The above forms and letter must be included in Part II: Cost and Contract submission. Firms are advised to refer to Section 6.2 for the procedure the Department will follow in evaluating a firm’s proposed SDVOB participation.

2.3 Diversity Practices

NYSDOT evaluates the diversity practices of primes to ensure that certified minority and women-owned businesses are given the opportunity for maximum participation in state contracts. Diversity practices are a legal requirement and may include past, present or future actions and policies which show interaction in developing M/WBE firms. Interested proposers should complete Attachment 3: Diversity Practices Questionnaire which will be evaluated during the procurement process.

2.4 Title VI Insurance

VI Program and Related Statutes, as amended, issued pursuant to such Act, hereby notifies all who respond to a written NYSDOT solicitation, request for proposal or invitation for bid that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age, disability/handicap and income status in consideration for an award.
3  Project and Contract Objectives

3.1  Project Objectives

The project will deploy a high-quality, high-frequency regional Bus Rapid Transit (BRT) service between Rockland and Westchester Counties. The service will also support links to other bus and commuter rail service to Manhattan, with an emphasis on an intercounty BRT system to serve bi-county trips and longer distance intra-county trips. The system will conveniently connect major concentrations of residential, employment, commercial, entertainment, medical, and educational land uses, and provide key connections to existing local bus (e.g., Transport of Rockland, Westchester Bee-Line) and rail (Metro-North, NJ Transit) services.

The LHTL Transit Service Objectives are based on six core passenger-serving concepts:

- Safety
- Reliability
- Frequency
- Span of Service
- Speed
- Access

These core concepts have been established through the planning process for the LHTL transit service and are based on both national research and on a review of peer regional rail and bus transit operators. More information is available in Attachment 21: Transit Service Plan [Attachment 21: Transit Service Plan].

Vehicle specifications have been developed and indicate a required vehicle—double-decker Bus Rapid Transit (BRT) commuter coach—for the system. Detailed specifications, including requirements for transit ITS and branding elements, are included in later sections of this Request for Proposals (RFP).

NYSDOT is in the process of constructing new bus stations and shelters and related pedestrian improvements at all of the stops envisioned for the transit routes. These routes currently serve the travel market between Suffern and White Plains as the Tappan Zee Express (TZx) transit service. A Transit Service Plan (attached as Attachment 21: Transit Service Plan [Attachment 21: Transit Service Plan]) has reconfigured these routes to meet the service objectives and optimize both bi-county and intra-county trips.

NYSDOT reserves the right to adjust service at any time. Modifications to services may include, but are not limited to, extending, deleting or adding routes, or parts of routes, and expanding or decreasing scheduled revenue hours or frequency of service within the service area of Rockland and Westchester Counties.
3.2 Contract Objectives

The main objective is to process and execute a single separate contract with a single designated Contractor. Only one responsive and responsible Contractor (or team of contractors wherein the contract will be with the prime Contractor) will be retained through this RFP solicitation. Sub-contracting is permitted. As service delivery levels and seamless integration of services are crucial to the project, no joint ventures arrangements will be allowed which appear to split up initial responsibility for particular routes or portions thereof (e.g. two bus carriers may not form a joint venture whereby an arrangement is made that one carrier will “take” the routes in one county or direction, and the second carrier will “take” the routes in another county or the routes in the opposite direction)

Joint ventures are, however, permitted between service operators, vehicle maintenance providers, and vehicle manufacturers, sellers or other vehicle providers.

Notwithstanding the foregoing, contract award of any joint venture proposal will place upon all the joint venture participants full and complete liability, jointly and individually, for contract performance.

FAIR AND EQUITABLE TREATMENT: For all firms participating in this competitive consultant selection process to receive fair and equitable treatment.

3.3 Definitions and Acronyms

- **ADA** – Americans with Disabilities Act
- **APC** – Automatic Passenger Counters
- **APTA** – American Public Transportation Association
- **AVL** – Automatic Vehicle Location
- **BRT** – Bus Rapid Transit - high-quality bus system that delivers fast, comfortable, and cost-effective services at metro-level capacities.
- **CAD** – Computer-Aided Dispatching
- **CDL** – Commercial Driver’s License
- **CIN** – Contractor Identification Number
- **CRC** – Customer Service Center
- **CSI** – Customer Satisfaction Index
- **ESD** – Empire State Development
- FOIL – Freedom of Information Law
- FTA – Federal Transit Administration
- GTFS – General Transit Feed Specification
- HVTMC – Hudson Valley Transportation Management Center – regional traffic operations center located in Hawthorne, NY
- ICM – Integrated Corridor Management – the operational coordination of multiple transportation networks and cross-network connections comprising a corridor and the institutional coordination of those agencies and entities responsible for corridor mobility.
- ITS – Intelligent Transportation System
- LHTL – Lower Hudson Transit Link – the project to implement improvements along the I-287 corridor in Rockland and Westchester Counties, which includes the intercounty BRT system whose operator will be selected through the present RFP process
- M/WBE – Minority/Women-Owned Business Enterprise
- NNYB – New New York Bridge – a state-of-the-art, twin-span replacement for the 3.1-mile Tappan Zee Bridge across the Hudson River
- NTD – National Transit Database
- NYDSOT – New York State Department of Transportation
- NYSTA – New York State Thruway Authority
- NYSUCP – New York State Unified Certification Program
- OEM – Office of Emergency Management
- PMI – Preventive Maintenance Inspections
- PPI – Producer Price Index RFP – Request for Proposal - this document
- RTPI – Real-Time Passenger Information
- SCD – Schedule Completion Date
- SDVOB – Service-Disabled Veteran-Owned Business
- SFL – State Finance Law
- SHR – Specific Hourly Rates
• STOA – Statewide Mass Transportation Operating Assistance program
• TSP – Transit Signal Priority
• TZx – Tappan Zee Express – the current intercounty bus system between Rockland and Westchester counties, which the LHTL system will be replacing.
• USDOT – United States Department of Transportation
• VMS – Variable Messaging Sign

3.4 Mandatory Project Schedule

The intercounty BRT must be operational by the time the current TZx contract terminates in November of 2018. An operational start date of October 29, 2018 has been established to meet this requirement.

Following are the Major Interim Milestones that must be completed in a timely manner as part of the delivery of services outlined in this RFP. The Contractor shall propose dates for the following Interim Milestones in their Project Schedule (see Section 5.1.5) Attachment 24: Liquidated Damages. Failure to meet these Milestones will result in liquidated damages assessed against the Contractor at the rates established in Attachment 24: Liquidated Damages.

Major Interim Milestones:

A. Delivery of Final version of the Project Management Plan
B. Fleet vehicles ordered
C. Fleet vehicles delivered
D. Maintenance/Storage facility completed
E. Transit ICM systems integration
F. NYSDOT acceptance of vehicles
G. Vehicle testing completed

3.5 Contract Terms and Rate Adjustments

The Department estimates that the work for the successful Contractor will commence when Notice to Proceed is issued, currently estimated at January 2, 2017. The base term or duration for the contract is twenty (20) years with no authorized extensions.

CONTRACT TYPE: The contract type is payment for all services via one loaded annual per revenue mile billing rate (Estimated Monthly Revenue Miles = 132,251), which will NOT include payment for additional ITS equipment and will NOT include payment for facility expenses. Initial ITS equipment shall be installed and set up using a time and materials payment method, to be billed on a schedule agreeable to both parties. Fixed rates for all applicable
personnel for additional future ITS work shall be proposed. Payment for all facilities and equipment shall be on a fixed per-monthly basis over the 20 year contract term.

During the term of the contract, beginning on January 1, 2017, the Consumer Price Index – All Urban Consumers (CPI - U), as published by the U.S. Department of Labor, Bureau of Labor Statistics, will be used as a basis for adjusting the hourly rates/lump sum deliverable amounts, subject however to a maximum allowable annual increase cap of 3.0%. The rate adjustment will be effective on January 1 and calculated using the previous September’s Index, using Series ID CUUR0100SAS4 (http://data.bls.gov/timeseries/CUUR0100SAS4; Area: Northeast Urban, Transportation Services, Not Seasonally Adjusted, Base Period 1982-84 = 100). If at any time the above Index Series ID is discontinued or becomes unavailable, the State reserves the right to implement a comparable Index.

[An example of the rate adjustment calculation is as follows (all numbers and titles used are for illustrative purposes only):

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Contract Billing Rate</th>
<th>CPI Index</th>
<th>Index Point Change</th>
<th>Percent change, rounded to nearest tenth</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/2019 - 12/31/2019</td>
<td>$9.00/Mile</td>
<td>132.1</td>
<td>2.1</td>
<td>1.6%</td>
</tr>
<tr>
<td>Updated Contract Billing Rate ($9 x 1.016)</td>
<td>$9.14/Mile</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the actual start of the contract is substantially different than the above estimated date, then the effective date for the rate adjustment will be similarly changed.

The Provider has the sole responsibility to request, in letter form, an adjusted rate and must provide a copy of the index and other supporting documentation necessary to support the increase or decrease with the request. This request and documentation must be received at the NYSDOT Project Manager’s address within three months of the March base month of each year. To ensure timely delivery, certified mail is recommended. As long as the request is submitted and received within the required time frame, the adjustment will be processed using the prior calendar year. Once approved, the contractor will be notified in writing.

The State reserves the right to negotiate a lower rate adjustment than stated above for any additional billing rate extensions or adjustments.

### 3.6 Service Expansion

In the future, there is the possibility that NYSDOT will decide to expand the LHTL intercounty BRT service, including part or all of the service additions as detailed in Attachment 27. In the event that this occurs over the course of the contract, NYSDOT will provide the Contractor with ridership estimates, route structure, and frequencies for all new services proposed, and the Contractor will work with NYSDOT to identify and agree-upon the number of new passenger revenue miles associated with the service expansion. Such Service Expansion would require
execution of a formal contract amendment agreeable by both parties and subject to approval by the New York State Attorney General’s Office and the Office of the New York State Comptroller.
4 Scope of Services

4.1 Project Overview

This RFP is seeking to solicit proposals for the intercounty Bus Rapid Transit (BRT) Contractor for the transit component of the LHTL project. The Contractor is expected to deliver a turnkey and expandable solution for NYSDOT to provide transit service in Rockland and Westchester Counties, optimizing the project elements described above. This RFP is for the initial rollout of the intercounty BRT service, but the system may expand in the future, as ridership and available funding allow (as described in Section 3.6). In order to ensure delivery of a high-quality, reliable, and safe service, performance standards are identified and enforced through a system of incentives and liquidated damages. These are detailed in Attachment 16: Operating Performance Standards and Attachment 24: Liquidated Damages & Incentive Payments.

4.2 NYSDOT Responsibilities

NYSDOT will be responsible for the following:

4.2.1 Providing capital infrastructure

NYSDOT is responsible for the installation of new shelters, transit roadway improvements, signal upgrades, and the infrastructure to support the Integrated Corridor Management (ICM) system, which will be delivered by and with NYSDOT, its partnering agencies, and their contractors in a coordinated program of work.

4.2.2 Appointing a Project Manager

NYSDOT will appoint a Project Manager who will serve as the single point of contact for the Contractor. The NYSDOT Project Manager will be solely responsible for decisions related to the acceptance and approval of all services and deliverables provided by the Contractor.

4.2.3 Accepting Deliverables

NYSDOT will review deliverables and evaluate them for completeness, clarity, adherence to generally recognized standards, and compliance with NYSDOT’s intent as conveyed in this RFP and contained in the resulting executed contract. A deliverable, phase, or milestone will not be considered complete until NYSDOT has its opportunity to review said deliverables and formal, written sign-off has been provided by NYSDOT.

4.2.4 Providing a Unified ICM Control Center

NYSDOT will be responsible for providing a unified control center at the HVTMC where both highway operators and dedicated staff from the transit contractor can manage day-to-day operations of the BRT transit services (per the agreed-upon approach) and highway systems, plan
and coordinate special events, and resolve unplanned incidents as they arise. This co-location has many benefits, including being able to leverage the presence of various agencies’ staff, improve overall system monitoring, and enhance both operational awareness and communications between all partners.

4.2.5 Providing User Acceptance

NYSDOT is responsible for approving all submitted accepted test plans and performing acceptance testing.

4.2.6 Facilitating Fare Payment Arrangements with Regional Agencies

NYSDOT is responsible for facilitating agreement with the MTA to allow the selected Contractor to accept payments for and allow riders to use the MetroCard on the LHTL BRT system. NYSDOT will also facilitate any future agreements necessary to allow acceptance of payments and use by LHTL BRT riders regarding any future new MTA fare payment system (currently out for bidding: http://web.mta.info/nyct/procure/contracts/131308sol.pdf).

NYSDOT is also responsible for facilitating any agreements with MTA Metro-North Rail Road to permit the UniTicket fare option for riders on the LHTL BRT system. MTA Metro-North collects the revenue from this ticket, as they are the only issuer, and they are responsible for reimbursing NYSDOT its share of the fare through the operator, in accordance with other revenue procedures.

Please note: the selected Contractor shall be responsible for procuring, installing, maintaining, repairing, and replacing all fare payment equipment and software.

4.2.7 Facilitating Internal NYSDOT Communication

NYSDOT is responsible for facilitating communications among various NYSDOT regions and divisions. NYSDOT will provide the selected Contractor with appropriate contact information, staff descriptions, etc.

4.2.8 Purchase Option

NYSDOT reserves the right to purchase the BRT transit service vehicles, card readers, and associated equipment at fair market value, or, if such vehicles or equipment are leased, to direct the Contractor to assign any remaining lease term, in the event the Contractor is incapacitated in any way or is otherwise unable to deliver the service.

4.2.9 Site Visits

NYSDOT reserves the right to inspect the Proposer’s facilities and/or other transit systems where the Proposer has supplied the same or similar services as part of the proposal evaluation process (with proper due notice provided). NYSDOT reserves the right to inspect the Proposer’s facilities after contract execution/during the term of the resulting agreement (with proper due notice provided).
4.2.10 Set Fares
NYSDOT will be responsible for setting fares, which are envisaged to closely match the ones that are used on the TZs today. The Contractor may recommend fare changes to increase efficiency and ridership through the prescribed tariff process for regulated carriers found at the NYCRR Part 720 at https://www.dot.ny.gov/divisions/operating/osss/bus-repository/PARTS%2520730.pdf. NYSDOT will review and approve or deny the suggested change. NYSDOT will also have the authority to change fares at any point throughout the contract.

4.3 Contractor Responsibilities
NYSDOT will contract with a single prime Contractor to provide all requested LHTL intercounty BRT services as detailed in this RFP. The exact approach and methodologies proposed by the Contractor to fulfill the RFP’s deliverables and requirements must be provided in the Technical Approach and Scope of Service portions of the firm’s Part I Technical and Management Proposal. The Contractor must address all deliverables for all stages of the LHTL BRT project in their project plan. The Contractor can organize and plan for the completion of the work based on their experience with projects of similar scale and scope.

The selected Contractor is responsible for the following:

4.3.1 Providing Experienced Personnel
The selected Contractor is responsible for committing fully qualified professional resources to all project stages as well as maintaining provision of those resources over the life of the contract. NYSDOT reserves the right to approve or reject the replacement of Key Personnel.

4.3.2 Providing Services and Deliverables
The selected Contractor shall provide the services and deliverables specified in this RFP (specifically, in Section 4.5 below and related attachments) per the resulting contract. The Contractor shall perform all of the activities and tasks in a manner that meets all of the project’s and contract’s objectives, subject to available state funds. All services provided must be consistent with state and federal laws and regulations and shall be appropriate and acceptable to NYSDOT.

4.3.3 Conducting Data Collection and Reporting
The selected Contractor is required to provide a number of real-time, monthly, quarterly, and annual reports on the operation of the LHTL service to NYSDOT, as outlined in Attachment 20: Reporting Requirements. These reports will enable NYSDOT to evaluate the quality of the service being provided, as well as review overall performance in order to assess liquidated damages.
4.3.4 Requesting Rate Adjustments: See RFP Section 3.5
4.4 Tasks

Project tasks are divided into two primary stages—Stage 1: Planning and Procurement and Stage 2: Operations and Maintenance.

Stage 1: Planning and Procurement

4.4.1 Project Initiation and Planning

4.4.1.1 Following the selection of a Contractor and contract approval, the Contractor will refine and confirm planned project activities during the Project Initiation and Planning phase. Initial Project Management Plans submitted with this proposal will be further refined with input from NYSDOT until a Final Project Management Plan for project completion is formed.

4.4.1.2 The Contractor shall refine and deliver its proposed initial project plans consistent with agreements made during contract finalization. The Final Project Management Plan shall address:

A. Project Schedule;
B. Implementation Plan;
C. Quality Control/Quality Assurance Management Plan;
D. Risk Management Plan;
E. Change Management Plan;
F. Issue Management and Escalation Plan;
G. Communication Plan;
H. Marketing Plan;
I. Customer Service Plan;
J. Staffing Plan - The Contractor shall refine the Initial Staffing Plan and deliver a project staffing plan that identifies individual resources assigned to each of the project activities and ensures that efforts are taken to meet the contract’s M/WBE/SDVOB goals.

4.4.1.3 The Contractor shall provide a draft of the Final Project Management Plan to the NYSDOT Project Manager within 30 days of Notice to Proceed. After review by NYSDOT, the Contractor will incorporate any required changes and submit a
finalized version of the Final Project Management Plan to the NYSDOT Project Manager for approval. The Contractor shall thereafter manage the Final Project Management Plan jointly with NYSDOT.

**Deliverable:** Final Project Management Plan

### 4.4.2 Project Execution and Control

4.4.2.1 During Project Execution and Control, the Contractor will utilize the plans, schedules, procedures, and templates prepared and anticipated with the Final Project Management Plan. This will include the following activities:

A. The Contractor shall establish a secure project collaboration web site to share all project-specific documents and reports that are not automatically fed into the ICM system. To make vendors aware prior to proposal submission, full details on NYSDOT’s ITS policy are available in Attachment 25: NYSDOT ITS Policy. NYSDOT and OITS will work with the selected Contractor regarding implementation of applicable ITS policies during contract negotiation and during the project. This policy is only applicable for any IT project work done under C031487.

B. The Contractor shall maintain and provide to NYSDOT an up-to-date organization chart and contact list for all Contractor key personnel assigned to the project, including updates whenever Contractor personnel assignments change.

C. The Contractor shall prepare for and attend all project meetings, to be held at the Hudson Valley Transportation Management Center (HVTMC) in Hawthorne, NY, the Region 8 Office in Poughkeepsie, NY, or the Main Office in Albany, NY, including but not limited to:

- **Kickoff Meetings** – Within two weeks of final contract approval, kickoff meetings will be scheduled and held with the full project team to discuss applicable start-up procedures (the selected Contractor shall assist in preparation of the kick off meeting schedules, agenda, handouts, etc);

- **Project Development Meetings** – two or more project team members are to attend meetings related to project development and implementation as defined in the project communication plan and project schedule;

- **Status Meetings** – the Project Manager and two or more project team members are to attend periodic project status meetings to review the progress and status of the tasks, problem areas, work to be accomplished, and other relevant items
D. The Contractor shall prepare pre-meeting and post-meeting documentation for project meetings.

E. The Contractor shall implement the Quality Management Plan defined in the Project Management Plan.

F. The Contractor shall implement the Risk Management Plan defined in the Project Management Plan.

G. The Contractor shall implement the Project Communication Plan defined in the Project Management Plan.

**Deliverables:**

- Meeting attendance and documentation. Remote attendance at project meetings is possible via prior discussion with NYSDOT.
- Project collaboration website.

### 4.4.3 Provision and storage of a vehicle fleet

4.4.3.1 The selected Contractor will secure and utilize an appropriate number of vehicles required to implement the specified intercounty BRT service while adhering to system and performance requirements. The vehicles will all be purchased or leased by the Contractor. Specific fleet requirements can be seen in Attachment 26: Vehicle Specification, the complete BRT vehicle specification. Any additional transit vehicles needed in the event of service expansion after initial contract approval shall be in compliance with the vehicle technical specification (attached and made part of this RFP) and shall be purchased or leased with prior approval from NYSDOT. All vehicles shall be compliant with all specification requirements including being accessible via kneeling capabilities and extending ramp with ADA-accessible entry and exit doors.

4.4.3.2 The Contractor shall include in its proposal no less than one additional sedan/crossover type vehicle for the purpose of road-supervisor transport. No passenger service vehicle will be allowed for use for non-passenger trips.

4.4.3.3 All vehicles purchased or leased by the Contractor must meet the LHTL project’s branding design for all LHTL intercounty BRT vehicles. Each must be assigned a
fleet number visible on the side and rear of the vehicle. NYSDOT will work closely with the Contractor to provide the proper branding design for them to integrate into the vehicle manufacture at the Contractor’s expense. The full set of requirements for vehicle capability and appearance are outlined in the vehicle specification, Attachment 26: Vehicle Specification. After the Contract is awarded and prior to commencement of service, NYSDOT reserves the right to make further clarifications to the branding design.

4.4.3.4 NYSDOT shall approve of the service revenue vehicles and associated in-vehicle equipment and in-vehicle technologies prior to service revenue vehicle ordering and purchasing by the Contractor. No ordering or purchasing of service revenue vehicles may be completed without written consent from NYSDOT. Bidders shall detail all proposed vehicles, associated in-vehicle equipment and in-vehicle technologies in their technical proposal. The Contractor’s costs associated with the purchase/lease of all service revenue vehicles, in-vehicle equipment and in-vehicle technologies must be distributed over the entire 20-year base term of the Contract for any vehicles and included in the overall cost per passenger revenue hour. The selected Contractor shall not operate buses, equipment and/or ITS equipment beyond their recommended useful service life. Maintenance of normal replacement cycles and state of good repair cycles shall be incorporated as applicable in your technical and cost proposals.

4.4.3.5 NYSDOT will define and oversee a vehicle testing regime after vehicles are delivered and before they go into service over the life of the contract. The details of this will be provided to the Contractor before the first vehicles are delivered.

4.4.3.6 The Contractor shall comply with all applicable state and federal regulations. Any deviations from NYSDOT safety and inspection requirements regarding vehicles need express written approval from the NYSDOT Office of Modal Safety and Security.

4.4.4 Provision of an operations and maintenance facility

4.4.4.1 The selected Contractor will be responsible for providing (owning or leasing) an operations facility (or facilities) that has adequate spacing for in-house preventive and corrective maintenance for the vehicle fleet. The size and location of the operations facility must be sufficient to meet the service requirements related to staff and visitor parking, service vehicle parking, routine preventive maintenance of vehicles and cleaning (washing) of vehicles as well as providing staff office space. Proposed facilities must also emphasize minimizing deadhead hours and lease costs. Safe and secure overnight storage of vehicles is required, including exterior and interior video
surveillance for all service vehicle parking areas, entrances, exits, and cash-handling areas. A facility security system with alarms must also be included. NYSDOT will not offer any assistance in procuring the site, but NYSDOT does reserve the right to either inspect, approve or reject the site.

4.4.4.2 The selected Contractor will be responsible for providing (owning or leasing) all necessary equipment, specialized vehicles and tools in the operations facility (or facilities) associated with operating and maintaining the specified vehicle fleet of buses.

4.4.4.3 Additional maintenance and facility requirements can be found in Attachment 17: Fleet Maintenance & Service Requirements, as well as the instructions for creating the Vehicle Maintenance Plan.

Deliverables:

- An operating fleet conforming to the project service and ITS requirements as outlined in the LHTL vehicle specification with agreed-upon NR and SOGR cycles.
- A maintenance and storage facility of sufficient capacity, proper equipment, and capability for the LHTL fleet
- Vehicle Maintenance Plan
4.4.5 Procurement and installation of on-board, in-shelter and back-office technology systems

4.4.5.1 The selected Contractor will be responsible for the procurement and installation of on-board, in-shelter, and back-office vehicle technology and systems, including but not limited to Wi-Fi, automatic vehicle location (AVL), computer-aided dispatching (CAD), automatic passenger counters (APC), Real Time Passenger Information (RTPI) including stop announcements and displays, and traffic signal priority (TSP). These systems will be critical for the smooth operation of the transit system and quick and accurate performance reporting. The Contractor must ensure the assets installed are compliant with the LHTL project ITS Architecture. The Contractor will also be responsible for working with the LHTL ICM Systems Integrator to ensure the vehicle systems are interoperable with the ICM system operating in the corridor. The Contractor will also be responsible for integrating their scheduling software and other back-office functions with the transit ICM elements, both on the vehicles and at stations.

4.4.5.2 The Contractor will transfer the title for all in-shelter technology equipment to NYSDOT, but will continue to maintain all in-shelter technology equipment as outlined in Section 4.4.8 and Attachment 19: Stop and Shelter Technology. NYSDOT will provide power and communications connections at the bus shelters. The Contractor shall be responsible for procuring the communications networks to support all in-shelter, on-board and back-office systems. The Contractor shall also assume account ownership of the shelter power feeds. The Contractor is responsible for System Acceptance Testing (SAT) of the Transit ICM elements, as follows:

A. The Contractor must develop, conduct, support, and report upon the verification activities to demonstrate compliance to NYSDOT’s System Functional and Performance Requirements.
B. The Contractor is encouraged to organize the test program to focus initially on those parts of the design that are considered to have the greatest risk.
C. Each acceptance test must be performed in a repeatable and verifiable manner without interfering with any part of the System which has already been accepted.
D. At the conclusion of an acceptance tests, the System must be capable of being returned to its state prior to the acceptance test.
E. The Contractor must advise NYSDOT of the details (time, place, etc.) of all test activities as outlined in the SAT Plan.
F. The Contractor must provide twenty (20) days’ notice (time, place, etc.) of all formal test activities outlined in the SAT Plan.
G. NYSDOT must review all test documentation prior to the initiation of any formal testing.
H. NYSDOT must witness all formal test activities being conducted to demonstrate compliance with NYSDOT’s project requirements.
I. The Contractor must supply all test equipment, materials and labor for all tests.
J. The Contractor must support the NYSDOT’s scenario test program which will be run after all acceptance testing has been completed.
K. NYSDOT’s scenario testing will cover mutually pre-agreed operational scenarios.
L. Upon successful completion of all other testing and commissioning of the system, NYSDOT will run an operational test whereby the system will be monitored during a 30 day period for any abnormal operations not previously uncovered during the previous tests.
M. If any item subject to an acceptance test fails to satisfy its acceptance criteria, NYSDOT may require the acceptance test, or any part of it, to be repeated.
N. The Contractor must remedy the cause or causes giving rise to the failed acceptance tests within fourteen (14) days or as agreed with NYSDOT.
O. The failed acceptance tests must be repeated with commencement as soon as practicable after the cause or causes giving rise to the failure are remedied, unless otherwise agreed with the NYSDOT.

The requirements for on-board vehicle technology and systems are detailed in the vehicle specification in Attachment 26: Vehicle Specification and the NYSDOT technology specification in Attachment 23: Technology Specification.

**Deliverable:** On-board vehicle and in-shelter technology and systems compliant with the LHTL project ITS Architecture
Stage 2: Operations and Maintenance

4.4.6 Operation of the LHTL Intercounty BRT Transit Service

4.4.6.1 The Contractor shall design and operate a service to satisfy the service requirements laid out in the Transit Service Plan (Attachment 21: Transit Service Plan), including route layout, span of service, and service frequencies. This service will commence on October 29, 2018, and will continue until January 2, 2037.

4.4.6.2 The Contractor shall create detailed schedules to meet or exceed these service requirements and the performance standards, agree these schedules with NYSDOT, and make these schedules available to 511NY as a General Transit Feed Specification (GTFS) format and the public as outlined in Section 4.5.9 (marketing and advertising).

4.4.6.3 These schedules will be reviewed by the Contractor and NYSDOT annually to take into account any changes in travel time in the corridor, especially any improvements resulting from better operation and management of the corridor utilizing the ICM system.

4.4.6.4 The Contractor shall operate service along the routes laid out in the Transit Service Plan (Attachment 21: Transit Service Plan), serving all stops along these routes.

4.4.6.5 The Contractor shall determine an optimal vehicle fleet size (with spares) to satisfy these requirements.

4.4.6.6 The Contractor shall provide street and control room supervision of contracted service including the monitoring of schedule adherence, accident/incident investigation, on-street operation, and on-route compliance. This supervision must include conducting ride checks (on-board) to ensure operator adherence to procedures (e.g., fare collection, ADA compliance, and passenger relations). Such supervision must also include responses to investigation of accidents/incidents within 20 minutes of occurrence. Street supervision must be present at all times and in sufficient number when services are scheduled to operate. NYSDOT reserves the right to provide similar investigations and adherence checks of its own without notice to ensure Contractor’s compliance with terms of the Contract.

4.4.6.7 The Contractor shall operate the service according to all safety and operating requirements found at the NYSDOT Office of Modal Safety and Security, Passenger
Carrier Safety Bureau website at [https://www.dot.ny.gov/divisions/operating/osss/bus](https://www.dot.ny.gov/divisions/operating/osss/bus). This includes adherence to NYS Transportation Law and Vehicle and Traffic Law (VAT); various appropriate parts of the 17 NYCRR outlined at the website; accident reporting and the requirements of the Public Transportation Safety Board found at [https://www.dot.ny.gov/divisions/operating/osss/ptsb](https://www.dot.ny.gov/divisions/operating/osss/ptsb); the requirement of passenger authority and the bus inspection program and the driver requirements of NYS Department of Motor Vehicles (DMV) regarding 19-A certifications found at [https://www.dot.ny.gov/divisions/operating/osss/bus/driver](https://www.dot.ny.gov/divisions/operating/osss/bus/driver). Failure to meet these requirements as part of the implementation of the service on the ongoing delivery will result in assessing liquidated damages as outlined in Attachment 24: Liquidated Damages & Incentive Payments [Attachment 24: Liquidated Damages & Incentive Payments](https://www.dot.ny.gov/divisions/operating/osss/bus/driver).

4.4.6.8 Failure to provide all scheduled service routes and vehicles, as defined above and in Attachment 21: Transit Service Plan [Attachment 21: Transit Service Plan](https://www.dot.ny.gov/divisions/operating/osss/bus/driver), will result in NYSDOT assessing liquidated damages in the amount of $10,000.00 for each day that scheduled service is not provided. More detailed performance standards are outlined in Attachment 16: Operating Performance Standards [Attachment 16: Operating Performance Standards](https://www.dot.ny.gov/divisions/operating/osss/bus/driver).

4.4.6.9 The Contractor shall have a range of operating performance standards against which it must report to NYSDOT so as to ensure the consistent delivery of a high-quality intercounty BRT service.

4.4.6.10 All performance standards and liquidated damage clauses will be strictly enforced, and must be strictly adhered to in order to provide the highest level of quality service possible. NYSDOT reserves the right to monitor the Contractor in its performance of the Contract to ensure adherence to all performance specifications.

4.4.6.11 To measure the Contractor’s performance, the performance standards listed below are for the first year of service and may be used for subsequent years. NYSDOT representatives may, without prior notice, ride in Contractor-operated vehicles and monitor overall transit service to ensure compliance with this Scope of Work and the Contract. NYSDOT also reserves the right to review and modify these performance requirements and metrics as deemed necessary to facilitate continuous improvement of service. The full list of operating performance standards, including standards for staff and their training, is included in Attachment 16: Operating Performance Standards [Attachment 16: Operating Performance Standards](https://www.dot.ny.gov/divisions/operating/osss/bus/driver).
4.4.6.12 To receive maximum compensation, the Contractor shall meet or exceed the RFP’s standards on the required basis (i.e., monthly, quarterly, annually, etc). For the performance goals in Attachment 16: Operating Performance Standards, if the Contractor fails to meet contracted standards, liquidated damage amounts will be deducted from the Contractor’s total monthly invoice amount.

4.4.6.13 Liquidated damages may also be imposed by NYSDOT on the Contractor based on each observed violation committed by Contractor personnel. The Contractor agrees that a violation of any of the liquidated damage provisions in this Contract will cause NYSDOT to incur damages that are impractical or impossible to determine. The Contractor agrees that these liquidated damages are a reasonable approximation of NYSDOT’s actual damages.

4.4.6.14 Documentation of any incidents of violations shall be provided by the Contractor along with any explanation, and corrective measures shall be forwarded to NYSDOT for a review within 30 days of request. Failure to provide the response within 30 days of NYSDOT’s request will result in all liquidated damages indicated being applied to the invoice. For each and every violation, NYSDOT reserves the right in its sole discretion to assess full liquidated damages, partial liquidated damages, or to waive liquidated damages as NYSDOT believes is appropriate and in the best interest of the State.

8.10 Deliverable: Intercounty BRT transit service, as detailed in Attachment 15: Bus Operations Requirements
4.4.7 Maintenance and storage of the vehicle fleet

4.4.7.1 The Operator is responsible for the proper storage, upkeep and maintenance of the vehicle fleet, and must provide a facility (or facilities) to do so as outlined in Section 4.5.3 above. Additional maintenance and facility requirements can be found in Attachment 17: Fleet Maintenance & Service Requirements, with the liquidated damages and incentives outlined for each maintenance standard (full table in Attachment 24: Liquidated Damages & Incentive Payments).

4.4.7.2 Further details on cleaning schedules and requirements are detailed in Attachment 17: Fleet Maintenance & Service Requirements.

**Deliverable:** Ongoing maintenance, cleaning and storage of vehicles, as outlined in the Vehicle Maintenance Plan and Attachment 17: Fleet Maintenance & Service Requirements.

4.4.8 Maintenance and upkeep of transit shelters and stops for the intercounty BRT service

4.4.8.1 The State will provide all capital infrastructure for the intercounty BRT service (except for the fleet storage/maintenance facility as described in Section 4.4.3), including shelters, and other infrastructure at each stop. These stations play a key role in both providing and promoting the transit service, and are an important part of the passenger experience. NYSDOT will provide power and communication connections at bus shelters. The Contractor will be responsible for procuring the communications networks to support all in-shelter, on-board, and back-office systems. The Contractor would also assume account ownership of the shelter power feeds.

4.4.8.2 The technology equipment installed and integrated at each shelter shall also be the responsibility of the Contractor to maintain and keep in good working order, as are any off-board fare payment machines. Liquidated damages will be assessed for failure to maintain fully functioning systems. Full details on the performance standards required from these systems are outlined in Attachment 16: Operating Performance Standards, and liquidated damage payments.
amounts are detailed in the table in Attachment 24: Liquidated Damages & Incentive PaymentsAttachment 24: Liquidated Damages & Incentive Payments.

4.4.8.3 The Contractor shall be responsible for the upkeep and maintenance of bus stop infrastructure, to keep it neat, clean, and free of graffiti, as well as making repairs related to normal wear and tear, and any emergency/temporary repairs to any condition which creates a potential imminent health or safety hazard. Further details on cleaning schedules and requirements are detailed in Attachment 19: Stop and Shelter MaintenanceAttachment 19: Stop and Shelter Maintenance.

**Deliverable:** Clean, safe, and usable shelters and stops for the service, as detailed in Attachment 19: Stop and Shelter MaintenanceAttachment 19: Stop and Shelter Maintenance.

### 4.4.9 Management of advertising and marketing for the transit system

4.4.9.1 The Contractor will be responsible for designing and executing the marketing plan (subject to NYSDOT review and approval) for marketing and advertising the new bus service, to include but not be limited to a web presence, posters, handouts, and newspaper/radio/television ads.

4.4.9.2 The Contractor will also be responsible for the management and administration of any advertising on the intercounty BRT buses and will collect any revenues from this activity.

4.4.9.3 Absolutely no advertising will be allowed on the outside of the buses or at bus shelters, but must be limited to interior application only.

4.4.9.4 All material to be disseminated to the public and posted in the intercounty BRT vehicles must adhere to the MTA Advertising Standards (available at [http://web.mta.info/mta/realestate/ad_tele.html](http://web.mta.info/mta/realestate/ad_tele.html)) and be reviewed and approved by NYSDOT prior to use and dissemination. NYSDOT expressly reserves the right to disapprove any marketing material content for any reason, in NYSDOT’s sole discretion.

4.4.9.5 The Contractor’s marketing responsibilities shall be as follows:

A. The Contractor shall create and maintain a website for the intercounty BRT system, containing all relevant route, schedule and fare information, contact details for customer service, and any important information for passengers, including service disruptions or changes. The website shall link to the real-time bus information for the system.
B. The Contractor shall provide all schedules, maps, interior bus cards, fare media, and other printed passenger information materials required for marketing the transit service.

C. The Contractor shall make transit schedules available to 511NY as a General Transit Feed Specification (GTFS) format.

D. The Contractor shall create a branded landing page for in-vehicle and in-shelter customer Wi-Fi.

E. The Contractor shall distribute and/or install NYSDOT’s or regional passenger notices or car cards; and cooperate and participate in marketing, promotion, advertising, public relations, and public education programs and projects undertaken by NYSDOT from time to time. All signage, except those required by NYSDOT, are subject to placement on a space-available basis with paid advertising as the priority.

F. NYSDOT shall be the exclusive public media spokesman in connection with the transit service.

G. Before taking action, the Contractor shall notify NYSDOT of any court subpoenas, public or media requests for records, data or other information in possession of the Contractor related to performance of contract requirements, terms or conditions.

H. NYSDOT has established guidelines for communicative activities on public transit properties and assets. Under no circumstances may the Contractor or its employees distribute, or allow the placement or distribution of, any unauthorized oral, printed, or written materials on public transit properties or assets without the expressed written permission from NYSDOT.

I. The Contractor shall regularly install and remove selected interior passenger notices and signage bus cards at NYSDOT’s direction.

4.4.9.6 The Contractor’s advertising responsibilities shall be as follows:

A. The Contractor shall regularly install and remove selected interior passenger notices and signage bus cards at the NYSDOT’s direction.

B. All advertising materials are subject to NYSDOT approval prior to being installed. Advertising materials shall be posted with adherence to the dates notated on the individual advertising contracts between NYSDOT’s advertising vendor and its clients.

C. The Contractor shall be responsible for securing any advertising opportunities for the interior of the vehicle.
D. Any revenue from interior vehicle advertising will be collected and administered by the Contractor. This amount will be discounted from the total that NYSDOT owes to the operator.

E. Advertising materials are limited to the interior of buses. Absolutely no advertisements shall be permitted either on vehicle exteriors or at bus shelters.

**Deliverables:**

- All necessary marketing materials including website, schedules, maps, interior bus cards, and fare media.
- All interior advertising in buses
- Timely installation in vehicles of passenger notifications, per NYSDOT instruction

**4.4.10 Coordination of service planning and delivery with local and state agencies**

The Contractor is responsible for coordinating with local and State agencies and authorities to optimize transit service.

**4.4.10.1 Schedule coordination** - The Contractor is responsible for facilitating seamless transfers between the LHTL intercounty BRT and Metro-North rail service through careful schedule synchronization. The Contractor will design schedules to ensure that eastbound buses arrive at Metro-North no less than 7 minutes before scheduled train departures, while westbound buses depart Metro-North no more than 7 minutes after scheduled train arrivals. The Contractor is responsible for receiving advanced notifications of Metro-North schedule updates and adjusting LHTL schedules accordingly. The Contractor is also responsible for identifying and facilitating seamless transfers with the major transit providers in Rockland and Westchester Counties to improve the accessibility to the LHTL intercounty BRT service and to make the connection from this service to the destinations serviced by other Rockland and Westchester County operators.

**Fare coordination** - The Contractor is also responsible for facilitating seamless transfers between LHTL and other regional transit systems through the integration of fare payment systems. NYSDOT will work with Metro-North Railroad to maintain the existing UniTicket program (discussed in Section 4.4.12), which allows customers to purchase joint weekly or monthly tickets to transfer between Metro-North and LHTL, and this fare type shall be accepted on the system. NYSDOT is responsible for facilitating agreement with the MTA to allow the selected Contractor to accept payments for and allow riders to use the MetroCard on the LHTL BRT system. NYSDOT will also enter into an agreement with MTA-New...
York City Transit to utilize the MetroCard on the system, and the Contractor is also expected to accommodate the use of this fare payment type, as well as its future replacement, including procuring and maintaining fare payment machines. (The technical specifications for on-board and off-board infrastructure to accommodate this fare choice are outlined in Attachment 23: Technology Specifications and Attachment 26: Vehicle Specification).

4.4.10.2 Cost and schedule coordination on a regional level is of critical importance to this project. The Contractor shall propose how it plans to interline fares and schedules between the new intercounty BRT service and Westchester Bee-Line in its Technical and Management Submission, and will be evaluated on this issue.

4.4.10.3 **Service and response coordination** - The Contractor is responsible for meeting with NYSDOT’s ICM Corridor Manager to discuss any issues or concerns with the transit service and to address its integration with the overall ICM system in the corridor. These meetings will be held weekly for the first month of service (November 2018) and then monthly for the next six months of service (December 2018 – May 2019). Meetings will then be held quarterly until the end of the contract.

**Deliverables:**

- Transit schedules to meet train times and other regional transit links
- Accommodation of the Metro-North UniTicket program and MetroCard, as well as any other opportunities to coordinate fares with other transit systems in the region
- Regular meetings between the Contractor and the NYSDOT ICM Corridor Manager, as directed above

**4.4.11 Staffing for a transit operations coordinator position and the integration of the transit service into HVTMC ICM operations**

4.4.11.1 The operation of the ICM system will require all partner agencies and operators to be integrated at the Hudson Valley Transportation Management Center (HVTMC) in Hawthorne, NY. The ICM system will be critical to the LHTL’s ability to improve travel times compared to current transit service, adhere to its schedule, and keep passengers informed of changing conditions in real time. To optimize transit operations using ICM infrastructure, the LHTL intercounty BRT Contractor will embed a full-time representative within the HVTMC to serve as an HVTMC Transit Service Coordinator and perform the following functions:

A. Assess transit conditions
B. Monitor vehicle operations

C. Monitor station conditions

D. Supply information to the corridor ICM system

E. Monitor all on-board and in-station transit ICM assets

F. Maintain on-board and in-station transit ICM assets and repair any system faults within the agreed performance targets

G. Provide liaison services between Contractor operations, the HVTMC, and the Statewide Transportation Incident Command Center (STICC) at NYSDOT Main Office in Albany. This pertains not only to accidents but in cases of severe weather or other natural or man-made emergencies and their impacts to bus service.

4.4.11.2 The Contractor will be required to meet with the Systems Integrator (procured separately by NYSDOT) for a joint milestone ICM System Design Review workshop of all technology in the LHTL project, both for the transit system and the wider ICM system. The Contractor is required to present their unified transit technology design, including all transit system interfaces and a summary of the technology procurement and delivery schedule, at this System Design Review event to ensure that all ICM System Integration requirements and program coordination planning have been adequately resolved.

Deliverable: Permanent staff member or resource embedded at the HVTMC to cover the full span of service of the LHTL intercounty BRT system.
4.4.12 Collection and administration of fare revenues

4.4.12.1 Over the contract’s 20 year term, the Contractor shall collect and retain all operating revenues (including but not limited to: on-board cash fares, off-board fare payment machine revenues –credit/debit, MetroCard, and UniTicket revenues) raised from the operation of the LHTL intercounty BRT service. No revenues shall be surrendered to the State.

4.4.12.2 Fare Types and Media - Current TZx passengers are able to pay fares through a variety of fare types and media, including cash fares, ‘super-saver’ prepaid discount tickets, reduced fares (for seniors and the disabled), a College Pass (for students attending Rockland County College/Dominican College/St. Thomas Aquinas College) and the aforementioned weekly and monthly UniTicket passes provided in partnership with Metro-North.

4.4.12.3 The Contractor will be expected to maintain the Metro-North weekly and monthly UniTicket fare, as explained in Section 4.4.10 above, and to accommodate onboardMetroCard fare payment including MetroCard’sand its eventual replacement on MetroCard technology its service. The Contractor is encouraged to develop a range of discounted and institutional tickets that is similar to what is offered today, as well as work with local business and institutions to create new fare types. Additionally, the Contractor is encouraged to develop mobile ticketing technology for use on the LHTL system, and to incentivize the use of this fare medium. These efforts will be scored under the ‘creativity and innovation’ evaluation criteria in Section 6.1.3.3.

4.4.12.4 Fare Compliance - The Contractor is responsible for inspection and compliance activities surrounding fare collection. Off-board fare collection machines will issue tickets at strategic locations. Additionally, any mobile ticketing technologies the Contractor chooses to pursue can also display a paid ticket. The Contractor will be responsible for ensuring all passengers are carrying valid proof of payment, either through:

A. Driver-controlled inspection of tickets and passes through front-door boarding, using farebox validation

or

B. Provision of ticket inspectors on all routes to enforce fare payment
4.4.12.5 Proposers are to detail in their technical proposal the fare enforcement solution they choose, as well as an explanation of why they chose this option.

4.4.12.6 **Contractor Fare Collection and Operation** - For each occurrence in which the Contractor fails to collect fare(s) in adherence to the regional fare structure or where improper farebox operation by the Contractor’s employee occurs, NYSDOT will assess liquidated damages in the amount of $50.00 per occurrence.

4.4.12.7 As noted in Section 4.2.6, the MTA is developing a New Fare Payment System (NFPS) to replace the current MetroCard system. The Contractor is responsible for ensuring the LHTL Intercounty BRT service will accept the NFPS when implemented, including, if necessary, the retrofitting of any installed onboard of existing MetroCard readers machines at the shelters and buses, or the installation of new machines.

**Deliverables:**

- Collection and accounting of all fare revenue
- Development of innovative fare types and media
- Enforcement of fare payment

4.4.13 **Provision of a customer service center and applicable resources**

4.4.13.1 The Contractor will establish and staff a Customer Relations Center (CRC). The CRC will be staffed from the hours of 9 am to 5 pm, Monday – Friday, and be able to receive contacts from the intercounty BRT customers via phone or e-mail. The Contractor must monitor the call taking performance on a regular basis through the utilization of telecommunications equipment that allows for the recording and monitoring of all telephone calls with passengers. NYSDOT may review such recordings or telecommunications reports at any time to monitor telephone customer service. The Contractor must ensure telecommunications equipment allows for the submittal of audio files that include passenger-call center staff telephone conversations to the NYSDOT Project Manager via e-mail.

4.4.13.2 Through a sub-contracting agreement with a third-party vendor, the Contractor will commission a quarterly customer satisfaction survey of passengers.

More detailed requirements for the handling of customer complaints and comments, the creation of a customer service training program for the Contractor’s employees,
the establishment of a policy for lost items, and the quarterly customer satisfaction survey can be found in Attachment 18: Customer Satisfaction.

**Deliverables:**
- Customer Relation Center that operates during required hours
- Customer Satisfaction Survey

### 4.4.14 Reporting Requirements

#### 4.4.14.1
The Contractor shall collect data as required and provide periodic statements showing a comparison of the transit system’s past performance and of various management goals and objectives. Monthly and quarterly reports are due on or before the 10th of the following month. Annual reports are due to NYSDOT in January, on the 1st of the month.

#### 4.4.14.2
The Contractor shall provide all information and reports required by NYSDOT or any modal administration of the United States Department of Transportation (USDOT), as appropriate and will permit access to books, records, accounts and other sources of information and facilities as may be requested by NYSDOT. Where any information required is in exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to NYSDOT or any modal administration of the USDOT, as appropriate, and shall set forth what efforts it has made to obtain the information. All data gathering and reporting must conform to the requirements of NYSDOT or any modal administration of the USDOT, as appropriate.

#### 4.4.14.3
Specifically, the Operator is required to report annually to the National Transit Database (NTD) and prepare data and responses to data quality control questions from NTD staff.

#### 4.4.14.4
All programs, plans, policies and procedures shall be updated by the Contractor as needed throughout the term of the contract. The Contractor shall submit, on an annual basis, an independently audited financial report of all relevant company operating financial data.

#### 4.4.14.5
At the conclusion of the Contract term, the Contractor shall submit all reports and documentation as required by Federal, State, and local regulations and by the terms of the Contract. Furthermore, the Contractor shall ensure that all reports are current and complete.

#### 4.4.14.6
The Contractor shall retain all financial books, records, and other documents relevant to the Contract for five years after final payment or until after resolution of any audit.
questions (which could be more than five years) whichever is longer. Federal, State, or NYSDOT auditors and any other persons duly authorized by NYSDOT shall have full access to, and the right to examine, audit, copy, and make use of any and all said materials.

4.4.14.7 The Contractor must maintain all records at a location accessible by NYSDOT staff and in an electronic format acceptable to NYSDOT. Per the contract, all records produced under this contract are property of NYSDOT. Should the work between NYSDOT and the selected Contractor be terminated, all records shall be turned over to NYSDOT or its designated recipient.

4.4.14.8 The Contractor shall remit all reports to NYSDOT electronically, in a format prescribed by NYSDOT. Documents must be available when requested by NYSDOT or automatically shared with NYSDOT in electronic format via e-mail or managed file transfer (for larger sized documents). Should NYSDOT want to review records pertaining to this contract at the selected Contractor’s offices, NYSDOT shall be given access to those files upon reasonable notice.

4.4.14.9 Any report may be revised, reorganized, changed, increased or decreased in number and frequency, or deleted as directed by NYSDOT at its sole discretion.

4.4.14.10 A detailed list of reports is available in Attachment 20: Reporting Requirements.

Deliverables:

- Monthly performance reports as required by NTD and NYSDOT
- Quarterly performance reports as required by STOA and NYSDOT
- Annual performance reports as required as part of NYSDOT 17-A process
- All other performance reports as specified in Attachment 20: Reporting Requirements
4.4.15 Contract Transition

4.4.15.1 This task shall only be required if the Contractor selected for C031487 award is not designated for award of a future contract to replace contract #C031487. To ensure a seamless transition between the selected Contractor and a future designated Contractor, NYSDOT will establish a transition period during which the Contractor will work with the future designated Contractor to provide the necessary coordination and services without interruption of service during the transition.

4.4.15.2 The Contractor shall update the Initial Transition Plan submitted with its proposal, ready to execute prior to completion of C031487’s 20-year contract period. The Final Transition Plan shall ensure a transfer of the intercounty BRT services without interruption if the Contractor is not designated for award of a future replacement contract. The Plan shall be submitted to NYSDOT Project Manager 90 days before the anticipated transition date for approval.

4.4.15.3 The Plan shall identify the operational requirements during the transition and provide technical support for any systems malfunctions. It shall detail a schedule of staffing necessary to transition the program, and include an interim status report.

4.4.15.4 The Plan shall include the process to transfer all physical and intellectual assets. The NYSDOT Project Manager and the selected Contractor shall establish a plan to return to NYSDOT all NYSDOT property, including any data. At the end of the contract, the Contractor shall remove such data from any electronic equipment owned and retained by the Contractor.

4.4.15.5 At the discretion of NYSDOT Project Manager, the Contractor will participate in meetings with partner agencies and the future designated Contractor to address any concerns prior to transition.

4.4.15.6 The Contractor shall share and permit copying of all books and records necessary or convenient for the successor provider to undertake its work. In addition to other documents, these records include maintenance records, inventory records, supplier contracts, and support agreements.

4.4.15.7 If original records are necessary for the successor provider to properly perform its legal obligations, Contractor shall provide the originals to the successor, and the Contractor shall keep copies of them.
4.4.15.8 The Contractor shall train the successor Contractor (and any necessary subcontractors) in accordance with NYSDOT approved Final Transition Plan.

4.4.15.9 The Contractor shall provide full operational support services for the intercounty BRT system to NYSDOT during the transition in accordance with NYSDOT approved Final Transition Plan.

4.4.15.10 The Contractor shall verify and update all project documentation for the intercounty BRT system during the transition.

4.4.15.11 The Contractor shall provide knowledge transfer support services during the transition in accordance with NYSDOT approved Final Transition Plan.

**Deliverables:**

- Final Transition Plan
- Transfer of property and data to NYSDOT
- Meetings with future Contractor (at NYSDOT’s discretion)

4.4.16 **Additional applicable state requirements**

4.4.16.1 **Risk Control and Safety Program**

4.4.16.2 The Contractor is solely responsible for safety under the Contract. The Contractor shall safely render all services (and perform all work) under the Contract. As part of the system safety plan, the Contractor shall develop a comprehensive, ongoing systematic review of hazards involving vehicles, equipment, machines, the environment, and people, and take action to avoid identifiable hazards as required as part of Contractor services. The Contractor shall provide a safe environment for the public and the Contractor.

4.4.16.3 The operator is responsible for having a system safety plan in accordance with the PTSB and the Statewide Mass Transportation Operating Assistance Program (STOA) ([https://www.dot.ny.gov/divisions/operating/osss/ptsb/busprogram-guidelines](https://www.dot.ny.gov/divisions/operating/osss/ptsb/busprogram-guidelines)) that includes a facility safety plan to ensure that vehicles, equipment, and staff are safe and maintained in proper working order.

4.4.16.4 The Contractor shall be responsible for compliance with all applicable Federal, State, County and local laws, ordinances, and regulations during the performance of this work. The Contractor shall indemnify NYSDOT and NYSDOT’s contractors and
sub-contractors from fines, penalties, and corrective measures that result from acts of commission or omission of the Contractor, its subcontractors (if any), agents, employees, and assigns and their failure to comply with such safety rules and regulations.

4.4.16.5 The Contractor shall enforce the use of any and all applicable personal protective equipment needed to complete the tasks required by this contract.

4.4.16.6 The Contractor shall provide warning signs, barricades and verbal warnings as required.

4.4.16.7 The Contractor shall inform its employees of emergency procedures to be followed in case of a fire, medical emergency, or any other life-threatening catastrophes.

4.4.16.8 The Contractor shall perform job site safety inspections monthly. A report of the Contractor’s findings and observations, as well as corrective measures taken, shall be made available to NYSDOT on a monthly basis.

4.4.16.9 The Contractor shall provide and maintain on the site and in vehicles, at all times, first aid kits which contain all emergency medical supplies likely to be required.

4.4.16.10 The Contractor shall provide a Risk Control and Safety Plan with written rules and procedures for the assessment of preventable and non-preventable accidents. Contractor shall:

A. Conduct monthly safety inspections

B. Establish a safety committee

C. Hold monthly safety committee meetings

D. Annually (at a minimum) review vehicular and passenger accidents

E. Develop and implement safety related training on an as-needed basis

F. Conduct hazardous materials training on an as-needed basis

Deliverables:

- Risk Control and System Safety Plan
- Monthly safety inspections
- Monthly safety inspection reports
- Monthly safety committee meetings
- Annual review of vehicular and passenger accidents
- Safety-related and hazardous materials training

4.4.16.11 Accident & Injury Investigations

4.4.16.12 Every public transportation bus system and/or public transportation bus service subject to the Safety Board shall give the Safety Board immediate notice and written notice of the following accidents:

A. All fatal accidents

B. Any accident that results in five or more injuries to persons involved in that accident; and

C. Any accidents caused by mechanical failure, including but not limited to all fires that occur in revenue service that require passenger evacuation and response by a fire department, regardless of whether or not injuries were incurred.

4.4.16.13 The Contractor shall notify NYSDOT immediately of any accident involving personnel or damage to material and equipment. Accidents are defined per 49 CFR Part 655.4. The Contractor must report to NYSDOT, on a monthly basis, any Major Safety and Security Incidents, as well as any Non-Major Safety and Security Incidents, per the reporting thresholds outlined in the National Transit Database (NTD) Safety and Security Reporting Manual. NYSDOT must be notified as quickly as possible of any accident that meets the above criteria, or when any media respond or are anticipated to respond to any accident scene.

4.4.16.14 For investigation of accidents and injuries, Contractor shall:

A. Interview supervisors and employees relative to accident/injury

B. Assist employee in filing proper reports in a timely manner.

C. Process claims to appropriate local/state agencies.

D. Submit appropriate monthly, quarterly, and annual reports.

E. Work as liaison with police departments.

F. Report all major accidents to designated NYSDOT staff.

G. Report any incidence of the failure of a safety inspection of any of the fleet vehicles dedicated to this contract.
Deliverables:

- Immediate and written accident/incident notifications to the NYSDOT Safety Board
- Monthly, quarterly, and annual safety and accident reports

4.4.16.15 Emergency Response Requirement

4.4.16.16 NYSDOT requires Contractors to play an active role in disaster recovery, making their assets and equipment available in the case of an emergency. For the purposes of this contract, the Contractor must respond to requests from NYSDOT for assistance in an emergency, providing access to all relevant assets and equipment.

Deliverable: Provide assets and equipment at the direction of the State in the case of an emergency

4.4.16.17 Substance Abuse Prevention Policy

4.4.16.18 The Contractor shall establish and implement a drug and alcohol testing program for safety-sensitive staff that complies with 49 CFR Parts 40 and 655, produce any documentation necessary to establish its compliance with Part 40 and Part 655, and permit any authorized representative of the United States Department of Transportation or NYSDOT, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under Part 40 and Part 655 and review the testing process.

Deliverable: Alcohol and drug testing program

4.5 Deliverables

All task-specific deliverables are defined above. All records/reports must be delivered in a format acceptable to NYSDOT (to be determined during negotiations with the selected Contractor). Documents must be available when requested by NYSDOT or automatically shared with NYSDOT in electronic format via e-mail, managed file transfer (for larger sized documents) or some other agreed-upon method. Should NYSDOT want to review records pertaining to this contract at the selected Contractor’s offices, NYSDOT shall be given access to those files, including space to access files, upon reasonable notice from NYSDOT to the Contractor.

The Contractor must maintain all records at a location accessible by NYSDOT staff and in an electronic format acceptable to NYSDOT. Per the contract, all records produced under this contract are property of NYSDOT. Should the work between NYSDOT and the selected Contractor be terminated, all records shall be turned over to NYSDOT or its designated recipient via an agreed-upon method.
5 Proposal Format and Contents

For the purposes of evaluation, each proposal must be submitted in two parts, bound separately. Part I shall consist of the Technical and Management proposal submittal. Part II is the Cost Proposal and Administrative section submittal. Each part of the proposal must be complete in itself in order that the evaluation of both parts can be accomplished independently and concurrently, and the Technical and Management submittal can be evaluated strictly on the basis of its merits. Cost information is not to be included in the Part I submittal. Your proposal should follow the format listed below.

Web links, photographs, and illustrations (except for the organizational chart) are not to be included unless specifically required in this section. If web links are included, specific pathways must be provided to direct NYSDOT to the specific location(s) on the website where applicable referenced information is available.

NOTE: NYSDOT will protect confidential and proprietary information from disclosure to the extent permitted by the Freedom of Information Law (“FOIL”), Article 6 of the Public Officers Law. If a proposer believes information included in their proposal is confidential and proprietary, they should identify those page(s) of their proposal which contain such information as “confidential and proprietary”. Additionally, proposers need to explain the reason(s) why this information should be considered exempt from public disclosure under FOIL. This information is to be provided in the Cover Letter.

NOTE: Cost information is not to be included in the Part I submittal, and Technical and Management information is not to be included in Part II submittal.

5.1 Part I: Technical and Management Submittal

Table 5.1: Part I - Technical and Management Submittal Checklist

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ten (10) Printed hard copies (3-ring binder, tabbed and labeled) of</td>
<td>Ten (10) Printed hard copies (3-ring binder, tabbed and labeled) of Part I plus one copy of Part I on CD/DVD in MS Office 2007 compatible format.</td>
</tr>
<tr>
<td>Part I</td>
<td>Securely sealed and clearly labeled with the Contractor’s name, address, and telephone number and the words “Operation of the Intercounty Bus Rapid Transit Service for NYSDOT RFP Part I — Technical and Management Proposal (C0301487)”</td>
</tr>
<tr>
<td>Signed Cover Letter on official business letterhead</td>
<td>Signed Cover Letter on official business letterhead</td>
</tr>
<tr>
<td>Table of Contents identifying each major section and page numbers</td>
<td>Table of Contents identifying each major section and page numbers</td>
</tr>
<tr>
<td>Narrative Description</td>
<td>Narrative Description</td>
</tr>
<tr>
<td>Project Planning</td>
<td>Project Planning</td>
</tr>
<tr>
<td>Schedule</td>
<td>Schedule</td>
</tr>
</tbody>
</table>
Part I shall include the following sections:

5.1.1 Cover Letter and Title Page indicating:
The cover letter and title page shall indicate the name, address and phone number of the proposer, as well as the name, title, address, email, and telephone number of person(s) with authority to negotiate and who may be contacted during the procurement process.

Provide a brief description of the proposed approach, work effort and resulting product. Confidential and proprietary information should also be identified and addressed in this section. Not to exceed a single page.

5.1.2 Table of Contents

5.1.3 Narrative Description
Provide a discussion on the important issues involved in the implementation of this effort. Include enough substantive discussion to demonstrate an understanding of NYSDOT project objectives and familiarity with applicable laws, rules, etc.

5.1.4 Project Planning
The Proposer shall describe its Initial Project Management Plan, addressing the following areas:

A. Implementation Plan
B. Quality Control/Quality Assurance Plan
C. Risk Management Plan
D. Change Management Plan
E. System Acceptance Test Plan
F. Issue Management and Escalation Plan
G. Communication Plan
H. Marketing Plan

5.1.5 Schedule

The Proposer shall submit a Gantt Chart, showing all major activities. The Gantt Chart shall be presented in hard copy printed on an 11” by 17” sheet with all as-printed font sizes at least 8 point. The major activities shall include the Project Completion Date and the following Major Interim Milestones:

A. Delivery of Final version of the Project Management Plan
B. Fleet vehicles ordered
C. Fleet vehicles delivered
D. Maintenance/Storage facility completed
E. Transit ICM systems integration
F. NYSDOT acceptance of vehicles
G. Vehicle testing completed
H. Transit system operational

In developing the schedule, proposers should assume contract award and a Notice to Proceed Date (currently estimated at January 2, 2017), and Operational Date no later than October 29, 2018.

In addition to the Gantt Chart, the Proposer shall complete Form SCD (Attachment 24: Liquidated Damages & Incentive Payments), detailing the proposed Project Completion Date and the Major Interim Milestones. Failure of the Contractor to meet the Project Completion Date or the Major Interim Milestones shall result in the liquidated damages stated on Form SCD being assessed against the Contractor. Liquidated Damages shall be an offset against future invoices.

5.1.6 Project Tasks

The Contractor shall describe in detail how they will meet the project scope and objectives as laid out in this RFP document. The Contractor shall describe their approach for completing the full list of project tasks and deliverables outlined under Section 4.4: Tasks, and how it will fulfill its roles and responsibilities under both this section and Section 4.3: Contractor Responsibilities. The Contractor shall provide detailed transit service plans and show how they plan to creatively and innovatively deliver the transit ICM technology solutions in order to meet both the technical specifications and the objectives laid out in the RFP.
In addition, the Contractor shall develop and deliver the following plans:

5.1.6.1 Vehicle Maintenance Plan
The Contractor will submit an initial Vehicle Maintenance Plan describing in detail how it will meet the requirements stated in Attachment 17: Fleet Maintenance & Service Requirements.

5.1.6.2 Safety Plan
Provide a description of the Contractor’s comprehensive safety program, meeting all the requirements in Section 4.4.16.1, including accident prevention; road, equipment and facility monitoring; emergency preparation; accident response, investigation, and reporting procedures; use of Drivecam-type technologies/equipment, on-board video surveillance equipment, ensuring current call-back rosters, biohazard procedures, and toxic spill procedures.

Provide a description of Contractor’s plans, and past experiences with, planning with municipal emergency responders for enhanced behind-the-wheel training for real-life safety/threat assessment exercises.

Indicate how the Contractor will comply with all requirements relating to the Federal Drug and Alcohol Testing Program and Americans with Disabilities Act and ensure and document monitoring of contracted services for the performance of drug testing to meet FTA Triennial Review Guidelines. Contractor must include documentation that demonstrates a complete understanding of the Drug and Alcohol Testing Management Information System reporting requirements.

5.1.6.3 Customer Service Plan
Describe how the customer service program will meet the requirements of Section 4.4.13 and Attachment 18: Customer Satisfaction, including responding to customer inquiries and concerns, tracking and reporting concerns, and developing corrective actions based on feedback, and more importantly the date this program was initiated by the Proposer in other client locations and in how many projects that you are currently using it. In addition, describe the frequency of customer service training and how it is incorporated into all management and operations on a daily basis as well as monthly driver meetings. Describe how often refresher training is provided to all staff who interact with customers. This plan should align with the NYSDOT’s mission and values, as well as the transit system’s values, goals & objectives. Delineate how the customer service program will be monitored to ensure the delivery of a high quality service, including a call monitoring system that will record calls with customers and schedulers.

5.1.6.4 Procurement Plan
The firm shall identify its approach to procuring the bus fleet, support vehicles, maintenance and storage facility, and support services for the Project. This will include contractor procurements.
could include station maintenance, safety and security, all in accordance with State policies and procedures.

5.1.6.5 Operating Performance Plan

The proposer shall identify its approach to meeting the transit operating performance standards detailed in Attachment 16: Operating Performance Standards. This will include strategies for maintaining on-time performance, avoiding cancelled/missed trips, and meeting performance goals for safety and bus component availability. Describe how the operation of the system will mitigate the risks of not meeting performance objectives and how the proposer’s industry experience contributes to this mitigation.

5.1.6.6 Training Plan

The Proposer shall describe its approach for addressing the Training responsibilities identified in Attachment 14: Bus Operations Requirements, including the following:

- Driver Safety
- ADA
- Ancillary Training

5.1.6.7 Fare Collection and Administration Plan

The Proposer shall describe in its plan for meeting the requirements stated in section 4.4.12, including the following:

a. What categories (seniors, disabled, students, etc.) of discounts the Proposer will offer, and what the discount level will be;

b. What type of mobile ticketing technology will the Proposer implement and when, and how will the Proposer market and incentivize its use;

c. How the Proposer will validate passenger tickets (e.g., through driver validation or proof of payment inspection); and

d. How the Proposer plans to implement the NFPS that will replace the current MetroCard system.

5.1.7 Experience of the Firm

The qualifications and prior experience of the proposer are of great importance to NYSDOT. Direct, prior experience in transit systems similar in size, scope, and complexity as described in Section 4 and Attachment 21: Transit Service Plan of this RFP is highly desirable. Provide a list of projects currently in progress and those completed within the last three years which are relevant to this effort. Indicate proposed key personnel who are, or have worked, on such projects. Include names, addresses and phone numbers of contact
points with the listed clients. NYSDOT reserves the right to request information from any source so named.

The list should include: the start date and most recent renewal date of each contract, and the expiration dates; the name, address and telephone number of a local official qualified to serve as a reference; statistical indicators including number of buses, annual ridership, number of employees by type; and a narrative description of type of management contract, and range of authority and responsibility of the management person or team you employ in the contract.

Note: If the proposal is being presented by a proposer and one or more subcontractors, at least two of the references must be for work completed by the Proposer.

5.1.8 Organization and Staffing

The Proposer shall submit an Initial Staffing Plan for the project. The Plan shall include the following:

- An organizational chart (on 11”x17” sheet of paper) for the project showing the names of the Contractor’s Project Manager and all Key Personnel. The chart should show reporting relationships and lines of communication.

- Contractor Key Personnel Resume and Reference form in Attachment 2: Key Personnel Resumes & References that includes, at a minimum, the following Key Personnel roles and any other roles that it considers instrumental to the project.

- A narrative (not to exceed 2 pages maximum) describing the measures the Proposer will use to retain the Key Personnel as well as bus drivers, how the Proposer will maintain full staffing in face of vacations, retirements, and unplanned events such as illness or staff terminations, and what methods the Proposer will use to hire and screen potential new staff.

Key Personnel

5.1.8.1 General Manager

Responsible for the execution and coordination of all aspects of the Contractor’s project plan and performs project management activities. The principal function of the General Manager shall be to supervise and provide expertise in all transit operations. The General Manager will work cooperatively with NYSDOT in assuring service quality. This individual will be an experienced bus transit executive, with demonstrated experience in experience in implementation and management of a transit system similar in size to the intercounty BRT as described in this RFP. Serves as the primary point of contact for NYSDOT, and has authority to act on behalf of the Contractor.
Minimum Qualifications: The General Manager will preferably have a minimum of three or more years of recent (within the past five years) direct successful experience as a manager supervising and running a fixed-cost transit property/operation of similar size and scope.

5.1.8.2 Operations Manager

This individual will be an experienced bus operations manager, with demonstrated experience in bus operations management in a system with a staff size, service plan, and fare collection systems similar to the intercounty BRT as described in this RFP.

Minimum Qualifications: The Operations Manager will preferably have a minimum of three or more years of recent (within the past five years) direct successful experience in an Assistant General/Operations Manager capacity managing a transit property/operation of similar size and scope.

5.1.8.3 Marketing Manager

This individual will be responsible for executing the Marketing Plan for this Project. The person will have demonstrated experience in developing and executing marketing plans for public transit projects similar in size, scope, and complexity as this Project.

5.1.8.4 Maintenance Manager

This individual will be an experienced bus fleet manager, with demonstrated experience operating fleets and facilities similar in size, scope, and complexity of this Project.

Minimum Qualifications: The Maintenance Manager will preferably have a minimum of three or more years of recent (within the past five years) direct successful experience in a Maintenance/Assistant General Manager capacity managing a fixed-route transit property/operation of similar size and scope.

5.1.8.5 Safety Manager

This individual will be responsible for ensuring that the intercounty BRT service meets all required regulations and that all safety risks are managed in a comprehensive manner.

5.1.8.6 Training Manager

This individual will be responsible for executing the Training Plan and all required activities, as well as specifically training staff for HVTMC operations.
ICM Coordination Manager

This individual will be responsible for linking the intercounty BRT transit system to the ICM system in the I-287 corridor, insuring in-vehicle technology is compatible with the rest of the ICM system, establishing communication between the transit operator and the HVTMC, and managing staff members located in the HVTMC. This person will have demonstrated proficiency in managing transit technology, preferably with similar capabilities to this project.

HVTMC Transit Service Coordinator Manager

The bus contractor will provide appropriate staff in the HVTMC to allow for communication between the roadway operators and the transit operator, as described in Section 4.4.11. These coordinators will be embedded at the HVTMC to provide instantaneous information about roadway conditions to the bus drivers, as well as to receive field reports. They will also be a conduit of information to and from the other transit operators (Metro-North and Bee-Line) in case of disruptions on any of those respective systems that may have an impact that ripples across the transit network as a whole, and a liaison between law enforcement and the bus operator in the event of any security-related incident. This position will also be the liaison for sharing CCTV operated by the bus operator with NYSDOT and/or law enforcement upon request. It is likely that this role will be filled by more than one individual in order to cover the full span of service of the intercounty BRT service.

The Contractor shall provide an HVTMC Transit Service Coordinator Manager to oversee the activities of the HVTMC Transit Coordinators. The person will have demonstrated experience in managing control room operatives and in real-time management of a transit system. This individual will share responsibilities with the Training Manager in ensuring the HVTMC Transit Service Coordinators are satisfactorily trained for their roles.

The Key Personnel proposed by the designated Contractor are an important factor in the evaluation of its proposal. Thus, the Department expects that the personnel proposed will be available at the start of the contract term. As a result, any personnel proposed by the designated Contractor that does not perform the required work under the contract for the initial 30 calendar days after the effective date of the Notice to Proceed will, at NYSDOT’s discretion, result in a $1,000.00 charge per personnel title as Liquidated Damages.

In addition, if at any time during the term of the contract a member of the Contractor’s Key Personnel needs to be replaced, the Contractor shall have 45 calendar days to submit a qualified Candidate (same level of experience and expertise) to NYSDOT for approval. In the event the Contractor is unable to provide a qualified Candidate within 45 calendar days, and NYSDOT must use in-house
NYSDOT staffing, or NYSDOT must hire a separate Contractor to provide the personnel, NYSDOT will, at its discretion:

A. Charge and bill the Contractor liquidated damages of $100.00 per day

B. Charge and bill the Contractor $100.00/hour for the use of in-house NYSDOT personnel, or

C. Charge and bill the Contractor a 10% administrative fee on top of and in addition to whatever NYSDOT is billed by an out-of-house Contractor. If, for example, NYSDOT must hire a separate Contractor to provide a service at $100.00/hour, NYSDOT will charge and bill the Contractor $110.00.

5.1.8.11 The determination that a Candidate is “qualified” is the sole decision of NYSDOT. All amounts specified above will be billed as an off-set against future Contractor invoices.

5.1.8.12 If subcontractors are to be used, explain the specific need for their expertise and describe the arrangements using a maximum of 10 pages. Discuss the use of M/WBE/SDVOB subcontractors and how they will be used to meet the stated M/WBE/SDVOB goals. Discuss recruiting, training, assigning and substituting Contractor staff to assure the project will be delivered on-time, and ongoing operations will be delivered as specified. Include in this discussion how staff will be recruited, trained, what provisions will be made for coverage during vacations, illnesses and absences, and how personnel turnover will be minimized.

5.1.9 Initial Transition Plan
The Proposer shall describe its approach for addressing the Contract Transition responsibilities identified in RFP Section 4.4.15.

5.1.10 Diversity Practices Questionnaire

5.2 NYSDOT has determined, pursuant to New York State Executive Law Article 15-A, that the assessment of the diversity practices of respondents to this procurement is practical, feasible, and appropriate. Accordingly, respondents to this procurement are required to include as part of their response to this procurement in Attachment 3: Diversity Practices Questionnaire. Instructions and References.
- Complete Error! Reference source not found. for each Key Personnel title identified in the RFP.
- Error! Reference source not found. shall not exceed three pages in length
- Proposers may expand the boxes as necessary
- The term “Client” below refers to the past project owner. “Client” is NOT a Prime Contractor where the proposing firm acted in the capacity as a Subcontractor.

<p>| 1. Personnel Name and Title: |  |
| 2. Title Assigned for this Project: |  |
| 3. Firm working for on this Project: |  |
| 4. Current Employment Status: | [ ] Employed by Firm identified #3 above [ ] Employed by a different Firm [ ] Unemployed |
| 5. Years of Relevant Experience |  |
| 6. Description of Relevant Experience: |  |
| 7. Certifications/Licenses: |  |
| 8. Education: |  |
| Past Project Experience | Complete below for a maximum of five past projects |
| 9.1 Project Description (include contract number where appropriate): |  |
| 9.2 Client Name: |  |
| 9.3 Client Contact Information (including contact name, phone number, and e-mail address): |  |
| 9.4 Description of person’s role and responsibilities during project: |  |
| 10.1 Project Description (include contract number where appropriate): |  |
| 10.2 Client Name: |  |
| 10.3 Client Contact Information (including contact name, phone number, and e-mail address): |  |
| 10.4 Description of person’s role and responsibilities during project: |  |
| 11.1 Project Description (include contract number where appropriate): |  |
| 11.2 Client Name: |  |
| 11.3 Client Contact Information (including contact name, phone number, and e-mail address): |  |</p>
<table>
<thead>
<tr>
<th>11.4 Description of person’s role and responsibilities during project:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1 Project Description (include contract number where appropriate):</td>
</tr>
<tr>
<td>12.2 Client Name:</td>
</tr>
<tr>
<td>12.3 Client Contact Information (including contact name, phone number, and e-mail address):</td>
</tr>
<tr>
<td>12.4 Description of person’s role and responsibilities during project:</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>13.1 Project Description (include contract number where appropriate):</td>
</tr>
<tr>
<td>13.2 Client Name:</td>
</tr>
<tr>
<td>13.3 Client Contact Information (including contact name, phone number, and e-mail address):</td>
</tr>
<tr>
<td>13.4 Description of person’s role and responsibilities during project:</td>
</tr>
</tbody>
</table>
Attachment 3: Diversity Practices Questionnaire

All firms shall submit a completed questionnaire, and will be scored on this information as per Section 6.1.3 of this RFP.

5.3 Firms shall separately submit a additional information required by Attachment 3: Diversity Practices Questionnaire Attachment 2: Key Personnel Resumes and References

Instructions:
- Complete Error! Reference source not found. for each Key Personnel title identified in the RFP.
- Error! Reference source not found. shall not exceed three pages in length
- Proposers may expand the boxes as necessary
- The term “Client” below refers to the past project owner. “Client” is NOT a Prime Contractor where the proposing firm acted in the capacity as a Subcontractor.

<table>
<thead>
<tr>
<th>Personnel Name and Title:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Title Assigned for this Project:</td>
</tr>
<tr>
<td>3. Firm working for on this Project:</td>
</tr>
<tr>
<td>4. Current Employment Status: [ ] Employed by Firm identified #3 above [ ] Employed by a different Firm [ ] Unemployed</td>
</tr>
<tr>
<td>5. Years of Relevant Experience</td>
</tr>
<tr>
<td>6. Description of Relevant Experience:</td>
</tr>
<tr>
<td>7. Certifications/Licenses:</td>
</tr>
<tr>
<td>8. Education:</td>
</tr>
</tbody>
</table>

Past Project Experience

Complete below for a maximum of five past projects

9.1 Project Description (include contract number where appropriate): |
9.2 Client Name: |
9.3 Client Contact Information (including contact name, phone number, and e-mail address): |
9.4 Description of person’s role and responsibilities during project: |

10.1 Project Description (include contract number where appropriate): |
10.2 Client Name: |
10.3 Client Contact Information (including contact name, phone number, and e-mail address): |
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.4</td>
<td>Description of person’s role and responsibilities during project:</td>
</tr>
<tr>
<td>11.1</td>
<td>Project Description (include contract number where appropriate):</td>
</tr>
<tr>
<td>11.2</td>
<td>Client Name:</td>
</tr>
<tr>
<td>11.3</td>
<td>Client Contact Information (including contact name, phone number, and e-mail address):</td>
</tr>
<tr>
<td>11.4</td>
<td>Description of person’s role and responsibilities during project:</td>
</tr>
<tr>
<td>12.1</td>
<td>Project Description (include contract number where appropriate):</td>
</tr>
<tr>
<td>12.2</td>
<td>Client Name:</td>
</tr>
<tr>
<td>12.3</td>
<td>Client Contact Information (including contact name, phone number, and e-mail address):</td>
</tr>
<tr>
<td>12.4</td>
<td>Description of person’s role and responsibilities during project:</td>
</tr>
<tr>
<td>13.1</td>
<td>Project Description (include contract number where appropriate):</td>
</tr>
<tr>
<td>13.2</td>
<td>Client Name:</td>
</tr>
<tr>
<td>13.3</td>
<td>Client Contact Information (including contact name, phone number, and e-mail address):</td>
</tr>
<tr>
<td>13.4</td>
<td>Description of person’s role and responsibilities during project:</td>
</tr>
</tbody>
</table>
Attachment 3: Diversity Practices Questionnaire, where indicated by the Questionnaire (Questions 1, 4, 5, 6, and 7).

5.1.115.3.1 Liquidated Damages & Incentive Payments

Complete and submit Attachment 24: Liquidated Damages & Incentive Payments (Schedule of Contract Durations Column)

5.25.4 Part II: Cost and Administrative Submittal

Table 5.2 Part II Cost Proposal and Administrative Submittal Checklist

<table>
<thead>
<tr>
<th>Required Cost information (complete and submit Attachment 13: Cost Proposal Excel Workbook Attachment 13: Cost Proposal Instructions)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Administrative Submittal:</th>
</tr>
</thead>
</table>

| Certification of completed online Vendor Responsibility Questionnaire |

<table>
<thead>
<tr>
<th>Complete and submit Attachment 4: Contractor Information and Certification (sign both Sections II and III)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete and submit the Attachment 5: Procurement Lobbying Law Compliance Attachment 5: Procurement Lobbying Law Compliance</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete and submit Attachment 7: M/WBE Participation Information</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete and submit (if applicable) Attachment 7a: M/WBE Subcontractor Participation Solicitation Log AND Goal Attainment Explanation Letter</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete and submit Attachment 8: SDVOB Participation Information</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete and submit (if applicable) Attachment 8a: SDVOB Subcontractor Participation Solicitation Log Error! Reference source not found. AND Goal Attainment Explanation Letter</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete and submit Attachment 10: New York Business Reporting</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete and submit Attachment 11: Form AOR Attachment 11: Form AOR Acknowledgement of Receipt</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Complete and submit Attachment 12: Non-Collusive Bidding Certification Attachment 12: Non-Collusive Bidding Certification</th>
</tr>
</thead>
</table>

Part II of the proposal consists of two general sections:
• A Cost Proposal, which shall set forth your proposed billing rates per RFP Attachment 13; and

• The Administration Section, which shall specify the proposer’s acceptance of the terms and conditions contained in the draft Contract enclosed as Attachment 1: Draft Contract to this solicitation, as well as host several other administrative items.

The above general sections shall include the following.

5.2.15.4.1 Cost Proposal

5.2.1.15.4.1.1 Payment for services provided under the project shall be a combination of:

1. One loaded fixed annual per revenue mile billing rate (Estimated Monthly Revenue Miles = 132,251), which will NOT include payment for additional ITS equipment and will NOT include payment for facility or equipment expenses.
2. Initial ITS equipment shall be installed and set up using a time and materials payment method, to be billed on a schedule agreeable to both parties. Fixed rates for all applicable personnel for additional future ITS work shall be proposed.
3. Payment for all facilities and equipment shall be on a fixed per monthly basis over the 20 year contract term.

"Per revenue mile" shall not include the cost of fuel. The cost of fuel used for all LHTL BRT operations is to be billed to NYSDOT via C031487’s monthly invoicing routine. The price changes in the cost of fuel is to be adjusted on a monthly reimbursement basis via NYSDOT’s standard fuel adjustment bulletins, which are published each month via: https://www.dot.ny.gov/main/business-center/contractors/construction-division/fuel-asphalt-steel-price-adjustments. The cost of fuel shall be estimated and added to the contract when setting up C031487 for contract execution.

The selected Contractor has the sole responsibility to request, in letter form, an adjusted rate and must provide a copy of the applicable index (CPI, PPI, etc) and other supporting documentation necessary to support the increase or decrease with the request. This request and documentation must be received at the NYSDOT Project Manager’s address within three months of the March base month of each year. To ensure timely delivery, certified mail is recommended. As long as the request is submitted and received within the required timeframe, the adjustment will be processed using the prior calendar year. Once approved, the contractor will be notified in writing.

The State reserves the right to negotiate a lower rate adjustment than stated above for any additional billing rate extensions or adjustments.

5.2.1.25.4.1.2 NYSDOT requires that all cost information be presented using the RFP-provided Microsoft Excel spreadsheets (see Attachment 13: Cost Proposal Excel Workbook
Attachment 13: Cost Proposal Instructions) in both a hardcopy Part II response and an electronic copy on CD, securely presented in the Part II response. The accuracy of calculations and formulas in the spreadsheet are the sole responsibility of the proposer.

5.2.1.3 When completing the Excel cost worksheets included in Attachment 13: Cost Proposal Excel Workbook Attachment 13: Cost Proposal Instructions, proposers shall follow these instructions:

- The one-time and recurring costs the proposer provides within the Cost Proposal must include ANY AND ALL one-time and recurring fees, charges, or costs for the duration of the contract, including but not limited to:
  - All direct and indirect costs, all overhead, fees, profit,
  - Labor, parts, shipping, material and equipment cost;
  - Software licensing;
  - Emergency work;
  - Maintenance services as specified herein;
  - Repairs and replacement of major or minor parts as necessary;
  - Administrative, reporting or other requirements;
  - All fees associated with providing the communication systems including WiFi bandwidth and Internet Service Provider (ISP) fees;
  - Travel costs, parking fees, and any other ancillary fees including permits; licenses, insurance, etc., and
  - Services not explicitly stated in these specifications, but necessarily attendant thereto as applicable to the associated item for which the rate/fee is being quoted.

5.2.1.5 Terminology used in the cost spreadsheets for products and services must be consistent with the terminology used in the technical portion of the response.

5.2.1.6 All worksheets included in Attachment 13: Cost Proposal Excel Workbook Attachment 13: Cost Proposal Instructions must be completed in order for the response to be considered complete.

5.2.1.7 Proposer should not make entries in colored cells in Attachment 13: Cost Proposal Excel Workbook Attachment 13: Cost Proposal Instructions. Changes should not be
made to the spreadsheet format or formulas. Proposers shall not attach any additional or qualifying information.

5.2.1.7 Cost Proposal Instructions

5.2.1.8 Use Attachment 13: Cost Proposal Excel Workbook Attachment 13: Cost Proposal Instructions to complete the Cost Proposal response form. This attachment contains instructions to guide completion of this form. Should any questions arise pertaining to this form and its instructions, please submit them to the designated NYSDOT contact person before the Question & Answer deadline.

5.2.25.4.2 Administration Section

All signatures on each copy must be an original.

5.2.2.1 Acceptance of Terms and Conditions

Proposers shall complete and submit the “Contractor Information and Certifications Form,” included as Attachment 4: Contractor Information and Certifications Attachment 4: Contractor Information and Certifications, to indicate their acceptance of all of the terms and conditions contained in the draft Contract (Attachment 1). Altering this form without the prior expressed written approval of the New York State Department of Transportation is prohibited and may lead to the proposal being deemed non-responsive and subsequently dismissed. No exceptions to any of the draft contract’s terms and conditions will be entertained by NYSDOT. Conditional bids will be deemed non-responsive.

5.2.2.2 M/WBE/SDVOB Participation

In Part II of your firm’s proposal, provide the following:

Complete Attachment 7: W/WBE Participation Information and Attachment 8: SDVOB Participation Information. Provide the legal names of all certified M/WBE/SDVOB Contractors (prime and/or subcontractor). The Proposer shall also include completed Attachment 10 New York Business Reporting Attachment 10: New York Business Reporting.

For firms whose M/WBE/SDVON participation is less than the established goal stated in Section 2 (or where the prime Contractors certified as a M/WBE/SDVOB proposes to meet the Department’s M/WBE/SDVOB participation goal via their meaningful participation), the firm must also complete and submit Attachment 7a: M/WBE Subcontractor Participation Solicitation Log and Attachment 8a: SDVOB Subcontractor Participation Solicitation Log. Submission of a Goal Attainment Explanation Letter shall be required for proposals with either partial goal attainment or no goal attainment at all.
5.2.2.3 Modification Acknowledgement Forms

The Proposer shall include a completed Attachment 11: Form AOR Attachment_11: Form AOR, acknowledging receipt of any Modifications issued by the Department.

5.2.2.4 Non-Collusion Bidding Certification

All Proposers shall submit a completed Attachment 12: Non-Collusive Bidding Certification Attachment_12: Non-Collusive Bidding Certification.

5.2.2.5 Procurement Lobbying Law

All proposers should become familiar with NYSDOT’s Procurement Lobbying Law (PLL) Interim Guidelines and Procedures. The document is located at:

Filing the two required forms is mandatory for all Contractors in order to be considered for contract award. These Forms are:

- Proposer’s Affirmation of Understanding of and Agreement pursuant to State Finance Law §139-j (3) and §139-j (6) (b)

- Proposer Disclosure of Prior Non-Responsibility Determinations

Failure to submit the required PLL forms with your proposal will result in elimination from consideration for contract award.

Use Contract Number C031487 wherever requested in the forms. Please call or e-mail the individuals identified as the Designated Contacts in Section 1.4 of this RFP if you have any questions regarding how to complete this required form.

Per the Procurement/Lobbying Law of 2005, any person who wishes to contact NYSDOT regarding this project during the restricted period (i.e. from advertisement through designation), may only contact the persons noted in Section 1.4 to this solicitation.

For additional information, refer to Attachment 5: Procurement Lobbying Law Compliance.
5.2.2.65.4.2.6 Vendor Responsibility

In accordance with the NYS Finance Law, NYSDOT will only make contract award to vendors that are determined to be responsive and responsible. All selected proposers of contracts valued at $100,000 or more will be required to submit a Vendor Responsibility Questionnaire through the Office of the State Comptroller website via http://www.osc.state.ny.us/vendrep/index.htm before negotiation of a contract. Proposers must certify the accuracy of the information they provide in the questionnaire. In addition, any subcontractor providing services valued at $100,000 or more is required to submit Vendor Responsibility Questionnaire through the Office of the State Comptroller website.
6 Proposal Evaluation Process

6.1 Pre-Screening of Proposals

It is NYSDOT’s sole discretionary determination as to whether a proposal is complete. Proposals which do not meet the RFP’s Minimum Responsiveness requirements section may be deemed incomplete and non-responsive. Proposals deemed to be non-responsive shall be removed from further consideration.

Proposal Due Date. All proposals must be delivered to NYSDOT’s Contract Management Bureau’s office by the RFP’s extended proposal due date. Any proposals received after that time/date shall not be evaluated further but shall become NYSDOT property.

Proposal Opening, Log-in and Certification. Proposals received on or prior to the proposal due date and time will be opened, inventoried for completeness, certified, and logged-in (per the proposal submittal requirements listed in RFP Section 5). For proposals received before/on the due date, firms may receive clarification questions/requests based upon the response completeness checks, with any requested clarification information due back to NYSDOT by COB that same day.

Minimum Proposal Requirements. Per RFP Section 5, any proposal which does not include all of the following by the RFP deadline may be determined to be non-responsive. Any proposals deemed non-responsive shall be removed from further consideration (prior to the technical evaluation of proposals):

1. Complete Technical and Management proposal submission.
2. Complete Cost and Contract proposal submission.
3. A proposal which either meets/exceeds the combined 23% M/WBE contract goal for C031487 or offers acceptable Good Faith Effort documentation and Letter of Explanation.
4. A proposal which either meets/exceeds the combined 3% SDVOB contract goal for C031487 or offers acceptable Good Faith Effort documentation and Letter of Explanation.

M/WBE Goal Attainment/GFE Acceptance Review. The proposed M/WBE participation percentages offered for NYSUCP certified subconsultants will be reviewed (RFP Attachment 7. Each offered M/WBE must be currently listed in the NYSUCP Directory to count towards the Department’s combined 23% M/WBE participation goal. If the proposed combined M/WBE participation is less than the established 23 percent goal, the firm’s evidence of a Good Faith Effort (RFP Attachment 7a) to achieve the goal will be reviewed for reasonableness and acceptableness along with the firm’s letter of explanation as to why it was unable to meet the goal. If a proposer submits a proposal which meets or exceeds the 23% M/WBE goal, then the certification registration status of all offered M/WBE subconsultants will be verified by Contract Management, and if certified, the proposed M/WBE goal accepted.

NYSDOT may request clarifications regarding a firm’s offered M/WBE participation and/or good faith effort documentation. Offerors with non-certified M/WBEs will receive a
clarification request to submit a revised good faith effort log. Offerors with acceptable M/WBE subconsultant participation goal attainment plans will receive a recommendation to have their full proposals proceed further in the evaluation process.

If a proposer submits a proposal which does not meet the combined 23% M/WBE goal for C031487, then the submitted good faith log will be reviewed for acceptability and verification of the robustness of effort. Blank, missing, incomplete or otherwise unacceptable good faith efforts may be deemed non-responsive and have their proposal removed from further consideration. Such proposers may be contacted to request clarification of their submitted good faith effort log. Offered clarifications will be considered by NYSDOT. Offerors with acceptable good faith effort logs will have their full proposals proceed further in the proposal evaluation process.

**SDVOB Goal Attainment/GFE Acceptance Review.** The proposed SDVOB participation percentages offered for NYSUCP certified subconsultants will be reviewed (RFP Attachment 8). Each offered SDVOB must be currently listed in the NYS Office of General Services SDVOB list of certified firms to count towards the Department’s 3% SDVOB participation goal. If the proposed combined SDVOB participation is less than the established 3 percent goal, the firm’s evidence of a Good Faith Effort (RFP Attachment 8a) to achieve the goal will be reviewed for reasonableness and acceptability along with the firm’s letter of explanation as to why it was unable to meet the goal. If a proposer submits a proposal which meets or exceeds the 3% SDVOB goal, then the certification registration status of all offered SDVOB subconsultants will be verified by Contract Management, and if certified, the proposed SDVOB goal accepted.

NYSDOT may request clarifications regarding a firm’s offered SDVOB participation and/or good faith effort documentation. Offerors with non-certified SDVOBs will receive a clarification request to submit a revised good faith effort log. Offerors with acceptable SDVOB subconsultant participation goal attainment plans will receive a recommendation to have their full proposals proceed further in the evaluation process.

If a proposer submits a proposal which does not meet the 3% SDVOB goal for C031487, then the submitted good faith log will be reviewed for acceptability and verification of the robustness of effort. Blank, missing, incomplete or otherwise unacceptable good faith efforts may be deemed non-responsive and have their proposal removed from further consideration. Such proposers may be contacted to request clarification of their submitted good faith effort log. Offered clarifications will be considered by NYSDOT. Offerors with acceptable good faith effort logs will have their full proposals proceed further in the proposal evaluation process.

**6.2 Evaluation Category Weight Distribution**
Proposals will be evaluated using the NYSDOT’s Best Value method based upon a 100 total point scale. The Technical and Management portion will be point scored and will represent 70 points of the total Best Value score for the proposal. The cost portion of the Cost and Contract portion will be point scored and will represent 30 points of the total Best Value score for the proposal. Technical evaluation is further divided into 60 points for written technical proposal evaluation with 10 points for technical interview evaluation. Only shortlisted firms will be
interviewed. A more detailed breakdown of the RFP’s proposal evaluation category weights follows.

6.3 **Technical & Management Proposal Evaluation (Up to 70 Points)**

6.3.1 General:

Technical evaluation of proposals will be accomplished by the members of the Technical Evaluation Committee (TEC) comprised, as appropriate, of technical, program and management subject matter experts. An evaluator package shall be prepared and submitted to members of the TEC; this package shall contain evaluator instructions and evaluation instruments, and shall become part of the procurement record. The TEC shall be briefed on the proposal evaluation process prior to distribution of proposals.

Cost proposals shall be evaluated by NYSDOT Contract Management Bureau. Members of the Technical Evaluation Committee will evaluate and score each technical proposal individually (may ask initial clarification questions). Each evaluator shall measure the degree of responsiveness of each proposal’s responses to the specifications and requirements contained in the RFP against the RFP’s evaluation factors (RFP section 6), looking for quality, reasonableness and professionalism. Responses will be evaluated according to the respondent’s ability to best satisfy the RFP’s technical requirements. The quality of a firm’s approach shall be evaluated. Members of the TEC shall document their responsiveness findings (using the scoring instrument provided in Eval-Pak; separate document, which is part of the proposal evaluation process), and record a whole number numerical score (using the zero-to-ten scoring instrument with grade definitions). The TEC shall convene as a group to discuss the proposals, firm by firm, factor by factor. Evaluators will be allowed to revise scores on the basis of the committee discussions. Reasons for score changes will be documented on the TEC member’s scoresheet as well as electronically by Contract Management. Clarification questions may be formulated during group discussion, and forwarded to firms for responding (either for further TEC group discussion or for technical interviews). Clarification responses shall be forwarded to the TEC for additional consideration. Scoring of written proposals shall remain open until after conclusion of evaluating and scoring the Technical Interviews (for shortlisted firms only). Members of the TEC shall be given the opportunity to revise (re-score) their earlier scores/findings based upon the additional clarification information garnered from the Technical Interviews.

Throughout the technical proposal evaluation process, members of NYSDOT evaluation committee may post clarification questions from various perspectives. Vendors should anticipate this in their written technical proposals as well as via follow clarification questions (either in writing or during the technical interview).

As the TEC evaluates and scores each technical and management proposal, the resulting raw average written technical score by firm are kept by each TEC member (on their respective scoresheets) as well as by Contract Management on an electronic composite best value spreadsheet. Contract Management may initially list firms in alphabetic order and later on by initial and final best value rank order.
6.3.2 Technical and Management Written Proposal Evaluation  (up to 60 Points)

The technical evaluation criteria listed below, per the RFP, shall be used by the TEC. Each factor’s respective weight is identified in parenthesis. The major evaluation categories are divided into subcategories with no assigned subweights, as the one higher-level category weight covers all subcategories. These are detailed below:

1. Approach and Schedule (up to 29 points)
   A. The degree to which the proposal reflects understanding and comprehension of project scope and objectives, including contract transition and provision of high quality fleet over 20 years
   B. Completeness and reasonableness of project schedule
   C. Quality of the service plan to satisfy the transit service requirements and adherence to applicable state requirements
   D. Creativeness and innovation of the Contractor in delivering fare and schedule coordination with other regional transit systems
   E. Creativeness, innovation and demonstrated ability of the Contractor in procuring, delivering and maintaining transit ICM technology and fare payment solutions

2. Experience (up to 14 points)
   A. The quality, extent and relevance of experience, education and training of key personnel
   B. The quality, extent and relevance of current and prior experience of the firm, as measured by client references about satisfactory performance and integrity on previous contracts
   C. Experience of the proposer in procuring and integrating advanced technology
   D. Ability to recruit, train and retain applicable staff of a suitable caliber
   E. A history of complying with and meeting all safety requirements

3. Scope of Service (up to 14 points)
   A. Quality of Project Initiation and Planning management plans; Quality of Project Execution and Control, including HVTMC operations and integration and transit service operations
   B. Acceptableness of provision of vehicle fleet; degree of adherence to RFP specifications
   C. Reasonableness and completeness of operations and maintenance facility(ies) including fleet maintenance and storage
D. Acceptableness of transit shelter and stop maintenance
E. Quality and innovative management of advertising and marketing
F. Acceptableness of collection and administration of fare revenues
G. Quality of provision of a customer service center and applicable resources
H. Quality and reliability of data collection and reporting

4. Diversity Practice Questionnaire (up to 3 Points)

6.3.3 Reference Checks

Reference checks (to verify offered experience) may be required to complete the evaluation of technical proposals. In cases where TEC members are unfamiliar with a firm’s work or NYSDOT does not have prior consultant performance documentation, the TEC may request verification of a firm’s offered references. Subject references shall be contacted by Contract Management using its standard reference check questionnaire (with possible appropriate modifications based on the proposal). Reference check feedback will be forwarded to the TEC for their considerations during the initial group discussion phase. The TEC may meet to consider reference check information. Evaluators will be allowed to revise their technical scores based on consideration of this additional information and their follow-up discussions. Changes to scores and their reasons shall be recorded on written scoresheets as well in electronic form.

6.3.4 Written Technical Proposal Clarifications

NYSDOT reserves the right to seek written clarifications from firms submitting proposals in order to assure a full understanding of their responsiveness to the solicitation’s technical requirements. If written clarifications, based upon proposal review, are requested by the Technical Evaluation Committee, a firm which is the target of the clarifications may be asked to provide written clarifications at any time during the proposal evaluation process. Evaluators will be allowed to revise their technical scores based on receipt and consideration of this additional clarifying information and follow-up TEC discussions. Reasons for any score changes shall be documented.

6.4 Cost Proposal Evaluation (Up to 30 Points)

Cost proposals shall be reviewed, evaluated and scored for all proposals once they have cleared the RFP minimum responsiveness requirements checks (prescreening). Cost proposals shall be point scored with up to 30 best value points available, and shall be evaluated based on information submitted via RFP Attachment 13 (and any additional cost information provided by the proposer). Initial cost scores shall be developed and used to identify initial Best Value scores. Cost proposal clarification questions may be asked at this time.

Cost scores shall be calculated using the following method: The cost proposal with the lowest proposed total 20 year cost to the State Composite Per Revenue Mile Monthly Billing Rate (based on 132,251 total revenue miles) shall receive a perfected cost score of 30 points. Proposals with higher proposed total 20 year cost to the State total Composite Per Revenue Mile Monthly Billing Rate shall receive proportionately lower cost proposal scores.
The cost of fuel for operating the BRT buses under C031487 shall not be evaluated because NYSDOT has removed this aspect of LHTL BRT operations from the RFP’s best value process.

Cost scores (which are relative to the field of consultants competing for contract award) are subject to change depending upon whether or not cost proposal clarifications responses (or Best and Final Offer responses or proposal withdrawals or pass/fail dismissals) lead to proposed cost changes. Cost scoring results shall be used to determine which proposals are to be shortlisted/which firms are susceptible to contract award (a best value determination). A final cost score shall be calculated once all cost proposal evaluation has been completed.

6.5 Initial Best Value Determination

Perfected cost scoring results will be added to the initial average raw technical scores, generating an initial best value score by firm. Firms shall be ranked in initial best value score order (highest to lowest).

Should any firm withdraw their proposal during the proposal evaluation process, NYSDOT will remove that firm’s technical and cost information from the Best Value evaluation documentation and shall recalculate the remaining field’s technical and cost scores (without the withdrawn firm’s information).

6.6 Proposal Shortlisting

The shortlisting rule for this solicitation shall be any proposal within 10 points of the top initial Best Value ranked proposal, plus any ‘cluster’ of initial best value proposal scores just below the cut-off line. Cost evaluation results shall be considered along with the initial average raw after-group discussion written technical proposal score results to determine initial offered Best Value, which shall lead to an initial Best Value-determined shortlisting of firms (determined to be mathematically susceptible for contract award). Should more than one firm make the shortlist, NYSDOT shall publically announce the list of firms who made the shortlist.

Firms submitting proposals which do not make the shortlist shall not be included in the remaining best value evaluation process steps (not included in subsequent proposal scoring process). Such a firm’s proposal shall be classified as: ‘Did Not Finish’ in the procurement record.

6.7 Technical Interview Evaluation (10 points)

The Technical Interview portion (only available for firms mathematically subject to contract award; ie, shortlisted) of the Technical and Management proposal will be technically evaluated and point scored and will account for a separate block of up to 10 points of the total best value score for a proposal. Technical Interviews will be held for firms offering proposals which are deemed to have a mathematical chance of being susceptible to contract award and have made the short-list after completion of initial Best Value considerations.

Short-listed firms shall receive a Technical Interview invitation package, which shall include instructions, areas in which NYSDOT is seeking further clarifications, and may include additional clarification questions from the Technical Evaluation Committee (TEC). Firms invited to attend Technical Interviews shall present a brief overview of key personnel present, make brief opening presentation (limited to 10 minutes), and respond to TEC member questions.
Conduct in interviews by prospective vendors shall be at no cost to the State of New York.

TEC members will evaluate Technical Interviews using the RFP’s evaluation criteria and weights listed below. A separate score sheet shall be used to record TEC Technical Interview findings and scores. TEC members shall score the technical interview independently first, then meet as a group to discuss their findings and scores. Members of the TEC may revise their technical interview scores as a result of group discussions. Reasons for score changes shall be recorded on the applicable TEC member’s hardcopy scoresheet as well as in Contract Management’s electronic composite scoresheet. Once scoring of each Technical Interview has concluded, TEC members shall sign/date and surrender their scoresheets to Contract Management.

Technical Interview Evaluation  (up to 10 points; for shortlisted firms only).

A. Additional insights into technical aspects of the firm’s proposal

B. Ability to address any concerns of the committee and explain how potential risks will be mitigated

C. Ability of the presenting team to address and answer the committee’s clarifying questions; team chemistry

6.8 Final Written Technical Proposal Evaluation (Re-Scoring)

Scoring of written technical proposals shall remain open until after conclusion of evaluating and scoring the Technical Interviews. Members of the TEC shall be given the opportunity to revise (re-score) their earlier scores/findings based upon the additional clarification information gained from the Technical Interviews. TEC members shall revisit their original hardcopy scoresheets and should any after-Technical Interview changes be in order, may revise their after-group discussion written technical proposal scores as a result of further group discussions. Reasons for any and all score changes shall be recorded on the applicable TEC member’s hardcopy scoresheet as well as in Contract Management’s electronic composite scoresheet. Once the re-scoring of written technical proposals has concluded, TEC members shall sign/date and surrender their scoresheets to Contract Management.

6.9 Best and Final Offers (BAFO; Optional) & Proposal Withdrawal

NYSDOT reserves the right to request Best and Final Offers (BAFO) from firms which make the shortlist. NYSDOT may award contract #C031487 without requesting a BAFO. Any Best and Final Offer request may ask additional further clarifying technical and/or cost proposal questions of firms to further clarify their submitted proposals. NYSDOT also may request a cost only BAFO. Should NYSDOT opt to request BAFOs, all shortlisted firms will receive a BAFO request. Responding firms will be allowed to submit a Best and Final Offer (technical and/or cost); firms may opt to not submit a BAFO. Evaluators will be allowed to revise their technical scores for the written proposal based on their consideration of any new or changed Technical proposal information contained in any Best and Final Offer (will re-sign/re-date the applicable hardcopy scoresheets). If changes to a firm’s Technical Proposal lead to corresponding, necessary revisions to their Cost Proposal (or should a firm opt to clarify their cost proposal) or
should the Department opt to request cost-only BAFOs, the Department’s Contract Management representative shall make the necessary, appropriate adjustments to that firm’s cost proposal evaluation.

Should any firm withdraw their proposal after a possible BAFO request, NYSDOT will remove that firm’s technical and cost information from the Best Value evaluation documentation and shall recalculate the remaining field’s technical and cost scores (without the withdrawn firm’s information).

6.10 Final Best Value Evaluation

After evaluation of all technical information submitted by competing consultants (i.e. initial written proposals, written clarifications, and possible Best and Final Offers), NYSDOT will perfect (curve) the technical proposal scores so that the highest-rated raw written technical proposal score gets changed and assigned a perfect score of 60 points for this solicitation with the other technical scores adjusted proportionately upward. NYSDOT will also perfect (curve) the Technical Interview scores so that the highest-rated raw Technical Interview score gets changed and assigned a perfect score of 10 points for this solicitation with the other Technical Interview scores adjusted proportionately upward. Cost proposals have previously been evaluated and the resulting cost scores perfected by cost proposal scoring rule. Perfected cost scoring results will be added to the perfected written technical proposal score plus the perfected Technical Interview score to generate a tentative final best value score. Firms shall be ranked in Final Best Value score order (highest to lowest).

_Tie-Breaking Rule:_ Should any of the tentative final Best Value Scores of one or more proposals competing for the contract award lie within one and one-half points of each other, then State Finance Law Section 163(10)(a) shall be used to settle any ties.

Once all possible score ties have cleared, NYSDOT will determine the Final Best Value Score, where after the proposal with the highest Final Best Value score shall be recommended to NYSDOT Executive Management for contract award for contract #C031487.

6.11 Consultant Selection Recommendation & Tentative Contract Award

A consultant selection and designation memo shall be prepared and forwarded to the applicable NYSDOT Executive Manager(s) with an accompanying proposal evaluation process results report. The memo shall recommend selection of the top-ranked Best Value Consultant for tentative contract award of C031487 to NYSDOT Executive Management. The Executive Manager will be asked to concur with the final conclusion of the proposal evaluation process - a recommendation for the tentative contract awards for the Department - and designate the top-Best Value rated consultant based upon the above results.

Should negotiations with the top-ranked Best Value Consultant fail to produce agreed-upon contracts, then NYSDOT Executive Management will designate and award contract #C031487 to the next highest-ranked Best Value Consultant. The Department will then enter into negotiations with the second-highest rated Consultant. This process may repeat itself until acceptable contracts are consummated. The consultant designation becomes final after the NYS Office of the State Comptroller approves Contract #C031487.

The designation shall be publically posted. Once the public has been notified of the solicitation’s results, negotiations with the selected Consultant can commence. The final contract is subject to approval by NYSDOT, the Attorney General, and the Office of the State Comptroller, and is not binding until such approval is received.
At the conclusion of the proposal evaluation process, an announcement of NYSDOT’s designation(s) will be posted the ‘Consulting Services’ listing on NYSDOT’s website via: https://www.dot.ny.gov/business. All proposers will be notified in writing regarding the results from the solicitation. All non-designated firms will be offered an opportunity to request a debriefing. A debriefing is limited to a review of how your proposal fair against the RFP’s requirements.

It is expressly understood that this RFP does not commit NYSDOT to award a contract, to pay any costs incurred in the preparation of a proposal to this request, or to procure or contract services or supplies. Further, NYSDOT shall have no obligation or liability whatsoever to the vendor selected as a result of this solicitation, unless and until a contract satisfactory to NYSDOT is approved and executed by the vendor and all necessary State officials.
7 Administrative Specifications

7.1 Proposal Submission

The proposal shall be signed by an official authorized to bind the proposer.

Proposers shall submit 10 copies of Part I and four copies of Part II.

Your proposal must be received by NYSDOT by Noon on September 26. The proposal must be addressed to:

Patricia Kappeller  
NYS Department of Transportation  
50 Wolf Road, 6th floor  
Albany, New York 12232  
Attention: #C031487 and ‘Operation of the Intercounty Bus Rapid Transit Service for NYSDOT’

7.2 State’s Rights

All proposals, upon submission to NYSDOT, shall become its property for use as deemed appropriate. By submitting a proposal, the Contractor covenants not to make any claim for or have any right to damages because of any misinterpretation or misunderstanding of the specification, or because of any misinformation or lack of information. With regard to proposal submitted, NYSDOT asserts the following prerogatives with regard to proposals submitted:

A. To accept or reject any or all proposals;

B. To correct any arithmetic errors in any or all proposals;

C. To change the proposal’s due date upon appropriate notification to interested firms;

D. To eliminate any mandatory RFP requirement or specification unmet by all proposers in the evaluation of received proposals;

E. To adopt any or all of a successful proposer’s proposal;

F. To negotiate modifications to the scope, milestone payment schedule and total cost, and contract terms and conditions with the selected proposer prior to contract award only if it is in the best interest of the state to do so;

G. To disqualify an proposer from receiving the award if such proposer, or anyone in the proposer’s employ, has previously failed to perform satisfactorily in connection with public bidding or contracts;

H. To revise/amend any provision of this RFP by written notification to proposers, prior to proposal submission;
I. To eliminate any requirement that is found to be unmet by all proposers;

J. To make inquiries, by means it may choose, into the proposer’s background or statements made in the proposal to determine the truth and accuracy of all statements made therein;

K. To select and award the contract to the proposer whose proposal represents the best value to NYSDOT;

L. Should NYSDOT determine that the negotiations with the selected proposer will not result in a contract, to begin contract negotiations with the next-best-value proposer(s) responsive to this RFP — without again requesting proposals;

Any contract entered into pursuant to an award of this solicitation shall contain a provision which grants the option to extend the terms and conditions of such contract to any other New York state agency. However, any response to this solicitation shall be based solely on the purpose of this solicitation and shall not factor in the possibility that this contract may, in the future, be applicable to other state agencies. Please be advised that any award made pursuant to this solicitation shall be based on the specific requirements of this solicitation only.

7.3 Contractor Responsibility when Proposing Former NYSDOT Employees

It is the Contractor’s responsibility to ensure they propose staff that is eligible to work on the proposed project. It is an individual’s responsibility to comply with the Public Officer’s Law.

The following procedure applies if either of the following criteria is met:

A. It is two years or less between the date that the individual is proposed and the individual’s date of separation from the State.

B. The individual proposed has worked on the project while employed by NYSDOT regardless of how long ago they left NYSDOT.

Before the Contractor proposes an individual, the individual must obtain an opinion from the New York State Joint Commission on Public Ethics (http://www.jcope.ny.gov/) that approves their participation in the project as they are proposed.

A copy of this opinion must be on file in the Contractor’s office and available for review by NYSDOT if requested.

Failure to obtain New York State Joint Commission on Public Ethics approval for an individual’s participation in a project may jeopardize the firm’s designation for that project.

7.4 Method of Payment

Payment for services provided under the agreement resulting from this RFP will be fixed per RFP Attachment 24 unless changed by an executed supplemental agreement. The Contractor will
designate a Billing Representative who will be responsible for resolving any invoicing issues during the term of the Contract.

Payment for services provided under the project shall be a combination of:

4. One loaded annual per revenue mile billing rate (Estimated Monthly Revenue Miles = 132,251), which will NOT include payment for additional ITS equipment and will NOT include payment for facility or equipment expenses.

5. Initial ITS equipment shall be installed and set up using a time and materials payment method, to be billed on a schedule agreeable to both parties. Fixed rates for all applicable personnel for additional future ITS work shall be proposed.

6. Payment for all facilities and equipment shall be on a fixed per monthly basis over the 20 year contract term.

Requests for progress and final payments shall be made by the designated Contractor on standard payment request forms (FIN 421). Use proper procedure for billing each deliverable (NYS DOT reserves the right to request audit trail documentation for each monthly billing): Submit a draft billing to NYSDOT’s assigned Project Manager via the following sample electronic billing: https://www.dot.ny.gov/main/business-center/consultants/forms-publications-and-instructions. The sample spreadsheet contains all of the proper, required billing forms, as well as a sample billing. The Project Manager will respond via e-mail either with comments/corrections or with an approval to submit the final billing via signed hardcopy. The last and final payment will become due and payable within thirty (30) days after delivery of the final deliverable(s) and a standard NYS FIN 421 payment request forms.

7.5 Information for Selected Contractor

7.5.1 Registration with NYSDOT

Contractor firms entering into contracts with NYSDOT as prime Contractors, joint venture partners or subcontractors, are required to electronically register their firm using the Contractor Selection System web application (CSSWeb). All Contractor firms entering into Non-Architectural/Non-Engineering agreements are required to create and register an account to: 1) Create and assign Contractor Identification Numbers (CINs) for each office registered by the firm; and 2) Provide general firm information including, but not limited to: legal firm name; Federal Identification Number (FEIN); ownership type; DBE, MBE and/or WBE status; firm principals; and office(s) address information. All Contractor firms participating in a potential agreement (negotiations) must be registered electronically with NYSDOT prior to that agreement being forwarded to the Office of the State Comptroller for approval. Registered firms are responsible for verifying and updating their registration information for the duration of the agreement.

Questions regarding the CSSWeb application and firm registration should be directed to the CSSWeb Administrator by email at css@dot.state.ny.us or by telephone at 518-457-2600.

7.5.2 Registration with Statewide Financial Systems (SFS)

Should this solicitation lead to a designation, the Prime Contractors will be required to electronically register with the Statewide Financial System (SFS) - if not already registered. NYSDOT will initiate the registration process in the SFS application and then contact the Prime Contractor to provide them with further direction for completion of the registration process. The result of this process is an established SFS vendor number assigned to the Prime Contractor. If a firm has already registered in SFS in connection with another procurement effort, it will likely not need to re-register for this opportunity. However, a SFS vendor number is firm name specific. Since many firms have different variations of their business identities, firms will be required to register in the name of the business entity that NYSDOT is doing business with.

7.5.3 Contractor employment disclosure requirements of this project

Go to Office of the State Comptroller’s Web site (http://www.osc.state.ny.us/procurement/ConsultantDisclosure.doc) to become familiar with Operator Employment Disclosure requirements, which went into effect June 19, 2006. The Contractor selected for this solicitation shall be required to complete “State Operator Services – Contractor’s Planned Employment” (Form A, Attachment 6: Contractor Disclosure Legislation Forms A&B Attachment 6: Contractor Disclosure Legislation Forms A&B) and submit when the contract is signed. For each contract year thereafter, the Contractor shall complete the “State Operator Services Contractor’s Annual Employment Report” (Form B, Attachment 6: Contractor Disclosure Legislation Forms A&B Attachment 6: Contractor Disclosure Legislation Forms A&B) and submit copies to the Office of the State Comptroller, the Department of Civil Service, and the Department of Transportation on or before May 15th of each year the contract is in effect.

7.5.4 Insurance requirements of this project

Please carefully read the terms and conditions of the draft Contract appended as Attachment 1 of this RFP. Your attention is drawn to the insurance requirements for this Project that are contained in Article 12 of the draft Contract. These insurances are mandatory for the firm(s) selected as a result of this solicitation and will not be waived.

7.5.5 Contractor tax certification

Per Section 5-a of the NYS Tax Law, all vendors selected for contracts in excess of $100,000 for the sale of goods or services must complete and submit Forms ST-220-TD and ST-220-CA (Contractor Certifications) prior to negotiation of a contract with State agencies. You should make yourself familiar with these forms by visiting the following Web sites:

http://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf (Form ST-220-CA) and
http://www.tax.ny.gov/pdf/current_forms/st/st220td_fill_in.pdf (Form ST-220-TD)
7.6 **Inquiries and Information**

All questions concerning this solicitation must be directed *only* to the individual specified in Section 1.4 of this RFP. The last date to submit questions for this solicitation is stated in Section 7.8 below. All questions are to be in writing and submitted via e-mail.

Responses to all questions of a substantive nature, as well as copies of the questions, will be posted to the NYSDOT web site.

7.7 **Protest Procedure**

NYSDOT has established a protest procedure to be utilized when an interested party challenges a Non-Engineering Contractor designation by NYSDOT. The complete procedure can be accessed via: [https://www.dot.ny.gov/main/business-center/Operators/general-info](https://www.dot.ny.gov/main/business-center/Operators/general-info)

7.8 **Tentative Schedule of Key Events**

NYSDOT will attempt to adhere to the following tentative schedule with regard to progressing this solicitation:

- **RFP Release Date:** June 27, 2016
- **Question Submittal Deadline:** September 6, 2016
- **Proposals Due:** September 26, 2016 noon Eastern Time
- **Recommendation & Designation:** Approximately October 20, 2016
- **Contract Finalizing:** Two weeks
- **Contract Award:** Approx 8 weeks after completion of contract finalizing
8 Attachments
8.1 Attachment 1: Draft Contract

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

F.A. NO.: _____________ P.I.N.:_______________

COMPTROLLER'S CONTRACT NO. C031487

PROJECT: Operation of the Lower Hudson Transit Link Intercounty Bus Rapid Transit System for NYSDOT

This Agreement made this ___ day of _____________, 201___ pursuant to Section 14 of the Transportation Law, by and between THE PEOPLE OF THE STATE OF NEW YORK (hereinafter referred to as the "STATE”) acting by and through the New York State Department of Transportation (hereinafter referred to as "STATE" or “DEPARTMENT”) whose Main Office is located at 50 Wolf Road in the County of Albany, State of New York 12232, and

CONSULTANT FIRM NAME

CONSULTANT FIRM ADDRESS

(hereinafter referred to as "CONSULTANT")

WITNESSETH:

WHEREAS, the STATE desires the CONSULTANT because of its ability and reputation, to perform the services hereinafter mentioned upon the PROJECT which is fully described in SCHEDULE A and the CONSULTANT agrees to provide these services.

NOW, THEREFORE, the parties hereto, for the consideration hereinafter named, do agree as follows:

ARTICLE 1. PERFORMANCE OF WORK.

Subject to the provision of ARTICLE 14 hereof, the CONSULTANT shall perform all of the work described in SCHEDULE A generally in accordance with the CONSULTANT'S PROPOSAL and cause such work to be performed in an efficient and expeditious manner and in accordance with all of the terms and provisions of this CONTRACT. The CONSULTANT shall perform the work in accordance with professional standards and with the diligence and skill
expected of a company with extensive experience in the performance of work of the type described in SCHEDULE A. The CONSULTANT shall furnish such materials, machinery, supplies, tools, equipment and other items as may reasonably be necessary or appropriate to perform the work in accordance with this AGREEMENT. It is understood and agreed that _________________ shall serve as the CONSULTANT’s Project Manager and as such shall have the responsibility for the overall supervision and conduct of the work on behalf of the CONSULTANT and that the persons described in SCHEDULE A shall serve in the capacities described therein. Any change of key project personnel by the CONSULTANT shall be subject to the prior written approval of the STATE. The STATE reserves the option to extend the terms and conditions of this CONTRACT to any other state agency in New York subject to the approval of all necessary state officials.

The CONSULTANT will commence work no later than ten (10) days after receiving notice to proceed from the STATE.

ARTICLE 2. DOCUMENTS FORMING THE CONTRACT.

The contract documents shall be deemed to include this AGREEMENT (including EXHIBITS), the provisions required by state and federal law to be inserted in the AGREEMENT as set forth in Appendix A, APPENDIX A-1, APPENDIX B, and APPENDIX C, EXHIBIT A, SCHEDULE A (including EXHIBITS), SCHEDULE B (including EXHIBITS), the STATE’s Request for Proposals (RFP; dated ____) incorporated by reference, and the CONSULTANT’s Proposal (dated ____ ) incorporated by reference.

ARTICLE 3. INSPECTION.

The duly authorized representatives of the STATE, and on Federally aided projects, representatives of the Federal Highway Administration, shall have the right at all times to inspect the work of the CONSULTANT.

ARTICLE 4. TERM OF THE AGREEMENT.

The CONSULTANT agrees that the term of the AGREEMENT shall be twenty (20) years from ___________ to _______________.

ARTICLE 5. MAXIMUM AMOUNT.

Item I. The maximum aggregate amount payable by the State to the CONSULTANT hereunder for the performance and completion of the work is $______ unless increased by a supplemental agreement. It is understood and agreed that the STATE is under no obligation to make a minimum number of work assignments and will only reimburse the CONSULTANT for approved costs incurred in the performance of authorized project assignments.

Item II. The CONSULTANT specifically agrees that the AGREEMENT shall be deemed executory only to the extent of the monies available, and no liability shall be incurred by the STATE beyond the monies available for the purpose.
ARTICLE 6.

The STATE shall pay to the CONSULTANT, and the CONSULTANT agrees to accept as full compensation for the cost of all services provided under this agreement in accordance with the Payment Schedule (RFP Attachment 143):

Item I. Deliverable Costing – Start Up ITS Costs - A total fixed lump-sum cost for start-up ITS costs as set forth and accordingly to the billing milestones identified, in RFP Attachment 13 – Deliverable Costing Section.

Item II. Operational Costing- Per Revenue Mile Costs - Costs for any and all operations and maintenance costs of any kind or nature, on the basis of the number of revenue miles provided under this Agreement as identified in RFP Attachment 13 – Operational Costing Section.

Item III. Storage Costing – Monthly Costs - Costs for any and costs associated with the facilities, equipment and storage of vehicles on a monthly basis as identified in RFP Attachment 13 – Storage Costing Section.

ARTICLE 7. CONTRACT PAYMENT.

The CONSULTANT shall provide complete and accurate billing invoices to the STATE in order to receive payment. Billing invoices submitted to the STATE must contain all information and supporting documentation required by the Contract, the STATE and the State Comptroller. Payment for invoices submitted by the CONSULTANT shall only be rendered electronically unless payment by paper check is expressly authorized by the New York State Department of Transportation Commissioner (hereinafter referred to as “COMMISSIONER”), in the COMMISSIONER’S sole discretion, due to extenuating circumstances. Such electronic payment shall be made in accordance with ordinary State procedures and practices. The CONSULTANT shall comply with the State Comptroller’s procedures to authorize electronic payments. Authorization forms are available at the State Comptroller’s website at www.osc.state.ny.us/epay/index.htm, by email at epunit@osc.state.ny.us, or by telephone at 518-474-4032. CONSULTANT acknowledges that it will not receive payment on any invoices submitted under this contract if it does not comply with the State Comptroller’s electronic payment procedures, except where the COMMISSIONER has expressly authorized payment by paper check as set forth above.

ARTICLE 8. PARTIAL PAYMENTS.

The CONSULTANT shall be paid in monthly progress payments based on actual allowable costs incurred during the period in accordance with ARTICLE 6 of this AGREEMENT. Bills are subject to the approval of the State’s Project Director, or their successor as identified by the STATE. Payments shall not be withheld unreasonably. The STATE reserves the right to request all pertinent summaries, report, receipts and/or back-up documents supporting and providing an audit trail for each monthly billing.
The CONSULTANT shall inform the STATE and all Subcontractors and Subconsultants of the Consultants schedule for submitting monthly vouchers to the STATE, said schedule shall be strictly adhered to by the CONSULTANT.

All Subcontractor and Subconsultant vouchers received by the CONSULTANT at least ten (10) calendar days prior to a scheduled billing, shall be included in that billing, even if the CONSULTANT does not have other costs to be billed for that period. The CONSULTANT shall inform the Subcontractor or Subconsultant of the date the voucher was submitted to the STATE and the amount included for the Subcontractor or Subconsultant.

The CONSULTANT will not include any provisions in their subcontracts that would circumvent the intent of 49 CFR 26.29 to require the CONSULTANT to make partial payments to all Subcontractors and Subconsultants within ten (10) calendar days of receipt of payment from the STATE.

Accounts of the CONSULTANT shall clearly identify the costs of the work performed under this AGREEMENT and shall be subject to periodic and final audit by the STATE and, on Federally aided Projects, by the Federal Highway Administration. Such audit shall not be a condition of partial payment.

ARTICLE 9. FINAL PAYMENT.

a) Section 179 of the State Finance Law requires the STATE to make final payment within thirty (30) calendar days after receipt of an invoice which is properly prepared and submitted. The STATE in accordance with the provisions of the State Finance Law has determined that the STATE will require a 60 calendar day audit period for final payments at which time the 30 calendar day interest-free period will commence. The CONSULTANT is required to make final payment to all Subcontractors and Subconsultants within ten (10) calendar days of receipt of final payment from the STATE.

The acceptance by the CONSULTANT of the final payment shall operate as and shall be a release to the STATE from all claims and liability to the CONSULTANT, its representatives and assigns for any and all things done, furnished for or relating to the services rendered by the CONSULTANT under or in connection with this Agreement or for any part thereof except as otherwise provided in ARTICLE 9(b).

b) The CONSULTANT shall maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred and make such materials available at its office at all reasonable times during the period of this Agreement and for the period of time specified in Clause No. 10, "Records" of APPENDIX A, for inspection by the STATE, Federal Highway Administration, or any authorized representatives of the Federal Government and copies thereof shall be furnished if requested.

ARTICLE 10. EXTRA WORK.
a) If the CONSULTANT believes that any work is or may be beyond the scope of the Agreement (extra work), or that additional work is necessary, the CONSULTANT shall notify the STATE, in writing, of this fact prior to beginning any of the work. The notification shall include all information required by the Department. The STATE shall be the sole judge as to whether or not such work is in fact beyond the scope of this Agreement and constitutes extra work. No extra or additional work shall be started prior to written authorization from the STATE. The STATE shall be under no obligation to reimburse the CONSULTANT for any extra or additional work performed without the prescribed notification and authorization. The STATE will not allow fixed fee for any extra work undertaken without prescribed notification and authorization. In the event that the STATE determines that such work does constitute extra work, the STATE shall provide extra compensation to the CONSULTANT in a fair and equitable manner. If necessary, a Supplemental Agreement providing the compensation and describing the work authorized shall be issued by the STATE to the CONSULTANT for execution after approvals have been obtained from necessary State officials and if required, from the Federal Highway Administration.

b) In the event of any claims being made or any actions being brought in connection with the PROJECT, the CONSULTANT agrees to render to the STATE all assistance required by the STATE. Compensation for work performed and costs incurred in connection with this requirement shall be made in a fair and equitable manner. In all cases provided for in this AGREEMENT for the additional services above described, the STATE's directions shall be exercised by the issuance of a separate Agreement, if necessary.

ARTICLE 11. CONSULTANT RESPONSIBILITY.

To the fullest extent permitted by law, the Consultant shall indemnify and save harmless the State, and/or any municipality, public benefit corporation, railroad, and/or public utility whose property or facilities are affected by the work, from suits, claims, actions, damages and costs, of every name and description arising from the work under its contract during its prosecution and until the final acceptance thereof. The Consultant and any assigns, heirs, or successors in interest shall also indemnify and save harmless, to the fullest extent permitted by law, the inspecting engineer or inspector working for the State relative to the project from suits, claims, actions, damages and costs involving personal injury and property damage arising from the Consultant's work under the contract during its prosecution and until the final acceptance thereof. The State may retain such monies from the amount due the Consultant as may be necessary to satisfy any claim for damages recovered against the State, any municipality and/or any public benefit corporation, railroad or public utility whose property or facilities are affected by the work or consultant inspecting engineers or inspectors working for the State relative to the project. The Consultant's obligation under this paragraph shall not be deemed waived by the failure of the State to retain the whole or any part of such monies due the Consultant, nor where such suit, action, damages and/or costs have not been resolved or determined prior to release of any monies to the Consultant under the contract, nor shall such obligation be deemed limited or discharged by the enumeration or procurement of any insurance for liability for damages imposed by law upon the Consultant, Subcontractor or the State, any municipality and/or any public benefit corporation, railroad or public utility
whose property or facilities are affected by the work, or for any consultants working for the State. It is understood by the State and the Consultant that the Consultant’s Professional Liability/Errors and Omissions policy (if applicable) required in the Article of this Contract entitled “Insurance” shall be utilized for claims involving the Consultant’s professional negligence.

The Consultant has the obligation, at its own expense, for the defense of any action or proceeding which may be brought against the parties specified in this Section. This obligation shall include the cost of attorneys’ fees, disbursements, costs and other expenses incurred in connection with such action or proceeding. Such obligation to defend, and the obligation to indemnify in the foregoing paragraph, does not extend to those suits, actions, damages and costs of every name that arise out of the sole negligence of the State, or the negligence of any municipality and/or any public benefit corporation, railroad or public utility whose property or facilities are affected by the contract work, or the negligence of any consultant’s working for the State, their agents or employees, relative to the construction, alteration, or repair or maintenance of a building, highway or structure or appurtenances and appliances thereof including moving, demolition and excavating connected therewith. Notwithstanding the foregoing, the parties being defended by the Consultant may elect to join any action or tender their own defense, at their sole expense and discretion.

ARTICLE 12. INSURANCE.

The Consultant shall procure, at its own sole cost and expense, and shall maintain in force at all times during the term of this contract including any extensions or renewals until Contract Final Acceptance, the policies of insurance covering all operations under the contract whether performed by it or its subconsultants as herein below set forth, written by companies authorized by the New York State Insurance Department to issue insurance in the State of New York and that have an A.M. Best Company rating of (A-) or better or approved by the Department. The Department may, at its sole discretion, permit the placement of policies with a non-authorized carrier or carriers upon request by the Consultant accompanied by the documentation required by 11 NYCRR §270.0 et seq.; provided that nothing herein shall be construed to require the Department to accept insurance placed with a non-authorized carrier under any circumstances. The Consultant shall deliver to the Department evidence of such policies as the Department deems necessary to verify that the required insurance is in effect. If policies are changed or canceled, the CONSULTANT shall inform the STATE immediately. The STATE will determine whether to issue an order to the CONSULTANT to stop work.

A. Conditions Applicable to Insurance. All policies of insurance required by this agreement must meet the following requirements:

1. Coverage Types and Policy Limits. The types of coverage and policy limits required from the Consultant are specified in Paragraph B, Insurance Requirements, below. General liability insurance shall apply separately on a per-job or per-project basis.
2. **Policy Forms.** Except as may be otherwise specifically provided herein or agreed in writing by the Department, policies must be written on an **occurrence** basis. In the event that occurrence-based coverage is not commercially available, claims-made policy forms will be considered provided that, at minimum, it includes provisions that allow for (a) reporting circumstances or incidents that may give rise to future claims and (b) an extended reporting period of not less than three (3) years with respect to events that occurred but were not reported during the term of the policy. *Insurance policies that remove or restrict blanket contractual liability located in the “insured contract” definition (as stated in Section V, Number 9, Item f in the ISO CGL policy) or that remove or modify the “insured contract” exception to the employers liability exclusion so as to limit coverage for claims that arise out of contract work, or that do not cover the additional insured for claims involving injury to employees of the named insured or subcontractors, are not acceptable.* Policy forms must be provided to the Department upon request.

3. **Certificates of Insurance/Notices.** Consultant shall provide a Certificate or Certificates of Insurance, in a form satisfactory to the Commissioner, before commencing any work under this contract. Certificates or transmittal correspondence shall reference the NYSDOT Contract Number. Consultant is strongly encouraged to transmit certificates and other materials concerning insurance coverage, referencing the Contract Number and the name of the Consultant in the Subject Line, by email to: [Insur.consult.contr@dot.ny.gov](mailto:Insur.consult.contr@dot.ny.gov)

Certificates may be mailed to the:

**New York State Department of Transportation**

**Contract Management Bureau**

**50 Wolf Road, Sixth Floor**

**Albany, NY 12232**

Unless otherwise agreed, policies shall be written so as to require that the policy will not be (i) canceled, (ii) materially changed or (iii) permitted to expire or lapse for any reason except upon ten (10) days’ prior written notice to the Department by Certified Mail, Return Receipt Requested at the address stated above. In addition, if required by the Department, the Consultant shall deliver to the Department within ten (10) work days of such request a copy of any or all policies of insurance not previously provided, certified by the insurance carrier as true and complete. Certificates of Insurance shall:

a. Be in a form satisfactory to the Department. The ACORD 25 Certificate must be accompanied by an ACORD 855 “New York Construction Addendum” completed to indicate information about the liability insurance.

b. Be signed and dated by an authorized representative of the insurance carrier or producer.

c. Disclose any deductible, self-insured retention, aggregate limit.

d. Refer to this Contract by number on the face of the certificate.
If at any time during the term of this contract, it shall come to the attention of the Department that required insurance is not in effect or that adequate proof of insurance has not been provided, the Department may, at its option:

a. Direct the Consultant to suspend work and not re-enter the premises with no additional payment or extension of time due on account thereof, or

b. May withhold further contract payments in accordance with Article 8 No Payment Due to Consultant’s Non-Compliance of the contract agreement, or

c. Treat such failure as a breach or default of the contract.

4. Additional Insureds. All insurance policies required by these specifications, except workers’ compensation and professional liability shall be endorsed to provide coverage to “The State of New York/New York State Department of Transportation, any municipality in which the work is being performed, any public benefit corporation, railroad, or public utility whose property or facilities are affected by the work, and their agents or employees” with respect to any claim arising from the Consultant’s Work under this contract or as a result of the Consultant’s activities. The endorsement shall be effected by endorsement of the applicable policy using ISO form CG 20 10 11 85, CG 20 37 07 04, CG 20 33 07 98 when used in combination with CG 20 37 07 04, or CG 20 33 10 01 or a form(s) that provides equivalent coverage.

5. Primary Coverage. The liability and protective liability insurance policies shall provide primary and non-contributory coverage to the Department for any claim arising from the Consultant’s Work under this contract, or as a result of the Consultant’s activities.

6. Waiver of Subrogation. As to every type and form of insurance coverage required from the Consultant, there shall be no right of subrogation against the State of New York/New York State Department of Transportation, its agents or employees. To the extent that any of Consultant’s policies of insurance prohibit such a waiver of subrogation, Consultant shall secure the necessary permission to make this waiver.

7. Policy Renewal/Expiration. At least ten (10) calendar days prior to the expiration of any policy required by this contract, evidence of renewal or replacement policies of insurance with terms no less favorable to the Department than the expiring policies shall be delivered to the Department in the manner required for service of notice in Paragraph A.3. Certificates of Insurance/Notices above.

8. Self-Insured Retention/Deductibles. Consultants utilizing self-insurance programs are required to provide a description of the program for Department approval. Collateralized deductible and self-insured retention programs administered by a third party may be approved. Except as may be specifically provided in the Contract Documents of a particular project, the Consultant or third-party-administered insurance deductible shall be limited to the amount of the bid deposit or $100,000, whichever is less. Security is not required if it is otherwise provided to an administrator for an
approved risk management program. The Department will not accept a self-insured retention program without security being posted to assure payment of both the self-insured retention limit and the cost of adjusting claims. The Consultant shall be solely responsible for all claim expense and loss payments within any permitted deductible or self-insured retention. If the Consultant’s deductible in a self-administered program exceeds the amount of the bid deposit, the Consultant shall furnish an irrevocable Letter of Credit as collateral to guarantee its obligations. Such Letter of Credit or other collateral as may be approved by Department must be issued by a guarantor or surety with an AM Best Company rating of (A-) or better. If, at any time during the term of this agreement, the Department, in its sole discretion, determines that the Consultant is not paying its deductible, it may require the Consultant to collateralize all or any part of the deductible or self-insured retention on any or all policies of insurance or, upon failure to promptly do so, the same may be withheld from payments due the Consultant.

9. Waiver of Indemnities. The Consultant waives any right of action it and/or its insurance carrier might have against the Department (including its employees, officers, commissioners, or agents) for any loss that is covered by a policy of insurance that is required by this contract. The Consultant waives any right of action it and/or its insurance carrier might have against the Department (including its employees, officers, commissioners, or agents) for any loss, whether or not such loss is insured.

10. Subconsultant’s Liability Insurance. In the event that any portion of the work described in this contract is performed by an approved subconsultant, the insurance requirements of this Article shall be incorporated into the subcontract agreement. Subconsultant insurance requirements shall include the requirements for Workers’ Compensation, Commercial General Liability, and, if applicable, Commercial Auto and/or Professional Liability. Excess or umbrella insurance is not required for subconsultants. Consultant shall require that Certificates of Insurance, meeting the requirements of the Department are provided to the Department documenting the insurance coverage for each and every subconsultant employed by them to do work under this contract.

B. Insurance Requirements. The types of insurance and minimum policy limits shall be as follows:

1. Workers’ Compensation and Disability Insurance. As required by State Finance Law §142, the Consultant shall maintain in force workers’ compensation insurance upon forms required by or acceptable to the Workers Compensation Board for all of Consultant’s employees. Consultant shall also maintain disability insurance as required by the Disability Benefits Law of the State of New York.

2. Commercial General Liability Insurance. The Consultant shall maintain an occurrence form commercial general liability policy or policies insuring against liability arising from premises (including loss of use thereof), personal injury or death, advertising
injury, liability insured under an insured contract (including the tort liability of another assumed in a business contract) occurring on or in any way related to the premises or occasioned by reason of the operations of Consultant. Such coverage shall be written on an ISO occurrence form (ISO Form CG 00 01 12 07 or a policy form providing equivalent coverage) in an amount of not less than $1,000,000.00 per occurrence and not less than $2,000,000.00 aggregate. Unless otherwise provided, the policy or policies of insurance providing the liability coverage shall include:

a. Coverage for contractual liability assumed by the Consultant insured under an insured contract (including the tort liability of another assumed in a business contract).

b. All insurance policies required by these specifications except workers’ compensation and professional liability shall be endorsed to provide coverage to “the State of New York/New York State Department of Transportation, any municipality in which the work is being performed, any public benefit corporation, railroad, or public utility whose property or facilities are affected by the work, or any consultant inspecting engineer or inspector working for or on the project, and their agents or employees” using ISO form CG 20 10 11 85, CG 20 37 07 04, CG 20 33 07 98 when used in combination with CG 20 37 07 04, or CG 20 33 10 01 or a policy form or forms providing equivalent coverage.

c. Products-Completed Operations Coverage, as provided in the General Liability Policy, or in certain instances through ISO form CG 26 11 09 99 or suitable equivalent.

d. Where contract work will be performed by unregistered off-road equipment, Consultant shall provide documentation of a blanket Pollution Liability policy, or an endorsement to cover short-term pollution events, ISO form CG 04 33 10 01 or equivalent.

e. Coverage for claims for bodily injury asserted by an employee of an additional insured and any Employer Liability Exclusion which may otherwise operate to exclude such coverage shall be voided in this respect.

f. Explosion, Collapse and Underground Hazards coverage (“XCU”) (for contracts that call for the performance of excavating, underground work, and/or the use of blasting equipment).

3. (reserved)

4. Commercial Automobile Insurance including liability and required coverage for New York. In the event that automobiles are used in connection with Consultant’s business or operations with the Department, the Consultant shall maintain a commercial or other automobile policy or policies insuring against liability for bodily injury, death, or damage to property and other mandatory coverages, relating to the use, operation, loading or unloading of any of Consultant’s automobiles (including owned, hired and non-owned vehicles) on and around the project. This may be ISO form CA 00 01 10 01, CA 00 01 01 87 or a policy form providing equivalent coverage along with mandatory New York endorsements. Coverage shall be in an amount of not less than $1,000,000 each accident.
5. **Umbrella or Excess Liability Insurance.** The Consultant shall maintain an occurrence form umbrella liability policy or policies insuring against liability arising from premises (including loss of use thereof), operations, independent Consultants, products-completed operations, personal injury and advertising injury, and liability insured under an insured contract (including the tort liability of another assumed in a business contract) occurring on or in any way related to the premises or occasioned by reason of the operations of Consultant or arising from automobile liability as described above. Such coverage shall be written on an ISO occurrence form CU 00 01 12 07 or a policy form providing equivalent coverage. In the event that umbrella coverage is unavailable, equivalent excess coverage may be substituted. The minimum required limits for the umbrella/excess coverage shall be sufficient to provide a total of not less than $5,000,000 per occurrence/aggregate.

6. **Consultant’s Risks.** The Consultant shall be responsible for obtaining any insurance it deems necessary to cover its own risks, including without limitation: (a) business interruption, such as gross earnings, extra expense, or similar coverage, (b) personal property, and/or (c) automobile physical damage and/or theft. In no event shall the Department be liable for any damage to, or loss of, personal property, or damage to, or loss of, an automobile that is covered by a policy of insurance that is required by this agreement, even if such loss is caused by the negligence of the Department.

7. *(reserved)*

8. *(reserved)*

9. *(reserved)*

**ARTICLE 13. INTERCHANGE OF DATA.**

All technical data in regard to the PROJECT existing in the office of the STATE or existing in the offices of the CONSULTANT shall be made available to the other party to this Agreement without expense to such other party.

**ARTICLE 14. DISPOSITION OF DATA.**

At the time of completion of the work, the CONSULTANT shall make available to the STATE all documents and data pertaining to the work or to the PROJECT which materials at all times shall be the property of the STATE. It is agreed that the CONSULTANT may maintain copies of all documents and data, subject to confidentiality restrictions under Article 29 Security and Confidentiality of Information below. Or in the event that this Agreement is terminated for any reason, then, within ten (10) days after such termination, the CONSULTANT shall make available to the STATE the aforementioned data and material.

**ARTICLE 15. DAMAGES AND DELAYS.**
The CONSULTANT agrees that no charges or claim for damages shall be made by them for any delays or hindrances from any cause whatsoever during the progress of any portion of the services specified in this AGREEMENT. Such delays or hindrances, if any, shall be compensated for by an extension of time for such reasonable period as the STATE may decide, it being understood however, that the permitting of the CONSULTANT to proceed to complete any services or any part of them after the date of completion or after the date to which the time of completion may have been extended, shall in no way operate as a waiver on the part of the STATE of any of its rights herein. Nothing in this ARTICLE will prevent the CONSULTANT from exercising its rights under ARTICLE 9 of this AGREEMENT.

ARTICLE 16. NOTICE OF BANKRUPTCY, VENUE, AUDITS.

If, prior to final audit, CONSULTANT files for relief pursuant to Title 11 of the United States Code under the Bankruptcy Laws or a successor statute, this contract shall be treated as an executory contract under 11 USC S365 of the Bankruptcy Laws or successor statute, and subject to assumption or rejection by the debtor within the time permitted by law.

The CONSULTANT must immediately send written notice to Contract Management of the New York State Department of Transportation at its main office in Albany and send all relevant pleading of the voluntary or involuntary filing of a Bankruptcy proceeding by the CONSULTANT, its subsidiary, its principals and officers or a related entity whether or not the CONSULTANT believes that any debt is owed to the State by final audit or otherwise.

The determination of any rights under this contract shall be adjudicated in a State or Federal Court with jurisdiction over the matter, and venue for the determination of such rights shall be in Albany, New York.

The CONSULTANT agrees that the automatic stay under 11 USC S362 or a successor statute shall be deemed inapplicable or that this agreement shall constitute consent to the lifting of the stay with respect to the State's performance of or completion of any audit pursuant to the terms of this contract.

ARTICLE 17. TERMINATION.

A. NYSDOT’s Right to Suspend Work - If at any time during the prosecution of the work to be delivered under this Agreement, should the Commissioner of Transportation determine that the work upon the contract is not being performed according to the contract or for the best interest of the State, the execution of the work by the Contractor may be temporarily suspended by NYSDOT, who may then proceed with the work under his/her own direction in such manner as will accord with the contract specifications and be for the best interests of the State; and thereupon proceed with the work, in affirmance of the contract, by contract negotiated or publicly let, by the use of his/her own forces, or by a combination of any such methods;

B. Termination for NYSDOT Convenience -
1. NYSDOT may, by written notice, terminate the contract or any portion thereof if he or she determines that termination would be in the best interests of the Department or of the State of New York. Reasons for termination may include, but are not limited to executive orders of the President relating to the prosecution of war or national defense, national emergency which creates a serious shortage of materials, orders from duly constituted authorities relating to energy conservation, and restraining orders or injunctions obtained by third-party citizen action resulting from national or local laws or regulations, or where the issuance of such order or injunction is primarily caused by acts or omissions of persons or agencies other than the Contractor, or where the orderly progression of a project is interfered with or delayed by acts or omissions of persons or agencies other than the Contractor. The Contractor specifically understands that the issuance of such notice by NYSDOT shall be conclusive as to its necessity.

2. When the contract, or any portion thereof is terminated, for any of the above mentioned reasons, before completion of all items of work in the contract, payment will be made for the actual numbers of units or items of work completed at the contract unit price, or as mutually agreed for items of work partially completed, but no claim for loss of anticipated profits on uncompleted work shall be made by the Contractor nor shall the State of New York be liable for the loss of anticipated profits for such uncompleted work. Termination of a contract or a portion thereof for the convenience of the State shall not relieve the Contractor of its responsibilities for the completed work, nor shall it relieve its surety of its obligation for and concerning any just claims arising out of the work performed.

3. If a termination is brought about for the convenience of the STATE and not as a result of unsatisfactory performance on the part of the CONTRACTOR, final payment shall be made based on the acceptable actual work performed by the CONTRACTOR prior to termination including, but not limited to, the number of hours and other authorized, acceptable costs audited in accordance with the terms of the AGREEMENT.

C. Termination For Cause –

1. NYSDOT may terminate this AGREEMENT for cause in the event CONTRACTOR fails to or defaults in performance in accordance with this AGREEMENT, and such failure continues beyond 30 days of NYSDOT’s written notice of such failure or default to the CONTRACTOR, except that such 30 day period shall be tolled in the event of a default that is not reasonably subject to cure in such time by such period and the NYSDOT reasonably determines that the CONTRACTOR is working diligently to correct or cure such default. If the termination is brought about as a result of the unsatisfactory performance on the part of the CONTRACTOR, the value of the work performed by the contractor prior to termination shall be established by NYSDOT.
2. Final payment shall be made for work satisfactorily performed or for costs otherwise legally incurred in accordance with Articles 6 and 8 hereof.

3. Any rights and remedies reserved pursuant to this Article are in addition to any other rights and remedies the NYSDOT or the CONTRACTOR may have pursuant to this AGREEMENT or pursuant to applicable law to seek judicial enforcement, damages or any other lawful remedy.

D. The STATE reserves the right to terminate this contract in the event it is found that the certification filed by the CONTRACTOR in accordance with the requirements contained in State Finance Law Section 139-k was intentionally false or intentionally incomplete. Upon such finding, the STATE may exercise its termination right by providing written notification to the CONTRACTOR in accordance with the written notification terms of the contract.

E. Termination for Contractor’s Convenience – At the end of the eighth (8th) year of the Contract term, and every five (5) years thereafter, the CONTRACTOR shall have the right to terminate the Agreement for the CONTRACTOR’S convenience with notice to the STATE and said notice shall include an explanation for the reasons for the termination. Such termination shall be effective no earlier than the end of the second following Contract year (i.e. at the end of the tenth year, fifteenth year).

ARTICLE 18. DEATH OR DISABILITY OF THE CONSULTANT.

In case of the death or disability of one or more but not all the persons herein referred to as CONSULTANT, the rights and duties of the CONSULTANT shall devolve upon the survivors of them, who shall be obligated to perform the services required under this AGREEMENT, and the STATE shall make all payments due to them.

In case of the death or disability of all the persons herein referred to as CONSULTANT, all data and records pertaining to the PROJECT shall be delivered within (60) days to the STATE or their duly authorized representative. In case of the failure of the CONSULTANT’S successors or personal representatives to make such delivery on demand, then in that event the representatives of the CONSULTANT shall be liable to the STATE for any damages it may sustain by reason thereof. Upon the delivery of all such data to the STATE, the STATE will pay to the representatives of the CONSULTANT all amounts due the CONSULTANT, including retained percentages to the date of the death of the last survivor.

ARTICLE 19. CODE OF ETHICS.

The CONSULTANT specifically agrees that this AGREEMENT may be canceled or terminated if any work under this AGREEMENT is in conflict with the provisions of Section 74
of the New York State Public Officer's Law, as amended, establishing a Code of Ethics for State officers and employees.

The CONSULTANT shall not engage, on a full or part-time or other basis any professional or technical personnel who are or have been at any time during the period of this AGREEMENT in the employ of the Federal Highway Administration or the highway organizations of any public employer, except regularly retired employees, without the consent of the public employer of such person.

ARTICLE 20. INDEPENDENT CONTRACTOR.

The CONSULTANT, in accordance with their status as an independent contractor, covenants and agrees that they will conduct themselves consistent with such status, that they will neither hold themselves out as, nor claim to be, an officer or employee of the STATE by reason hereof, and that they will not, be reason hereof, make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the STATE, including but not limited to Worker's Compensation coverage, Unemployment Insurance benefits, Social Security coverage or Retirement membership or credit.

ARTICLE 21. COVENANT AGAINST CONTINGENT FEES.

The CONSULTANT warrants that they have not employed or retained any company or person, other than a bona fide employee working for the CONSULTANT, to solicit or secure this AGREEMENT, and that they have not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this AGREEMENT. For breach or violation of this warranty, the STATE shall have the right to annul this AGREEMENT without liability, or, in its discretion, to deduct from the AGREEMENT price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

ARTICLE 22. TRANSFER OF AGREEMENT.

The CONSULTANT specifically agrees, as required by the State Finance Law, Section 138, that they are prohibited by law from assigning, transferring, conveying, subletting or otherwise disposing of the AGREEMENT or of their right, title or interest therein, or their power to execute such AGREEMENT, to any other person, company or corporation, without the previous consent in writing of the STATE.

If this provision of the law be violated, the STATE shall revoke and annul the AGREEMENT and the STATE shall be relieved from any and all liability and obligations thereunder to the person, company or corporation to whom the CONSULTANT shall assign, transfer, convey, sublet or otherwise dispose of the AGREEMENT, and such transferee shall forfeit and lose all moneys therefore assigned under said AGREEMENT, except so much as may be required to pay his employees.
ARTICLE 23. PROPRIETARY RIGHTS.

The CONSULTANT agrees that if copyrights, patentable discoveries or inventions or rights in data should result from work described herein, all rights accruing from such discoveries or inventions shall be the sole property of the CONSULTANT. However, the CONSULTANT agrees to and does hereby grant to the United States Government and the State of New York an irrevocable, nonexclusive, nontransferable, paid-up license to reproduce, publish, make, use, and sell each subject invention throughout the world by and on behalf of the Government of the United States and States and domestic municipal governments, all in accordance with the provisions of 48 CFR 1-27, and other applicable Federal laws, rules and regulations.

ARTICLE 24. SUBCONTRACTORS/SUBCONSULTANTS.

All subcontractors and subconsultants performing work on this project shall be bound by the same required contract provisions as the prime consultant. All agreements between the prime consultant and a subcontractor or subconsultant shall include all standard required contract provisions, and such agreements shall be subject to review by the State.

ARTICLE 25. ORDER OF PRECEDENCE.

In the event of any inconsistency between or among the provisions and contents of this AGREEMENT, it is agreed that such inconsistency shall be resolved in the following descending order of precedence:

1. APPENDIX A,
2. The provisions required by state and federal law to be inserted in the AGREEMENT as set forth in APPENDIX A-1, APPENDIX B, APPENDIX B-1, and APPENDIX C;
3. This AGREEMENT, including Signature Page, Notary Page and Exhibits;
4. SCHEDULE A (including Exhibits);
5. SCHEDULE B (including Exhibits);
6. The STATE’s Request for Proposals (dated ___; as modified); and
7. The CONSULTANT’s Proposal (dated ___; as clarified).


The signator to this Agreement, being duly sworn, certifies that, EXCEPT AS NOTED BELOW, its company and any person associated therewith in the capacity of owner, partner, director, officer, or major stockholder (five percent or more ownership):

1. Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
2. Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three years;
3. Does not have a proposed debarment pending; and
4. Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

EXCEPTIONS -

ARTICLE 27. CERTIFICATION FOR FEDERAL-AID CONTRACTS.

The prospective participant certifies, by signing this Agreement to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with 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.

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

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

ARTICLE 28. RESPONSIBILITY OF THE CONSULTANT.

(a) The CONSULTANT shall be responsible for the professional quality, technical accuracy, and the coordination of all services furnished by the CONSULTANT under this contract. The CONSULTANT shall, without additional compensation, correct or revise any errors or deficiencies in its services. However, the STATE may in certain circumstances, provide compensation for such work.
(b) Neither the STATE'S review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract, and the CONSULTANT shall be and remain liable to the STATE in accordance with applicable law for all damages to the STATE caused by the CONSULTANT'S negligent performance or breach of contract of any of the services furnished under this contract.

(c) The rights and remedies of the STATE provided for under this contract are in addition to any other rights and remedies provided by law.

(d) If the CONSULTANT is comprised of more than one legal entity or any group of partners or joint venturers associated for the purposes of undertaking this agreement, each such entity acknowledges and hereby affirmatively represents and agrees that each has the power to bind the CONSULTANT and each of the others hereunder; and as such, each acts both as principal and agent of the CONSULTANT and of each of the others hereunder. Each further acknowledges and agrees that all such entities, partners or joint venturers associated for the purposes of undertaking this agreement shall be jointly and severally liable to third parties, including but not limited to the STATE, for the acts or omissions of the CONSULTANT or any other entity, partner or joint venturer hereunder.

(e) If the CONSULTANT is comprised of more than one legal entity or any group of partners or joint venturers associated for the purposes of undertaking this agreement, each such entity acknowledges and hereby affirmatively represents and agrees that the respective rights, duties and liabilities of each hereunder shall be governed by the laws of the State of New York, including but not limited to the New York Partnership Law.

ARTICLE 29. SECURITY AND CONFIDENTIALITY OF INFORMATION.

Information received as part of this contract shall be considered Confidential Information. The CONSULTANT warrants that it will take the appropriate steps as to its personnel, agents, officers and any SUBCONTRACTOR/SUBCONSULTANTS regarding the obligations arising under this clause to insure such confidentiality. The CONSULTANT shall have written policies and/or business procedures in place which will protect Confidential Information from unauthorized disclosure, use, access, loss, alteration or destruction. The CONSULTANT may disclose to other parties, as authorized by the NYSDOT Project Manager, or as described in the scope of services, only the information necessary to perform services under this contract. However, the CONSULTANT shall in no circumstance, communicate with the public or news media without prior authorization from the States designee. Neither shall the CONSULTANT disclose information deemed confidential by the State nor shall the CONSULTANT disclose any other information obtained or developed in the performance of services under this agreement without the written authorization of the State. This warranty shall survive termination of this Contract.

CONSULTANT shall comply with the provisions of the New York State Information Security Breach and Notification Act, including General Business Law Section §889-aa and
State Technology Law §208 as enacted by such Act or subsequently amended. In the event of an information security breach resulting in the unauthorized disclosure of personal information, CONSULTANT shall be liable for the costs associated with such breach if caused by CONSULTANT’s negligent or willful acts or omissions, or the negligent or willful acts or omissions of the CONSULTANT’s agents, officers, employees or SUBCONSULTANTS.

ARTICLE 30. VENDOR RESPONSIBILITY.

The Department of Transportation has undertaken an affirmative review of the proposed consultant’s responsibility in accordance with the applicable standards outlined in Comptroller’s ‘Guide to Financial Operations’, and based upon such review, reasonable assurance that the proposed contractor is responsible has been determined.

a). General Responsibility. The Consultant shall, at all times during the Agreement, remain responsible. The Consultant agrees, if requested by the Commissioner of NYSDOT or his or her designee, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

b). Suspension of Work (for Non-Responsibility). The Commissioner of NYSDOT (or his or her designee), in his or her sole discretion, reserves the right to suspend any or all activities under this Agreement at any time when he or she discovers information that calls into question the responsibility of the Consultant. In the event of such suspension, the Consultant will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Consultant shall comply with the terms of the suspension order. Contract activity may resume at such time as the Commissioner of NYSDOT (or his or her designee) issues a written notice authorizing the resumption of performance under the Agreement.

c). Termination (for Non-Responsibility). Upon written notice to the Consultant, and a reasonable opportunity to be heard with appropriate NYSDOT or staff, the Agreement may be terminated by Commissioner of NYSDOT (or his or her designee) at the Consultant’s expense where the Consultant is determined by the Commissioner of NYSDOT (or his or her designee) to be non-responsible. In such event, the Commissioner of NYSDOT (or his or her designee) may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.

ARTICLE 31. CONSULTANT DISCLOSURE LEGISLATION.

In accordance with Chapter 10 of the Laws of 2006, the CONSULTANT shall complete the “State Consultant Services Contractor’s Annual Employment Report” (Form B, Exhibit ___) and submit copies to the Office of the State Comptroller, the Department of Civil Service, and the Department of Transportation on or before May 15th of each year the contract is in effect. The CONSULTANT shall provide information regarding all employees providing service under this contract, whether employed by the CONSULTANT or any subconsultant or subcontractor. Form B will capture historical information, detailing actual employment data for the most
recently concluded State fiscal year (April 1st to March 31st). Annual employment reports should be submitted to the following three agencies. It is recommended, however, that consultants check the agency websites annually to confirm the addresses.

By mail:
NYS Office of the State Comptroller
Bureau of Contracts
110 State Street, 11th Floor
Albany, N. Y. 12236
Attn: Consultant Reporting

NYS Department of Civil Service
Alfred E. Smith Building
Albany, N. Y. 12239
Attn: Chapter 10 Counsel's Office

NYS Department of Transportation:
Reports that are submitted to the NYS Department of Transportation must be submitted electronically, preferably as a Word, Excel or pdf file via email to: consultantdisclosure@dot.ny.gov.

ARTICLE 32. NOTICES.

Item 1. All notices permitted or required hereunder shall be in writing and shall be transmitted either:

(a) via certified or registered United States mail, return receipt requested;
(b) by facsimile transmission;
(c) by personal delivery;
(d) by expedited delivery service; or
(e) by e-mail.

Such notices shall be addressed as follows or to such different addresses as the parties may from time-to-time designate:
New York State Department of Transportation:

Contact Person’s Name: William A. Howe, Contract #C031487
Title: Director
Address: NYSDOT Contract Management Bur., 50 Wolf Rd., 6th Fl, Albany, NY 12232
Telephone Number: 518-457-2600
Facsimile Number: 518-457-2875
E-Mail Address: Bill.howe@dot.ny.gov

Consultant’s Name:___________________

Contact Person’s Name:
Title:
Address:
Telephone Number:
Facsimile Number:
E-Mail Address:

Item 2. Any such notice shall be deemed to have been given either at the time of personal delivery or, in the case of expedited delivery service or certified or registered United States mail, as of the date of first attempted delivery at the address and in the manner provided herein, or in the case of facsimile transmission or email, upon receipt.

Item 3. The parties may, from time to time, specify any new or different address in the United States as their address for purpose of receiving notice under this Agreement by giving fifteen (15) days written notice to the other party sent in accordance herewith. The parties agree to mutually designate individuals as their respective representatives for the purposes of receiving notices under this Agreement. Additional individuals may be designated in writing by the parties for purposes of implementation and administration/billing, resolving issues and problems and/or for dispute resolution.

ARTICLE 33. TITLE VI ASSURANCE.

During the performance of this contract, the consultant or 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 Regulation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation of the United States, Title 49, Code of Federal Regulations, Part 21, and the Federal Highway Administration (hereinafter “FHWA”) Title 23, Code of Federal Regulations, Part 200 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, color, or national origin, sex, age, and disability/handicap 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 49 CFR, 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 Subcontractors, 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, color, or national origin, sex, age, and disability/handicap.

(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 NYSDOT or the FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to NYSDOT's Office of Civil Rights or FHWA, 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, NYSDOT shall impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:

(a.) withholding of payments to the contractor under the contract until the contractor complies, and/or

(b.) cancellation, termination or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (5) 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 procurement as NYSDOT or the FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance: 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 NYSDOT to enter into such litigation to protect the interests of NYSDOT, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.
IN WITNESS WHEREOF, this Contract No. C031487 has been executed by the STATE, acting by and through the Commissioner of Transportation, and the CONSULTANT has duly executed this Agreement effective the day and year first above written.

In addition to the acceptance of this Agreement, the Department certifies that original copies of this signature page will be attached to all other exact copies of this Agreement.

RECOMMENDED BY

__________________________________________

FOR THE PEOPLE OF THE STATE OF NEW YORK

By______________________________________

__________________________________________

CONTRACT MANAGEMENT BUREAU

DATE:__________________________

DEPARTMENT OF TRANSPORTATION

DATE:__________________________

Consultant Certifications: I certify that all the information with respect to the “Vendor Responsibility Questionnaire” submitted by (CONSULTANT FIRM NAME) ____________________________ on the _____ day of ______________________, 20_______ pursuant to the requirements set forth in OSC’s ‘Guide to Financial Operations’ is complete true and accurate. I additionally certify nothing has occurred since the date of that submission that would result in requiring a change or alteration to any of the answers provided on the “Vendor Responsibility Questionnaire” submitted that date.

I certify that all information provided to the STATE with respect to the requirements contained in State Finance Law Sections 139j & 139k is complete, true and accurate.

By ________________________________

DATE: ________________________________

FIRM NAME

____________________________________

OPERATION OF THE INTERCOUNTY BUS RAPID TRANSIT SERVICE FOR NYSDOT

APPROVALS

ATTORNEY GENERAL

THOMAS P. DI Napoli

STATE COMPTROLLER

By ________________________________

By ________________________________

DATE: ________________________________

DATE: ________________________________
Acknowledgement for Contract #C031487

For contracts signed in New York State

State of New York       )

County of            ) ss.:

On the_________ day of _____________ in the year 201___, before me the undersigned, personally appeared _________________, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____________________________________

NOTARY PUBLIC

My Commission Expires: ________________________

For contracts signed outside New York State

State of__) ss.:

County of__ ) ss.:

On the _______ day of ________________ in the year 201___ before me, the undersigned, personally appeared ______________________, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual made such appearance before the undersigned in ____________________________________ (insert the city or other political subdivision and the state or country or other place the acknowledgement was taken).

___________________________________

NOTARY PUBLIC

___________________________________

(Signature and office of individual taking acknowledgement.)

My Commission Expires: ________________________
APPENDIX A

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licensor, licensee, lessor, lessee or any other party):

1. EXECUTORY CLAUSE. In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to any one else beyond funds appropriated and available for this contract.

2. NON-ASSIGNMENT CLAUSE. In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the State’s previous written consent, and attempts to do so are null and void. Notwithstanding the foregoing, such prior written consent of an assignment of a contract let pursuant to Article XI of the State Finance Law may be waived at the discretion of the contracting agency and with the concurrence of the State Comptroller where the original contract was subject to the State Comptroller’s approval, where the assignment is due to a reorganization, merger or consolidation of the Contractor’s business entity or enterprise. The State retains its right to approve an assignment and to require that any Contractor demonstrate its responsibility to do business with the State. The Contractor may, however, assign its right to receive payments without the State’s prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.

3. COMPTROLLER’S APPROVAL. In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds $50,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds $10,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office. Comptroller’s approval of contracts let by the Office of General Services is required when such contracts exceed $85,000 (State Finance Law Section 163.6-a). However, such pre-approval shall not be required for any contract established as a centralized contract through the Office of General Services or for a purchase order or other transaction issued under such centralized contract.

4. WORKERS’ COMPENSATION BENEFITS. In accordance with Section 142 of the State Finance Law, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers’ Compensation Law.

5. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex (including gender identity or expression), national origin, sexual orientation, military status, age, disability, predisposing genetic characteristics, marital status or domestic violence victim status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of $50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

6. WAGE AND HOURS PROVISIONS. If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be
required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by the State of any State approved sums due and owing for work done upon the project.

7. NON-COLLUSIVE BIDDING CERTIFICATION. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the submission of bids, Contractor affirms, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further affirms that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

8. INTERNATIONAL BOYCOTT PROHIBITION. In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds $5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2NYCRR 105.4).

9. SET-OFF RIGHTS. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any money due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, "the Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION. (a) Identification Number(s). Every invoice or New York State Claim for Payment submitted to a New York State agency by a payee, for payment for the sale of goods or services or for transactions (e.g., leases, easements, licenses, etc.) related to real or personal property must include the payee's identification number. The number is any or all of the following: (i) the payee's Federal employer identification number, (ii) the payee’s Federal social security number, and/or (iii) the payee’s Vendor Identification Number assigned by the Statewide Financial System. Failure to include such number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or Claim for Payment, must give the reason or reasons why the payee does not have such number or numbers.

(b) Privacy Notification. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or
may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law. (2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in the Statewide Financial System by the Vendor Management Unit within the Bureau of State Expenditures, Office of the State Comptroller, 110 State Street, Albany, New York 12236.

12. **EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN.** In accordance with Section 312 of the Executive Law and 5 NYCRR 143, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of $25,000.00, whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of $100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of $100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then the following shall apply and by signing this agreement the Contractor certifies and affirms that it is Contractor’s equal employment opportunity policy that:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a", "b", and "c" above, in every subcontract over $25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this section. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development’s Division of Minority and Women's Business Development pertaining hereto.

13. **CONFLICTING TERMS.** In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

14. **GOVERNING LAW.** This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. **LATE PAYMENT.** Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article 11-A of the State Finance Law to the extent required by law.

16. **NO ARBITRATION.** Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.
17. **SERVICE OF PROCESS.** In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. **PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS.** The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in Section 165 State Finance Law. Any such use must meet with the approval of the State; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

19. **MACBRIDE FAIR EMPLOYMENT PRINCIPLES.** In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. **OMNIBUS PROCUREMENT ACT OF 1992.** It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development  
Division for Small Business  
Albany, New York 12245  
Telephone: 518-292-5100  
Fax: 518-292-5884  
e-mail: opa@esd.ny.gov

A directory of certified minority and women-owned business enterprises is available from:

NYS Department of Economic Development  
Division of Minority and Women's Business Development  
633 Third Avenue  
New York, NY 10017  
212-803-2414  
e-mail: mwbecertification@esd.ny.gov  
https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp

The Omnibus Procurement Act of 1992 requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than $1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;
(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

21. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 15, 2002, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii. Contact NYS Department of Economic Development for a current list of jurisdictions subject to this provision.

22. COMPLIANCE WITH NEW YORK STATE INFORMATION SECURITY BREACH AND NOTIFICATION ACT. Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law Section 899-aa; State Technology Law Section 208).

23. COMPLIANCE WITH CONSULTANT DISCLOSURE LAW. If this is a contract for consulting services, defined for purposes of this requirement to include analysis, evaluation, research, training, data processing, computer programming, engineering, environmental, health, and mental health services, accounting, auditing, paralegal, legal or similar services, then, in accordance with Section 163 (4-g) of the State Finance Law (as amended by Chapter 10 of the Laws of 2006), the Contractor shall timely, accurately and properly comply with the requirement to submit an annual employment report for the contract to the agency that awarded the contract, the Department of Civil Service and the State Comptroller.

24. PROCUREMENT LOBBYING. To the extent this agreement is a “procurement contract” as defined by State Finance Law Sections 139-j and 139-k, by signing this agreement the contractor certifies and affirms that all disclosures made in accordance with State Finance Law Sections 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, the State may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

25. CERTIFICATION OF REGISTRATION TO COLLECT SALES AND COMPENSATING USE TAX BY CERTAIN STATE CONTRACTORS, AFFILIATES AND SUBCONTRACTORS. To the extent this agreement is a contract as defined by Tax Law Section 5-a, if the contractor fails to make the certification required by Tax Law Section 5-a or if during the term of the contract, the Department of Taxation and Finance or the covered agency, as defined by Tax Law 5-a, discovers that the certification, made under penalty of perjury, is false, then such failure to file or false certification shall be a material breach of this contract and this contract may be terminated, by providing written notification to the Contractor in accordance with the terms of the agreement, if the covered agency determines that such action is in the best interest of the State.

26. IRAN DIVESTMENT ACT. By entering into this Agreement, Contractor certifies in accordance with State Finance Law Section 165-a that it is not on the “Entities Determined to be Non-Responsive Bidders/Offerers pursuant to the New York State Iran Divestment Act of 2012” (“Prohibited Entities List”) posted at: http://www.ogs.ny.gov/about/regs/docs/ListofEntities.pdf

Contractor further certifies that it will not utilize on this Contract any subcontractor that is identified on the Prohibited Entities List. Contractor agrees that should it seek to renew or extend this Contract, it must provide the same certification at the time the Contract is renewed or extended. Contractor also agrees that any proposed Assignee of this Contract will be required to certify that it is not on the Prohibited Entities List before the contract assignment will be approved by the State.

During the term of the Contract, should the state agency receive information that a person (as defined in State Finance Law Section 165-a) is in violation of the above-referenced certifications, the state agency will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then the state agency shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.
The state agency reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Prohibited Entities list after contract award.

Updated January 2014
SUPPLEMENTAL TITLE VI PROVISIONS (CIVIL RIGHTS ACT)

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 Regulation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation of the United States, Title 49, Code of Federal Regulations, Part 21, and the Federal Highway Administration (hereinafter “FHWA”) Title 23, Code of Federal Regulations, Part 200 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, color, or national origin, sex, age, and disability/handicap 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 49 CFR, 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 Subcontractors, 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, color, or national origin, sex, age, and disability/handicap.

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 NYSDOT or the FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to NYSDOT’s Office of Civil Rights, or FHWA, 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, NYSDOT shall impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
   (a.) withholding of payments to the contractor under the contract until the contractor complies, and/or
   (b.) cancellation, termination or suspension of the contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor shall include the provisions of paragraphs (1) through (6) 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 procurement as NYSDOT or the FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance: 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 NYSDOT to enter into such litigation to protect the interests of NYSDOT, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.
APPENDIX B

REQUIREMENTS FOR FEDERALLY-AIDED TRANSPORTATION PROJECTS

There is a substantial body of requirements attached to the use of Federal highway or transportation aid. These requirements create or overlay processes, procedures, documentation requirements, authorizations, approvals and certifications that may be substantially greater or different from those that are not funded with Federal-aid and proceed under applicable State and local laws, customs and practices. Under Title 23 of the United States Code, the New York State Department of Transportation (NYSDOT) is responsible for the administration of transportation projects in New York State to which NYSDOT provides Federal highway or transportation-related aid. Through this Agreement, which provides or is associated with such funding, NYSDOT delegates various elements of project and funding administration as described elsewhere in this Agreement. In undertaking a Federally-aided project, the Municipality/Sponsor, Authority or Project Manager designated under this Agreement with Federal-aid funding or project administration agrees to proceed in compliance with all the applicable Federal-aid requirements.

NYSDOT, in cooperation with FHWA, has assembled the body of Federal-aid requirements, procedures and practices in its “Procedures for Locally Administered Federal-Aid Projects” (available through NYSDOT’s web site at: www.dot.ny.gov/plafap). In addition, the Municipality/Sponsor, Authority or Project Manager designated under this Agreement for Federal-aid funding or project administration that enters into Federally aided project construction contracts is required to physically incorporate into all its Federally aided construction contracts and subcontracts there under the provisions that are contained in Form FHWA-1273 (available from NYSDOT or electronically at: www.fhwa.dot.gov/programadmin/contracts/1273.htm).

In addition to the referenced requirements, the attention of Municipality/Sponsor hereunder is directed to the following requirements and information:

NON DISCRIMINATION/EEO/DBE REQUIREMENTS

The Municipality/Sponsor and its contractors agree to comply with Executive Order 11246, entitled “Equal Employment Opportunity” and United States Department of Transportation (USDOT) regulations (49 CFR Parts 21, 23, 25, 26 and 27) and the following:

1. NON DISCRIMINATION. No person shall, on the ground of race, color, creed, national origin, sex, age or handicap, be excluded from participation in, or denied the benefits of, or be subject to, discrimination under the Project funded through this Agreement.

2. EQUAL EMPLOYMENT OPPORTUNITY. In connection with the execution of this Agreement, the Municipality/Sponsor’s contractors or subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, age, color, sex or national origin. Such contractors shall take affirmative actions to ensure that applicants are employed, and that employees are treated during their employment, without regard to their race, religion, color, sex, national origin or age. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

3. DISADVANTAGED BUSINESS ENTERPRISES. In connection with the performance of this Agreement, the Municipality/Sponsor shall cause its contractors to cooperate with the State in meeting its commitments and goals with regard to the utilization of Disadvantaged Business Enterprises (DBEs) and will use its best efforts to ensure that DBEs will have opportunity to compete for subcontract work under this Agreement. Also, in this connection the Municipality or Municipality/Sponsor shall cause its contractors to undertake such actions as may be necessary to comply with 49 CFR Part 26.

As a sub-recipient under 49 CFR Part 26.13, the Municipality/Sponsor hereby makes the following assurance.
The Municipality/Sponsor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any United States Department of Transportation (USDOT)-assisted contract or in the administration of its Disadvantaged Business Enterprise (DBE) program or the requirements of 49 CFR Part 26. The Municipality/Sponsor shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of the United States Department of Transportation-assisted contracts. The New York State Department of Transportation’s DBE program, as required by 49 CFR Part 26 and as approved by the United States Department of Transportation, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the USDOT may impose sanctions as provided for under 49 CFR Part 26 and may, in appropriate cases, refer the matter for enforcement under https://www.law.cornell.edu/uscode/text/18/1001 and/or the Program Fraud Civil Remedies Act of 1986 https://www.law.cornell.edu/uscode/text/31/3801 et seq.).

FEDERAL SINGLE AUDIT REQUIREMENTS

Non-Federal entities that expend $500,000 or more in a year in Federal awards from all sources are required to comply with the Federal Single Audit Act provisions contained in U.S. Office of Management and Budget (OMB) Circular No. A-133, “Audits of States, Local Governments, and Non-Profit Organizations”. Non-Federal entities that expend Federal awards from a single source may provide a program specific audit, as defined in the Circular. Non-Federal entities that expend less than $500,000 in a year in Federal awards from all sources are exempt from Federal audit requirements for that year, except as noted in Sec. 215 (a) of OMB Circular A-133 Subpart B--Audits, records must be available for review or audit by appropriate officials of the cognizant Federal agency 1 the New York State Department of Transportation, the New York State Comptroller’s Office and the U.S. Governmental Accountability Office (GAO).

Non-Federal entities are required to submit a copy of all audits, as described above, within 30 days of issuance of audit report, but no later than 9 months after the end of the entity’s fiscal year, to the New York State Department of Transportation, Contract Audit Bureau, 50 Wolf Road, Albany, NY 12232. Unless a time extension has been granted by the cognizant Federal Agency and has been filed with the New York State Department of Transportation’s Contract Audit Bureau, failure to comply with the requirements of OMB Circular A-133 may result in suspension or termination of Federal award payments.

THE CATALOG OF FEDERAL DOMESTIC ASSISTANCE

The Catalog of Federal Domestic Assistance (CFDA2), is an on-line database of all federally-aided programs available to State and local governments (including the District of Columbia); Federally recognized Indian tribal governments; Territories (and possessions) of the United States; domestic public, quasi-public, and private profit and nonprofit organizations and institutions; specialized groups; and individuals.

THE CFDA IDENTIFICATION NUMBER

OMB Circular A-133 requires all Federal-aid recipients to identify and account for awards and expenditures by CFDA Number. The Municipality/Sponsor is required to identify in its accounts all Federal awards received and expended, and the Federal programs under which they were received. Federal program and award identification shall include, as applicable, the CFDA title and number, award number and year, name of the Federal agency, and name of the pass-through entity.

The most commonly used CFDA number for the Federal Aid Highway Planning and Construction program is 20.205.

Additional CFDA numbers for other transportation and non-transportation related programs are:

<table>
<thead>
<tr>
<th>CFDA Number</th>
<th>Program Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.215</td>
<td>Highway Training and Education</td>
</tr>
<tr>
<td>20.219</td>
<td>Recreational Trails Program</td>
</tr>
<tr>
<td>20.XXX</td>
<td>Highway Planning and Construction - Highways for LIFE;</td>
</tr>
<tr>
<td>20.XXX</td>
<td>Surface Transportation Research and Development;</td>
</tr>
<tr>
<td>20.500</td>
<td>Federal Transit-Capital Investment Grants</td>
</tr>
</tbody>
</table>

1 The designated cognizant agency for audit shall be the federal awarding agency that provides the predominant amount of direct funding to a recipient unless OMB changes it.

2 www.cfda.gov/
PROMPT PAYMENT MECHANISMS

In accordance with 49 CFR 26.29, and NY State Finance Law 139-f or NY General Municipal Law 106-b(2) as applicable:

(a) You must establish, as part of your DBE program, a contract clause to require prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 7 calendar days from receipt of each payment you make to the prime contractor.

(b) You must ensure prompt and full payment of retainage from the prime contractor to the subcontractor within 7 calendar days after the subcontractor's work is satisfactorily completed. You must use one of the following methods to comply with this requirement:

(1) You may decline to hold retainage from prime contractors and prohibit prime contractors from holding retainage from subcontractors.

(2) You may decline to hold retainage from prime contractors and require a contract clause obligating prime contractors to make prompt and full payment of any retainage kept by prime contractor to the subcontractor within 7 calendar days after the subcontractor's work is satisfactorily completed.

(3) You may hold retainage from prime contractors and provide for prompt and regular incremental acceptances of portions of the prime contract, pay retainage to prime contractors based on these acceptances, and require a contract clause obligating the prime contractor to pay all retainage owed to the subcontractor for satisfactory completion of the accepted work within 7 calendar days after your payment to the prime contractor.

(e) For purposes of this section, a subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the recipient. When a recipient has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

(d) Your DBE program must provide appropriate means to enforce the requirements of this section. These means may include appropriate penalties for failure to comply, the terms and conditions of which you set. Your program may also provide that any delay or postponement of payment among the parties may take place only for good cause, with your prior written approval.

(e) You may also establish, as part of your DBE program, any of the following additional mechanisms to ensure prompt payment:

(1) A contract clause that requires prime contractors to include in their subcontracts language providing that prime contractors and subcontractors will use appropriate alternative dispute resolution mechanisms to resolve payment disputes. You may specify the nature of such mechanisms.

(2) A contract clause providing that the prime contractor will not be reimbursed for work performed by subcontractors unless and until the prime contractor ensures that the subcontractors are promptly paid for the work they have performed.

(3) Other mechanisms, consistent with this part and applicable state and local law, to ensure that DBEs and other contractors are fully and promptly paid.

USE OF UNITED STATES-FLAG VESSELS: The contractor agrees:

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

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

April 2016
APPENDIX C

SPECIAL EQUAL EMPLOYMENT OPPORTUNITY PROVISIONS

Specific Equal Employment Opportunity Responsibilities

1. GENERAL  (a) Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity, as required by Federal Executive Order 11246, Federal Executive Order 11375, and NYS Executive Order 45, are set forth in required Contract Provisions (Form PR-1273 or 1316, as appropriate) and those Special Provisions which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal Aid Highway Act of 1968. Non-discrimination and affirmative action are also required by the State Labor Law, Section 220-e, as amended, and the Regulations of the NYS Department of Transportation relative to federally-assisted programs (Title 49, Code of Federal Regulations, Part 21 and Section 21.5), including employment practices when the agreement covers a program set forth in Appendix B of the Regulations. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for projects activities under this contract.

(b) The CONSULTANT will work with the STATE and the Federal Government in carrying out equal employment opportunity obligations and in their review of their activities under this contract.

(c) The CONSULTANT and all their sub-consultants and/or sub-contractors holding sub-contracts of $10,000 or more will comply with the following minimum specific requirements of equal employment opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal Aid Highway Program Manual, are applicable to contractors and sub-contractors.) The CONSULTANT will include these requirements in every sub-contract with such modification of language as is necessary to make them binding on the sub-contractor.

2. EQUAL EMPLOYMENT OPPORTUNITY POLICY  The CONSULTANT, their sub-consultant and/or sub-contractor or any person acting on behalf of the CONSULTANT or sub-consultant and/or sub-contractor will accept as their operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, national origin, age, disability or marital status, and to promote the full realization of equal employment opportunity through a positive continuing program. “It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, or during consideration for employment, without regard to their race, religion, sex, or color, national origin, age, disability or marital status. Such non-discriminatory action shall include, but not be limited to: employment, job assignment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training.”

3. EQUAL EMPLOYMENT OPPORTUNITY OFFICER  The CONSULTANT will designate and make known to the New York State Department of Transportation contracting officers an Equal Employment Opportunity Officer and a Minority Business Enterprise officer (hereinafter referred to as the EEO Officer and M.B.E. Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active equal employment opportunity program and who must be assigned adequate authority and responsibility to do so.

4. DISSEMINATION OF POLICY (a) All members of the CONSULTANT’s staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the CONSULTANT’s equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To insure that the above agreement will be met, the following actions will be taken as a minimum:

(1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less than once every six months, at which time the CONSULTANT’s equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.
(2) All new supervisory (first level of supervision and above) or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the CONSULTANT’s equal employment opportunity obligations within thirty days following their reporting for duty with the CONSULTANT.

(3) All personnel who are engaged in direct recruitment for the project will be instructed in the CONSULTANT’s procedures for locating and hiring minority group employees by the EEO Officer or appropriate company official. (Minority group referred to herein shall mean Black, Hispanic, Asian/Pacific Islander, American Indian/Alaskan.)

(b) In order to make the CONSULTANT’s equal employment opportunity policy known to all employees, prospective employees and potential sources or employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the CONSULTANT will take the following actions:

(1) Notices and posters setting forth the CONSULTANT’s equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

(2) The CONSULTANT’s equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

(c) In all solicitations either by competitive bidding or negotiation made by the CONSULTANT for work to be performed under a sub-contract, including procurements of materials or equipment, each potential sub-contractor or supplier shall be notified by the CONSULTANT of the CONSULTANT’s obligations under this agreement and the Regulations relative to non-discrimination.

5. RECRUITMENT (a) When advertising for employees, the CONSULTANT will include in all advertisements for employees the notation: “An Equal Opportunity Employer.” All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived. These advertisements shall state that all qualified applicants will be afforded equal employment opportunity without regard to race, religion, sex, color, national origin, age, disability or marital status.

(b) The CONSULTANT will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the CONSULTANT’s EEO Officer will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the CONSULTANT for employment consideration. In the event the CONSULTANT has a valid bargaining agreement providing for exclusive hiring hall referrals, the CONSULTANT is expected to observe the provisions of that agreement to the extent that the system permits the CONSULTANT’s compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the CONSULTANT to do the same, such implementation violates Executive Order 11246.

(c) The CONSULTANT will encourage present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

6. PERSONNEL ACTIONS Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age, disability or marital status. The following procedures shall be followed:

(a) The CONSULTANT will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

(b) The CONSULTANT will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory practices.
(c) The CONSULTANT will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the CONSULTANT will promptly take corrective action. If the review indicated that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

(d) The CONSULTANT will promptly investigate all complaints of alleged discrimination made in connection with obligations under this agreement, will attempt to resolve such complaints, and will take appropriate corrective action within 15 days. All subsequent corrective actions or decisions will also be documented and forwarded to the NYS Department of Transportation Compliance Officer within 7 days after such action has taken place. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the CONSULTANT will inform every complainant of the results and all of their avenues of appeal should the complaint be denied.

7. TRAINING AND PROMOTION  (a) The CONSULTANT will assist in locating, qualifying and increasing the skills of minority group and women employees, and applicants for employment.

(b) Consistent with the CONSULTANT's work force requirements and as permissible under the Federal and State regulations, the CONSULTANT shall make full use of training programs; i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance. In the event the Training Special Provision is provided under this contract, this subparagraph is superseded thereby.

c) The CONSULTANT will advise employees and applicants for employment of available training programs and entrance requirements for each.

d) The CONSULTANT will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

8. UNIONS  If the CONSULTANT relies in whole or in part upon unions as a source of employees, the CONSULTANT will use their best effort to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and, to effect referrals by such unions of minority and female employees. The CONSULTANT will send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice to be provided by the State Division of Human Rights, advising such labor union or representative of the CONSULTANT's compliance and with the non-discrimination clauses. Actions by the CONSULTANT, either directly or through a CONSULTANT's association acting as agent, will include the procedures set forth below:

(a) The CONSULTANT will use their best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

(b) The CONSULTANT will use their best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age, disability or marital status.

(c) The CONSULTANT is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union, and such labor union refuses to furnish such information to the CONSULTANT. The CONSULTANT shall so certify to the STATE and shall set forth what efforts have been made to obtain such information. Further, if the CONSULTANT was directed to do so by the contracting agency as part of the bid or negotiations of this contract, the CONSULTANT shall request such labor union or representative to furnish him with a written statement that such labor union or representative accepts the non-discrimination clauses and will affirmatively cooperate, within the limits of its legal and contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the CONSULTANT shall promptly notify the State Division of Human Rights and set forth what efforts have been made to obtain such information.

(d) In the event the union is unable to provide the CONSULTANT with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the CONSULTANT will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age, disability or marital status, making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor
has held that it shall be no excuse that the union with which the CONSULTANT has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the CONSULTANT from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such CONSULTANT shall immediately notify the New York State Department of Transportation.

9. AFFIRMATIVE ACTION IN SUBCONTRACTING
   (a) The CONSULTANT will not discriminate on the grounds of race, religion, sex, color, national origin, age, disability or marital status in the selection of subcontractors, including procurements and leases of equipment.

   (b) If the CONSULTANT determines to use a subcontractor as part of this agreement, affirmative action shall be taken to increase the participation of minority business firms in that work. As part of that affirmative action, the CONSULTANT will identify and contact minority business firms and solicit proposals for the work to be subcontracted. The STATE will provide a list of names of minority business firms to the CONSULTANT. Another source that should be contacted for a list of minority business firms is the Governor's Office of Minority & Women's Business Development (GOMWBD).

   (c) The CONSULTANT will document the affirmative action steps taken to comply with paragraph 9b. Such documentation will be provided at the time or submittal of a formal proposal to the State's Contracts Bureau.

   (d) By execution of this agreement, the CONSULTANT certifies that the affirmative action steps in 9a, 9b & 9c above were taken when soliciting proposals for the work in this agreement indicated to be subcontracted and that these steps will be taken should any work be subcontracted in the future.

   (e) The CONSULTANT will insure binding subcontractor and vendor compliance with their EEO obligations. The CONSULTANT will take such actions in enforcing such provisions of such subcontract or purchase order as the contracting agency may direct, including sanctions or remedies for non-compliance. If the CONSULTANT becomes involved in or is threatened with litigation with a subcontractor or a vendor as a result of such direction by the contracting agency, the CONSULTANT shall promptly so notify the Attorney General, requesting him to intervene and protect the interest of the State of New York.

10. RECORDS AND REPORTS
   (a) The CONSULTANT will keep such records as are necessary to determine compliance with the CONSULTANT's equal employment opportunity obligations. The records kept by the CONSULTANT will be designed to indicate:

   (1) The number of minority and non-minority group members and women employed in each work classification on the project, where required by the NYS D.O.T Compliance Officer.

   (2) The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to CONSULTANTS who rely in whole or in part on unions as a source of their work force).

   (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees.

   (4) The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.

   (5) Compliance with all other requirements in these provisions such as meetings, instructions, employment efforts, etc.

   (b) The CONSULTANT will comply with Sections 291-299 of the Executive Law and Civil Rights Law and will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts other sources of information, and its facilities as may be determined by State or Federal officials to be pertinent to ascertain compliance with such Regulations, orders and instructions. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State and the Federal Highway Administration.

   (c) Failure to comply with these Special EEO Provisions may be considered unsatisfactory performance and may subject the agreement to termination under the termination article of this agreement. Non-compliance may result in the CONSULTANT’s being declared ineligible for future agreements made by or on behalf of the STATE or a public authority or agency of the STATE, until he satisfies the State Commissioner of Human Rights that he has established and is carrying out a program in
conformity with the provisions of these non-discrimination clauses. Such finding shall be made by the State Commissioner of Human Rights after conciliation efforts by the State Division of Human Rights have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the State Division of Human Rights, notice thereof has been given to the CONSULTANT and an opportunity has been afforded them to be heard publicly before the State Commissioner of Human Rights or official designee. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided for by law. These may include, but are not limited to:

(1) withholding of payments to the CONSULTANT under the agreement until the CONSULTANT complies, and/or

(2) cancellation, termination or suspensions of the agreement in whole or in part.

11. TRAINING SPECIAL PROVISIONS

This Training Special Provision supersedes paragraph 7.b above and is in implementation of 23 CFR Subpart A, Section 230.111 & Executive Order 11246.

As part of the CONSULTANT’s equal employment opportunity affirmative action program training shall be provided as follows:

The CONSULTANT shall provide on-the-job training aimed at developing full competence in the job classification involved.

The number of months of training to be provided under these special provisions is previously stated in this Agreement.

In the event that the CONSULTANT subcontracts a portion of the contract work, it shall be determined how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the CONSULTANT shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The CONSULTANT shall also insure that this training special provision is made applicable to such subcontract.

The number of trainees shall be distributed among the work classifications on the basis of the CONSULTANT’s needs. Along with their proposal, the CONSULTANT shall submit to the New York State Department of Transportation for approval the proposed number of trainees to be trained in each selected classification, their estimated salaries and a training schedule. The salaries to be paid trainees shall not be less that 75 percent of the average hourly rate approved in the agreement for the classification to be trained. During the period from the beginning of the project to its completion, the trainee shall receive reasonable salary increases commensurate to the abilities and effort exerted by the trainee. The training schedule required should indicate the start of work and appropriate incremental salary steps in accord with the above.

Training and upgrading the proficiency of minorities and women is a primary objective of this Training Special Provision. Accordingly, the CONSULTANT shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The CONSULTANT will be responsible for demonstrating the steps that have been taken in pursuance thereof, prior to a determination as to whether the CONSULTANT is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training program or in a classification in which they have been employed. The CONSULTANT should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the CONSULTANT’s records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training schedule developed by the CONSULTANT and approved by the State and Federal Highway Administration. The State and the Federal Highway Administration shall approve a program if it reasonably calculated to meet the equal employment opportunity obligations of the CONSULTANT and to assist in qualifying the average trainee toward proficiency in the classification concerned by the end of the training period. Approval of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. Training is permissible in lower level management positions. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

The CONSULTANT will be reimbursed for the cost of any and all training under the payment terms of this agreement. This can include offsite training cost as discussed above. All offsite training must be defined in the training schedule. All costs claimed
or calculated for training must be directly related to the work defined in the scope of this agreement and/or added by supplemental agreement.

The CONSULTANT must demonstrate their best efforts and evidence good faith in hiring trainees for positions in the classification in which they have completed training.

The CONSULTANT shall furnish the trainee a copy of the program they will follow in the training. The CONSULTANT shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The CONSULTANT will provide for the maintenance of records and furnish periodic reports documenting their performance under this Training Special Provision.

Updated December 2012
State Consultant Services - Contractor’s Annual Employment Report

Report Period: April 1, to March 31,

Contracting State Agency Name: NYSDOT
Agency Code: 3900283

Contract Number: C031487

Contract Term: to

Contractor Name:
Contractor Address:

Description of Services Being Provided: OPERATION OF THE INTERCOUNTY BUSRapid TRANSIT SERVICE FOR NYSDOT

Scope of Contract (Choose one that best fits):

- Analysis
- Data Processing
- Architect Services
- Mental Health Services
- Paralegal

- Evaluation
- Computer Programming
- Surveying
- Accounting
- Legal

- Research
- Other IT Consulting
- Environmental Services
- Auditing
- Other Consulting

ONET Employment Category Code
ONET Employment Category Name
Number of Employees
Number of Hours Worked
Amount Payable Under the Contract
8.2 **Attachment 2: Key Personnel Resumes and References**

Instructions:
- Complete *Error! Reference source not found.* for **each** Key Personnel title identified in the RFP.
- *Error! Reference source not found.* shall not exceed three pages in length
- Proposers may expand the boxes as necessary
- The term “Client” below refers to the past project owner. “Client” is NOT a Prime Contractor where the proposing firm acted in the capacity as a Subcontractor.

| 1. Personnel Name and Title: |
| 2. Title Assigned for this Project: |
| 3. Firm working for on this Project: |
| 4. Current Employment Status: |
|   [ ] Employed by Firm identified #3 above |
|   [ ] Employed by a different Firm |
|   [ ] Unemployed |
| 5. Years of Relevant Experience |
| 6. Description of Relevant Experience: |
| 7. Certifications/Licenses: |
| 8. Education: |
| Past Project Experience Complete below for a maximum of five past projects |
| 9.1 Project Description (include contract number where appropriate): |
| 9.2 Client Name: |
| 9.3 Client Contact Information (including contact name, phone number, and e-mail address): |
| 9.4 Description of person’s role and responsibilities during project: |
| 10.1 Project Description (include contract number where appropriate): |
| 10.2 Client Name: |
| 10.3 Client Contact Information (including contact name, phone number, and e-mail address): |
| 10.4 Description of person’s role and responsibilities during project: |
| 11.1 Project Description (include contract number where appropriate): |
| 11.2 Client Name: |
| 11.3 Client Contact Information (including contact name, phone number, and e-mail address): |
| 11.4 Description of person’s role and responsibilities during project: |
| 12.1 Project Description (include contract number where appropriate): |
| 12.2 Client Name: |
| 12.3 Client Contact Information (including contact name, phone number, and e-mail address): |
| 12.4 Description of person’s role and responsibilities during project: |
| 13.1 Project Description (include contract number where appropriate): |
| 13.2 Client Name: |
| 13.3 Client Contact Information (including contact name, phone number, and e-mail address): |
| 13.4 Description of person’s role and responsibilities during project: |
8.3 Attachment 3: Diversity Practices Questionnaire

I, ___________________, as __________________ (title) of ______________firm or company (hereafter referred to as the company), swear and/or affirm under penalty of perjury that the answers submitted to the following questions are complete and accurate to the best of my knowledge:

1. Does your company have a Chief Diversity Officer or other individual who is tasked with supplier diversity initiatives? Yes or No

   If Yes, provide the name, title, description of duties, and evidence of initiatives performed by this individual or individuals.

2. What percentage of your company’s gross revenues (from your prior fiscal year) was paid to New York State certified minority and/or women-owned business enterprises as subcontractors, suppliers, joint-venturers, partners or other similar arrangement for the provision of goods or services to your company’s clients or customers?

3. What percentage of your company’s overhead (i.e. those expenditures that are not directly related to the provision of goods or services to your company’s clients or customers) or non-contract-related expenses (from your prior fiscal year) was paid to New York State certified minority- and women-owned business enterprises as suppliers/contractors?

4. Does your company provide technical training to minority- and women-owned business enterprises? Yes or No

   If Yes, provide a description of such training which should include, but not be limited to, the date the program was initiated, the names and the number of minority- and women-owned business enterprises participating in such training, the number of years such training has been offered and the number of hours per year for which such training occurs.

5. Is your company participating in a government approved minority- and women-owned business enterprise mentor-protégé program?

   If Yes, identify the governmental mentoring program in which your company participates and provide evidence demonstrating the extent of your company’s commitment to the governmental mentoring program.

6. Does your company include specific quantitative goals for the utilization of minority- and women-owned business enterprises in its non-government procurements? Yes or No

---

3 Do not include onsite project overhead.

4 Technical training is the process of teaching employees how to more accurately and thoroughly perform the technical components of their jobs. Training can include technology applications, products, sales and service tactics, and more. Technical skills are job-specific as opposed to soft skills, which are transferable.
If Yes, provide a description of such non-government procurements (including time period, goal, scope and dollar amount) and indicate the percentage of the goals that were attained.

7. Does your company have a formal minority- and women-owned business enterprise supplier diversity program? Yes or No

If Yes, provide documentation of program activities and a copy of policy or program materials.

8. Does your company plan to enter into partnering or subcontracting agreements with New York State certified minority- and women-owned business enterprises if selected as the successful respondent? Yes or No

If Yes, complete the attached Utilization Plan (Attachment 7).

All information provided in connection with the questionnaire is subject to audit and any fraudulent statements are subject to criminal prosecution and debarment.

Signature of Owner/Official

Printed Name of Signatory

Title

Name of Business

Address

City, State, Zip

STATE OF _______________________________

COUNTY OF _______________________________

On the ______ day of __________, 201_, before me, the undersigned, a Notary Public in and for the State of __________, personally appeared ______________________________, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to this certification and said person executed this instrument.

________________________
Notary Public
8.4 Attachment 4: Contractor Information and Certifications
(Please submit this with your Part II: Administrative Section of your Cost Proposal)

CONTRACT NUMBER: C031487

PROJECT TITLES: Operation of the Intercounty Bus Rapid Transit Service to NYSDOT

I. CONTRACTOR INFORMATION

FIRM NAME: ______________________________________________________________

ADDRESS:_________________________________________________________________

CITY:_________________________________________ STATE: __________

ZIP CODE: __ __ __ __ - __ __ __

TELEPHONE : (____) _____ - __________  FAX: (____) _____ - __________

E-MAIL ADDRESS: _________________________________________________________

CONTACT PERSON: ________________________________________________________

  Contractor’s Federal Identification Number (FEIN):___________________________

  Contractor’s NYSDOT Contractor Identification Number (CIN):_________________

  Please indicate below the name, title, address, and telephone/fax numbers of the
  person who prepared this proposal, as well as any other individual(s) with authority to
  negotiate and contractually bind the proposer and also who may be contacted during
  the period of proposal evaluation:

Preparer’s Name/Title: _______________________________________________________

Address: ___________________________________________________________________

Telephone: (____) _____ - __________  FAX: (____) _____ - __________

Other Authorized Individual(s):

Name/Title:________________________________________________________________

Address:___________________________________________________________________

Telephone: (____) _____ - __________  FAX: (____) _____ - __________
II. PROPOSER CERTIFICATIONS

By signing below, I, _____________________________, authorized individual

(Name)

of ______________________________________ make the following

(Firm)

certifications regarding the subject proposal:

• 180-Day Offer: This proposal is a firm offer for a 180-day period from the date of submission.
• The firm has read and will follow the procedure outlined in Section 7.3 of the RFP if it proposes the services of a former NYSDOT employee(s).
• Vendor Responsibility: If selected for contract award, the firm will complete and submit the required Vendor Responsibility Questionnaire via the OSC VendRep portal within 10 days of notification of designation. (http://www.osc.state.ny.us/vendrep/forms_vendor.htm)

• ST-220: If selected for contract award greater than $100,000, the firm will complete and submit the required Forms ST-220-TD and 220-CA (Contractor Certifications) prior to negotiation with NYSDOT. You should make yourself familiar with these forms by visiting the following Web sites:
  http://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf  (Form ST-220-CA)
  http://www.tax.ny.gov/pdf/current_forms/st/st220td_fill_in.pdf  (Form ST-220-TD)

Signature: ________________________________________________

III. ACCEPTANCE OF CONTRACT

By signing below, I, ______________________________, authorized individual

(Name)

of ______________________________________ hereby certify that I have read and

(Firm)

accept all terms and conditions contained in the draft Contract, including

Appendix A, which is included as Attachment 1 to this Request for Proposals.

Signature: ________________________________________________

(Name of Acceptor)
8.5 Attachment 5: Procurement Lobbying Law Compliance

1. Required Forms: The Contractor shall sign and e-mail/fax the following forms. These forms are part of and due with the Contractor’s proposal.

- Proposer’s Affirmation of Understanding of and Agreement pursuant to State Finance Law §139-j (3) and §139-j (6) (b) [https://www.dot.ny.gov/main/business-center/portal/page/portal/consultants-repository/offers_affirmation_and_agreement_form.pdf](https://www.dot.ny.gov/main/business-center/portal/page/portal/consultants-repository/offers_affirmation_and_agreement_form.pdf)


2. NYSDOT Guidelines and Procedures

Under the requirements of the State Procurement Act all communications regarding advertised projects are to be channeled through Contract Management (*Designated Contacts). Until a designation is made, communication with any other NYSDOT employee concerning this project that is determined to be an attempt to influence the procurement may result in disqualification.


3. Summary of the policy and prohibitions regarding permissible contacts

a) Contacts prior to designation:

Any communications involving an attempt to influence the procurement are only permitted with the following Designated Contact Persons:

- The Contract Management Designation Contract Analyst
- The Contract Management Designation Analyst Supervisor
- The Contract Management Civil Rights Unit Supervisor
- The Contract Management Assistant Directors
- The Contract Management Director

These are some communications exempted from this restriction:

- Participation in a pre-proposal conference.
- Protests, complaints of improper conduct or misrepresentation
If any other NYSDOT employee is contacted and they believe a reasonable person would infer that the communication was intended to influence the procurement, the contact must be reported by NYSDOT employee. If the Department determines an impermissible contact was made, that proposer cannot be awarded the contract. A second violation would lead to a four-year bar on the award of public contracts to the proposer.

b) Contacts after designation

NYSDOT identifies its primary negotiation contacts. The designated contacts include:

- The Contract Management Designation Contract Analyst
- The Contract Management Designation Analyst Supervisor
- The Contract Management Civil Rights Unit Supervisor
- The Contract Management Assistant Directors
- The Contract Management Director
- The Operator Management Bureau Operator job manager
- The Operator Management Bureau Operator job manager’s immediate supervisor

The law does not limit who may be contacted during the negotiation process. However, if any NYSDOT employee is contacted and they believe a reasonable person would infer that the communication was intended to influence the procurement, the contact must be reported by NYSDOT employee.

c) Information Required from Proposers that contact NYSDOT staff, prior to contract approval by the Office of the State Comptroller:

The individuals contacting NYSDOT should refer and shall be prepared to provide the following information, either by e-mail or fax as directed by NYSDOT:

Person’s name, firm person works for, address of employer, telephone number, occupation, firm they are representing, and whether owner, employee, retained by or designated by the firm to appear before or contact NYSDOT.

d) Applicability to an executed contract:

Restrictions similar to those described above apply to approval or denial of an assignment, amendment (other than amendments that are authorized and payable under the terms of the procurement contract as it was finally awarded or approved by the comptroller, as applicable), renewal or extension of a procurement contract, or any other material change in the procurement contract resulting in a
financial benefit to the proposer. The staff noted above as well as the project manager and Operator manager are considered designated contact persons. The Department may identify other contact persons for each of these processes.

4. Rules and regulations and more information on this law, please visit:

http://ogs.ny.gov/Aboutogs/regulations/defaultAdvisoryCouncil.html (Advisory Council FAQs)

For more information, go to NYSDOT’s Web Site at http://www.dot.ny.gov or contact:

Patricia Kappeller
NYSDOT Contract Management
50 Wolf Road, 6th Floor
Albany, New York 12232
E-mail: patricia.kappeller@dot.ny.gov
Tele: (518) 457-2600
### 8.6 Attachment 6: Contractor Disclosure Legislation Forms A&B

#### FORM B

<table>
<thead>
<tr>
<th>OSC Use Only:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Code:</td>
</tr>
<tr>
<td>Category Code:</td>
</tr>
</tbody>
</table>

#### State Operator Services

**Contractor's Annual Employment Report**

**Report Period:** April 1, to March 31,

<table>
<thead>
<tr>
<th>Contracting State Agency Name: Transportation</th>
<th>Agency Code: DOT01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Number:</td>
<td></td>
</tr>
<tr>
<td>Contract Term: to</td>
<td></td>
</tr>
<tr>
<td>Contractor Name:</td>
<td></td>
</tr>
<tr>
<td>Contractor Address:</td>
<td></td>
</tr>
<tr>
<td>Description of Services Being Provided:</td>
<td></td>
</tr>
</tbody>
</table>

#### Scope of Contract (Choose one that best fits):

- Analysis
- Evaluation
- Research
- Training
- Data Processing
- Computer Programming
- Other IT consulting
- Engineering
- Architect Services
- Surveying
- Environmental Services
- Health Services
- Mental Health Services
- Accounting
- Auditing
- Paralegal
- Legal
- Other Consulting

<table>
<thead>
<tr>
<th>O<em>NET Employment Category Number and O</em>NET Job Title</th>
<th>Number of Employees</th>
<th>Number of Hours Worked</th>
<th>Amount Payable Under the Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total this page 0 0 $ 0

Grand Total

Name of person who prepared this report:
Preparer’s Signature: ____________________________________________

Title: ____________________________________________
Phone #: ____________________________________________

Date Prepared: / / Use additional pages if necessary)
8.7 Attachment 7: M/WBE Participation Information

Please complete the following table for the prime firm and all subcontractors (Contractor team composition): please identify each firm’s legal name, checking if they are an Empire State Development (ESD)-certified MBE and/or an ESD-certified WBE, and indicating each firm’s percentage of the total project cost for the contract. Please keep in mind that only ESD-certified MBE and/or certified WBE prime Contractors and/or ESD certified MBE and/or certified WBE subcontractors are eligible to participate toward attainment of this state-funded procurement.

Further, participation by a certified MBE and/or WBE prime Contractor as well as certified MBE and/or WBE subcontractors may count towards the M/WBE participation goal.

If the combined percentage of total salary for all certified MBEs and/or all certified WBEs proposed is less than the combiner 23% M/WBE participation goal, then the proposing prime firm is required to fill out and submit the Participation Solicitation Log (Error! Reference source not found.; one for each goal not attained), and is required to submit a M/WBE Goal Attainment Explanation Letter.

Contract#: _C031487_______________________________

<table>
<thead>
<tr>
<th>Firm Legal Name</th>
<th>NYS ESD Certified MBE/WBE</th>
<th>% of Total Contract Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MBE</td>
<td>WBE</td>
</tr>
<tr>
<td>A. Prime Contractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Subcontractor s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# 8.7 Attachment 7a: M/WBE Subcontractor Participation Solicitation Log

*(Good Faith Effort Documentation)*

<table>
<thead>
<tr>
<th>Prime Firm Name/Address/Zip Code</th>
<th>Contact Person</th>
<th>Telephone Number (Include Area Code)</th>
<th>E-Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solicited Company Name and Contact Person</td>
<td>Telephone (With Area Code)</td>
<td>Federal Employer ID #</td>
<td>Work Types Being Solicited</td>
</tr>
</tbody>
</table>

| | | | | | |
8.8 Attachment 8: SDVOB Participation Information

Please complete the following table for the prime firm and all subcontractors (Contractor team composition): please identify each firm’s legal name, checking if they are a NYS Office of General Services Certified SDVOB, and indicating each firm’s percentage of the total salary for the contract. Please keep in mind that only certified SDVOB prime Contractors are eligible to participate toward attainment of this state-funded procurement.

Further, participation by a certified SDVOB Contractor may count towards the SDVOB participation goal.

If the combined percentage of total salary for all certified SDVOBs proposed is less than the 3% SDVOB participation goal, then the proposing prime firm is required to fill out and submit the Participation Solicitation Log (Error! Reference source not found.; one for each goal not attained), and is required to submit a SDVOB Goal Attainment Explanation Letter.

Contract#: C031487

<table>
<thead>
<tr>
<th>Firm Legal Name</th>
<th>NYS Office of General Services Certified SDVOB</th>
<th>% of Total Contract Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>A. Prime Contractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Subcontractors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
## 8.8 Attachment 8a: SDVOB Subcontractor Participation Solicitation Log

*(Good Faith Effort Documentation)*

<table>
<thead>
<tr>
<th>CONTRACT NO.</th>
<th>PARTICIPATION GOAL</th>
<th>PAGE NUMBER ___ OF ___</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRIME FIRM NAME/ADDRESS/ZIP CODE</th>
<th>CONTACT PERSON</th>
<th>TELEPHONE NUMBER (INCLUDE AREA CODE)</th>
<th>E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOLICITED COMPANY NAME AND CONTACT PERSON</th>
<th>TELEPHONE (WITH AREA CODE)</th>
<th>FEDERAL EMPLOYER ID #</th>
<th>WORK TYPES BEING SOLICITED</th>
<th>TYPES AND DATES OF CONTACTS</th>
<th>CONTACT RESULT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8.9 Attachment 9: Solicitation Log Instructions

SOLICITATION LOG INSTRUCTIONS

(Good Faith Effort Documentation)

To be deemed responsive to this solicitation, Contractors whose proposed M/WBE/SDVOB participation does not meet the established participation goal must document and report their efforts to solicit participation by certified M/WBE/SDVOB in this Non-Architecture/Non-Engineering contract. The Solicitation Log is used for this purpose.

PLEASE NOTE: For RFP’s with MBE/WBE/SDVOB goals, only Operators or subcontractors certified by New York State Empire State Development and/or New York State Office of General Services SVDOB Program may count toward goal attainment.

Guidance concerning Good Faith Efforts in meeting M/WBE/SDVOB participation goals is located at the end of this section.

The logs are to be filled out and submitted with the proposing firm’s Cost and Contract Proposal. In order for a proposal to be determined as responsive when the M/WBE/SDVOB participation goals are not attained at all or only partially attained, then the proposer must complete all sections of these forms and submit Solicitation Logs, along with a Goal Attainment Explanation Letters, documenting the firm’s Good Faith Effort. A separate Solicitation Log must be submitted for each Participation Goal established in the RFP.

*** DBE CERTIFICATION IS A FEDERAL PROGRAM CERTIFICATION. ***

IT IS SEPARATE AND DISTINCT FROM THE NEW YORK STATE MBE/WBE/SDVOB PROGRAMS. PLEASE DO NOT CONFUSE THE TWO. FIRMS WITH QUESTIONS REGARDING THESE PROGRAMS ARE ENCOURAGED TO SUBMIT WRITTEN QUESTIONS

CONTRACT NO: Enter NY State DOT contract number (Example: C012345).

PARTICIPATION GOAL: Enter applicable MBE/WBE/SDVOB participation goals percentage as stated in the proposal.

PAGE NO.: Enter 1 of 1; or 1 of 2 and 2 of 2; etc. Use additional forms as needed.

PRIME NAME/ADDRESS/ZIP CODE: Enter name of the Prime Contractor, its address and zip code.

CONTACT PERSON: Enter the name of the person your firm has designated as the authorized contact person for this solicitation.
CONTACT PERSON TELEPHONE AND E-MAIL: Enter area code, phone number and e-mail address for the person your firm has designated as the authorized contact person for this solicitation.

MBE/WBE/DBE CONTRACTORS SOLICITED:

SOLICITED COMPANY NAME AND CONTACT PERSON: Enter name of solicited firm and name of the individual associated with the firm to whom the solicitation inquiry was sent.

TELEPHONE (With Area Code): Enter TELEPHONE number of the solicited firm.

FEDERAL EMPLOYER ID #: Enter the Federal Employer Identification Number of the solicited firm.

WORK TYPE(S) BEING SOLICITED: Enter the work type(s) or Commercial Useful Function for which this firm has been solicited in connection with the Scope of Services for this contract. NOTE: Commodity type codes are provided for every certified firm listed in the ESD M/WBE Registry.

TYPES AND DATES OF CONTACT: Enter dates on which your firm contacted the solicited firm, either by mail (date solicitation sent), telephone (including date and time of call) or other person-to-person contacts. Identify the type of contact by prefacing each date with ‘M” if a mail contact; “T” if a telephone call; and “D” if a direct meeting with the firm.

CONTACT RESULT(S): Enter the code(s) which indicates the result(s) of your solicitation.

*** USE ADDITIONAL PAGES AS NEEDED ***

A description of the codes to use is as follows:

CODE DESCRIPTION:

1. This firm is unavailable to participate in the contract for the reason(s) stated on the DBE Solicitation Response. (Attach explanation to the Log.)

2. This firm is no longer in business. (NOTE: If this action is checked, attach your explanation as to why the solicitation was sent to the firm and how evidence that it was no longer in business was obtained. Attach the returned envelope showing that it was undeliverable, for instance.

3. The soliciting Prime Contractor was unable to reach this firm after having a telephone conversation to follow-up on the participation solicitation inquiry. (NOTE: Indicate in the Types and Dates of Contact column the dates and times at which follow-up was attempted.)

4. This firm did not respond to repeated telephone messages. (NOTE: Indicate in the Types and Dates of Contact column the dates and times at which messages were left.)
Guidance Concerning Good Faith Efforts in Meeting M/WBE/SDVOB Participation Goals in Federally-Funded Contracts

The following is a list of types of actions that demonstrate good faith efforts in obtaining M/WBE/SDVOB participation. This list is not exclusive or exhaustive. The bidder must show that it took all necessary and reasonable steps to achieve an M/WBE/SDVOB goals which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient M/WBE/SDVOB participation, even if they were not fully successful.

- Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, utilizing the NYSUCP DBE Directory – [http://www.nysucp.net/](http://www.nysucp.net/), the ESD M/WBE Directory - [https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp?TN=ny&XID=4687](https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp?TN=ny&XID=4687), or the NYS Office of General Services list of certified SDVOB at [http://ogs.ny.gov/core/sdvoba.asp](http://ogs.ny.gov/core/sdvoba.asp) the interest of all certified M/WBE/SDVOB who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the M/WBE/SDVOB to respond to the solicitation. The bidder must determine with certainty if the M/WBE/SDVOB are interested by taking appropriate steps to follow up initial solicitations.

- Selecting portions of the work to be performed by M/WBE/SDVOB in order to increase the likelihood that the M/WBE/SDVOB goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate M/WBE/SDVOB participation, even when the bidder might otherwise prefer to perform these work items with its own forces.

- Providing interested M/WBE/SDVOB with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

- Negotiating in good faith with interested M/WBE/SDVOB – it is the bidder’s responsibility to make a portion of the work available to M/WBE/SDVOB subcontractors and suppliers and to select those portions of the work or material needs consistent with the available M/WBE/SDVOB subcontractors and suppliers, so as to facilitate M/WBE/SDVOB participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of M/WBE/SDVOB that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for M/WBE/SDVOB to perform the work.

- A bidder using good business judgment should consider a number of factors in negotiating with subcontractors, including M/WBE/SDVOB subcontractors, and would take a firm’s price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding a M/WBE/SDVOB is not in itself sufficient reason for failure to meet the contract M/WBE/SDVOB goals. Also, the ability or desire to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts.

- Do not reject M/WBE/SDVOB as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor’s standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union versus non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor’s efforts to meet the project goal.

- Making efforts to assist interested M/WBE/SDVOB in obtaining bonding, lines of credit, or insurance as required by the recipient or contract.
8.108.11 Attachment 10: New York Business Reporting

Encouraging Use of New York State Businesses in Contract Performance

New York State businesses have a substantial presence in State contracts and strongly contribute to the economies of the state and the nation. In recognition of their economic activity and leadership in doing business in New York State, bidders/proposers for this contract for commodities, services or technology are strongly encouraged and expected to consider New York State businesses in the fulfillment of the requirements of the contract. Such partnering may be as subcontractors, suppliers, protégés or other supporting roles.

Bidders/proposers need to be aware that all authorized users of this contract will be strongly encouraged, to the maximum extent practical and consistent with legal requirements, to use responsible and responsive New York State businesses in purchasing commodities that are of equal quality and functionality and in utilizing services and technology. Furthermore, bidders/proposers are reminded that they must continue to utilize small, minority and women-owned businesses, consistent with current State law.

Utilizing New York State businesses in State contracts will help create more private sector jobs, rebuild New York’s infrastructure, and maximize economic activity to the mutual benefit of the contractor and its New York State business partners. New York State businesses will promote the contractor’s optimal performance under the contract, thereby fully benefiting the public sector programs that are supported by associated procurements.

Public procurements can drive and improve the State’s economic engine through promotion of the use of New York businesses by its contractors. The State therefore expects bidders/proposers to provide maximum assistance to New York businesses in their use of the contract. The potential participation by all kinds of New York businesses will deliver great value to the State and its taxpayers.

Bidders/proposers can demonstrate their commitment to the use of New York State businesses by responding to the question below and if answered in the affirmative, completing and submitting the following table for all firms (prime Contractor and all subcontractors) participating in your proposal. The definition of ‘NYS Business’ is: ‘Any firm with a business address which lies within the borders of New York State from which location the proposed services from this firm shall be provided under this contract’. Indicate whether each proposed firm is classified as a NYS Business, the total dollar amount attributable to each firm, the total proposed contract cost, and the NYS business address of each firm.
Contract Number: C031487

Will New York State Businesses be used in the performance of this contract?

Yes _____

No _____

<table>
<thead>
<tr>
<th>Firm Legal Name</th>
<th>NYS Business? (Y or N)</th>
<th>% of Total Proposed Contract Cost</th>
<th>NYS Business Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Prime Contractor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Subcontractors</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Proposed Contract Cost: $
8.118.12 Attachment 11: Form AOR

ACKNOWLEDGMENT OF RECEIPT OF RFP, MODIFICATIONS AND RESPONSES TO QUESTIONS

<table>
<thead>
<tr>
<th>NAME OF PROPOSER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

We hereby acknowledge receipt of the Contract Operation of the Intercounty Bus Rapid Transit Service for NYSDOT (contract #C031487) Request for Proposals, dated June 27, 2016 and subsequent responses to questions and Modifications issued by the Department, as listed below.

Add additional lines in tables below, if needed.

<table>
<thead>
<tr>
<th>Modification number:</th>
<th>Date issued by Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SIGNED

DATE

NAME
(printed or typed)

TITLE
SECTION 139-D OF THE STATE FINANCE LAW

SECTION 139-D, Statement of Non-Collusion in bids to the State:

BY SUBMISSION OF THIS BID, BIDDER AND EACH PERSON SIGNING ON BEHALF OF BIDDER CERTIFIES, AND IN THE CASE OF JOINT BID, EACH PARTY THERETO CERTIFIES AS TO ITS OWN ORGANIZATION, UNDER PENALTY OF PERJURY, THAT TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF:

[1] The prices of this bid have been arrived at independently, without collusion, consultation, communication, or agreement, for the purposes of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;

[2] Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other Bidder or to any competitor; and

[3] No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

A BID SHALL NOT BE CONSIDERED FOR AWARD NOR SHALL ANY AWARD BE MADE WHERE [1], [2], [3] ABOVE HAVE NOT BEEN COMPLIED WITH; PROVIDED HOWEVER, THAT IF IN ANY CASE THE BIDDER(S) CANNOT MAKE THE FOREGOING CERTIFICATION, THE BIDDER SHALL SO STATE AND SHALL FURNISH BELOW A SIGNED STATEMENT WHICH SETS FORTH IN DETAIL THE REASONS THEREFORE:

[AFFIX ADDENDUM TO THIS PAGE IF SPACE IS REQUIRED FOR STATEMENT.]

Subscribed to under penalty of perjury under the laws of the State of New York, this ______ day of ______________, 20____ as the act and deed of said corporation or partnership.
NON-COLLUSIVE BIDDING CERTIFICATION REQUIRED BY
SECTION 139-D OF THE STATE FINANCE LAW

IF BIDDER(S) (ARE) A PARTNERSHIP, COMPLETE THE FOLLOWING:

<table>
<thead>
<tr>
<th>NAMES OF PARTNERS OR PRINCIPALS</th>
<th>LEGAL RESIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IF BIDDER(S) (ARE) A CORPORATION, COMPLETE THE FOLLOWING:

<table>
<thead>
<tr>
<th>NAME</th>
<th>LEGAL RESIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

President:

Secretary:

Treasurer:

President:

Secretary:

Treasurer:
NON-COLLUSIVE BIDDING CERTIFICATION REQUIRED BY
SECTION 139-D OF THE STATE FINANCE LAW

Identifying Data

Potential Contractor: __________________________________________________

Address: __________________________________________________________________________

____________________________________________________________________________________

City, Town, etc.

Telephone: ________________________ Title ________________________

If applicable, Responsible Corporate Officer

Name: __________________________ Title __________________________

Signature: ____________________________________________________________

Joint or combined bids by companies or firms must be certified on behalf of each participant.

__________________________________________  __________________________
Legal name of person, firm or corporation  Legal name of person, firm or corporation

By

Name

________________________

Title

Address: __________________________________________

Street

________________________________________

City  State

156
8.138.14 Attachment 13: Cost Proposal Instructions

Attachment 13, which contains the RFP’s cost proposal instructions, is be downloaded from the NYSDOT project web site, located at https://www.dot.ny.gov/business. Click on “Consulting Services”, then click on “Opportunities”, and then click on the date to the left of ‘C031478…’.
8.148.15 Attachment 14: Reserved
8.158.16 Attachment 15: Bus Operations Requirements

1. Driving Record Required Qualifications:
   
   1.1. Drivers must have a valid New York State operator's license.

   1.2. Drivers must be a minimum of 21 years of age.

   1.3. A five-year driving record is required. The Contractor must review a five-year record issued within the past 45 days from any state where the applicant has held an operator's license in the past five years. When a five-year record is unavailable, a three-year driving record must be obtained.

   1.4. If an out-of-country driving record is unavailable then the applicant must have possessed a valid operator's license in the U.S. for the past three years.

   1.5. No more than two moving violations in the past five years are allowed. A driving safety course taken for a moving violation will not change the record for a commercial operator license holder.

   1.6. No more than two accidents in the past five years are allowed.

   1.7. Driving records must not reflect any conviction of a serious traffic violation (e.g., DUI, reckless driving, driving with a suspended license) in the past seven years.

   1.8. Driving records must not reflect more than two convictions of serious traffic violations in a lifetime.

   1.9. No more than two violations for No Liability Insurance in a five-year period are allowed.

   1.10. Moving violations, accidents, and/or other infractions may also disqualify an applicant.

   1.11. Any proposed hiring should be conditioned upon the prospective employee being allowed within the facilities and cleared with his or her background screening.

   1.12. In conjunction with this Contract, the Contractor shall not employ any person with any felony or misdemeanor drug offense, theft, assault or other conviction within the past ten (10) years for an offense that conflicts with the duties of the position.

   1.13. In conjunction with this Contract, the Contractor shall not employ any person with any conviction for a felony or a conviction or deferred adjudication for misdemeanor offense beyond 10 years that is serious enough to be considered in conflict with the duties of the position. For example, murder or sexual assault conviction.

   1.14. Other Qualifications:

      a. All bus operators must be employees (full or part time) of the Contractor.

      b. All bus operators must have the ability to effectively read, write and speak English.
c. All bus operators must have sensitivity to passenger needs.

d. All bus operators must have the ability to resolve complaints and problems as required.

e. All bus operators must pass a biennial United States Department of Transportation (USDOT) physical exam and be included in a "pool" of safety sensitive positions for random drug and alcohol testing as required by FTA regulations.

2. The Contractor shall conduct an annual review, and provide a comprehensive report to NYSDOT by July 15 of each Contract year, of driving records as required by 49 CFR 391.25 to ensure all employees continue to meet the preceding qualifications. Employees failing to meet these qualifications shall not be used to perform services under this Contract. For the final year of the Contract the report shall be submitted on the date requested by NYSDOT.

3. The Contractor shall put all vehicles into service on a fixed rotation schedule to ensure vehicle miles and hours are accumulated equally.

Staff Performance and Other Requirements

1. Uniform Specifications and Appearance Standards

   1.1. The consideration for safety must be applied to all dress code components for all staffing levels and duty assignments.

   1.2. All employees of the Contractor must wear their Contractor-issued employee ID/security badge visibly while in the provision of service. While on duty, bus operators shall be well groomed, clean and in complete uniform. The complete uniform should consist of a collared shirt and professional pants. All operator uniforms will be of the same exact color(s), have the exact decal or logo placement, must be neat in appearance, clean and pressed. The shoes must be shined; hair clean and neatly cared for. Bus operators must conform to these standards of appearance at all times.

2. Employee Conduct

   2.1. No driver will be allowed to make personal calls or text while inside a vehicle.

   2.2. All employees of the Contractor must maintain a professional demeanor, a professional appearance and a clean, organized work area at all times.

   2.3. All employees of the Contractor must not eat or drink while driving, boarding or deboarding passengers.

3. Bus Operator Training Plan and Program

   3.1. The Contractor shall provide training for all personnel working on this Contract. The Contractor shall ensure that individuals are fully knowledgeable of their duties and responsibilities and that appropriate personnel can operate a bus, fuel a bus, and operate equipment used to maintain a bus in a safe manner. The Contractor shall also
provide additional training if the training requirements approved by NYSDOT are insufficient.

3.2. The Contractor shall develop, implement and maintain a formal training and retraining plan and program for all bus operators. The training plan and program must be submitted to NYSDOT for review with 60 days of startup. All training must be documented and NYSDOT may audit the Contractor’s compliance with its training plan and program and its documentation at any time.

3.3. The Bus Operator Training Plan and Program must include classroom instruction, behind-the-wheel training under supervision of a qualified instructor, and in-service training. Such training shall include training and familiarization with assigned route(s), fare collection and regional fare policies, and bus stop placement prior to the bus operator's assignment to revenue service.

3.4. The plan and program must provide formal retraining measures, including criteria for determining the success of retraining efforts.

3.5. All vehicle operations personnel must be trained to proficiency, as appropriate for their duties, in assisting passengers with disabilities, including those using mobility aids, in a respectful and courteous way.

3.6. The plan and program must include training in personal safety, including, at a minimum, theft/robbery prevention, violence in the workplace, assault prevention, ADA sensitivity and annual refresher training, and information regarding Contractor responsibilities in NYSDOT’s Transit Watch program.

3.7. Persons designated as a "qualified instructor" under the Contract must have a proven, documented record of safe driving; at least two (2) years' experience driving professionally, and a demonstrated ability to provide high-quality customer service.

3.8. Annual retraining measures shall include refresher courses on systems installed on buses, including but not limited to Automatic Vehicle Location (AVL)/Computer-Aided Dispatch (CAD), fare collection system, headsigns and annunciators, WiFi, etc.

4. Minimum Staff Training Requirements

4.1. For operators, Contractor must certify in writing, by name, each individual operator as having satisfactorily completed all requirements and training courses prior to allowing that individual operator to operate a bus in revenue service. This certification requires a minimum of forty (40) hours of training for each operator, full and part-time.

4.2. The minimum forty (40) hours shall include the eight (8) hour minimum National Safety Council Defensive Driving Course or equivalent, with satisfactory scores. It shall also include a minimum of twenty-four (24) hours of wheel time. Each operator shall operate all types of vehicles during training unless designated as only Commercial Driver's License (CDL) driver or only demand response driver. At least eight (8) hours of classroom instruction shall be performed for the following
categories: 1) passenger relations, 2) accident reporting procedures, 3) radio communication procedures and codes, and 4) ticket handling procedures. An operator may receive up to sixteen (16) hours credit for the road training if the operator has at least one-year of experience in passenger transportation.

4.3. To maintain each individual operator's certification, the Contractor must provide and document annual refresher training of at least eight (8) hours for each operator covering passenger relations, operating procedures, ADA regulations and equipment updating. Additionally, the Contractor's trainer shall conduct and document an on-board evaluation with each operator.

4.4. At a minimum, operator training must comply with the following requirements:
   a. Acquisition of a valid New York State CDL, with a Passenger (P) endorsement and Medical Certificate.
   b. Prior to release to operate in revenue service, operators must have a working knowledge of all assigned routes and procedures. Operators shall drive all routes to which they are assigned under supervision and without passengers before being allowed to drive in service unsupervised.
   c. Prior to release to operate in revenue service, operators must have received the minimum hours of first aid training.
   d. Prior to release to operate in revenue service, operators must have received the minimum hours of ADA Sensitivity Training for working with persons with disabilities.

4.5. Drivers must also meet a 19-A Certification and/or medical examiners' certificate. These programs are administered by the New York State Department of Motor Vehicles. Please see https://www.dot.ny.gov/divisions/operating/osss/bus/driver for details.

5. ADA Training – The Contractor shall provide initial and annual refresher ADA training to all personnel providing service to the public. All service providers shall be included whether they perform such service on a regular, intermittent, or infrequent basis.

5.1. Drivers must be knowledgeable of on-board ADA securement equipment for wheelchairs and other ADA equipment in the spaces allotted in each vehicle. Drivers must know how to operate the ramp to allow for patrons in need of ramp use to board the vehicle.

5.2. At a minimum, such training shall include Initial and Refresher training, to include:
   a. Lecture on the ADA law with hands-on employee participation and also such other appropriate instructional media (e.g. slides, video, etc.) as may be successfully integrated into the instructional process.
   b. Panel discussion led by persons with disabilities presenting information regarding different types of disabilities.
c. Three full hours of classroom ADA operational training. This training shall include a discussion of various disabilities that present transportation issues, scenarios regarding service to passengers with disabilities, and the practical remediation of access problems presented in those scenarios, and equipment and other resources available to make public transit a viable transportation alternative to passengers with disabilities. Included within this training shall be a discussion of:

- Operator responsibilities.
- Equipment and devices currently in use.
- Proper use and securement of such equipment and devices.
- Other matters as the Contractor deems appropriate.

5.3. Field time on the bus with instructors to evaluate operator expertise in boarding, securement, and deboarding of mobility-aid devices and the operator’s familiarity with other equipment and devices then in use. Several types of mobility-aid devices shall be used to conduct the hands-on training. For use in hands-on training and hands-on evaluation, the Contractor shall provide a minimum of one (1) of each of the following:

- A manual wheelchair.
- An electric device with three or more wheels; e.g., a scooter.
- An electric wheelchair.

5.4. Annual Refresher Training each year, which shall include the same classroom session as the Initial Training (without the hands-on session).

5.5. A minimum of one hands-on check to evaluate operator expertise in boarding, securement, and deboarding of mobility-aid devices and the operators’ familiarity with other equipment and devices then in use. Several types of mobility-aid devices shall be used to conduct the hands-on training. For use in hands-on training and hands-on evaluation, the following must be provided:

- A manual wheelchair.
- An electric scooter.
- An electric wheelchair.

6. Ancillary Training - The Contractor shall assume and pay for all ancillary training (e.g. Going for Green (G4G), Roadeo planning, etc.) not specifically directed or required by NYSDOT.

6.1. The Contractor shall include a defensive driving course in the initial training of bus operators. All operators must successfully complete a defensive driving course at a minimum of once every three (3) years.
6.2. In addition to the training requirements identified above, the operators must obtain sensitivity training related to transporting persons with disabilities.

7. Contractor performance evaluations - The Contractor shall establish a program to conduct in-service evaluations of bus operators employed under this Contract.

7.1. When required, the Contractor's qualified instructor shall ride with an operator to perform an evaluation and re-training, if necessary.

100% of the Contractor’s staff shall complete the training laid out in the Contractor’s Training Plan.
8.168.17 Attachment 16: Operating Performance Standards

The following performance standards have been developed by NYSDOT to ensure the delivery of a high-quality transit service. Failure to meet these standards will incur liquidated damages, to be applied to monthly invoices.

The obligations of the Contractor hereunder shall be subject to force majeure. The Contractor shall not be liable for any failure to perform, or for any delay or cancellation in connection with the performance of any obligation hereunder if such failure, delay or cancellation is due or in any manner caused by the laws, regulations, acts, demands of any governmental authority or by Acts of God, strikes, fire, flood, weather, war, acts of picketing, rebellion, insurrection or terrorism, or any other cause beyond the Contractor’s control.

On-time Performance

1. The Carrier shall be responsible for serving all scheduled stops on-time according to publicly published schedules. A bus is considered on-time if it:

   1.1. Departs no more than 3 minutes after its scheduled departure time at time points that are not more than 20 minutes (scheduled time) distant from the initial terminal (beginning of trip).

   1.2. Departs no more than 5 minutes after its scheduled departure time at time points that are more than 20 minutes (scheduled time) distant from the initial terminal (beginning of trip).

   1.3. Never leaves before its scheduled departure time

2. The on-time performance standard is ninety-four percent (94%) or above. NYSDOT will assess liquidated damages for failure to achieve the performance standard as follows:

<table>
<thead>
<tr>
<th>On-time Performance %</th>
<th>Liquidated Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>93.99% - 90%</td>
<td>-$1,000.00</td>
</tr>
<tr>
<td>89.99% - 87%</td>
<td>-$2,000.00</td>
</tr>
<tr>
<td>86.99% and below</td>
<td>-$3,000.00</td>
</tr>
</tbody>
</table>

3. Embedded in the performance standard are allowances for Global Positioning System (GPS) anomalies, acceptable service delays, incidents/accidents, vehicle breakdowns and schedule adjustments. NYSDOT will not consider adjustments to on-time performance for any of the abovementioned occurrences.

4. A minimum of 1,500 observations per month should be made at mutually agreed timepoints, but not including terminals, to determine on-time percentages.

5. The operator shall not skip any posted stops to improve on-time performance.

6. Dwell time at stops should be minimized so that the average boarding time is no greater than two (2) seconds per passenger. This can be achieved through low floor boarding and
alighting using all doors, enforcement of off-board fare payment, and any other strategies the operator chooses to utilize surrounding quicker boarding and fare payment technologies.

7. In addition, for any underperforming route, as defined by any route that achieves less than ninety percent (90%) on-time performance for two consecutive months, the Contractor shall provide NYSDOT an analysis and resolution plan in writing to bring the underperforming routes into compliance.

7.1. The Contractor shall provide NYSDOT the analysis and resolution plan by twenty-one (21) calendar days following the end of the second month of the identified underperforming route(s). The analysis shall include, but not be limited to:

a. an on-time performance report by time point (as obtained from the Vehicle Management System) by route and by assigned bus operators; any route anomalies (e.g. detours, construction, etc.);

b. resource availability (bus operators and vehicles); and passenger load issues that may be contributing to the underperformance of the route(s).

7.2. NYSDOT and the Contractor will meet to review the analysis report and resolution plan, as necessary. If the review identifies route underperformance due to circumstances under the Contractor’s control or noncompliance to Contract requirements, the Contractor will have thirty (30) calendar days from the review date, unless otherwise approved by NYSDOT, to bring the route(s) into compliance.

7.3. If the route is not brought into compliance within a time period approved by NYSDOT, the following liquidated damages will be collected:

<table>
<thead>
<tr>
<th>Underperforming Route Compliance Liquidated Damage</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 40 days (not incl. extended deadlines by NYSDOT)</td>
<td>-$1,000.00</td>
</tr>
<tr>
<td>Within 50 days (not incl. extended deadlines by NYSDOT)</td>
<td>-$2,000.00</td>
</tr>
<tr>
<td>Within 60 days (not incl. extended deadlines by NYSDOT)</td>
<td>-$3,000.00</td>
</tr>
</tbody>
</table>

**Missed/Canceled Trips**

1. Missed Revenue Miles: Revenue miles is defined as scheduled miles operated with a vehicle in service and available to the general public with the expectation of carrying passengers.

1.1. This also includes miles operated due to detours (planned or unplanned). Revenue miles exclude deadhead mileage, vehicle maintenance or bus operator testing, school bus service, charter/special event and/or bus bridge service, and scheduled miles not operated due to unforeseen incidents/accidents (preventable or non-preventable) and vehicle break downs.

1.2. For purposes of reporting revenue service (miles, hours and trips), the National Transit Database (NTD) definition shall be followed.

1.3. The Contractor shall implement policies and procedures to monitor service delays, and if necessary, replace or insert a bus to fill in for a portion of a trip to ensure the timely completion of that trip.
1.4. Buses involved in accidents or mechanical breakdowns must be immediately replaced.

1.5. Under any of the circumstances described above, the Contractor shall take appropriate action to minimize the disruption of service.

1.6. Missed revenue miles will be reported on a monthly basis and measured by being divided by the total scheduled revenue miles for the month.

1.7. The performance standard for missed revenue miles is 0.50% or less. NYSDOT will assess liquidated damages for failure to achieve the performance standard as follows:

<table>
<thead>
<tr>
<th>% of Missed Revenue Miles</th>
<th>Liquidated Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.51% - 0.70%</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>0.71% – 0.0%</td>
<td>$2,000.00</td>
</tr>
<tr>
<td>0.1% and above</td>
<td>$3,000.00</td>
</tr>
</tbody>
</table>

**Safety Requirements**

1. The Contractor shall assign staff and establish a process that complies with the Americans with Disabilities Act of 1990 (ADA), as amended. Contractor staff will provide an effective rescue system when passengers who use a wheelchair or authorized mobility device require a lift or ramp and are stranded due to an inoperable lift, ramp or vehicle. Minimum rescue policy standards for passengers using wheelchairs are:

1.1. If the passenger will be stranded for more than thirty (30) minutes, the Contractor shall rescue the passenger.

1.2. Vehicles that are dispatched for rescue shall attempt to pick up the stranded passenger within 30 minutes of the request for rescue.

The Contractor shall ensure that all managers, operators, road supervisors, and dispatchers are trained annually on rescue procedures, mobility device movement, securement, safety, and passenger sensitivity, as per the ADA training guidelines in Attachment 15 Bus Operations Requirements.

2. As part of the requirements for the New York State Public Transportation Safety Board, the Contractor shall identify staff responsible for the accident reporting to enroll and participate in NYSDOT-sponsored Bus Accident Investigation Training For Identifying Safety Hazards (BAITFISH) and have at least one certified investigator always employed and responsible for reviewing accidents and training protocols for drivers to ensure the highest standard of safety.

3. Total Preventable Accidents per 100,000 Revenue Miles: For reporting purposes, an accident means an occurrence associated with the operation of a vehicle, if as a result: (1) an individual dies; or (2) an individual suffers bodily injury and immediately receives medical treatment away from the scene of the accident; or (3) with respect to an occurrence in which the mass transit vehicle involved is a bus, electric bus, van, or automobile, one or more vehicles (including non-FTA funded vehicles) incurs disabling damage as the result of the
occurrence and such vehicle or vehicles are transported away from the scene by a tow truck or other vehicle (49 CFR Part 655.4). The term accident does not include an occurrence involving only the boarding or alighting from a stationary motor vehicle (49 CFR Part 390.5).

3.1. A preventable accident is defined as an occurrence involving a motor vehicle that results in an accident in which the bus operator in question failed to exercise every reasonable precaution to prevent it. Preventable accidents shall be recorded by the Contractor on a monthly basis. The performance standard is 3 or fewer preventable accidents per 100,000 revenue miles. NYSDOT will assess liquidated damages for failure to achieve the performance standard as follows:

<table>
<thead>
<tr>
<th>Accident Rate</th>
<th>Liquidated Damage (per accident over the performance standard)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>5-8</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>8 and above</td>
<td>$2,000.00</td>
</tr>
</tbody>
</table>

The Contractor shall be fully responsible for ensuring that vehicles placed into service have all safety items fully operational (e.g. lights, brakes, horn, tires, wheelchair tie downs, seat belts, fire suppression systems, etc.).

4. **Other Requirements**

1. The Contractor shall operate the service using only those vehicles defined in Attachment 26: Vehicle Specification (double-decker BRT transit vehicles). Unless prior approval has been received from NYSDOT, the Carrier shall be penalized for the use of non-conforming vehicles.

2. Contractor Accessible Features Operation: For each occurrence in which the Contractor puts into service a vehicle with an inoperable ramp/lift, securement devices and/or seat/lap belts, the bus operator refuses to accommodate a passenger request to board or alight a bus utilizing the passenger accessibility ramp (49 CFR Part 37.165), and/or the bus operator refuses to board a passenger with a service animal (49 CFR Part 37.167), NYSDOT will assess liquidated damages in the amount of $500.00 per occurrence.

3. Announcement of Stops: For each occurrence in which the operator fails to announce stops in compliance with 49 CFR Part 37.167 during the malfunction of a vehicle’s annunciator system or as requested by a passenger.

4. Transit Technology System Operation: On-board, in-shelter, and back office technology [including but not limited to Wi-Fi, automatic vehicle location (AVL), automatic passenger counting (APC), and traffic signal priority (TSP), real-time passenger information (RTPI)] will be critical for a positive customer experience, the smooth operation of the system, and quick and accurate performance reporting. The Contractor shall provide transit technology systems as outlined above, and liquidated damages will be assessed for failure to maintain fully functioning on-board systems. NYSDOT will require on-board systems across the fleet.
to be operational and functioning as per system specifications at least 97% of the time. This will be measured by assessing reports from the transit technology systems as delivered automatically to the HVTMC. Below that percentage, NYSDOT will assess liquidated damages as follows:

Transit Technology Systems Availability Percentages Liquidated Damages
95% to 96.99% - $500.00
90% to 94.99% - $1,000.00
89.99% and below - $1,500.00

If this standard is exceeded, the operator is entitled to incentive payments for exemplary performance. The incentive payments, to be assessed monthly by NYSDOT review of transit technology systems availability percentages, are as follows:

Transit Technology Systems Availability Percentages Incentive Payments
99% – 100% - $1,00.00
1. Maintenance personnel qualifications and requirements

1.1. Safety sensitive positions: All employees in the contractor’s maintenance department that are classified as "Safety Sensitive" as defined by USDOT, FMCSA, NYSDOT or any other governing agency shall be subject to all of the rules and regulations defined under those agency’s regulations, statutes or law. Safety sensitive employees include: Mechanics, Mechanic supervisors, service personnel and other vocations within the contractor’s organization

1.2. Driving Record Required Qualifications:

1.2.1. Maintenance personnel must have a valid New York State Class B Commercial operator's License with Air Brake and Passenger endorsements.

1.2.2. Maintenance Personnel must be a minimum of 21 years of age.

1.2.3. A five-year driving record is required. The Contractor must review a five-year record issued within the past 45 days from any state where the applicant has held an operator's license in the past five years. When a five-year record is unavailable, a three-year driving record must be obtained.

1.2.4. If an out-of-country driving record is unavailable then the applicant must have possessed a valid operator’s license in the U.S. for the past three years.

1.2.5. No more than two moving violations in the past five years are allowed. A driving safety course taken for a moving violation will not change the record for a commercial operator license holder.

1.2.6. No more than two accidents in the past five years are allowed.

1.2.7. Driving records must not reflect any conviction of a serious traffic violation (e.g., DUI, reckless driving, driving with a suspended license) in the past seven years.

1.2.8. Driving records must not reflect more than two convictions of serious traffic violations in a lifetime.

1.2.9. No more than two violations for No Liability Insurance in a five-year period are allowed.

1.2.10. Moving violations, accidents, and/or other infractions may also disqualify an applicant.

1.2.11. Any proposed hiring should be conditioned upon the prospective employee being allowed within the facilities and cleared with his or her background screening.

1.2.12. In conjunction with this Contract, the Contractor shall not employ any person with any felony or misdemeanor drug offense, theft, assault or other conviction within the past ten (10) years for an offense that conflicts with the duties of the position.
1.2.13. In conjunction with this Contract, the Contractor shall not employ any person with any conviction for a felony or a conviction or deferred adjudication for misdemeanor offense beyond 10 years that is serious enough to be considered in conflict with the duties of the position. For example, murder or sexual assault conviction.

1.2.14. Other Qualifications:

   a. All bus maintenance personnel must be employees (full or part time) of the Contractor.

   b. All bus maintenance personnel must have the ability to effectively read, write and speak English.

   c. All bus maintenance personnel must have sensitivity to passenger needs.

   d. All bus maintenance personnel must have the ability to resolve complaints and problems as required.

   e. All bus maintenance personnel must pass a biennial United States Department of Transportation (USDOT) physical exam and be included in a "pool" of safety sensitive positions for random drug and alcohol testing as required by FTA regulations.

1.3. The Contractor shall conduct an annual review, and provide a comprehensive report to NYSDOT by July 15 of each Contract year, of driving records as required by 49 CFR 391.25 to ensure all employees continue to meet the preceding qualifications. Employees failing to meet these qualifications shall not be used to perform services under this Contract.

1.4. For the final year of the Contract the report shall be submitted on the date requested by NYSDOT.

1.5. Mechanic qualifications:

   1.5.1. Knowledge and Abilities:

   a. Methods, materials, tools, and standard practices related to the maintenance and repair of heavy-duty vehicles and equipment; principles of spark-ignited or diesel powered engines; safety precautions followed in heavy equipment repair shops.

   b. Possession of Automotive Service Excellence (ASE) certification as a Master Transit Bus Technician (Tests H1-H8) is desirable.

   c. EPA 608 Certification in refrigerant handling and recycling

   d. Ability to: use jacks, wrenches, grease guns, hydraulic hoists, cleaning materials and other tools and equipment used in the service and repair of heavy equipment; understand and carry out oral and written instructions; work with other employees in a directed work team environment; conceptualize required work through personal observation or a verbal description and
determine what is necessary to obtain quality results; perform computerized work order procedures; pass a job related examination; pass federally required drug and alcohol testing; drive all job-related vehicles and maintain a valid New York State driver’s license and CDL as required.

1.5.2. Minimum Qualifications (any one of the following):

a. 3 years of journey-level mechanical work experience OR

b. Completion of a 2-year diesel mechanic vocational course of study plus 2 years journey-level mechanical work OR

c. Completion of a 4-year diesel mechanic apprentice program.

1.5.3. Special Requirements:

a. Must have the ability to perform the essential functions of the job as described above including the ability to maneuver objects weighing up to fifty pounds.

b. Must meet and maintain physical requirements in order to safely perform all job duties and tasks.

c. Must have the strength to stand for extended periods of time when inspecting buses and making repairs and adjustments.

d. Must be able to walk to various areas of the bay to retrieve parts and spot check buses.

e. Must be able to lift and carry parts, equipment, and materials weighing up to 100 pounds including: fire extinguishers, tire assemblies, barrels of oil, fuel tank drain pans, and various bus parts and components.

f. Must be able to climb approved ladders and scaffolds and maintain balance when working atop bus roofs.

g. Must be able to stoop, kneel, crouch, and crawl when repairing bus floors, walls, etc., and when working underneath buses and in hard to reach spaces.

h. Must be able to reach for tools and parts while working on buses.

i. Requires manual dexterity for making repairs and adjustments on equipment.

j. Requires visual acumen and the ability to see in and distinguish colors.

k. Must be able to hear verbal instructions, announcements, alarms, and horns.

2. Vehicle Maintenance Plan – As part of the larger System safety plan required of transit operations in New York State, the Contractor shall develop, implement and maintain a formal vehicle maintenance plan and program for all vehicles. All vehicle maintenance must be documented, and NYSDOT may audit the Contractor’s compliance with its vehicle maintenance plan and program and its documentation at any time.
2.1. The Contractor is required to update the plan annually and submit to NYSDOT in electronic form for its review.

2.2. An effective maintenance plan and program addresses the unique needs of each type of transit vehicle and the unique characteristics of each operating environment. At minimum, the plan and program shall:
   a. Identify and define goals and objectives, and provide tangible evidence of how they will be achieved;
   b. Address and be specific to the current mix of vehicles operated and maintained by the Contractor;
   c. Outline procedures for maintaining safety and accessibility equipment including but not limited to all on-board systems;
   d. Describe preventive maintenance procedures; and
   e. Adhere to manufacturer’s requirements for vehicles and parts under warranty.

3. Vehicle Condition and Maintenance - The Contractor shall provide supervision during all work shifts to ensure that its maintenance technicians and facility workers maintain vehicles and facility equipment in compliance with required specifications.

3.1. The Contractor will be responsible for all maintenance and shall maintain records for same. Maintenance will be performed to OEM standards, NYSDOT’s written instructions, and the Contractor’s Vehicle Maintenance Plan as annually submitted by the Contractor to NYSDOT.

3.2. The Contractor shall perform all routine preventive maintenance, heavy repair, running repairs, and major and minor cleaning necessary to keep NYSDOT-furnished vehicles in a safe, reliable and well-maintained condition, and the Contractor shall ensure that all on-board systems—including automated passenger counters (APC), automatic vehicle location (AVL), Wi-Fi, the destination announcement system and screens and other on-board technology specified in Attachment 26: Vehicle Specification are fully functional and operational.

3.3. The Contractor shall perform all urgent response duties (heavy towing, provision of back-up buses and drivers, etc.) to respond to bus breakdowns and stranded passengers immediately. Failure to rescue passengers stranded for more than 30 minutes—barring circumstances deemed by NYSDOT as extenuating—will result in the following liquid damage assessment:
   31 – 35 minutes - $500.00
   36 – 40 minutes - $1,000.00
   41 minutes or more - $1,500.00

3.4. Preventive Maintenance Inspections (PMI) shall occur at the OEM-recommended intervals and shall include a review of accessibility equipment to ensure proper operation of annunciators, ramps/lifts, securements and seat/lap belts, and destination
signs prior to a vehicle being returned to service. Such inspections shall be documented and tracked by the Contractor and randomly audited by NYSDOT.

a. The Contractor shall maintain a ninety percent (90%) or above on-time percentage for vehicle PMI scheduled and completed. This is measured as not beyond 10% from the OEM-required interval.

b. PMI will be based on the life to date mileage of the vehicle. Maintenance actions shall be based on time intervals, mileage intervals, or a combination of mileage and time intervals. The Contractor shall track and record these inspections.

3.5. The Contractor, at its sole cost, shall maintain the vehicles, including tires, in the same operating condition and appearance in which the vehicles are purchased, subject to reasonable wear and tear based on mileage and age and without any cost to NYSDOT. Replacement tires are to be OEM quality or a grade better and shall be provided by the Contractor. Retreads are permitted under the following requirements: (a) tested by non-destructive testing equipment and computer-controlled machinery including, but not limited to, laser shearography; (b) new casings shall be retread no more than two times; and (c) retread tires are only to be used on the center and rear axles of passenger-carrying vehicles. No tire patching or plugs will be accepted.

3.6. The Contractor shall be fully responsible, without exception, for ensuring that vehicles placed into service:

a. Have a pre-trip inspection performed to ensure that the vehicle is safe before leaving the facility and entering into revenue service (49 CFR Part 392.7), including a complete cycling of the wheelchair ramp as required by the original equipment manufacturer and a post-trip inspection (and post-trip inspection documentation) performed at the completion of each day’s work (49 CFR Part 396.11).

b. Have fully operational air conditioning, wheelchair ramps and lifts, securement belts, flip seats, radios, CCTV, APCs, destination signs, Wi-Fi, AVL, RTPI, and any other on-board systems required for service (specified in Attachment 23: Technology Specification and Attachment 26: Vehicle Specification).

c. Have all certifications current including NYSDOT semi-annual annual inspection requirements, emissions, fire suppression systems, and fire extinguishers. The Contractor shall be responsible for all associated costs of the aforementioned testing and certification requirements.

d. Are marked on both sides of the vehicle as required by 49 CFR Part 390.21. The Contractor shall be responsible for the cost of applying the markings to each revenue vehicle.

e. Be free of body and decal damage, have no missing or unpainted panels, any defects, flats, curbing, or missing lugs, and with wheels and tires at proper inflation.
f. Be free of graffiti. The Contractor shall take all necessary steps to address graffiti on the interior and exterior of revenue vehicles.

g. All parts must be properly attached using the same number and quality fasteners as installed by the OEM.

h. Maintain a clean appearance of both the exterior and interior of the vehicle while in service at all times.

3.7. If any revenue vehicle fails to comply with these standards, NYSDOT will assess liquidated damages in the amount of $100.00 per occurrence.

4. Monthly Vehicle Inspections – In addition to the semi-annual NYSDOT bus inspections, all revenue vehicles must be inspected on a monthly basis to ensure they are in good working order. These inspections shall be undertaken by a qualified vehicle mechanic employed by the Contractor, and a record of inspections shall be submitted monthly to NYSDOT.

5. Servicing - The Contractor shall provide supervision to ensure service personnel maintain vehicles to the required specifications. Vehicles returning from revenue service must be serviced as described below:

5.1. Vehicles must be fueled and serviced by the Contractor; oil, transmission, coolant levels, and windshield washer fluid checked and added, if necessary, with all tasks being recorded daily.

5.2. Vehicle floors must be swept and mopped. Buses must not be hosed out for cleaning. Operator’s area must be wiped down, including, but not limited to, dash controls, dash board, above the operator area and along the front dashboard.

5.3. Vehicle interiors and exteriors must be cleaned to maintain the vehicle in a clean, dust-free, and professional appearance. Interiors must be wiped down to achieve cleanliness of the entire vehicle interior. The vehicle exterior must be kept clean with special attention given to the rear of the vehicle. Vehicles used in revenue service must go through the bus wash bay a minimum of once per week or as often as necessary to maintain the vehicle in a clean and professional appearance.

5.4. Vehicle rims must be cleaned as often as necessary to maintain the vehicle in a clean and professional appearance.

5.5. All passenger and operator seats must be shampooed twice per year or at the discretion of NYSDOT following inspection.

5.6. Every thirty (30) days, a detailed, intense cleaning of the interior and exterior must be performed. Detailed cleaning involves such areas as engine compartments, wheels, back-ends, and underbody. Detailed interior cleaning must address the entire interior. The intent is to have twelve-yearly intensive cleanings per vehicle at consistent intervals. This listing will be provided to NYSDOT upon request.

5.7. The Contractor shall establish a quality assurance plan to ensure that the vehicles are cleaned in compliance with the requirements set forth in this work scope.
5.8. If any revenue vehicle fails to comply with the standards outlined above regarding appearance or cleanliness, NYSDOT will assess liquidated damages in the amount of $100.00 per occurrence.

6. Body Work – The Contractor shall be responsible for all vehicle body repair work and painting. All body work and painting must be performed to industry best standards or OEM specifications. No vehicle may be run in revenue service with any type of major body damage. This standard includes large dents, cracked glass, and major scratches to any surface of the vehicle.

7. Total Miles between Road Calls – A road call is any disruption of service caused by a mechanical failure which results in the dispatch of a maintenance or supervisory vehicle to correct and/or the removal or replacement of the motor vehicle while in revenue service. Such mechanical failures shall not include those caused by issues related to passenger incidents and non-preventable accidents. The Contractor shall document total miles (deadhead and revenue) as recorded between road calls on a monthly basis. The performance standard is 11,000 total miles or above between road calls. NYSDOT will assess liquidated damages for failure to achieve the performance standard as follows:

<table>
<thead>
<tr>
<th>Total Miles Between Road Calls</th>
<th>Liquidated Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,999 – 9,000</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>8,999 – 7,000</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>6,999 and below</td>
<td>$2,000.00</td>
</tr>
</tbody>
</table>

If this standard is exceeded, the operator is entitled to incentive payments for exemplary performance. The incentive payments, to be assessed monthly by NYSDOT review of total miles between road calls, are as follows:

<table>
<thead>
<tr>
<th>Total Miles Between Road Calls</th>
<th>Incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,000 – 12,999</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>13,000 and above</td>
<td>$1,500.00</td>
</tr>
</tbody>
</table>

8. Vehicle Storage and Maintenance Facility – The Contractor is responsible for providing a vehicle storage and maintenance facility with capacity for the required LHTL vehicles.

8.1. In addition to the requirements outlined in Section 4.4.4, this maintenance facility must be required to have associated with it the following key factors:

a. Space for the revenue vehicles required to operate the service;

b. Space to accommodate staff and visitors’ personal vehicles;

c. Space for a general lobby and customer service activities to occur;

d. Space for at least one conference room for Contractor management and/or NYSDOT staff to conduct formal business meetings and staff training;

e. Interior office space to perform the functions of the staffing plan highlighted above;
f. Cash handling room with security surveillance. Surveillance system can be integrated with the on-board vehicle surveillance system, to allow for live streaming from secure access points from internal LAN computers, as well as NYSDOT staff secure remote connections. This surveillance should cover the entire path the money takes, from the point of removal from fareboxes of each individual vehicle through whichever corridor, and then into the cash handling room;

g. Space for employee training;

h. Space for employee breaks;

i. Space for separate gender changing rooms, with uniform/personal storage, as well as showers;

j. Space for bathrooms adequate to serve current desired staffing levels, as well as the anticipated growth the system may encounter during the timeframe of this Contract;

k. Adequate maintenance equipment to perform all necessary preventive maintenance and major vehicle maintenance issues (aside from painting and structural needs);

l. A backup generator to ensure power delivery for all essential technological/maintenance equipment and personnel to keep transit services operating at required levels during any sustained power outage or disruption;

m. An electronic, keyless, security badge entrance system (either card swipe or RFID key/card technology), distributed to Contractor staff only – to be managed by Contractor General Manager;

n. A 100% secure property perimeter – with some type of fencing or barricading in place to provide security for vehicles and staff at all times. Video surveillance is also required inside and outside the building that ensures all parked vehicles are within range of recordings.

8.2. If the proposed property is missing any of these key elements, it is expected that the Contractor work with the property owner to meet these requirements.
8.188.19 Attachment 18: Customer Satisfaction

1. Customer complaints, comments, commendations - The Contractor’s customer service staff shall coordinate all inquiries or complaints received from any and all individuals.

1.1. All inquiries, complaints or commendations shall be recorded on a permanent customer comment form.

1.2. Detailed questions and all complaints must receive follow-up responses to customers within two business days from when the question or complaint is received.

1.3. Detailed questions and all complaints must be resolved or otherwise closed within seven business days from when the question or complaint is received.

1.4. Any complaints received through the offices of the Governor, NYSDOT, or NYSTA about the service must be coordinated by the Contractor’s staff through NYSDOT and must be responded to within 24 hours.

A comprehensive report must be provided to NYSDOT monthly, showing a summary of all customer communication (both received and sent). The report must be organized by the customer comment category (as defined by contractor), date and customer name or employee name. Follow up action taken to address concerns must be specified in each report. All complaints more than two business days old which have not resulted in a follow up response (telephone or written) to the customer, and complaints more than seven business days old which have not resulted in a completed investigation and closeout must be listed separately and forwarded to NYSDOT. The performance standard is to have no more than five occurrences on this list per month.

1.7

2. Customer Service Training – The Contractor will implement an effective and proven customer service training program on a consistent basis throughout the year. All CRC staff and bus drivers must have hands-on learning and quality class exercises to ensure customer service is trained at a high level and relayed to the transit passengers each and every day.

3. Lost and Found Policy – The Contractor is responsible for the retrieval and storage of customer items left on revenue vehicles
3.1. The Contractor shall make a reasonable attempt to identify and return lost items to the passenger the same day found. When it is not possible to return the item, the Contractor shall:
   a. Tag the item and note the route, trip number or location where the item was found, date found;
   b. Include name of person turning in the item; a brief description of the item; and
   c. Maintain a log of lost and found items.

3.2. The Contractor shall provide a location for customers to pick up lost items, whether it is the vehicle maintenance and storage facility or the CRC. This facility must be available from 9am to 5pm, Monday – Friday, at a minimum.

4. Customer Satisfaction Survey – The Contractor shall secure a third-party vendor to conduct a quarterly survey of a random sample of bus riders to gauge their satisfaction with the transit service. Survey questions will be approved by NYSDOT in advance of survey administration, and responses will be delivered from the third party directly to NYSDOT.

Results from a minimum number of passengers shall be compiled to produce Customer Satisfaction Index (CSI) scores. CSI scores are compiled quarterly, and the Carrier will receive incentive payments for achieving target scores. Incentive payments shall be made as follows:

   a. Base Targets are NYSDOT’s expectations of satisfactory CSI score results for the period.
   b. Stretch Targets are NYSDOT’s expectations of superior CSI scores for the period.

CSI Incentives:

   a. Achievement of Base Target - $500.00
   b. Achievement of Stretch Target - $1,000.00

8.198.20 Attachment 19: Stop and Shelter Maintenance

1. The Contractor is responsible for the maintenance of LHTL stops and shelters.

2. General Conditions – The Contractor (or its subcontractor) will maintain these stations on a twice weekly basis to appear neat, clean, and free of graffiti. The station areas will be kept free of dangerous and hazardous materials such as broken glass, bottles and cans or other materials, which could be a threat to public health or safety. Trash and recycling containers as applicable will be emptied twice weekly or as necessary.

2.1. Approximately once each month, shelter seating areas will be wiped down and exterior windows and walls will be washed.

2.2. Where applicable, lawns, landscaped areas, and irrigation systems will be maintained and cleared of litter. Snow and ice will be removed in a timely manner.
The Contractor will also be responsible for maintaining the functionality of all on-time information regarding bus arrival and departure and for the technological aspects of the shelter (including WiFi, real-time passenger information and off-board fare payment machines.

3. The stations that are to be maintained by the Contractor are detailed in the following table:

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Stop</th>
<th>Stop/Intersection Improvement</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffern</td>
<td>Chestnut St</td>
<td>Hallet St at Chestnut St</td>
<td></td>
</tr>
<tr>
<td>Airmont</td>
<td>Airmont Rd at Rt 59</td>
<td>Airmont Road / NY 59</td>
<td></td>
</tr>
<tr>
<td>Monsey</td>
<td>Monsey Park &amp; Ride</td>
<td>Main St (NY 306) at NY 59</td>
<td></td>
</tr>
<tr>
<td>Spring Valley</td>
<td>Spring Valley Transit Center</td>
<td>Franklin St at Municipal Plaza</td>
<td></td>
</tr>
<tr>
<td>Nanuet</td>
<td>Exit 14 Park &amp; Ride</td>
<td>NY 59 at Forman Dr</td>
<td></td>
</tr>
<tr>
<td>West Nyack</td>
<td>Palisades Center Park &amp; Ride</td>
<td>Palisades Center Dr (northwest corner of mall) - Lot J</td>
<td></td>
</tr>
<tr>
<td>West Nyack</td>
<td>Palisades Center Macy's</td>
<td>Palisades Center Dr at NY 59</td>
<td></td>
</tr>
<tr>
<td>Nyack</td>
<td>Central Nyack</td>
<td>NY 59 at Mountainview Ave</td>
<td></td>
</tr>
<tr>
<td>Nyack</td>
<td>Downtown Nyack</td>
<td>Franklin St at Artopee Way</td>
<td></td>
</tr>
<tr>
<td>South Nyack</td>
<td>South Nyack</td>
<td>Franklin St at Clinton Ave</td>
<td></td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Tarrytown / NY 119</td>
<td>Broadway at NY 119</td>
<td></td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Tarrytown / Broadway</td>
<td>West Elizabeth St at US 9</td>
<td></td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Tarrytown MNRR Station</td>
<td>Depot Plaza</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Westchester County Center</td>
<td>Tarrytown Rd at Central Ave</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>White Plains MNRR Station</td>
<td>Main St at Bank and Hamilton Ave at Ferris Ave</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Galleria Mall at Main St</td>
<td>Main St at Court St</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Martine Ave at Court St</td>
<td>Martine Ave at Court St</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Main St at Broadway</td>
<td>Main St at Broadway</td>
<td></td>
</tr>
</tbody>
</table>

4. NYSDOT will designate inspectors (either NYSDOT staff or a third-party vendor) to verify that stations are being maintained as described in this section.

4.1. In the event that a designated inspector asserts, based on personal observation, or is presented with photographic or other evidence, that a station is not being maintained as described in this section, NYSDOT shall notify the Contractor of the alleged situation within two (2) business days via either electronic mail or the contact information provided, supplying any related supporting information or photographs.

4.2. Upon receipt of notice from NYSDOT that a station is not being maintained as described in this section, the Contractor shall have three (3) business days to verify the reported conditions, remedy the situation, and inform NYSDOT of its actions. The Contractor will take reasonable steps to ensure public safety and protect property before and while remediying the situation.

5. In the event that the Contractor does not remedy the situation and inform NYSDOT, liquidated damages will be collected for the amount of $100.00 per day per unremedied station maintenance/repair.
Attachment 20: Reporting Requirements

1. The Contractor is required to provide a number of real-time, monthly, quarterly, and annual reports on the operation of the LHTL service to NYSDOT, as follows:

<table>
<thead>
<tr>
<th>Report Description</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real time bus occupancy</td>
<td>To feed into ICM system</td>
</tr>
<tr>
<td>Real-time bus location</td>
<td>To feed into ICM system</td>
</tr>
<tr>
<td>Passengers by Route</td>
<td>To feed into ICM system</td>
</tr>
<tr>
<td>Passengers by Trip</td>
<td>To feed into ICM system</td>
</tr>
<tr>
<td>Invoice</td>
<td>Monthly</td>
</tr>
<tr>
<td>Operating Statement</td>
<td>Monthly</td>
</tr>
<tr>
<td>Monthly Management Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Vehicle Accident Summary Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Safety and Security Incident Report (NTD)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Wheelchair Rescue Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Road Call Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Vehicle Mileage Report (Incl. Missed Revenue Miles)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Vehicle Detail Cleaning Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Vehicle PMI Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Vehicle Inspection Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Farebox Probe/Cash Box Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Application User Account Validation Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>Wheelchair Ramp Status</td>
<td>Monthly</td>
</tr>
<tr>
<td>Automatic Passenger Counter System Status</td>
<td>Monthly</td>
</tr>
<tr>
<td>Mobile Radio Failure Status</td>
<td>Monthly</td>
</tr>
<tr>
<td>GPS Failure Status Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>MDT Status</td>
<td>Monthly</td>
</tr>
<tr>
<td>Annunciator Image Load Status</td>
<td>Monthly</td>
</tr>
<tr>
<td>Customer Complaint Report</td>
<td>Monthly</td>
</tr>
<tr>
<td>DBE Utilization Report</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Required Training Update Report</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Transfer Status Report (between the intercounty BRT service and other regional transit services)</td>
<td>Quarterly</td>
</tr>
<tr>
<td>On-Time Performance Reporting</td>
<td>Quarterly</td>
</tr>
<tr>
<td>National Transit Data Report</td>
<td>Annually</td>
</tr>
<tr>
<td>Management Information System Report</td>
<td>Annually</td>
</tr>
<tr>
<td>MVD Report</td>
<td>Annually</td>
</tr>
<tr>
<td>Review of Driving Records</td>
<td>Annually</td>
</tr>
<tr>
<td>Transit Application Plan</td>
<td>Annually</td>
</tr>
<tr>
<td>Vehicle Engine Tune Up Report</td>
<td>Annually</td>
</tr>
<tr>
<td><strong>Report</strong></td>
<td><strong>Due Date</strong></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Audited Financial Report</td>
<td>Annually</td>
</tr>
<tr>
<td>Utility Costs</td>
<td>Annually</td>
</tr>
<tr>
<td>Employee Receipt of NYSDOT AR 1.63 and 1.84</td>
<td>Annually</td>
</tr>
<tr>
<td>Substance Abuse Prevention Policy</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Fare Revenue Policy</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Facility Custodial Service Schedule</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Facility Emergency Response Plan</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Continuity of Operations Plan</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Vehicle Maintenance Plan</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Equal Employment Opportunity/Affirmative Action Plan</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Risk Control and Safety Plan</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Bus Operator Training Plan and Program (including ADA training)</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>ADA and Title VI Complaint Resolution Plan</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Vehicle Idling Policy</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Fuel Inventory Control Procedure</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>NYSDOT Provided Equipment Maintenance Program</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>IT Contacts</td>
<td>Due Within 60 Days of Startup</td>
</tr>
<tr>
<td>Environmental Management Program</td>
<td>Due Within 90 Days of Startup</td>
</tr>
<tr>
<td>Underperforming Route Analysis and Resolution Plan</td>
<td>Required After Two Months of Underperformance</td>
</tr>
</tbody>
</table>

2. Failure of the Contractor to provide the above reports complete and within 10 calendar days after the end of the month (or at the annual or initial due date from startup) will result, at NYSDOT’s discretion, in liquidated damages of $100.00 for that specific report.
Attachment 21: Transit Service Plan

Introduction

The Lower Hudson Transit Link (LHTL) Program delivers the adopted transit vision for the I-287/Thruway Corridor in Rockland and Westchester Counties.

The project will introduce a coordinated, high-quality, regional transit system to serve trips between Rockland County and Westchester Counties and facilitate seamless connecting service to and from Manhattan. The system will conveniently connect major concentrations of residential, employment, commercial, entertainment, medical, and educational land uses and provide key connections to existing bus (Transport of Rockland and Westchester Bee-Line) and rail (Metro-North and NJ Transit) systems.

The package of improvements included in the LHTL program is informed by the short-term improvement recommendations made by the Mass Transit Task Force (MTTF), a 31-member body convened by Governor Andrew Cuomo, the New York State Thruway Authority (NYSTA), and the New York State Department of Transportation (NYSDOT) in December 2012. Comprised of key stakeholders from around the region, as well as planning and transportation professionals, the MTTF built upon previous planning efforts to make transit recommendations for the I-287 corridor that best meet the needs of the region.

The LHTL will be rolled out progressively over time, with each phase expanding upon the previous phase’s span of service. This Transit Service Plan defines the need for enhanced regional transit service, outlines service objectives, and defines potential routes for the first phase of the LHTL program.

Methodology

To inform a Transit Service Plan for the LHTL Program, the project team:

- Conducted an analysis of existing conditions along the corridor, studying current ridership demand, travel patterns, key origins and destinations, and complementary local and regional transit services;
- Surveyed transit research organizations and peer transit operators to design service levels and objectives for the system; and
- Undertook an extensive stakeholder engagement effort to gather technical, political, and community input into the design of the transit service.

Each of these processes is described in detail herein.

Background and Existing Conditions

Rockland and Westchester Counties make up the northern suburbs of New York City. While they mostly experienced major population growth and development throughout the 20th century, development did not consist entirely of stereotypical “sprawl”. The corridor is home to distinct centers that are connected by local, state, and federal roadways, many running east-west.
However, transportation options, especially public transit options, are limited, and the need for improved service and better access is growing.

Since they are suburbs of New York City, the counties do have a large number of Manhattan-bound commuters, but they also have their own robust local economies and a shared regional economy with major employment centers on both sides of the Hudson River. Key destinations include Suffern, Spring Valley, the Palisades Mall, and Nyack in Rockland County and Tarrytown and White Plains in Westchester County, with less trafficked destinations interspersed between.

Roadway Network

The LHTL program focuses on the east-west corridor between Rockland and Westchester counties, including the New York State Thruway (I-87/287) and parallel state highways (see Figure 1).

![Figure 1: Primary east-west corridors serving Rockland and Westchester Counties](image)

I-87/I-287 connects Rockland and Westchester Counties by way of the existing Tappan Zee Bridge (TZB), which is due to be replaced with the New NY Bridge (NNYB) in 2018. Two key parallel routes in this corridor are Route 59 in Rockland County and Route 119 in Westchester County, both of which host large concentrations of commercial development and carry traffic on both local and longer-distance trips. All three of these routes will be utilized for the LHTL system.
8.21.3.2 Existing Transit Network

The MTA Metro-North Railroad (MNR) provides key connections to Manhattan on both sides of the Hudson River. West of the Hudson, this consists of the Main/Bergen-Port Jervis Line (running through Suffern) and the Pascack Valley Line (originating in Spring Valley), both of which terminate at Hoboken Terminal in New Jersey and are operated by NJ Transit under contract to MNR. On the east side of the Hudson, MNR runs service on the Hudson Line (running through Tarrytown), the Harlem Line (running through White Plains, and the most frequent of the lines), and the New Haven Line. All three of these lines terminate at Grand Central Terminal in Manhattan.

Trans-Hudson bus service along the I-87/I-287 corridor is currently provided by the Tappan Zee Express (TZx), contracted out by Transport of Rockland (TOR). The TZx connects to Manhattan-bound MNR trains and serves intercounty trips with stops at Tarrytown and White Plains, running almost 20 different route variations.

Intra-county bus service is provided by TOR and the Westchester Bee-Line. TOR operates ten bus routes, and Bee-Line operates more than 50 on roads that either use or intersect with the project corridors. The Bee-Line carried 32.7 million passengers in 2013, with the highest daily ridership along the Central Avenue corridor. The TOR system, including TZx, carried approximately 3 million riders in 2014, with about one-third of those trips ending along the Route 59 corridor. The TZx alone carried approximately 361,000 passengers in 2015, with Palisades Center capturing the highest share of boardings (see Figure 2).
Figure 2: TZx Boardings by Stop

8.21.3.38.22.3.3 Existing Travel Patterns

The New York Metropolitan Transportation Council’s (NYMTC) Regional Household Travel Survey (RHTS), released in 2013, provides a comprehensive assessment of regional travel patterns, estimating travel flows for different transportation modes and trip purposes.
The survey shows that the majority of trips (both work trips and all trips) take place within each county. But what also emerges is that more trips (both work trips and all trips) take place between Rockland and Westchester than between Rockland and Manhattan (though Manhattan is still a large generator of trips from Rockland County). In addition, travelers in the Rockland-Manhattan Corridor often use the Rockland-Westchester Corridor to access Manhattan, making this an even more important link between the two counties. Conversely, Westchester-to-Rockland work travel is a very small proportion of overall travel originating from Westchester County. This data is represented in Figure 3 above.

Rockland-to-Westchester work travel generally moves across the TZB and towards concentrations of jobs in White Plains, Elmsford, Tarrytown, and Valhalla (as illustrated in Figure 4).
Figure 4: Work trip destinations for Rockland residents

TZx ridership data shows that eastbound travel is concentrated between the hours of 6–9am, while westbound travel is concentrated between 4–7pm (Figure 5).
Figure 5: TZx Time Profile

8.21.3.48.22.3.4 Fares

Transit systems in the region utilize a number of legacy fare collection technologies, all of which cause varying amounts of delay from boarding passengers paying their fare. The MTA’s MetroCards are the standard smart card for the region, as a large number of travelers in Rockland and Westchester counties also travel into the five boroughs of New York City for work or leisure. The MetroCard itself was originally due to be replaced in 2012 but the project is currently delayed until at least 2022. The MTA has released an RFP to replace the MetroCard with electronic readers accepting near-field communications (NFC) links from contactless bank cards, smartphones or any other mobile devices, or MTA-issued smart cards. Westchester Bee-Line currently utilizes MetroCards on its system (it accepts cash as well), and will be transitioning to a new system in line with the MTA’s phase out of the MetroCard.

Transport of Rockland utilizes cash fareboxes, alongside a variety of student passes, Metro-North UniTickets, and pre-paid multi-trip discount tickets. Current fare levels are as follows:
### TZx Fare Type

<table>
<thead>
<tr>
<th>Fare Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Fare</td>
<td>$3.00</td>
</tr>
<tr>
<td>Standard Transfer</td>
<td>$1.00</td>
</tr>
<tr>
<td>Senior Citizen / Disabled Fare</td>
<td>$1.50</td>
</tr>
<tr>
<td>Senior Citizen / Disabled Transfer</td>
<td>$0.50</td>
</tr>
<tr>
<td>SuperSaver Tickets - Strip of 10 (TZx Fare = 2 tickets)</td>
<td>$11.00</td>
</tr>
<tr>
<td>R.C.C./Dominican/STAC Student Discount Bus Pass (4-month Semester)</td>
<td>$60.00</td>
</tr>
<tr>
<td>Monthly Metro-North/TZx UniTicket (as of 3/22/15)</td>
<td>$360.00</td>
</tr>
<tr>
<td>Weekly Metro-North/TZx UniTicket (as of 3/22/15)</td>
<td>$116.00</td>
</tr>
</tbody>
</table>


According to 2015 ridership data from Rockland County, over 40% of customers pay the higher cash fare, and 11% are transferring from another service.

The remaining 45% use a bus pass or multi-trip ticket of some sort. 25% of riders are UniTicket users, meaning they purchase a monthly combination fare with MTA Metro-North, a percentage that is expected to remain steady in the future. 18% of riders use the ‘Super-Saver’ tickets, available by mail from the Rockland County Department of Transportation or from various retailers in the County. Nearly 2% of riders utilize the student discount bus pass, available for students at Rockland County College, Dominican College, and St. Thomas Aquinas College.

### 8.21.4.22.4 Transit Service Objectives

A detailed planning process has been conducted for the LHTL project. A key output is a set of Transit Service Objectives, which provides the basis for the service specifications set forth in this Transit Service Plan. These standards are based on guidance promulgated through research organizations, non-profit institutes, and observations of peer transit operators.

The Service Objectives are based on six key passenger-serving concepts:

- Safety
- Reliability
- Frequency
- Span of Service
- Speed
- Access
Safety is always the highest priority and ensures that passengers (and others) will not be harmed, harassed, or otherwise endangered when riding. Safety is a policy priority.

**LHTL Service Objective:** 100% of trips completed without incident

Reliability means “living up to the intent of the schedule” – either through on-time operation or headway adherence. Transportation Research Board (TRB) studies show that “arrival at intended time” is perceived as the second most important travel attribute for work trips (after safety).

**LHTL Service Objective:** 94% on-time performance

Frequency means that the bus needs to operate at least every 15 minutes for it to be considered a convenient, “turn-up-and-go” option by most potential customers, as identified by the Transit Capacity and Quality of Service Manual. Frequencies (scheduled bus arrivals) between 11 and 15 minutes are identified as relatively frequent service, allowing the maximum desirable wait time for the next transit trip (allowing for random arrivals).

It should also be noted that based upon studies of travel behavior, most travel demand models assign a larger penalty to wait time than to in-vehicle time—typically a factor of four, meaning that a minute spent waiting for the bus is perceived by the customer as four times longer than a minute spent on the bus.

**LHTL Service Objective:**

- Peak service frequency (on average during peak commute hours) –15 minutes
- Off-peak service frequency –30 minutes

Span of Service refers to the total operating hours of the transit service. Changes to service span appear to have about the same elasticity of demand as frequency changes; however, the research is not consistent, and the case studies often include additional service improvements, making precise comparisons difficult. The Transit Capacity and Quality of Service Manual defines the ranges of service span as follows:

---

<table>
<thead>
<tr>
<th>Service Span</th>
<th>Passenger Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 18 hours</td>
<td>Full range</td>
</tr>
<tr>
<td>15–18 hours</td>
<td>Broad range</td>
</tr>
<tr>
<td>12–14 hours</td>
<td>Work based</td>
</tr>
<tr>
<td>7–11 hours</td>
<td>Slightly inflexible</td>
</tr>
<tr>
<td>4–6 hours</td>
<td>Peak only</td>
</tr>
<tr>
<td>&lt; 4 hours</td>
<td>Little flexibility</td>
</tr>
</tbody>
</table>

LHTL Service Objective: 20 hours of daily service (4am–midnight)

### Speed

*Speed* impacts both passenger acceptance and operator cost. As the transit vehicle schedule speeds increase (and transit trip times decrease), costs are reduced, and passenger volumes usually increase. However, passengers value in-vehicle time less than waiting time, so if trade-offs occur, frequency is more important than fast service.

Speed is a function of in-vehicle time (time spent traveling from one stop to another) and terminal (or stop) time. Terminal time includes deceleration, dwell time, and acceleration and can include associated delays with reentering traffic, including signal delay. Dwell time is a function of door cycling (opening and closing), passenger boarding time, and fare collection.

LHTL Service Objective:

- **Thruway/highway minimum speed** – 40 mph
- **Arterial minimum speed** – 18 mph

### Access

*Access* focuses on the ability of passengers to access the transit system. There is a tradeoff between access and speed; the more stops/stations on the transit service, the slower (and often less reliable) the transit service becomes. For instance, while the wide spacing of stops in a commuter rail system allows trains to quickly travel long distances, passengers often must travel long distance to reach a stop and board a train. On the other hand, the frequent stops characterizing local downtown bus service offer easy access to the system but slower travel times.

BRT stop spacing must strike an appropriate balance between customers’ desires for access to multiple destinations and for fast point-to-point service at a speed competitive with automobile travel. These needs can be met through a combination of local and express stop spacing, with factors such as density of destinations, ridership levels, area walkability, and intermodal accessibility influencing stop locations.

LHTL Service Objective:

- **Local area stop spacing** – 0.2–2.0 miles
- **Express area stop spacing** – 5.0–12.0 miles
8.21.58.22.5 Stakeholder Engagement

In addition to laying the groundwork for a transit service with the MTTF, the LHTL project team conducted an extensive campaign of stakeholder engagement to help guide further transit planning decisions. The engagement strategy was designed to synthesize technical expertise with local knowledge of community needs and concerns. To do so, the team sought input from stakeholders in the corridor including state, regional, and municipal governments; transit users; and the general public by organizing a number of different forums:

- Executive Committee – includes representation from NYSDOT, the New York State Thruway Authority (NYSTA), the Governor’s Office, and consultant team project management lead personnel. This group oversees the progress of the LHTL and is responsible for making high-level decisions and, ultimately, for the success of the project.

- ICM Strategy Group – takes on policy-level discussions of issues related to overall project management and delivery, corridor management, technology, transit and traffic operations, and the implementation of major project elements.

- Transit Working Group (TWG) – discusses issues around vehicle procurement, the intersection between ICM and transit, the implementation of transit infrastructure, and service planning in the corridor.

- Technical Advisory Committee (TAC) – resolves technical issues and receives feedback on items such as operations in the corridor. There is one TAC in Rockland County and one in Westchester County.

- General public – kept informed throughout the project process via public events (open houses, workshops, and community meetings), as well as general project outreach, including newsletters and monthly updates to the project website. An email contact database will be maintained and supplemented during the project through additions from meeting sign-in sheets and NYSDOT website comment forms.

8.21.68.22.6 Program Details

The LHTL program will link the region along an east-west corridor with

- An optimized bus rapid transit (BRT) system utilizing double-decker transit buses;

- New bus shelters with unified branding; improved pedestrian connections; amenities, including real-time bus arrival information; and off-board ticket vending/fare collection;

- Signal upgrades along New York State Routes 59 and 119 with technology-focused improvements, including transit signal priority and intelligent signal control, to provide better operating conditions for transit and to allow the operators to predict, adapt, and respond to changing traffic conditions;
• Ramp metering and queue jump lanes along I-287 to stabilize mainline vehicle flows and allow buses to move past vehicle queues, increasing transit reliability, and the investigation of transit queue jump lanes along Routes 59 and 119; and

• Integrated Corridor Management (ICM) technology and systems along I-287 and Route 59 in Rockland County and Route 119 in Westchester County, including enhanced traveler information; advanced monitoring and control equipment to give both the public and all operational partners (NYSDOT, NYSTA, transit operators, etc.) a greater awareness of traffic conditions and incidents along the enhanced transit corridor; and the ability to rapidly respond to changing conditions. The operation of the ICM system will require all partner agencies and operators to be integrated at the Hudson Valley Transportation Management Center (HVTMC) in Hawthorne, NY.

The operator for the LHTL transit service is expected to deliver a turnkey and expandable solution for NYSDOT in Rockland and Westchester counties. This Transit Service Plan describes the first phase of the service. The system is expected to expand in the future, as ridership and available funding allow.

8.21.7 Service Specifications

Figure 6: LHTL System Map

The system map above shows the selected routes for the LHTL service. The LHTL routes are designed to provide both intra- and inter-county service between key destinations in Rockland and Westchester Counties. Routes terminate at the Metro-North stations in White Plains and Tarrytown, and schedules are pegged to the Metro-North commuter rail schedule—with priority given to express trains—to allow passengers to make timed connections to rail service to or from Grand Central Terminal.
The following stations and stops have been established and will continue to be expanded upon by NYSDOT as funding and ridership warrant.

### Stations and Stops

NYSDOT has identified a number of stops (detailed in the table below) where they will be implementing new stations and associated amenities, as well as local area improvements. High-quality bus stations with amenities will improve the experience for all riders.

Stations will offer comfortable, well-lit, weather-protected waiting environments with seating, real-time bus arrival information, off-board fare collection, a system map, Wi-Fi, and bike parking (where appropriate and space allows). Stations will feature unique system branding, utilizing distinctive materials and visual elements to distinguish the LHTL stations from those of other regional systems. These distinct elements will be used consistently across the system to create a legible, noticeable, and high-quality system. Stations will also offer improved pedestrian connections to local destinations.

The list of stops and their locations is detailed below.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Stop</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffern</td>
<td>Chestnut Street</td>
<td>Hallett Pl. &amp; Chestnut St.</td>
</tr>
<tr>
<td>Airmont</td>
<td>Airmont Road</td>
<td>Airmont Rd. at NY 59</td>
</tr>
<tr>
<td>Monsey</td>
<td>Monsey Park &amp; Ride</td>
<td>Main St. at NY 59</td>
</tr>
<tr>
<td>Spring Valley</td>
<td>Spring Valley Transit Center</td>
<td>Franklin St. at Municipal Plaza</td>
</tr>
<tr>
<td>Nanuet</td>
<td>Exit 14 Park &amp; Ride</td>
<td>NY 59 EB &amp; Forman Dr.</td>
</tr>
<tr>
<td>West Nyack</td>
<td>Palisades Center Lot J</td>
<td>Palisades Center Dr. Lot J</td>
</tr>
<tr>
<td>West Nyack</td>
<td>Macy’s</td>
<td>Palisades Center Dr. &amp; NY 59</td>
</tr>
<tr>
<td>Nyack</td>
<td>Central Nyack</td>
<td>NY 59 &amp; Mountainview Av.</td>
</tr>
<tr>
<td>Nyack</td>
<td>Downtown Nyack</td>
<td>Franklin St. &amp; Artopee Way</td>
</tr>
<tr>
<td>South Nyack</td>
<td>South Nyack</td>
<td>Franklin St. &amp; Clinton Ave.</td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Route 119 &amp; Broadway</td>
<td>Broadway &amp; NY 119</td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Elizabeth Street</td>
<td>US 9 at W. Elizabeth St.</td>
</tr>
</tbody>
</table>
### Dark Blue Route

**Route description**

The Dark Blue route is designed to provide peak-hour service for riders in western Rockland County. It serves passengers from Suffern and Airmont to the LHTL hub at Palisades Center Lot J, where they may make a timed connection to either a White Plains- or Nyack-bound bus.
Figure 7: Dark Blue Route

Span of service

The Dark Blue Route operates on weekdays and weekends during peak hours only.
<table>
<thead>
<tr>
<th>Time Period</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>Peak (6:00am-8:30am &amp; 4:30pm-6:30pm)</td>
</tr>
<tr>
<td></td>
<td>Off-peak</td>
</tr>
<tr>
<td>Weekend</td>
<td>Peak (6:00am-8:30am &amp; 4:30pm – 6:30pm)</td>
</tr>
<tr>
<td></td>
<td>Off-peak</td>
</tr>
</tbody>
</table>

**Light Blue Route**

**Route description**

The Light Blue Route is the system’s main express trunk line, connecting key Rockland County population centers with Metro-North service, shopping, and employment in downtown White Plains. In Rockland, the Light Blue Route serves Monsey Park-and-Ride, the Spring Valley Transit Center, Nanuet Park-and-Ride, and the Palisades Center Park-and-Ride at Lot J, from where it runs express to White Plains, providing speedy intercounty connectivity.
Figure 8: Light Blue Route
Span of service

The Light Blue Route operates seven days a week from 4am–midnight.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekday</strong></td>
<td></td>
</tr>
<tr>
<td>Peak (6:00am-8:30pm &amp; 4:30pm-6:30pm)</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Off-peak</td>
<td>30 minutes</td>
</tr>
<tr>
<td><strong>Weekend</strong></td>
<td></td>
</tr>
<tr>
<td>All day</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>

8.21.7.48 22.7.4 Dark Gold Route

Route description

The Dark Gold Route is the system’s main local trunk line, connecting Palisades Center and Nyack with Metro-North service, shopping, and employment in downtown White Plains. The Dark Gold Route travels on local roads from Palisades Center through Central Nyack, Nyack and South Nyack providing trans-Hudson service to the villages’ residents and employees.
Figure 9: Gold Route
**Span of service**

The Dark Gold Route operates seven days a week from 4am–midnight.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekday</strong></td>
<td></td>
</tr>
<tr>
<td>Peak (6:00am-8:30am &amp; 4:30pm – 6:30pm)</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Off-peak</td>
<td>30 minutes</td>
</tr>
<tr>
<td><strong>Weekend</strong></td>
<td></td>
</tr>
<tr>
<td>All day</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>

**8.21.7.58.22.7.5** Light Gold Route

**Route Description**

The Light Gold Route provides local service from Lot J to Nyack and Tarrytown. The Light Gold connects to Metro-North in Tarrytown, which offers access to Manhattan, as well as key destinations along the Hudson Line such as Yonkers, Poughkeepsie, and the west Bronx.

On Saturdays and Sundays, this runs as the designated ‘Weekender’ service connecting Nyack and Tarrytown, serving both ends of the New New York Bridge Shared-Use Path (SUP).
**Span of Service**

The Light Gold route operated on weekdays from 4am-midnight, and operates on Saturdays and Sundays as the Weekender service, with weekend frequencies.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekday</strong></td>
<td></td>
</tr>
<tr>
<td>Peak(6:00am-7:00am &amp; 5:00pm-6:00pm)</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Off-peak</td>
<td>30 minutes</td>
</tr>
<tr>
<td><strong>Weekend</strong></td>
<td>30 minutes</td>
</tr>
</tbody>
</table>

**8.21.88.22.8 Fare Policy**

NYSDOT will be responsible for setting fares, which are envisaged to closely match the ones that are used on the TZx today. The Contractor may recommend fare changes to increase efficiency and ridership through the prescribed tariff process for regulated carriers found at the NYCRR Part 720 at https://www.dot.ny.gov/divisions/operating/osss/bus-repository/PARTS%2520730.pdf. NYSDOT will review and approve or deny the suggested change. NYSDOT will also have the authority to change fares at any point throughout the contract.

The LHTL BRT operator will be expected to maintain the Metro-North weekly and monthly UniTicket fare, accommodate the MetroCard (and its eventual replacement), and is encouraged to develop a range of discounted and institutional tickets that is similar to what is offered today, as well as work with local business and institutions to create new fare types. The operator is also encouraged to develop mobile ticketing technology for use on the LHTL intercounty BRT system, and incentivize users to avail themselves of this medium.

**8.21.98.22.9 Transit System Technology**

The LHTL project seeks to use technology to improve travel times and enhance the effective management of the road network in the I-287 Corridor. The transit service is a key component of the Integrated Corridor Management (ICM) system to achieve these goals.

**8.21.9.18.22.9.1 Fare Payment Options for Meeting System Goals**

A key component supporting transit system reliability and the customer experience is the fare payment system. Maintaining reliability and ensuring that the buses reach stops at their scheduled times, with even spacing between them, requires minimizing the dwell time at stops – the amount of time the bus waits to load and unload passengers. The processing of cash fares or validating of passes onboard by the driver increases the dwell time at stations, delaying bus departure times and disrupting the schedule.
In its final report, the MTTF recommended providing off-board fare payment machines where riders can purchase tickets. Off-board fare collection is a recommended feature of BRT systems from both ITDP’s international Bus Rapid Transit Standard\(^7\) and NACTO’s transit guidelines\(^8\). The use of proof-of-payment, rather than driver fare control, also requires regular inspections and fare evasion deterrents, usually fines.

To achieve the system performance goals for the LHTL system, it is proposed that a combination of off-board fare payment and mobile ticketing is used for fare collection. Off-board fare payment machines (supplied by NYSDOT) shall be able to accept MetroCard or credit/debit card payments and will issue a ticket with a QR or barcode that can be read by optical scanners on the bus. The mobile ticket shall be required to have the same QR or barcode to allow scanning verification on-board. Buses will also be equipped with on-board MetroCard readers so passengers may pay their fare on-board using an MTA MetroCard

While there will be some movement from the high percentage of cash fares to mobile and off-board payment, it is still anticipated that there will be a need to collect cash fares, so the bus fareboxes will be equipped to accept this. It is preferable for the fareboxes to also be able to accommodate NFC technology, so that they can be made compatible with the MetroCard replacement when it is available.

\(^{8.21.9.28.22.9.2}\) Integration with the I-287 Corridor ICM System

The Operator will be expected to work with the ICM Systems Integrator to ensure all onboard, in-shelter, and backoffice technologies are integrated with the main ICM system. The transit system will be flexible and responsive to corridor conditions, enabled by the Operator presence within the Hudson Valley Transportation Management Center, where the ICM operations will be located.

\(^7\) Institute for Transportation and Development Policy, [https://www.itdp.org/library/standards-and-guides/the-bus-rapid-transit-standard/](https://www.itdp.org/library/standards-and-guides/the-bus-rapid-transit-standard/)

8.22.23 Attachment 22: ICM and Transit Operational Framework

8.22.48.23.1 Purpose

8.22.48.23.1.1 The purpose of this document is to establish an operational framework for the effective and integrated management of transit within the I-287 Integrated Corridor Management (ICM) system. By identifying system requirements and a model for addressing these requirements, this document can outline a clear structure for the way transit operations and their relationship to the ICM system can be organized.

8.22.48.23.1.2 This document serves as a foundation for the private transit operator requirements specification, which is part of the NYSDOT Request for Proposals (RFP) for Operation of the LHTL Intercounty Bus Rapid Transit Service and subsequent operating contract.

8.22.28.23.2 Project Background

8.22.28.23.2.1 The Lower Hudson Transit Link (LHTL) is a program of integrated transit supportive infrastructure projects, with independent utility, being developed in Westchester and Rockland Counties. The LHTL program will:

a. respond to the unmet needs for better east-west travel options that residents and employees are seeking in the region;

b. enhance the existing transit service within and between the counties; and lay the foundation for introducing Bus Rapid Transit (BRT), creating an east-west transit priority corridor;

c. begin implementing the consensus regional transit plan put forward by the 31-member Mass Transit Task Force (MTTF) convened by Governor Andrew M. Cuomo

8.22.28.23.2.2 The LHTL program will link the region along the east-west corridor with:

a. Improved transit connections with more frequent, direct routes connecting to regional travel markets, new bus stations with unified branding, improved amenities (including Wi-Fi and real-time bus arrival) and improved pedestrian connections;

b. Signal upgrades along Route 59 and 119 with technology-focused improvements, including transit signal priority and intelligent signal control, to provide better operating conditions for transit and to allow the operators to predict, adapt and respond to changing traffic conditions;
c. Ramp meters and transit queue jump lanes along I-287 to stabilize mainline vehicle flows and allow buses to move past vehicle queues, thereby increasing transit speed and reliability; and

d. Integrated Corridor Management (ICM) technology and systems along I-287 in Rockland County, Route 59 and Route 119, including enhanced traveler information and advanced monitoring and control equipment to improve operators’ corridor awareness and their ability to rapidly respond to changing conditions.

8.22.2.3 ICM

8.22.2.4 Integrated Corridor Management is a partnership between the various agencies that have operational responsibility over the corridor’s assets. ICM frameworks include roadway operators, whether state or local, public safety components, special authorities, and transit operators. Operating within a pre-defined management framework with agreed-upon performance targets and protocols for normal and abnormal operations, an ICM system facilitates real-time corridor management. This allows the Traffic Management Center (TMC) and the operational stakeholders to efficiently manage the scarce roadway resource, and accomplishes the goal of improving the speed, safety, and reliability of travel times across the corridor.

8.22.2.5 In order to develop the necessary infrastructure, procure the proper equipment, and ensure the stakeholders are working towards a common defined goal, a Concept of Operations (ConOps) for the I-287 corridor has been developed.

8.22.2.6 The ConOps includes a description of the stakeholders, frameworks of the various interagency collaboration groups, the goals for how benefits are transmitted to the end users, and a description of the hardware and software required with protocols for its operation. The ConOps also includes methods and protocols for measuring progress and evaluating the effectiveness of the measures put in place as part of the project.

8.22.2.7 As the transit vehicles themselves will be part of the ICM system and transit users will be a major beneficiary of the ICM interventions, the high-level ICM requirements are being incorporated into the vehicle specifications and the operator requirements being promulgated.

8.22.2.8 The vehicles will have a two-way information flow with the operations center. They will receive system status information to be passed on to the passengers and potential routing strategies to be adopted by the drivers. In turn, the HVTMC will receive
information on the vehicle position and performance, which can both advise strategy development and feed into long-term network performance assessment.

**8.22.2.9 8.23.2.9 Transit**

**8.22.4.10 8.23.2.10** Following on from the MTTF transit recommendations, a number of transit planning activities have been completed. These activities support the MTTF’s conclusions, which were to implement a cross-Hudson BRT system. This new system will replace the current intercounty bus service, the Tappan Zee Express (TZx).

**8.22.6.11 8.23.2.11** Through a competitive bidding process, NYSDOT will enter into a contract with a private transit operator to run the BRT service. This approach was decided upon after evaluating several other potential models for the system. The State will set performance and service standards and provide all on-street infrastructure, while the private operator will develop detailed schedules to meet the service’s standards, and will procure, operate and maintain transit vehicles and on-board, in-shelter and back office technology.

**8.22.6.12 8.23.2.12** Research on potential types of transit vehicles indicated that the system is best suited by a double-decker bus, which offered low-floor boarding, ample capacity, and a smoother highway ride than articulated buses. Functional requirements for this vehicle have been specified, to guide the future operator through fleet procurement.

**8.22.6.13 8.23.2.13** The collaboration and cooperation of the transit operator is an integral input of the operations of the Hudson Valley Transportation Management Center (HVTMC), the nerve center for the corridor operations. As an important provider of person-mobility in the corridor, the transit operator is envisioned as a full partner in the daily operations of the ICM system, and will be expected to allocate staff in the HVTMC. The transit operator will participate in the daily operations of the corridor, be involved in incident response, contribute to the strategic planning of corridor functions, and be assessed as part of the corridor’s performance metrics.

**8.22.3 8.23.3 System and Asset Requirements**

**8.22.4.3 8.23.3.1** The ICM workstream has identified transit-specific high-level operational user needs for the I-287 ICM system, as follows:

a. Characterization of transit operations:
   - Frequency of passage of transit vehicles along relevant transit routes
• Average occupancy of transit vehicles operating along each relevant transit routes
• Active service deviations
• Real-time BRT vehicle location
• Bus failures frequency\(^9\)
• Time lost to congestion

b. Effective and on-time transit operations

• Variation in run time between the same trip on different days

8.22.3.28.23.3.2 The ICM assets identified to satisfy these needs are as follows:

a. Transit signal priority

b. Transit monitoring systems:

• Automatic Vehicle Locators (AVL)
• Automated Passenger Counters (APC)
• On-board CCTV
• Agency-based transit performance assessment system

c. Communication links with transit agency operations management system\(^{10}\)

\(^9\) I-287 SRS v0.07, page 15

\(^{10}\) I-287 SRS v0.07, page 18
These asset requirements and need for interagency coordination will demand a certain level of flexibility and expertise beyond the normal procedures of bus procurement and in-house dispatch and operational control of the vehicles.

**8.22.48.23.4 Operational Framework**

This section contains a high-level outline of how the transit service and overall ICM system for the corridor will interact in the day-to-day operation of the corridor.

**8.22.48.23.4.2 Staffing**

The bus operator will provide appropriate staff in the HVTMC to allow for communication between the roadway operators and the transit operator and to allow for improved overall system monitoring. The co-location of staff in the TMC also allows for better partnership and coordination with law enforcement, when required.

The transit operator staff allocated to the HVTMC will have multiple functions:

a. To determine, in concert with roadway operators, when changes in conditions require joint attention

b. To provide instantaneous information about roadway conditions to the bus drivers

c. To receive field reports from the bus drivers

d. To interface with the other transit operators (Metro-North and Bee-Line) in case of disruptions on any of those systems that may have an impact to the corridor

e. To facilitate the communication between law enforcement and the bus operator in the event of any security-related incident.

f. To share the bus CCTV footage with NYSDOT and law enforcement upon request.
8.22.4.5 8.23.4.5 Roles and Responsibilities

8.22.4.6 8.23.4.6 The transit operator will take an active role in incident response using general response protocols developed jointly between the transit operator and the other stakeholders, with modifications to each individual incident.

8.22.4.7 8.23.4.7 These modifications may require the operator to divert, delay, adjust, or add service where able and when practical.

8.22.4.8 8.23.4.8 The HVTMC Transit Service Coordinator will perform the following functions:

a. Assess transit conditions
b. Monitor vehicle operations
c. Monitor station conditions
d. Supply information to ICM system
e. Monitor all on-board and in-station ICM assets
f. Maintain on-board and in-station ICM assets and arrange for repairs of any system faults within the agreed performance targets

8.22.4.9 8.23.4.9 During incidents, the transit operator and the roadway manager will staff a “situation room” for coordination during the event and its recovery. Situation rooms are preferred, as they provide a single venue for decision making with all parties participating in seeing a unified operations picture and jointly making decisions. The situation room also provides an appropriate venue for after-action reviews and a chance to share lessons learned. The situation room will also serve as the venue for providing joint oversight to large pre-planned events.

8.22.5 8.23.5 Assets

8.22.5.1 8.23.5.1 The vehicle on-board technology will be procured and then maintained by the transit operator. In the cases when the equipment is not covered under manufacturers’ warranties, the transit operator will have to use outside technical support. The transit operator will procure and operate equipment according to their own procedures and those set forth in the proposal.

8.22.5.2 8.23.5.2 It is assumed that the transit operator will contract on their own with a third-party systems integrator, but this may not be required if the transit operator has the requisite
in-house capability. There will be a milestone design review as part of the equipment procurement, in which the operator will meet the systems integration that is being separately bid and contracted by the ICM operator. It is expected that regular collaboration will take place between the transit operator, the systems integrator(s), and the ICM operator to allow for the seamless and effective functioning of the transit-related equipment within the ICM framework.

8.22.5.3 The onboard systems will send and receive route, schedule, and position information on feeds operated by and provided by other transit agencies. This will likely require the intervention of the systems integrator to ensure mutually acceptable feeds providing accurate information.

8.22.5.4 The transit operator will also maintain the back office functions of the various equipment and data collection devices with the processed information to be delivered to the HVTMC in such a way as to integrate with the other pieces of ICM equipment.

8.22.5.5 The technology at the bus stops will be the responsibility of the transit operator to procure, operate, and maintain, and connections must be made via the transit operator to the ICM systems in the corridor and in the HVTMC. The fare collection equipment will be compatible with the “UniTicket,” or another contemporary fare system that allows a passenger to purchase a combined ticket between this bus service and Metro-North Rail.

8.22.5.6 Transit-related equipment at the transit operator will be procured, maintained, and operated by the transit operator.

8.22.6 Monitoring

8.22.6.1 The equipment installed on the transit vehicles will have real-time transmission to the HVTMC via the transit operator, allowing the ICM operators to monitor the status of the transit network contemporaneously. This will provide for performance monitoring, incident detection and analysis, troubleshooting, and on-the-go operational improvements. The transit operator will negotiate KPIs and output data relative to KPI adherence to the ICMS.

8.22.6.2 The data will also be recorded and archived to allow for detailed analysis, trend discovery, problem identification, and compliance with the operating agreement.

8.22.6.3 CCTV
8.22.6.4  The transit operator will be responsible for procuring, installing, maintaining, and monitoring CCTV equipment on the vehicles and at the shelters.

8.22.6.5 The CCTV is intended to be used for asset protection, operations monitoring, incident detection, and passenger security. It is not expected that the CCTV be actively monitored, but will be an asset used for incident detection and incident response upon external notification.

8.22.6.6 The transit operator will provide a method by which state and local law enforcement can access the live feeds and archived video upon request. CCTV footage will be archived for a time to be determined after the appropriate consultation with local law enforcement.

8.22.7 Communications

8.22.7.1 Information from the buses will be transmitted via the transit operator to the HVTMC using GPRS for AVL functions, and a higher-capacity system for CCTV as the requirements of that system dictate. The bus stop equipment will use either moderate-bandwidth (GPRS) wireless or wired (Ethernet/fiber) connections, with a requirement that passenger transactions be near instantaneous and have such latency as to not interfere with the boarding process. The onboard components of the fare collection system should use the 4G WiFi system installed on the bus, with GPRS as a backup. All fare payment equipment should have a primary and a secondary method of communication.

8.22.7.2 The WiFi system used on the shelters and the buses will use the same login protocols, such that a passenger who logs in to the network at a stop will be able to continue on the same session while on the vehicle without any drop in coverage or necessity to log in once again.

8.22.7.2.1 The WiFi system will use content blocking/filtering technology that will block users from visiting any web sites that are deemed to be inappropriate. This will include web sites that are pornographic or illicit in nature, promote terrorism or discrimination, or any other web sites designated by the NYSDOT Project Manager.

8.22.7.2.2 The WiFi system will prevent video streaming services such as Netflix, Amazon, Hulu, YouTube, or similar services as designated by the NYSDOT Project Manager.

8.22.7.2.3 The WiFi system will limit individual use to end no more than one hour after the initial login, and require a three hour wait until the individual can access the WiFi system again.
8.22.7.2.4 The Contractor is responsible for providing and maintaining security of the WiFi system at all times, including all hardware, software, and communication networks. If the Contractor detects or is alerted to a possible breach of security, the Contractor shall notify the NYSDOT Project Manager or his/her designee within 24 hours of becoming aware of a breach. The Contractor shall also provide a recommended solution and the timeline for implementing the recommended solution.

8.22.7.3 The operator will also provide their schedule information in GTFS (General Transit Feed Specification) format, which will be provided to 511NY and the HVTMC for integration into the ICM management. This information will also be made available to the public on a website that will be operated by the transit operator for the purposes of providing information and marketing about the service.

8.22.7.4 It is likely that the bus operator will have their own control center, located in the vehicle storage and maintenance facility or elsewhere. The bus operator’s control center is required to have a communications link with the HVTMC to allow for information to be transferred back and forth. This is necessary to allow for the transit operator to be integrated into the ICMS and the transit workstation that will be located at the HVTMC.

8.22.8.1 Capabilities for Response

8.22.8.1 There will be a number of set protocols in place to respond to major disruptions to either the roadway network or the non-Tappan Zee bus network in such a way that it will affect the Rockland-Westchester bus system.

8.22.8.2 Many of the scenarios are known and common, and will occur in one iteration or another on multiple instances per month. Ongoing incidents like mid-day workzones and minor crashes on either I-287 or the parallel arterials will provoke responses that may be limited to algorithmically updating next time of arrival signs on the buses, or may require rerouting where possible between I-287 and the arterials. The transit system will have the ability to respond and maintain fast, reliable travel for its users.

8.22.8.3 In the event that the ICMS Decision Support System recommends a bus rerouting, the transit operator will be informed through the ICMS interface and will then manually instruct the vehicles on the road and those about to be dispatched from the endpoints using the installed CAD AVL system.

8.22.8.4 Large catastrophic events that may occur only a few times each year such as a major snowstorm or a full roadway closure will be mitigated because of the two-way, multi-
party data communication between the vehicle, the bus command center, the HVTMC, and other corridor users.

**8.22.98.23.9 Conclusion**

8.22.9.18.23.9.1 The participation of the transit operator as a full partner in the LHTL-ICM project is a necessary step towards providing the type of efficient and reliable travel experience that the corridor’s users demand. Through the use of accurate and effective technology onboard transit vehicles and in wayside applications, the goal of greater transit adoption is fostered, and travel across the corridor improves for all users.
Attachment 23: Technology Specification

General

These technical specifications define requirements for the LHTL BRT ICM solution. The transit vehicles will require certain technologies to be installed to fulfill the desired ICM mission. Many of these components will work in tandem with devices installed at the shelters, with the data to be fed into back office functions that integrate the information being collected by the vehicles into the overall ICM solution.

The requirements in this specification detail the in-shelter and back office requirements of the Contractor. All requirements in this specification will be the responsibility of the Contractor, unless otherwise indicated. The technological vehicle elements are detailed in the Vehicle Specification, appended to this document as Attachment 26: Vehicle Specification.

The Contractor will be required to meet with the Systems Integrator (procured separately by NYSDOT) for a joint milestone ICM System Design Review workshop of all technology in the LHTL project, both for the transit system and the wider ICM system. The Contractor is required to present their unified transit technology design, including all transit system interfaces and a summary of the technology procurement and delivery schedule, at this System Design Review event to ensure that all ICM System Integration requirements and program coordination planning have been adequately resolved.

Definitions

- Automated Passenger Counter (APC): an electronic device available for installation on transit vehicles which accurately records boarding and alighting data
- The Advanced Traffic Management System (ATMS): a management system that integrates technology primarily to improve the flow of vehicle traffic and improve safety. Real-time traffic data from cameras, speed sensors, and other sources flows into a Transportation Management Center where it is integrated and processed (e.g. for incident detection), and may result in actions taken (e.g. traffic routing, DMS messages) with the goal of improving traffic flow.
- Automatic Vehicle Location (AVL): The use of computers and Global Positioning Systems (GPS) in dispatching and tracking transit vehicles
• Back office: A back office application comprises the software that an organization uses to administer operations that not related to any direct sales effort and interfaces that are not seen by consumers.

• Closed-circuit television (CCTV): a TV system in which signals are not publicly distributed but are monitored, primarily for surveillance and security purposes. CCTV relies on strategic placement of cameras, and observation of the camera's input on monitors somewhere.

• General Packet Radio Service (GPRS): a packet-based mobile data service on the global system for mobile communications (GSM) of 3G and 2G cellular communication systems.

• General Transit Feed Specification (GTFS): a common format for public transportation schedules and associated geographic information.

• Geographic information system (GIS): a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

• Hudson Valley Transportation Management Center (HVTMC): The control center for the I-287 ICM Corridor, and a place for the co-location and coordination of relevant highway and transit operators in the corridor, including NYSDOT, NYSTA, and the Operator chosen for the LHTL intercounty BRT service.

• Integrated Corridor Management (ICM): the operational coordination of multiple transportation networks and cross-network connections comprising a corridor, and the institutional coordination of those agencies and entities responsible for corridor mobility.

• Integrated Corridor Management System (ICMS): A set of tools to help the corridor's transportation network managers and operators achieve the ultimate goal of keeping their networks operating at optimal levels.

• Real-time passenger information (RTPI): provided to customers over an onboard or in-shelter electronic information system. It generally provides information about vehicle location (both on and off the bus) and can include real-time information from connecting transit systems.

• Rich Site Summary (RSS): a family of standard web feed formats to publish frequently updated information, like blog entries, news headlines, audio, video. An RSS document (called "feed", "web feed" or "channel") includes full or summarized text, and metadata, like publishing date and author's name.

• Transit signal priority (TSP): a name for various techniques to improve service and reduce delay for mass transit vehicles at intersections controlled by traffic signals. The signals can detect the bus as it is approaching, allowing it to receive an extended green light.

• Thin-Film Transistor (TFT): a liquid crystal display (LCD), common in notebook and laptop computers.

• Ticket Vending Machine (TVM): a vending machine that produces tickets. The typical transaction consists of a user using the display interface to select the type.
and quantity of tickets and then choosing a payment method. The ticket or tickets are printed and dispensed to the user.

- Wi-Fi: A system allowing computers, smartphones, or other devices to connect to the Internet or communicate with one another wirelessly within a particular area. For the purposes of the LHTL BRT system, Wi-Fi will be provided both at stations and on the bus.

### 8.23.38.24.3 ICM System Components and Requirements

#### 8.23.38.24.3.1 Automatic Vehicle Location (AVL)

a. The system shall have the ability to track vehicles in real time, showing at least the vehicle location, vehicle identifier, journey reference and driver ID.

b. The system shall log vehicle locations and have the ability to view historical vehicle movements.

c. The system shall have the ability to show vehicle latency for individual vehicles/the entire fleet of vehicles with this information being fed into the ICMS. Severity levels shall be configurable by the user.

d. The system shall display vehicles and bus stops in real time on a map with this information being fed into the ICMS.

e. The system shall be able to store vehicle information and provide a reporting tool which allows transit operators and the contract manager to at a minimum view historic schedule deviation, journey times between stops, vehicle speeds and dwell times.

f. The system shall have the ability to feed into an authority hosted central system in future if required.

g. The system shall provide a real time, vehicle-centric feed in an open data format which allows app/website developers to use the information.

h. The system shall push real time information to applications such as Google via GTFS or Siri feed.

i. The system shall integrate with the ICMS and be viewable on the ICMS GIS dashboard. The AVL solution provider will be required to work closely with the ICM System Integrator to ensure this is achieved.

j. The Contractor shall ensure that CAD events, such as broken-down vehicles, accidents, route closures and diversions, etc., feed into the ICM in real time via a format such as Siri or GTFS. Where radio communications are used for dispatch, event information shall be duplicated in the CAD/AVL system to ensure the ICMS has a real time view of transit operations.

k. The Contractor shall work with the ICM System Integrator to agree to a common event classification and mandatory event data design in the CAD system including even severity levels and event location format. Events shall be fed from the Contractor’s system to the ICMS whilst adhering to the pre-agreed classification schema and performance requirements.

l. The Contractor shall work with the ICMS System Integrator to ensure “event alerts” appear within the ICMS for each dispatch.
8.23.3.28.24.3.2 Real-time Passenger Information (RTPI)

To be installed at bus stop:

a. RTPI displays at stops shall be rich media 28-32 inch TFT displays.
b. RTPI displays shall be able to accept RSS feeds, have the capability of the display being split into multiple sections allowing for the HVTMC to place images/posters on a section and have a back office content management system.
c. The HVTMC shall have the ability to publish messages by either blanking the entire screen or a message at the bottom of the display.
d. RTPI displays shall be capable of either running off a fiber network or over GPRS.
e. The bus stop displays should show minutes to arrival, a map and schedule, and “next bus” information.

8.23.3.38.24.3.3 Back office requirements:

a. The HVTMC/transit operator shall have the ability to interrogate displays remotely seeing exactly what information is being displayed.
b. The RTPI system shall have the ability to accept feeds from other transport sources and populate information on RTPI displays. E.g. Metro-North.
c. The RTPI system must be able to interpret detours and route diversions and update arrival times accordingly.
   The RTPI system must be in a format that can be published to a website and/or mobile app

8.23.3.48.24.3.4 Closed-circuit Television (CCTV)

a. CCTV cameras shall be IP based with images/streams being available to HVTMC and the transit operator via a web portal. Integration into the ICMS is required.
b. CCTV cameras will not be required to constantly stream under normal operations, but images should refresh at least every 6 seconds and have the ability to live stream if required.
c. CCTV cameras shall have Pan Tilt Zoom (PTZ) functionality and pre-set camera views will be agreed and set up in advance.
d. The HVTMC shall have a system login enabling them to move cameras or select already established views.
e. CCTV cameras shall be encompassed by a protective dome.
f. Transit operators shall have the ability to remotely re-set CCTV cameras.
g. The transit operator shall have primary control of the on-board CCTV cameras and the cameras located at the shelters.
h. One pan-tilt-zoom (PTZ) CCTV High Definition (HD) digital camera shall be installed at each LHTL shelter listed in the RFP, with pre-set views being agreed by NYSDOT.

8.23.3.58.24.3.5 Automated Passenger Counters (APC)

a. Historical information shall be logged indefinitely.
b. Real-time APC information shall be wirelessly fed from the APC device into the ICMS, giving HVTMC a live view of bus patronage. Collaboration will be required between the APC system provider and the ICM system integrator.

c. There shall be a back office system in place which allows the contract manager to request reports on location based passenger boarding and alighting figures.

8.23.3.6 Wi-Fi

A. The Contractor will be responsible for procuring the communications networks to support the WiFi networks in the bus shelters and on the vehicles.

To be installed at shelter:

a. WiFi routers and associated antennas to be installed as bus shelters.
b. The passenger WiFi shall have a 4G modem and support 4G networks.
c. The WiFi system shall allow for at least 50 simultaneous connections per location.
d. The WiFi system shall allow for remote updates
e. The passenger WiFi at shelters shall connect through a fixed communication connection.

Back office requirements:

a. The Wi-Fi system shall allow for at least 50 simultaneous connections per location.
b. Should CCTV or any other modules communicate via the on board Wi-Fi this shall not cause any degradation to the customer experience.
c. Passenger Wi-Fi shall allow for a branded landing page to be used by the state.
d. Usage and trend statistics shall be made available to HVTMC.
e. MAC addresses for each passenger shall be stored, along with date and time and the MAC address for the router which they have logged on to. The router MAC address shall be referenced e.g. for buses the address will be relevant to the fleet number/number plate and bus stops will be relevant to the bus stop identifier. This information shall be stored and provided to the Contract Manager in CSV file on a monthly basis.
f. Only require one time log in, so when passengers sign up to the WiFi it is then a seamless experience and there is no differentiation between logging into the WiFi at the shelter and logging into the WiFi on bus.

8.23.3.7 Fare Collection and Ticketing

To be installed at bus stops:

a. Fare collection machines shall be located at bus stops along the route as determined by NYSDOT.
b. The fare collection machines shall consist of a compact structure resistant to vandalism.
c. The fare collection machines shall be protected against fraudulent access to sensitive financial data and theft of revenue.
d. The fare collection machines shall accept MTA MetroCards and debit/credit cards only.

e. The fare collection machines shall be accessible to all patronage, complying with ADA standards.

f. The fare collection machines shall be waterproof and suitable for installation indoor or outdoor and with or without a shelter.

g. The fare collection machines shall have a choice of Ethernet, ADSL, GPRS/3G connectivity.

h. The fare collection machines shall issue tickets/receipts with either a barcode or a QR code, to be compatible with the optical scanners onboard the intercounty BRT buses.

To be installed on-board

a. Cash payments must be accepted onboard the vehicles.

a-b. MetroCard payments must be accepted onboard BRT buses.

b-c. Ticket and MetroCard validators shall be installed on buses at entry points.

c-d. Validators shall be easily accessible to all passengers and shall comply with ADA standards.

d-e. Ticket validators shall have the ability to validate paper and mobile tickets through either a barcode or QR code.

e-f. Ticket validators shall flag issues with ticket validity to the driver for resolution.

f-g. Ticket validators shall integrate with the off-board fare collection machines and mobile app.

g-h. It is preferable that the onboard fare collection machines accommodate NFC technology, so that they can be made compatible with the MetroCard replacement when it is available.

Software:

a. The Contractor shall supply a mobile app to allow for tickets to be purchased in advance of travel. The app will aim to fulfill the requirements below:

- The mobile app should be available on iOS, Android and Windows platforms.
- The mobile app should have off-line functionality in order to allow tickets to be validated without an internet connection.
- The mobile app should support multiple riders.
- The mobile app should be able to support multiple types of tickets simultaneously (i.e., a monthly pass and also pay-per-ride).
- The mobile app should accept multiple payment methods, including credit/debit cards and PayPal.
The mobile app account statistics and usage figures should be made available to NYSDOT upon request.

Transit Signal Priority (TSP)

TSP information is to be fed back to the ATMS in real time. Collaboration will be required between the TSP provider and the ICM system integrator.
### Liquidated Damages

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Metric</th>
<th>Projected Completion Date</th>
<th>LD Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interim Milestones</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fleet Vehicles Delivered</td>
<td></td>
<td></td>
<td>$10,000.00</td>
</tr>
<tr>
<td>Transit ICM System Integration</td>
<td></td>
<td></td>
<td>$10,000.00</td>
</tr>
<tr>
<td>Vehicle Testing Completed</td>
<td></td>
<td></td>
<td>$10,000.00</td>
</tr>
<tr>
<td>LHTL system launch</td>
<td>Operational on the day the TZx contract expires</td>
<td></td>
<td>$10,000.00 per day not operational</td>
</tr>
<tr>
<td>Fare assessment (4.4.12)</td>
<td>Always collect fares in adherence to regional fare structure and use proper farebox operation</td>
<td></td>
<td>$50.00 per occurrence</td>
</tr>
<tr>
<td>Key personnel availability (5.1.8)</td>
<td>Each key personnel appointed by Contractor performs required duties during initial 30 days of contract</td>
<td></td>
<td>$1,000.00 per personnel title</td>
</tr>
<tr>
<td>Replacing key personnel (5.1.8)</td>
<td>Contractor must submit qualified replacement candidate within 45 calendar days to NYSDOT for approval</td>
<td></td>
<td>$100.00 per day after 45 days that replacement is not submitted to NYSDOT for approval</td>
</tr>
<tr>
<td>Replacing key personnel (5.1.8)</td>
<td>Use of in-house NYDSOT personnel</td>
<td></td>
<td>$100.00/hour that in-house NYDSOT personnel works to replace Contractor key personnel</td>
</tr>
<tr>
<td>Replacing key personnel (5.1.8)</td>
<td>Use of out-of-house contractor</td>
<td>10% administrative fee on top of and in addition to billable rate</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| **On-time performance**<br>Attachment 16: Operating Performance Standards | Arrives on-time 94% of the time or above | 93.99% - 90% - $1,000.00  
89.99% - 87% - $2,000.00  
86.99% and below - $3,000.00 |
| **Skipped stops**<br>(Attachment 16: Operating Performance Standards) | Does not skip any stops while passengers are waiting | $500.00 for each stop skipped |
| **Underperforming routes**<br>(Attachment 16: Operating Performance Standards) | Underperforming routes brought into compliance within designated time period (not including extended deadlines) | Within 40 days - $1,000.00  
Within 50 days - $2,000.00  
Within 60 days - $3,000.00 |
| **Missed revenue miles**<br>(Attachment 16: Operating Performance Standards) | Not missing 0.40% or fewer revenue miles | 0.41% - 0.50% - $1,000.00  
0.51% – 0.70% - $2,000.00  
0.71% and above - $3,000.00 |
| **Preventable accidents**<br>(Attachment 16: Operating Performance Standards) | 3 or fewer preventable accidents per 100,000 revenue miles (per accident over the performance standard) | 3-5 - $1,000.00  
5-8 - $1,500.00  
8 and above - $2,000.00 |
<p>| <strong>Accessible features operation and operator performance</strong>&lt;br&gt;(Attachment 16: Operating Performance Standards) | ADA compliance met, and operator accommodates passengers | $500.00 for each violation |</p>
<table>
<thead>
<tr>
<th>Topic</th>
<th>Requirement</th>
<th>Penalty Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit technology system operation</td>
<td>All transit technology functions at least 98% of the time</td>
<td>95% to 97.99% - $500.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>90% to 94.99% - $1,000.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>89.99% and below - $1,500.00</td>
</tr>
<tr>
<td>Urgent response</td>
<td>Urgent response duties performed immediately. Passengers stranded no more than 30 minutes.</td>
<td>31 – 35 minutes - $500.00</td>
</tr>
<tr>
<td>(Attachment 17; Fleet Maintenance &amp; Service Requirements)</td>
<td></td>
<td>36 – 40 minutes - $1,000.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41 minutes or more - $1,500.00</td>
</tr>
<tr>
<td>Vehicle appearance and cleanliness</td>
<td>Vehicles must be compliance with designated rules</td>
<td>$100.00 for each violation</td>
</tr>
<tr>
<td>(Attachment 17; Fleet Maintenance &amp; Service Requirements)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miles between road calls</td>
<td>11,000 miles or above between road calls</td>
<td>10,999 – 9,000 - $1,000.00</td>
</tr>
<tr>
<td>(Attachment 17; Fleet Maintenance &amp; Service Requirements)</td>
<td></td>
<td>8,999 – 7,000 - $1,500.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6,999 and below - $2,000.00</td>
</tr>
<tr>
<td>Facility maintenance</td>
<td>Contractor must remedy any noncompliant conditions</td>
<td>$200.00 per day per unremedied station maintenance/repair</td>
</tr>
<tr>
<td>(Attachment 19: Stop and Shelter Maintenance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting requirements</td>
<td>Submission of all required reports on-time</td>
<td>$100.00 per late report</td>
</tr>
<tr>
<td>(Attachment 20: Reporting Requirements)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Incentive Payments</strong></td>
<td>All transit technology functions above the standard of 98% of the time</td>
<td>98% – 98.99% - $1,000.00</td>
</tr>
<tr>
<td>Transit technology system operation (Attachment 16: Operating Performance Standards)</td>
<td></td>
<td>99% – 100% - $1,500.00</td>
</tr>
</tbody>
</table>
| Miles between road calls (Attachment 17: Fleet Maintenance & Service Requirements) | Performance better than 11,000 miles between road calls | 11,000 – 11,999 - $1,000.00  
12,000 – 12,999 - $1,500.00  
13,000 and above - $2,000.00 |
| Customer Satisfaction Index (CSI) Score (Attachment 18: Customer Satisfaction) | Achievement of Base or Stretch Target CSI score | Base Target - $500.00  
Stretch Target - $1,000.00 |
1. PROTECTION OF DATA, INFRASTRUCTURE AND SOFTWARE

Contractor is responsible for providing physical and logical security for all Data, infrastructure (e.g. hardware, networking components, physical devices), and software related to the services the Contractor is providing under the Authorized User Agreement.

All Data security provisions agreed to by the Authorized User and Contractor within the Authorized User Agreement may not be diminished for the duration of the Authorized User Agreement. No reduction in these conditions in any fashion may occur at any time without prior written agreement by the parties amending the Authorized User Agreement.

2. SECURITY POLICIES AND NOTIFICATIONS


The Contractor and its personnel shall review and implement all State security policies, procedures and directives currently existing or implemented during the term of the Contract, including ITS Policy NYS-P03-002 Information Security Policy (or successor policy(ies)).

2.2. Security Incidents

Contractor shall address any Security Incidents in the manner prescribed in ITS Policy NYS-P03-002 Information Security Policy (or successor policy(ies)), including the New York State Cyber Incident Reporting Procedures incorporated therein or in such successor policy(ies).

3. DATA BREACH – REQUIRED CONTRACTOR ACTIONS

3.1. Unless otherwise provided by law, in the event of a Data Breach, the Contractor shall:

3.1.1. Notify the NYSDOT Project Coordinator or their designated contact person(s), by telephone as soon as possible, but in no event more than four (4) hours from the time the Contractor has knowledge of a Data Breach;

3.1.2. Consult with and receive authorization from the NYSDOT Project Coordinator as to the content of any notice to affected parties prior to notifying any affected parties to whom notice of the Data Breach is required, either by statute or by the Authorized User;

3.1.3. Coordinate all communication regarding the Data Breach with the NYSDOT Project Coordinator
3.1.4. Cooperate with the NYSDOT Project Coordinator in attempting (a) to determine the scope and cause of the breach; and (b) to prevent the future recurrence of such security breaches; and

3.1.5. Take corrective action in the timeframe required by the NYSDOT Project Coordinator. If Contractor is unable complete the corrective action within the required timeframe, the NYSDOT Project Coordinator may contract with a third party to provide the required services until corrective actions and services resume in a manner acceptable to NYSDOT, or until NYSDOT has completed a new procurement for a replacement service system. The Contractor will be responsible for the cost of these services during this period.

Nothing herein shall in any way (a) impair the authority of the OAG to bring an action against Contractor to enforce the provisions of the New York State Information Security Breach Notification Act (ISBNA) or (b) limit Contractor's liability for any violations of the ISBNA or any other applicable statutes, rules or regulations.

4. DATA OWNERSHIP, ACCESS AND LOCATION

4.1. Data Ownership

NYSDOT shall own all right, title and interest in Data.

4.2. Authorized User Access to Data

NYSDOT shall have access to its Data at all times, through the term of the Contract.

NYSDOT shall have the ability to import or export Data in piecemeal or in its entirety at NYSDOT’s discretion, without interference from the Contractor.

4.3. Contractor Access to Data

The Contractor shall not copy or transfer Data unless authorized by NYSDOT. In such an event the Data shall be copied and/or transferred in accordance with the provisions of this Section. Contractor shall not access any Data for any purpose other than fulfilling the service. Contractor is prohibited from Data Mining, cross tabulating, monitoring NYSDOT’s Data usage and/or access, or performing any other Data Analytics other than those required within the Contract. At no time shall any Data or processes (e.g. workflow, applications, etc.), which either are owned or used by NYSDOT be copied, disclosed, or retained by the Contractor or any party related to the Contractor. The Contractor is allowed to perform industry standard back-ups of Data. Documentation of back-up must be provided to NYSDOT upon request. Contractor must comply with any and all security requirements within the Contract.

4.4. Data Location and Related Restrictions

All Data shall remain in CONUS. Any Data stored, or acted upon, must be located solely in Data Centers in CONUS. Services which directly or indirectly access Data may only be performed from locations within the Continental United States (CONUS). All Data in transit must be handled in accordance with FIPS-140-2 or TLS1, or TLS2 (or successor).
4.4.1. Support Services

All helpdesk, online, and support services which access any Data must be performed from within CONUS. At no time will any Follow the Sun support be allowed to access Data directly, or indirectly, from outside CONUS.

5. CONTRACTOR PORTABLE DEVICES

Contractor shall not place Data on any portable Device unless Device is located and remains within Contractor's CONUS Data Center.

The Data, and/or the storage medium containing the Data, shall be destroyed in accordance with applicable ITS destruction policies (ITS Policy S13-003 Sanitization/Secure Disposal and S14-003 Information Security Controls or successor) when the Contractor is no longer contractually required to store the Data.

6. TRANSFERRING OF DATA

6.1. General

The Contractor will not transfer Data unless directed to do so in writing by NYSDOT.

6.2. Transfer of Data at end of Contract and/or Authorized User Agreement Term

At the end of the Contract, Contractor may be required to transfer Data to a new Contractor. This transfer must be carried out as specified by NYSDOT in the Contract. This transfer may include, but is not limited to, conversion of all Data into or from an industry standard format(s) including comma/delimited files, txt files, or Microsoft standard file formats.

6.3. Transfer of Data; Charges

Transfer of Data shall be done at no additional charge to NYSDOT.

6.4. Transfer of Data; Contract Breach or Termination

In the case of Contract breach or termination for cause of the Contract, all expenses for the transfer of Data shall be the responsibility of the Contractor.

7. ENCRYPTION

All Data must be encrypted at all times unless specifically authorized by the NYSDOT Project Coordinator. At a minimum, encryption must be carried out at the most current NYS Encryption Standard (NYS-S14-007), (or successor policy(ies)) with key access restricted to NYSDOT only, unless with the express written permission of the Authorized User. The Authorized User Agreement shall specify the respective responsibilities of the Authorized User and the Contractor for the encryption of Data.

8. REQUESTS FOR DATA BY THIRD PARTIES

Unless prohibited by law, Contractor shall notify the NYSDOT Project Coordinator in writing within 24 hours of any request for Data (including requestor, nature of Data requested and timeframe of response) by a person or entity other than NYSDOT, and the Contractor shall
secure Written acknowledgement of such notification from the NYSDOT before responding to the request for Data.

Unless compelled by law, the Contractor shall not release Data without NYSDOT’s prior written approval.

9. SECURITY PROCESSES

If requested by an Authorized User as part the Request for Quote process, Contractor shall complete a Consensus Assessment Initiative Questionnaire (CAIQ) including an annual basis thereafter. The form is available at Cloud Security Alliance (https://cloudsecurityalliance.org/). The CAIQ may be used to assist the Authorized User in building the necessary assessment processes when engaging with Cloud providers.

In addition to a request for a CAIQ, Contractor shall cooperate with all reasonable Authorized User requests for a written description of Contractor's physical/virtual security and/or internal control processes. The Authorized User shall have the right to reject any Contractor's RFQ response or terminate an Authorized User Agreement when such a request has been denied.

For example, Federal, State and local regulations and/or laws may require that Cloud Contractors operate within the Authorized User's regulatory environment. In order to ensure that security is adequate and free of gaps in control coverage, the Authorized User may require information from the Contractor's Service Organization Controls (SOC) audit report.

10. UPGRADES, SYSTEM CHANGES AND MAINTENANCE/SUPPORT

The Contractor shall give a minimum of five (5) business days advance Written notice to the designated Authorized User(s) contact of any upgrades or system changes that will impact services as provided in the Authorized User Agreement.

11. EXPIRATION, TERMINATION OR SUSPENSION OF SERVICES

11.1. Return of Data

The Contractor shall return Data in a format agreed upon within the Contract or as agreed to with the NYSDOT Project Coordinator. The Contractor must certify all Data has been removed from its system and removed from backups within timeframes established in the Contract or as agreed to with the NYSDOT Project Coordinator.

11.2. Suspension of Services

During any period of suspension of service, NYSDOT shall have full access to all Data at no charge. The Contractor shall not take any action to erase and/or withhold any NYSDOT Data, except as directed by the NYSDOT Project Coordinator.

11.3. Expiration or Termination of Services

Upon expiration or termination of the Contract, NYSDOT shall have full access to all Data for a period of 60 calendar days at no charge. During this period, the Contractor shall not take any action to erase and/or withhold any Data, except as directed by the NYSDOT Project Coordinator.
12. SECURE DATA DISPOSAL

When requested by the NYSDOT Project Coordinator, the Contractor shall destroy Data in all of its forms, including all back-ups. Data shall be permanently deleted and shall not be recoverable, according ITS Policy S13-003 Sanitization/Secure Disposal or successor and S14-003 Information Security Controls or successor. Certificates of destruction, in a form acceptable to NYSDOT, shall be provided by the Contractor to the NYSDOT Project Coordinator.

13. ACCESS TO SECURITY LOGS AND REPORTS

Upon request, the Contractor shall provide reports to NYSDOT in a format as specified in the Contract.

14. CONTRACTOR PERFORMANCE AUDIT

The Contractor shall allow NYSDOT to assess Contractor’s performance by providing any materials requested in the Contract (e.g., page load times, response times, uptime, fail over time). NYSDOT may perform this Contractor performance audit with a third party at its discretion.

The Contractor shall perform an independent audit of their Data Centers, at least annually, at Contractor expense. The Contractor will provide a full version of the audit report upon request by NYSDOT. The Contractor shall identify any confidential, trade secret, or proprietary information in accordance with Appendix B, Section 9(a), Confidential Trade Secret Materials.>> need to change this language to reflect FOIL.

15. PERSONNEL

15.1. Background Checks

NYSDOT may require the Contractor to conduct background checks on certain Contractor staff at no charge to NYSDOT.

15.2. Separation of Duties

The Contract may require the separation of job duties, and limit staff knowledge of Data to that which is absolutely needed to perform job duties.

16. BUSINESS CONTINUITY/DISASTER RECOVERY (BC/DR) OPERATIONS

The Contractor shall provide a business continuity and disaster recovery plan to the NYSDOT Project Coordinator within 30 days of receiving the Notice to Proceed.

17. COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

If required within the Authorized User Agreement, Contractor will provide verification of compliance with specific Federal, State and local regulations, laws and IT standards that the Authorized User is required to comply with. See Appendix D -Primary Security and Privacy Mandates.

18. AUTHENTICATION TOKENS

The Authorized User Agreement may require authentication tokens for all systems. For more details, please see NYS ITS Policy S14-006 Authentication Tokens Standard or successor.
19. MODIFICATION TO CLOUD SERVICE DELIVERY TYPE AND DESCRIPTION WITHIN AN AUTHORIZED USER AGREEMENT

As Cloud services can be flexible and dynamic, delivery mechanisms may be subject to change. NYSDOT requires notification of any such changes to ensure security and business needs are met.

Any changes to the description, type of service(s), or SKU (e.g., PaaS to IaaS) must be provided to NYSDOT.

In addition, notification must be provided to the NYSDOT Project Coordinator for review and acceptance, prior to implementation. Any changes to the Contract will require NYSDOT to re-assess the risk mitigation methodologies and strategies and revise the Contract as needed.
8.26 Attachment 26: Vehicle Specification

8.26.1 General

A) Scope

i. These technical specifications define requirements for Heavy-duty, Double Decker, Bus Rapid Transit (BRT) Commuter Vehicles to be used in service in the Lower Hudson Transit Link System (LTHL) which is part of the Integrated Corridor Management System (ICM) for the I-287 corridor between Rockland and Westchester counties in New York State.

ii. The vehicles provided to this request for proposals shall be able to operate successfully in the geographic area so defined as well as in the climatic variations found in the service area.

iii. Vehicles are intended for the widest possible spectrum of passengers including children, adults, the elderly and people with disabilities.

8.26.2 Definitions

**Alternative**: An alternative specification to the default vehicle configuration. NYSDOT may approve alternatives to the default configuration to satisfy local operating requirements. Alternatives for the default configuration will be clearly identified.

**Ambient Temperature**: The temperature of the surrounding air. For testing purposes, ambient temperature must be between 16°C (50°F) and 38°C (100°F).

**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 services such as rheostats, potentiometers, temperature probes, etc.

**Audible Discrete Frequency**: An audible discrete frequency is determined to exist of 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.

**Battery Compartment**: Low-voltage energy storage, i.e. 12 volt maintenance-free batteries.

**Capacity (fuel container)**: The water volume of a container in gallons (liters).

**Code**: A legal requirements.

**Consultant**: In most cases in the context of this RFP, and entity contracted by NYSDOT to perform certain tasks and provide deliverables as defined by a contract between these parties.

**Contractor**: In most cases the provider and contractor operator of the LHTL vehicles. In some contexts it may mean a sub supplier of contract deliverables to an entity involved in the project.

**Curb Weight**: Weight of vehicle, including maximum fuel, urea, oil and coolant; and all equipment required for operation and required by the Vehicle Specifications below, but without passengers or operator.

**DBA**: Decibels with reference to 0.0002 microbar as measured on the “A” scale.
**DC to DC Converter:** A module that converts a source of direct current from one voltage level to another.

**Destroyed:** Physically made permanently unusable.

**Discrete Signal:** A signal that can take only pre-defined values, usually of a binary 0 or 1 nature, where 0 is battery ground potential and 1 is defined as battery positive potential.

**DFP:** Diesel particulate filter.

**Fuel Line:** The pipe, tubing, or hose on a vehicle, including all related fittings, through which fuel passes.

**Fusible Material:** Materials, alloy or other material capable of being melted by heat.

**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.

**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.

**Gross Load:** 1500lbs for every designed passenger seating position and for the operator.

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

**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.

**High Voltage (HV):** Greater than 50 VAC and VDC.

**Hose:** Flexible line that conveys liquids or powders from one place to another.

**Human Dimensions:** Specifications are defined in Humanscale 1/2/3, N. Different, A.R. Tilley, J.C. Bardagiy, MIT Press.

**Inverter:** A module that converts DC to and from AC.

**Labeled:** Equipment or materials to which has been attached a label, symbol or other identifying mark of an organization, which is acceptable to the authority having jurisdiction and concerned with product evaluation, which maintains periodic inspection of production labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

**Leakage:** Release of contents through a defect or crack. *See Rupture.*

**Line:** All tubes, flexible and hard, that carry fluids.

**Local Regulations:** Regulations below the state level.

**Low-Floor Vehicle:** A vehicle that, between at least the front (entrance) and rear (exit) doors, has a floor specifically low and level so as to remove the need for steps in the aisle between the doors and in the vicinity of these doors.

**Low Voltage (LV):** 50V or less (Ac and DC).

**Manufacturer:** The manufacturer of the vehicles to be supplied under this contract.

**Metallic Hose:** a hose whose strength depends primarily on the strength of its metallic parts; it can have metallic lines or covers, or both.

**Module:** An assembly of individual components.
**Motor (Electric):** A device that converts electrical energy into mechanical energy.

**Operating Pressure:** The varying pressure developed in a container during service.

**Operating Profile:** The expected physical conditions in which the vehicle will be operating, this includes grades, altitude, temperature range and speeds.

**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.

**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.

**Pipe:** Nonflexible line.

**Power:** Work or energy divided by time.

**Power-Density:** Power divided by mass, volume, or area.

**Proposer:** An entity that is answering this Request for Proposals.

**Real-Time Clock (RTC):** Computer clock that keeps track of the current time.

**Retarder:** Device used to augment or replace some of the functions of primary friction based braking systems of the vehicle.

**Rupture:** Sudden and unstable damage propagation in the structure components of the container resulting in a loss of contents.

**Seated Load:** 150lbs for every designed passenger seating position and for the operator.

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

**Serial Data Signals:** 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 prearranged 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.

**Specification:** A particular or detailed statement, account or listing of the various elements, materials, dimensions, etc. involved in the manufacturing and construction of a product.

**Standard:** A firm guideline from a consensus group. Standards referenced in “Section 6: Technical Specifications” are the latest revisions unless otherwise stated.

**Standee Line:** A line marked across the vehicle aisle to designate the forward area that passengers may not occupy when the vehicle is moving.

**Stress Loops:** The “pigtails” commonly used to absorb flexing in piping or electrical cabling.

**Structure:** The basic body, including floor deck material and installation, load-bearing external panels, structural components, axle mounting provisions and suspension beams and attachment points.

**Wheelchair:** A mobility aid belonging to any class three- or four-wheeled devices, usable indoors, designed for and used by individuals with mobility impairments,
whether operating manually or powered. A “common wheelchair” is such a device that does not exceed 30 in. in width and 48 in. in length measured 2 in. above the ground, and does not weigh more than 600 lbs when occupied.

8.26.3 Acronyms

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

4G Fourth Generation cellular data transmission protocol
ABS Antilock Brake System
ADA Americans with Disabilities Act
ANSI American National Standards Institute
APC Automatic Passenger Counter
ASHRAE American Society of Heating, Refrigerating and Air Conditioning Engineers
ASR Anti Slip Regulation
ATC Automatic Traction Control
ASTM American Society for Testing and Materials
AVL Automatic Vehicle Location system
BRT Bus Rapid Transit
CAD Computer Assisted Dispatching
CAAA Clean Air Act Amendment
CCTV Closed Circuit Television
DEF Diesel Exhaust Fluid
EMI Electromagnetic Interference
EPA Environmental Protection Agency
FMCSA Federal Motor Carrier Safety Administration
FMVSS Federal Motor Vehicle Safety Standards
FTA Federal Transit Administration
GPS Global Positioning Satellite
GPRS General Packet Radio Service
HVTMC Hudson Valley Traffic Management Center
IEEE Institute of Electrical and Electronics Engineers
I/O Input/output
ICM Integrated Corridor Management system
IP Internet Protocol
ISO International Organization for Standardization
ITS Intelligent Transit System
JIC Joint Industrial Council
LED Light Emitting Diode
LHTL Lower Hudson Transportation Link
LTE Long Term Evolution cellular data transmission protocol
MTBF Mean Time between Failures
NEC National Electrical Code
NFPA National Fire Protection Association
8.26.4 Legal Requirements

A) Requirements

i. The Proposer shall assure that the Vehicles supplied and operated under this RFP shall comply with all applicable Federal, State and local regulations. These shall include, but are not be limited to, NYSDOT, Federal Transit Administration, ADA, CAAA as well as state and local accessibility, safety and security requirements and regulations in effect at the moment of commencement of the aforementioned service.

ii. Local regulations are defined as those below the Federal level. In the case of NYSDOT regulations, some of the requirements (i.e. braking) are more stringent than Federal regulations. Title 17 (Vehicle and Passenger Carrier Vehicle Safety Regulations).

iii. It is the responsibility of the Proposer and the vehicle manufacturer to identify, be familiar with, and comply with all Federal, State and local regulations.

NYSDOT regulations are available at:
https://www.dot.ny.gov/divisions/operating/osss/bus/rules-regulations

and
https://www.dot.ny.gov/divisions/operating/osss/bus

iv. In the event of any conflict between the requirements of these specifications and any applicable legal requirement, legal requirement shall prevail. Technical requirements that exceed the legal requirements are not considered to conflict and shall be honored by the proposer.

B) Referenced Publications
These 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 NYSDOT’s issuance of this specification.

8.26.5 Safety Requirements

A) General Requirements

i. The Proposer shall ensure that the Manufacturer conducts a safety program throughout design, engineering, manufacturing, testing and warranty to ensure the vehicle and components achieve a level of safety consistent with NYSDOT’s goals. The program shall provide safety for the following:

- Passengers being transported by the vehicle.
- Personnel, who are operating, maintaining or testing the vehicle and its associated equipment.
- The vehicle, its associated equipment and support facilities.
- Any and all other persons or property that could be affected by deficiencies noted in this section.

ii. The Proposer shall ensure that the Manufacturer properly performs the application and installation of major vehicle subcomponents and systems in compliance with all such subcomponent vendors’ requirements and recommendations.

iii. The Proposer shall identify subcomponent vendors that shall submit installation/application approval documents with the completion of a pilot or lead vehicle.

iv. Components used in the vehicle shall be of heavy-duty design and proven in conventional commuter transit vehicle service.

8.26.6 Overall Requirements

A) Requirements
i. It shall be a design goal to construct each vehicle to be as light in weight as possible without degradation of safety, appearance, comfort, traction or performance.

ii. Vehicles at a maximum load capacity shall not exceed tire safety factor limits, brake test criteria or structural design criteria.

B) Capacity

i. The vehicle shall be designed to carry the gross vehicle weight, which shall not exceed the vehicle at curb weight plus full fuel and other fluids plus a full passenger load which constitutes the total number of passenger seats multiplied by 150 lbs. per person plus an allowance for the bus operator of 150 lbs.

8.26.7 Operating Environment

A) General

i. The vehicle shall achieve normal operation in ambient temperature ranges of -10 °F to 115 °F, at relative humidity between 5 percent and 100 percent, and at altitudes up to 3000 feet above sea level.

ii. Degradation of performance due to atmospheric conditions shall be minimized at temperatures below -10 °F, above 115 °F or at altitudes above 3000 feet.

iii. Speed, gradeability and acceleration performance requirements shall be met at, or corrected to, 77 °F, 29.31 in. Hg, dry air per SAEJ1995.

iv. Special equipment or procedures as recommended by the Manufacturer may be employed to start the vehicle after being exposed for more than 12 hours to temperatures less than 30° F without the engine in operation.

v. The interior climate control system shall perform in accordance with the Technical Specifications.

B) Interior Noise

i. NYSDOT requires that documentation and certification of compliance with the noise requirements specified herein will be provided by the Proposer with the bid package.

ii. 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 vehicle shall have a sound level of 65 dBA or less at any point inside the vehicle.

iii. These conditions shall prevail with all openings, including doors and windows, closed and with the engine and accessories switched off.

iv. The vehicle-generated noise level experienced by a passenger at any seat location in the vehicle shall not exceed 79 dBA and the operator shall not experience a noise level of more than 75 dBA under the following test conditions.
- The vehicle shall be empty except for test personnel, not to exceed 4 persons, and the test equipment. All openings shall be closed and all accessories shall be operating during the test.
- The vehicle 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 vehicle path.
- During the test, the ambient noise level in the test area shall be at least 10 dBA lower than the vehicle under test.
- Instrumentation and other general requirements shall conform to SAE Standard J366. If the noise contains an audible discrete frequency as defined in Section SSS a penalty of 5 dBA shall be added to the sound level measured.

C) Exterior Noise

i. Airborne noise generated by the vehicle and measured from either side shall not exceed 79dBA under full power acceleration when operated at 0 to 35 mph at curb weight.

ii. The maximum noise level generated by the vehicle pulling away from a stop at full power shall not exceed 83 dBA.

iii. The vehicle-generated noise at curb idle shall not exceed 65dBA.

iv. If the noise contains an audible discrete frequency, a penalty of five (5) dBA shall be added to the sound level measured.

v. The Proposer shall comply with the exterior noise requirements defined in local laws and ordinances identified by NYSDOT and SAEJ366.

vi. All noise readings shall be taken 25 feet from and perpendicular to, the centerline of the vehicle with all accessories operating.

vii. Instrumentation, test sites, and other general requirements shall be in accordance with SAE Standard J366.

viii. The pull away test shall begin with the front bumper even with the microphone.

ix. The curb idle test shall be conducted with the rear bumper even with the microphone.
8.26.8 Fire Safety

A) General
   i. The vehicle shall be designed and manufactured in accordance with all applicable fire safety and smoke emission regulations. These provisions shall include the use of fire-retardant/low-smoke materials, fire detection systems, bulkheads and facilitation of passenger evacuation.
   ii. Materials: All materials used in the construction of the passenger compartment of the vehicle shall be in accordance with the Recommended Fire Safety Practices defined in FMVSS 302 and FTA Docket 90-A, dated October 20, 1993.
   iii. Materials entirely enclosed from the passenger compartment, such as insulation within the sidewalls and sub-floor, need not comply. In addition, smaller components and items, such as seat grab rails, switch knobs, small light lenses, door seals, window seals, steering wheel, steering column and escape hatches shall be exempt from this requirement.

B) Fire Detection and Suppression System
   i. The vehicle shall be equipped with an ABC dry chemical, automatically discharged, pre-engineered fire suppression system.
   ii. The system shall be approved and listed for use at –65 F to 150 F by Factory Mutual Research Corporation.
   iii. The automatic actuation system shall provide 24-hour fire detection of the engine compartment.
   iv. A minimum 25-pound capacity agent cylinder of the stored pressure type shall be constructed of welded steel and must conform to DOT specification 4BW, and be rated for 12-year minimum hydrostatic retest.
   v. The cylinder shall be equipped with a gauge and a forged brass valve assembly.
   vi. The cylinder gauge shall be easily accessible for inspection through an inspection door.

C) Fire Extinguishers
   i. Two appropriately sized, portable, handheld, fire extinguishers shall be provided.
   ii. One shall be located in a space adjacent to the vehicle operator.
   iii. One shall be located in the upper deck area.
   iv. The upper deck fire extinguisher shall incorporate a system which shall inform the vehicle operator if the extinguisher is removed from its mounting system.
   v. Extinguishers shall not exceed ten (10) lbs. in weight.
vi. Extinguishers shall have the capability of extinguishing all types of fires normally occurring on vehicles, including but not limited to wood and paper, fuel, plastic and fabric and electrical.

vii. Fire extinguishers shall be of USA manufacturer.

viii. Fire extinguishers shall be fitted with inspection tags as required by all governing authorities in Rockland and Westchester County’s operating area that prove that the extinguisher is compliant with all applicable regulations and has been certified no more than 30 days before the delivery of the vehicle.

8.26.9 Dimensions

A) Physical Size

i. With exceptions such as exterior mirrors, marker and signal lights, bumpers, fender skirts, washers, wipers, ad frames, cameras, object detection systems, bicycle racks, feelers and rubrails, the vehicle shall have the following overall dimensions as shown in Figure 1 at static conditions and design height.

**FIGURE 1**
Bus Rapid Transit Vehicle Exterior Dimensions

![Bus Rapid Transit Vehicle Exterior Dimensions](image)

**Figure 1**

B) Maximum Vehicle Dimensions

- Width: No more than 102 inches (8.5 feet) (Excluding mirrors)
Height

No more than 162 inches (13.5 feet)

Length

No more than 528 inches (44 feet) (Excluding bicycle rack if used)

Wheelbase 1

No more than 255 inches (front axle to 2\textsuperscript{nd} axle)

Wheelbase 2

No more than 60 inches (2\textsuperscript{nd} axle to 3\textsuperscript{rd} axle)

Front overhang

No more than 100 inches

Rear overhang

No more than 100 inches

Step height

No more than 15 inches at normal ride height

Step height

No more than 12.5 inches at kneeled height

C) Road Clearance

i. Underbody Clearance: The vehicle shall maintain the minimum clearance dimensions as defined and shown in Figure 2 of SAE Standard J689, regardless of load up to the gross vehicle weight rating.

ii. Ramp Clearances: 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.

iii. 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.

iv. 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.

v. Ground clearance shall be no less than nine (9) inches, (8 inches at jacking pad) except within the axle zone and wheel area.

vi. Height of the step above the street shall be no more than 15 inches, measured at the centerline of the front and rear doorway.

vii. All floor measurements shall be with the vehicle at the design running height and on a level surface and with the standard installed tires.

Transit Bus Minimum Road Clearance
D) Interior Headroom
   i. Headroom shall comply with NYSDOT and all other legal requirements

8.26.10 Vehicle Performance
A) Propulsion System
   i. The vehicle shall be powered by a conventional Diesel engine – hydraulic transmission propulsion system as normally employed in commuter vehicles with the additional requirements of bus rapid transit service in the specified service area and conditions.

B) Power Requirements
   i. The propulsion system shall be sized to provide sufficient power to enable the vehicle to meet the defined acceleration, top speed and gradeability requirements, and operate all propulsion-driven accessories using actual road test results and computerized vehicle performance data.
   ii. The vehicle shall be capable of achieving a top speed of 65 mph on a straight, level road at GVWR with all accessories operating. The vehicle shall be capable of safely maintaining the vehicle speed according to the recommendations by the tire manufacturer.
   iii. Gradeability requirements shall be met on grades with a dry commercial asphalt or concrete pavement at GVWR with all accessories operating.
iv. The propulsion system shall enable the vehicle to achieve and maintain a speed of 40 mph on a 2½ percent ascending grade and 15 mph on a ten (10) percent continuous ascending grade.

v. Values are assumed to be sustained. The Manufacturer shall supply NYSDOT with data if there is a variance between peak performance and sustained vehicle performance.

vi. The operating range of the vehicle shall be no less than 300 miles.

vii. Vehicle acceleration shall meet the requirements in Table 8.26 below and shall be sufficiently gradual and smooth to prevent throwing passengers off-balance. Acceleration measurement shall commence when the accelerator is depressed.

Maximum Start Acceleration Times on a Level Surface

<table>
<thead>
<tr>
<th>Speed (mph)</th>
<th>Maximum time (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>50</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 8.26
8.26.11 Drivetrain

A) Engine
   i. Vehicles shall comply with all applicable local, state and/or federal emissions requirements.

B) Engine Electronics
   i. Vehicles shall be equipped with electronically controlled management systems.
   ii. Engine control systems shall be capable of transmitting and receiving electronic inputs and data from other drivetrain components and broadcasting that data to other vehicle systems.
   iii. Communication between electronic drivetrain components and other vehicle systems shall be made using communications networks.
   iv. The engine’s electronic management system shall monitor operating conditions and provide instantaneous adjustments to optimize both engine and vehicle performance.
   v. The system shall be programmable to allow optimization of programmable features.
   vi. The engine starting system shall be protected by an interlock that prevents its engagement when the engine is running.
   vii. The engine control system shall protect the engine against progressive damage.
   viii. The system shall monitor conditions critical for safe operation and automatically derate power and/or speed and initiate engine shutdown as needed.

C) Automatic Engine Protection/Shutdown Override Feature
   i. A control shall be available to the operator that when constantly depressed and released will override engine shutdown when the powertrain control system is in a failure mode which would otherwise require immediate engine shutdown. This capability is required to allow the vehicle to be moved out of imminently dangerous conditions. Override action shall be recorded. This data shall be retrievable by the operator and/or NYSDOT.

D) Engine Emissions
   i. The engine and related emission systems shall meet all applicable emissions and design/durability guidelines and standards.
   ii. The Manufacturer shall provide NYSDOT with expected durability of the engine and related emission systems.
   iii. The engine shall be equipped with an electronically controlled management system, compatible with vehicle and ITS multiplex wiring systems.

E) Fast Idle
   i. The engine shall be equipped with an operator-controlled fast idle device.
ii. The fast idle control shall be switch controlled and shall activate only with the transmission in neutral and the parking brake applied.

F) Oil and Hydraulic Lines
   i. Oil and hydraulic lines shall be compatible with the substances they carry.
   ii. The lines shall be designed and intended for use in the environment where they are installed (for example, high-temperature resistant in the engine compartment, resistant to road salts near the road surface and so on).
   iii. Lines within the engine compartment shall be composed of corrosion resistant steel tubing where practicable, except in locations where flexible lines are required.
   iv. Hydraulic lines of the same size and with the same fittings as those on other piping systems of the vehicle, but not interchangeable, shall be tagged or marked for use on the hydraulic system only.

8.26.12 Engine Cooling
A) General
   i. The cooling system shall be what was used by the vehicle manufacturer during the engine manufacturer’s mandated IQA (Installation Quality Assurance) process.
   ii. A means of determining satisfactory engine coolant level shall be provided in a place accessible during normal everyday service procedures.
   iii. A spring-loaded, push-button type valve or lever shall be provided to safely release pressure or vacuum in the cooling system with both it and the water filler no more than ±60 inches above the ground.
   iv. Both the filler and pressure relief shall be accessible through the same access door.
   v. The cooling fan(s) shall be temperature controlled, allowing the engine to reach operating temperature quickly.
   vi. The radiator and charge air cooler shall be of durable, corrosion-resistant construction.

B) Cooling Systems
   i. 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.
   ii. The cooling system fan controls shall 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.
   iii. The fan control system shall be designed with a fail-safe mode of “fan on.” The cooling system shall meet the requirements stated in Section 8 “Operating Environment”.
iv. The fan system shall be equipped with a reversing function to assist with cleaning debris and dust from the heat exchanger cores.

C) Radiator Piping
i. Radiator piping shall be stainless steel, brass tubing or painted steel rated at 1,000 hours of salt spray according to ASTM B117.
ii. Where practicable, hoses shall be eliminated.
iii. Necessary hoses shall be impervious to all vehicle fluids, including biodiesel and DEF.
iv. All hoses shall be secured with stainless steel clamps that provide a complete 360-degree seal.
v. Hose clamps shall be heavy duty and maintain a constant tension at all times, expanding and contracting with the hose in response to temperature changes and aging of the hose material.

D) Heat Exchanger Screens
i. Heat exchangers shall be protected by easily cleanable screens designed to collect large debris.

E) Heat Exchangers
i. Radiators with a fin density greater than 12 fins per inch or a louvered slit design shall not be allowed.
ii. No heat-producing components or climate-control system components shall be mounted between the engine cooling air intake aperture and the radiator.
iii. The radiator and charge air cooler shall be designed to withstand thermal fatigue and vibration associated with the installed configuration.
iv. The radiator and charge air cooler cores shall be easily cleaned (to include engine side core surface) with appropriate washing equipment.

F) Coolant
i. The engine cooling system shall be equipped with a properly sized water filter with a spin-on element and an automatic system for releasing supplemental coolant additives as needed to replenish and maintain protection properties.
ii. Quarter-turn ball valves shall be installed in the coolant filter base adaptor to facilitate coolant retention during filter changes.

G) Electric Fans
i. The vehicle shall be equipped with a control and drive of the radiator and charge air cooler fan which shall be the Manufacturer’s standard design electric fan drive vehicle cooling system.
ii. A screen guard shall be installed on electric motor fans per SAE J1308.

H) Mounting
i. Mounting location of radiator and charge air cooler shall be the Manufacturer’s standard design.
ii. Stacked heat exchangers are not allowed.
I) Charge Air Cooling

i. The charge air cooling system, also referred to as after-coolers or intercoolers, shall provide maximum air intake temperature reduction with minimal pressure loss.

ii. The charge air cooler system and installation shall be approved by the engine manufacturer.

iii. Air intake ducting and fittings shall be protected against heat sources and shall be configured to minimize restrictions and maintain sealing integrity.

iv. Charge air piping and fittings shall be designed to minimize air restrictions and leaks.

v. Piping shall be as short as possible, and the number of bends shall be minimized.

vi. Bend radii shall be maximized to meet the pressure drop and temperature rise requirements of the engine manufacturer.

vii. The cross section of all charge air piping shall not be less than the cross section of the intake manifold inlet.

viii. Any changes in pipe diameter shall be gradual to ensure a smooth passage of air and to minimize restrictions.

ix. Piping shall be routed away from heat sources as practicable and shielded as required to meet the temperature rise requirements of the engine manufacturer.

x. Charge air piping shall be constructed of stainless steel, aluminized steel or anodized aluminum rated at minimum 1,000 hours of salt spray according to ASTM B117, except between the air filter and turbocharger inlet, where piping may be constructed of flexible heat-resistant material.

xi. Connections between all charge air piping sections shall be sealed with a short section of reinforced silicon hose and secured with stainless steel constant tension clamps that provide a complete 360-degree seal.

J) Transmission Cooling

i. The transmission shall be cooled by a dedicated heat exchanger sized to maintain operating fluid within the transmission manufacturer’s recommended parameters of flow, pressure and temperature.

ii. The transmission cooling system shall be matched to the retarder and engine cooling systems to ensure that all operating fluids remain within recommended temperature limits established by each component manufacturer.

iii. In the event that an engine coolant to transmission fluid heat exchanger is used, the engine cooling system shall provide coolant bypass flow to the transmission cooling system with the engine thermostats closed so that transmission cooling shall occur even if the engine is not yet up to operating temperature.
iv. Unless cooling system design requires otherwise, the transmission cooler is to be the first component to receive cold water from the radiator outlet.

v. All coolant return piping, aside from the thermostat bypass line, is to be plumbed in after the transmission cooler.

8.26.13 Transmission

A) General

i. The transmission shall be multiple speed, automatic shift with torque converter, retarder and electronic controls. Allison B-500R or approved equal.

ii. Gross input power, gross input torque and rated input speed shall be compatible with the engine.

iii. The transmission shall be designed to operate for not less than a 300,000-mile lifecycle in the design operating profile without replacement or major service.

iv. The transmission shall be easily removable without disturbing the engine and be accessible for service.

v. Transmission electronic controls shall be capable of transmitting and receiving electronic inputs and data from other drivetrain components and of broadcasting data to other vehicle systems.

vi. Communication between electronic drivetrain components and other vehicle systems shall be made using SAE J1939 communications networks.

vii. Electronic controls shall be compatible with 24 volt power distribution, provide consistent shift quality, and compensate for changing conditions, such as variations in vehicle weight and engine power.

viii. At a minimum, drivetrain components consisting of the engine, transmission, retarder, ASR, and anti-lock braking systems shall be powered by a dedicated and isolated ignition supply voltage to ensure data communication among components exists when the vehicle ignition is switched to the “on” position.

ix. A brake pedal application of 6 to 10 psi shall be required to engage either forward or reverse range from standstill.

x. 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.

xi. The transmission shall contain built-in protection software to guard against damage.

xii. The on-board diagnostic system shall trigger a visual alarm to the operator when a malfunction is detected.

xiii. An electronic transmission fluid level monitoring and protection system shall be provided.

B) Hill Holder
A vehicle hill holder function shall be integrated with an automatic or reduced engine load state function to prevent inadvertent vehicle movement when activated by the vehicle operator. The vehicle door brake shall be activated in this state and shall be deactivated when the vehicle operator activates the throttle pedal. When this system is used, the vehicle may not roll back before the engine produces power suitable to propel the vehicle forward.

C) Retarder
   i. The transmission shall be equipped with a retarder designed to extend brake lining service life.
   ii. The application of the retarder shall cause a smooth blending of both retarder and service brake function and shall activate the brake lights.
   iii. Actuation of ABS, ATC or ASR shall override the operation of the transmission retarder.

D) Standard Requirement for Retarder Activation
   i. The retarder shall be adjustable within the limits of the powertrain and activated when the brake pedal is depressed.
   ii. NYSDOT requires that the Proposer will work with the OEM/drive system manufacturer to determine retarder performance settings.

E) Retarder Disable Switch Not Accessible
   i. The retarder disable switch shall not be accessible to the seated operator. The retarder disable switch shall be located behind a normally latched door in the operator’s area.

F) Retarder Data Recording
   i. Provision shall be made so that disabling retarder can be recorded for NYSDOT’s data collection system.

G) Transmission Mounting
   i. All power plant mountings shall be mechanically isolated to minimize transfer of vibration to the body structure and provide a minimum clearance of 0.75 inches between the powertrain and fixed parts of the vehicle at the most extreme extension of the powertrain.
   ii. Mounts shall control the 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.

H) Belt-Driven Accessories
   i. NYSDOT requires that all belt-driven accessories are attached only to the powertrain and not to the vehicle chassis.
8.26.14 Drive Shaft
  i. The drive shaft shall be guarded to prevent hitting any critical systems, including brake lines, vehicle floor or the ground, in the event of a tube or universal joint failure.
  ii. Drive shaft angles shall be limited to recognized industry norms and shall not be greater than the angles specified by the universal joint manufacturer’s specifications.
  iii. Drive shaft slip joint shall be robust enough to last the life of the transmission.
  iv. Slip Joint and Universal joint lubrication points shall be easily accessed so that ease of normal maintenance is facilitated.
  v. The universal end cap retention bolts shall be retained by metal lock clips that prevent the bolt from loosening by deforming the metal clip against the head of the retention bolt. Lock Tite or similar thread locking chemical shall not be used to retain these bolts.

8.26.15 Powertrain Serviceability
  A) Serviceability
     i. The propulsion system shall be arranged for ease of access and maintenance.
     ii. The Manufacturer shall list all special tools, fixtures or facility requirements recommended for servicing.
     iii. The muffler, exhaust system, air cleaner, air compressor, starter, alternator, radiator, all engine driven accessories and any other component requiring service or replacement shall be easily removable and independent of the engine and transmission removal.

  B) Engine Compartment Controls
     i. An engine oil pressure gauge and coolant temperature gauge shall be provided in the engine compartment.
     ii. These gauges shall be easily read during service and mounted in an area where they shall not be damaged during minor or major repairs.

  C) Air Filter
     i. An air cleaner with a dry filter element and a graduated air filter restriction indicator shall be provided.
     ii. The location of the air intake system shall be designed to minimize the entry of dust and debris and to maximize the life of the air filter.
     iii. The engine air duct shall be designed to minimize the entry of water into the air intake system.
iv. Drainage provisions shall be included to allow any water/moisture to drain prior to entry into the air filter.

D) Fluid Fillers
i. Engine oil and the radiator filler caps shall be hinged to the filler neck and closed with spring pressure or positive locks to prevent leakage.
ii. All fluid fill locations shall be properly labeled to help ensure that the correct fluid is added.
iii. All fillers shall be easily accessible with standard funnels, pour spouts and automatic dispensing equipment.
iv. All lubricant sumps shall be fitted with magnetic-type drain plugs or magnets.

8.26.16 Power Steering
i. Power steering is the only engine-driven hydraulic system allowed.
ii. Hydraulically actuated tag axle steering is considered to be part of the power steering system.
iii. Power steering system service tasks shall be minimized and scheduled no more frequently than those of other major vehicle systems.
iv. All elements of the power steering system shall be easily accessible for service or unit replacement.
v. Critical points in the power steering system shall be fitted with service ports so that portable diagnostic equipment may be connected or sensors used for an off-board diagnostic system.
vi. The power steering system shall operate within the allowable temperature range as specified by the power steering component and the power steering hydraulic fluid manufacturer.
vii. Power steering lines shall not be solid metallic lines but shall be flexible lines to dampen pump noise from entering the passenger compartment.
viii. All power steering lines shall be isolated from the vehicle structure with resilient mounts to limit the amount of noise that enters the passenger compartment.

8.26.17 Piping and Fluid Lines
i. All piping and fluid lines shall be supported to prevent chafing damage, fatigue failures, degradation and tension strain.
ii. Fluid lines must be sufficiently flexible to minimize mechanical loads on the components.
iii. All lines passing through panels, frames or bulkheads shall be protected by grommets (or similar devices) that fit snugly to both the line and the perimeter of the hole that the line passes through to prevent chafing and wear.
iv. Pipes and fluid hoses shall not be bundled with or used to support electrical wiring harnesses.
v. Solid piping and flexible lines shall be compatible with the fluids they are intended to carry at all expected temperatures and pressures plus industry standard safety margins.

vi. Flexible hoses and fluid lines shall not touch one another, or any part of the vehicle. Lines shall be as short as practicable and shall be routed or shielded so that failure of a line shall not allow the contents to spray or drain onto any component operable above the auto-ignition temperature of the fluid.

vii. All hoses, pipes, lines and fittings shall be specified and installed per the component manufacturer’s recommendations.

8.26.18 Fuel System

A) Diesel Fuel Filter

i. A fuel/water separation system as supplied by Racor, model 382 or approved equal shall be provided and mounted as close to the fuel tank as possible in a location to facilitate service.

B) Diesel Fuel Lines

i. Fuel lines shall be securely mounted, braced and supported as designed by the vehicle manufacturer to minimize vibration and chafing and shall be protected against damage, corrosion or breakage due to strain or wear.

ii. Manifolds connecting fuel containers shall be designed and fabricated to minimize vibration and shall be installed in protected locations to prevent line or manifold damage from unsecured objects or road debris.

iii. Fuel hose and hose connections, where permitted, shall be made from materials resistant to corrosion and fuel and protected from fretting and high heat. Fuel hoses shall be accessible for ease of serviceability.

iv. Fuel lines shall be capable of carrying the type of fuel specified by NYSDOT (i.e., up to B20 type fuel).

v. Fuel lines shall be rated and sized to prevent freezing and plugging due to condensation and/or fuel gelling in extreme winter.

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

C) Fuel Tank

i. The fuel tank(s) and its mountings and fasteners shall be made of 300 series or ASTM A240 corrosion-resistant stainless steel or plastic if the vehicle manufacturer normally offers such a tank as a regular option

ii. The fuel tank(s) shall be securely mounted to the vehicle to prevent movement during vehicle maneuvers.

iii. The fuel tank(s) shall be equipped with an external, hex-head drain plug.

iv. The plug shall be at least ½ inches in size and shall be located at the lowest point of the tank(s).
v. The fuel tank(s) shall have an inspection plate or easily removable filler neck to permit cleaning and inspection of the tank(s) without removal from the vehicle.

vi. The tank(s) shall be baffled internally to prevent fuel-sloshing regardless of fill level.

vii. The baffles or fuel pickup location shall assure continuous full power operation on a six (6) percent upgrade for 15 minutes starting with no more than 25 gallons of fuel over the unusable amount in the tank(s).

viii. The vehicle shall operate at idle on a six (6) percent downgrade for 30 minutes starting with no more than ten (10) gallons of fuel over the unusable amount in the tank(s).

ix. The materials used in mounting shall withstand the adverse effects of road salts, fuel oils and accumulation of ice and snow for the life of the vehicle.

D) Labeling

i. The capacity, date of manufacture, manufacturer name, location of manufacture, and certification of compliance to the Federal Motor Carrier Safety Administration (FMSCA) shall be permanently marked on the fuel tank(s).

ii. The markings shall be readily visible and shall not be covered with undercoating or any other material.

iii. Markings shall be permanently affixed to tank identification plate, preferably by stamping the letters into the plate material.

E) Dry-Break Fuel Filling System

i. The diesel fuel filler system shall be of the type known as “dry break”, and shall include dust cap, spring and poppet adapter assembly and pressure relief valve to insure spill free, automatic, fast fueling.

ii. The system shall be capable of handling flow rates up to fifty (50) US gallons per minute and shall form a locked and sealed connection during the refueling process to eliminate spills.

iii. The fuel filler shall be located on the curbside of the vehicle.

iv. The filler cap shall be retained to prevent loss and shall be recessed into the body so that spilled fuel will not run onto the outside surface of the vehicle.

v. With the nozzle open, fuel shall enter the tank(s) at a fill rate of not less than 40 gallons per minute of foam-free fuel without causing the nozzle to shut off before the tank(s) is full.

vi. The nozzle shall automatically shut off when the tank(s) is/are essentially full.

vii. Once disconnected, fuel shall not be allowed to flow through the nozzle at any time.

viii. Any pressure over three (3) psi shall be automatically relieved from the fuel tank(s).

ix. An audible signal shall indicate when the tank(s) reached 95% capacity.
x. The nozzle body shall be manufactured from cast aluminum and brass along with a stainless steel trim.

xi. The system dust cap shall be manufactured from impact-resistant and flexible polypropylene.

xii. The system cap shall also prevent foreign materials from reaching the nozzle. Due to the operating environment that exists on transit properties, the system dust cap must also be resistant to diesel fuel that may come into contact with it during fueling.

8.26.19 Exhaust System

i. The exhaust pipe shall be designed to prevent exhaust gases and waste heat from discoloring or causing heat deformation to the vehicle.

ii. The entire exhaust system shall be adequately shielded to prevent heat damage to any vehicle component, including the exhaust after-treatment compartment area.

iii. The exhaust outlet shall be designed to minimize rain, snow or water generated from high-pressure washing systems from entering into the exhaust pipe and causing damage to the after-treatment system.

iv. Exhaust gases and waste heat shall be discharged from the street-side of the vehicle under the rear bumper.

8.26.20 Chassis

A) Suspension

i. The front, drive and tag axle suspensions shall be pneumatic type.

ii. The basic suspension system shall last the service life of the vehicle without major overhaul or replacement.

iii. Adjustment points shall be minimized and shall not be subject to a loss of adjustment in service.

iv. Routine adjustments shall be easily accomplished by limiting the removal or disconnecting the components.

v. All wheels and axles shall be properly aligned before vehicle delivery. An alignment report shall be included with each vehicle’s quality assurance documentation and shall be delivered to the customer when the vehicle is delivered.

vi. Each vehicle shall be weighed before delivery. Each axle shall be weighed separately. Weight slips from each vehicle shall be delivered with the vehicle. Vehicles shall be weighed at curb weight with full fuel and fluids but no passengers or operators on board.

B) Springs and Shock Absorbers
i. The suspension system shall permit a minimum wheel travel of 2.75 inches bump travel of a wheel when the vehicle hits a bump (higher than street surface), and 2.75 inches rebound-downward travel when the vehicle comes off a bump and the wheels fall relative to the body.

ii. Elastomeric bumpers shall be provided to limit bump travel.

iii. Rebound travel may be limited by elastomeric bumpers or hydraulically within the shock absorbers.

iv. Suspensions shall incorporate appropriate devices for automatic height control so that regardless of load the vehicle height relative to the centerline of the wheels does not change more than ½ inch at any point from the height required.

v. The safe operation of a vehicle cannot be impacted by ride height up to one (1) inch from design normal ride height.

vi. 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.

vii. Damping shall be sufficient to control vehicle motion to three (3) cycles or less after hitting road perturbations.

viii. Shock absorber bushings shall be made of elastomeric material that will last the life of the shock absorber.

ix. Shock absorbers shall incorporate secondary hydraulic rebound stops.

C) Lubrication

i. All elements of steering, suspension and drive systems requiring scheduled lubrication shall be provided with grease fittings conforming to SAE Standard J534.

ii. Fittings shall be located for ease of inspection and shall be accessible with a standard grease gun from a pit or with the vehicle on a hoist.

iii. Each element requiring lubrication shall have its own grease fitting and a grease relief path.

iv. The lubricant specified shall be standard for all elements on the vehicle serviced by standard fittings and shall require a service interval of no less than every 6000 miles.

D) Kneeling

i. A kneeling system shall lower the curb side of the vehicle to a maximum of 12.5” clearance above the roadway measured at the center of each door opening during loading or unloading operations regardless of load up to GVWR.

ii. Kneeling shall be controlled by a three-position, spring loaded switch. The switch will be spring loaded to return to center and shall have two (2) operating positions which shall provide the following functions:
• Downward control must be held to allow downward kneeling movement.
• Release of the control during downward movement must completely stop the lowering motion and hold the height of the vehicle at that position.
• Upward control actuation must allow the vehicle to return to normal floor height without the operator having to hold the control.

iii. The brake and throttle interlock shall be activated any time the kneeling system is functioning to prevent movement when the vehicle is kneeled.
iv. The kneeling control shall be disabled when the vehicle is in motion.
v. The vehicle shall kneel at a maximum rate of 1.25 inches per second at essentially a constant rate.
vi. After kneeling, the vehicle shall rise within four (4) seconds to a height permitting the vehicle to resume service and shall rise to the correct operating height within seven (7) seconds regardless of load up to GVWR.

vii. During the lowering and raising operation, the maximum vertical acceleration shall not exceed 0.2g, and the jerk shall not exceed 0.3g/second.
viii. An indicator visible to the operator shall be illuminated until the vehicle is raised to a height adequate for safe street travel.
ix. An audible warning alarm will sound simultaneously with the operation of the kneeler to alert passengers and bystanders.
x. Warning lights mounted near the front and rear doors, minimum 2.5 inches in diameter with an amber lens, shall be provided that will flash when the vehicle is in the process of kneeling.

xi. Kneeling shall not be operational while the wheelchair ramp is deployed or in operation, with the exception that it shall be possible to raise the kneeled vehicle with the ramp deployed.

8.26.21 Wheels and Tires
A) Wheels
i. All wheels shall be aluminum, hub-piloted, polished on both sides and shall be of the type Dura-Brite and Dura-Flange as produced by Alcoa or approved equal.
ii. Wheels shall be interchangeable between all positions on all vehicles under this RFP...
iii. Wheels shall be removable without a puller.
iv. Wheels shall be compatible with tires in size and load-carrying capacity.
v. All wheels and tires shall be balanced as an assembly per SAE J1986.
vi. Wheel nuts shall be positively retained with a systems that prevents lug nuts from loosening between servicing processes.
vii. Operator shall develop and follow a strict procedure for the torqueing and maintenance of wheel nut torque that follows industry best practices.

B) Tires
i. Tires shall be suitable for the conditions of transit BRT service and sustained operation at the maximum speed capability of the vehicle.
ii. Load on any tire at GVWR shall not exceed the tire supplier’s rating.
iii. Tires shall be certified by and marked so by their manufacturers to load and speed ratings appropriate for the service envelope of these vehicles.

C) Tire Pressure Monitoring System
i. Vehicles shall be equipped with tire pressure monitoring systems.
ii. The TPMS shall notify the vehicle operator when tire pressure drops below a specified warning level before pressure drops to a critical level.
iii. The TPMS shall sound an audible warning and show a red light if tire pressure drops below a critical level.
iv. Pressures associated with normal, warning and critical levels shall be determined by consensus between the contractor, tire manufacturer and vehicle manufacturer. Resulting pressures shall be reported to NYSDOT for approval.

8.26.22 Steering
A) General
i. The fatigue life of all steering components shall exceed 1,000,000 miles.
ii. 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.
iii. Inadvertent alternations of steering as a result of striking road hazards are steering failures.

B) Steering and Tax Axles
i. The front and tag axles shall be solid beam, non-driving with a load rating sufficient for the vehicle loaded to GVWR and shall be equipped with unitized, maintenance free, grease type wheel bearings and seals.
ii. All friction points on the front axle shall be equipped with replaceable bushings or inserts and, if needed, lubrication fittings shall be easily accessible from a pit or hoist.
iii. The steering geometry of the outside (front lock) wheel shall be within two (2) degrees of true Ackerman up to 50 percent lock measured at the inside (back lock) wheel.
iv. The steering geometry shall be within three (3) degrees of true Ackerman for the remaining 100 percent lock measured at the inside (back lock) wheel.

C) Turning Radius
i. The outside body turning radius shall not exceed 43 feet.
D) Steering

i. Steering effort shall be measured with the vehicle at GVWR, the vehicle not moving with the brakes released and the engine at normal idling speed on clean, dry, level, commercial asphalt pavement and with the tires inflated to recommended pressure.

ii. Under these conditions, the torque required to turn the steering wheel ten (10) degrees shall be no less than five (5) ft.-lbs. and no more than ten (10) ft.-lbs.

iii. Steering torque may increase to 70 ft.-lbs. when the wheels are approaching the steering stops, as the relief valve activates.

iv. Power steering failure shall not result in loss of steering control.

v. With the vehicle in operation, the steering effort shall not exceed 55 lbs. at the steering wheel rim, and perceived free play in the steering system shall not materially increase as a result of power assist failure.

vi. Gearing shall require no more than seven turns of the steering wheel lock-to-lock.

vii. The 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 operator.

E) Steering Wheel

i. The steering wheel diameter shall be approximately 18 to 20 inches; the rim diameter shall be ¾ to 1¼ inches and shaped for firm grip with comfort for long periods of time.

ii. Steering wheel spokes and wheel thickness shall ensure visibility of the dashboard so that vital instrumentation is clearly visible at center neutral position (within the range of a 95th-percentile male, as described in SAE 1050a, Sections 4.2.2 and 4.2.3).

iii. Placement of steering column shall be as far forward as possible, either in line with or behind the instrument cluster.

iv. The steering column shall have full tilt capability with an adjustment range of no less than 40 degrees from the vertical and easily adjustable by the operator and shall be accessible by a 5th-percentile female and 95th-percentile male.

v. The steering wheel shall have full telescoping capability and have a minimum telescopic range of two (2) inches and a minimum low-end adjustment of 29 inches, measured from the top of the steering wheel rim in the horizontal position to the cab floor at the heel point.

vi. Table 2 below outlines steering column and steering wheel specifications.

<table>
<thead>
<tr>
<th>TABLE 2 Steering Wheel Height1 Relative to Angle of Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Minimum Height Adjustment (29 in.)</td>
</tr>
</tbody>
</table>

---

1. Table 2
<table>
<thead>
<tr>
<th>Angle of Slope</th>
<th>Height</th>
<th>Angle of Slope</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 deg.</td>
<td>29 in.</td>
<td>0 deg.</td>
<td>34 in.</td>
</tr>
<tr>
<td>15 deg.</td>
<td>26.2 in.</td>
<td>15 deg.</td>
<td>31.2 in.</td>
</tr>
<tr>
<td>25 deg.</td>
<td>24.6 in.</td>
<td>25 deg.</td>
<td>29.6 in.</td>
</tr>
<tr>
<td>35 deg.</td>
<td>22.5 in.</td>
<td>35 deg.</td>
<td>27.5 in.</td>
</tr>
</tbody>
</table>

8.26.23 Drive Axle

A) General
   i. The vehicle shall be driven by a heavy-duty portal type drive axle produced by ZF, model AV 132 or approved equal.
   ii. Drive axle capacity shall be no less than 23,000 lbs.
   iii. Axle shall have a load rating sufficient for the vehicle loaded to GVWR.
   iv. The drive axle shall have a design life to operate for not less than 300,000 miles on the design operating profile without replacement or major repairs.
   v. The lubricant drain plug shall be magnetic type. The axle and driveshaft components shall be rated for both propulsion and retardation modes with respect to duty cycle.

B) Tag Axle
   i. A steerable tag axle shall be located behind the drive axle.
   ii. The tag axle may be either a solid beam type or independent suspension type.
   iii. The tag axle wheels shall be identical to the wheels used on the front and drive axles.
   iv. With full passenger seating capacity, load on any axle shall not exceed 22,400 lbs.
   v. Combined load capacity weight on the drive and tag axles shall not exceed 36,500 lbs.
   vi. A tag axle unloading feature shall allow full or partial unloading, or dumping of air from the tag axle air spring bellows. This feature enables weight to shift to the drive axle for more traction.
   vii. Control of tag axle unloading shall be the manufacturer’s standard system and shall be operator activated and automatically controlled.

8.26.24 Brakes

A) Service Brakes
   i. The vehicle shall be equipped with disc brakes at all wheel positions.
   ii. Disk brake rotors shall allow machining of each side of the disc to obtain smooth surfaces per manufacturer’s specifications.
   iii. Brakes shall be self-adjusting.
   iv. Visible stroke indicators shall be combined with electronic brake monitoring system and a vehicle brake warning system to notify operator and maintenance personnel of unsafe brake system conditions.

B) Actuation
i. Brake system shall be of the type known as Electronic Braking System or “EBS”.
ii. Microprocessor controlled ATC or ASR shall be provided as well as ABS.
iii. The ABS/EBC controller shall support EBC1 (PGN 61441) “Brake Pedal Position” (SPN 521) to support and enhance fuel savings technologies.

C) Friction Material
i. Brake friction material shall not contain asbestos or any other carcinogenic material.
ii. Brake lining wear condition shall be clearly visible from a vehicle lifting hoist or pit.
iii. Backing plates shall not be provided on any axle.

D) Hubs and Disc Brake Rotors
i. Wheel bearing seals shall be of an integral wear surface sealed design.
ii. Wheel bearing and hub seals and unitized hub assemblies shall not leak or weep lubricant when operating on the design operating profile for the duration of the initial manufacturer’s warranty.
iii. The brake system material and design shall be selected to absorb and dissipate heat quickly so that the heat generated during braking operation does not glaze the brake pads.

8.26.25 Parking/Emergency Brake

A) Air Brakes
i. The parking brake shall be a spring-operated system, actuated by a valve that exhausts compressed air to apply the brakes.
ii. The parking brake system shall be enabled when the air pressure is at the operating level per FMVSS 121.

B) Emergency Brake Release
i. An emergency brake release shall be provided to release the brakes in the event of automatic emergency brake application.
ii. The operator shall be able to manually depress and hold down the emergency brake release valve to release the brakes and maneuver the vehicle to safety.
iii. Once the operator releases the emergency brake release valve, the brakes shall engage to hold the vehicle in place.
iv. Air to the emergency brake release system shall be provided by a dedicated emergency air tank which shall be adequately sized to provide for a minimum of three (3) applications of the emergency park brake release system.

C) Door Brake Interlock System
i. Passenger door interlocks shall be provided to prevent opening the rear passenger doors while the vehicle is in motion.
ii. A speed sensor shall be integrated with the door controls to prevent the rear doors from being enabled or opened unless the vehicle speed is less than two (2) mph.

iii. To preclude movement of the vehicle, an accelerator interlock shall disable the accelerator and a brake interlock shall engage the service brake system to stop movement of the vehicle when the operator selects rear door enable or open position, or the rear door panel is opened more than three (3) inches from the fully closed position (as measured at the leading edge of the door panel).

iv. Engagement of the rear door interlock by actuation of the rear door emergency release shall bring the vehicle to a smooth stop and shall be capable of holding a fully loaded vehicle on a six (6) percent grade, with the engine at idle and the transmission in gear, until the interlocks are released.

v. Interlock functions shall be active whenever the vehicle master run switch is in any run position.

vi. All door systems employing brake and accelerator interlocks shall be supplied with supporting failure mode effects analysis (FMEA) documentation, which demonstrates that failure modes are of a failsafe type, thereby never allowing the possibility of release of interlock while an interlocked door is in an unsecured condition, unless the door master switch has been actuated to intentionally release the interlocks.

D) Hill Holder

i. A system shall be incorporated in the vehicle that will hold the vehicle in place when the operator holds the “hill hold switch” in the actuated position.

ii. The hill hold function shall duplicate the door interlock function and shall disable throttle and apply drive axle service brakes while system is activated.

iii. The switch will be a momentary, spring loaded guarded, self-canceling switch that returns to a deactivated condition when released.

8.26.26 Pneumatic System

A) General

i. The vehicle air system shall operate air-powered accessories and braking systems with reserve capacity.

ii. New vehicles shall not leak down more than five (5) psi over a 15-minute period of time as indicated on the dash gauge.

iii. Provision shall be made to apply shop air to the vehicle air systems. Quick disconnect fittings shall be easily accessible and located in the engine compartment and near the front bumper area for towing.

iv. Retained caps shall be installed to protect shop air fitting against dirt and moisture when not in use.

v. Inlet air for the air compressor shall be filtered.
vi. The air system shall be fully compliant with and protected as per FMVSS 121.

B) Air Compressor
   i. The engine-driven air compressor shall be sized to charge the air system from 40 psi to the governor cutoff pressure in less than four (4) minutes while not exceeding the fast idle speed setting of the engine.
   ii. An auxiliary air filter (oil coalescing filter) shall be installed between the dryer and supply reservoir.

C) Air Lines and Fittings
   i. Air lines, except necessary flexible lines, shall conform to the installation and material requirements of SAE Standard J844 for nylon tubing if not subject to temperatures over 200 °F.
   ii. The air on the delivery side of the compressor where it enters nylon tubing shall not be above the maximum temperature limits as stated in SAE J844.
   iii. 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.
   iv. Continuously insulated P-Clamp type line supports shall be used to prevent movement, flexing, tension, strain and vibration.
   v. Rigid lines shall be supported at no more than 30-inch intervals.
   vi. Nylon lines may be grouped and shall be supported at 24-inch intervals or less.
   vii. The compressor discharge line between power plant and body-mounted equipment shall be flexible convoluted stainless steel line, or may be flexible Teflon hose with a braided stainless steel jacket.
   viii. Flexible hoses shall be as short as practicable and individually supported. They shall not touch one another or any part of the vehicle except for the supporting grommets.
   ix. Flexible (braided) lines shall be supported at two-foot intervals or less.
   x. Air lines shall be cleaned externally and internally before installation and shall be installed to minimize air leaks.
   xi. All air lines shall be routed to prevent water traps to the extent possible.
   xii. Grommets or insulated clamps shall be employed to protect air lines at all points where they pass through understructure components.

D) Air Reservoirs
   i. All air reservoirs shall meet the requirements of FMVSS Standard 121 and SAE Standard J10 and shall be equipped with guarded or flush type drain valves or remotely located drain valves.
ii. All air reservoirs or remotely mounted reservoir drain valves shall be labeled as to the function of the air tank.

iii. Major structural members shall protect these valves and any automatic moisture ejector valves from road hazards.

iv. Reservoirs shall be sloped toward the drain valve.

v. All air reservoirs shall have drain valves that discharge below floor level with lines routed to eliminate the possibility of water traps and/or freezing in the drain line.

E) Air System Dryer

i. An active compressed air dryer system shall be installed to prevent accumulation of moisture and oil in the air system, be rated for transit applications and be sized to meet the requirements of the air system.

ii. The air dryer system shall include a replaceable desiccant bead, electrically heated drain, and thermostatically controlled activation device.

iii. The air dryer shall be easily accessible and with the exception of a dust shield, no other vehicle equipment shall require removal to service the air dryer.

iv. A 2M/3M mechanic shall be able to replace the desiccant in less than 15 minutes.

v. A self-draining oil separator shall be installed upstream of the air dryer to collect/remove oil from the air system and shall be equipped with a manual drain easily accessed from under the vehicle.

vi. The sump and drain shall be electrically heated.

8.26.27 Structure

A) General

i. The vehicle shall have a clean, smooth, simple design, primarily derived from vehicle performance requirements and passenger service criteria established by the Technical Specifications.

ii. The exterior and body features, including grilles and louvers, shall be shaped to facilitate cleaning by automatic vehicle washers without snagging washer brushes.

iii. Water and dirt shall not be retained in or on any body feature to freeze or bleed out onto the vehicle after leaving the washer.

iv. The body, windows and doors shall be sealed to prevent leaking of air, dust, or water under normal operating conditions and during cleaning in automatic vehicle washers for the service life of the vehicle.

v. Exterior panels shall be sufficiently stiff to minimize vibration, drumming or flexing while the vehicle is in service.

vi. When panels are lapped, the upper and forward panels shall act as a watershed. However if entry of moisture into interior of vehicle is prevented by other means, then rear cap panels may be lapped otherwise.
vii. The windows, hatches, and doors shall be properly sealed.

viii. Accumulation on any window of the vehicle of spray and splash generated by the vehicle’s wheels on a wet road shall be minimized.

ix. All roof, wheelhouse and body seals shall be waterproof and there shall be no requirement for replacement of sealant for the service life of the vehicle.

B) Design
i. The structure of the vehicle shall be designed to withstand the transit service conditions typical of an urban or intercity duty cycle throughout its service life.

ii. The vehicle structural frame shall be designed to operate with minimal maintenance throughout the 12-year design operating profile.

iii. The design operating profile specified by NYSDOT shall be considered for this purpose.

C) Structural Validation
i. The structure of the vehicle shall have undergone appropriate structural testing and/or analysis.

ii. At minimum, appropriate structural testing and analysis shall include Altoona testing and finite element analysis (FEA).

iii. Distortion: The vehicle, loaded to GVWR and under static conditions, shall not exhibit deflection or deformation that impairs the operation of the steering mechanism, doors, windows, passenger escape mechanisms or service doors. Static conditions shall include the vehicle at rest with any one wheel or dual set of wheels on a six-inch curb or in a six-inch-deep hole.

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

v. The passenger and engine compartment shall be separated by fire-resistant bulkheads.

vi. The engine compartment shall include areas where the engine and exhaust system are housed. This bulkhead 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.

vii. Only necessary openings shall be allowed in the bulkhead, and these shall be equipped with fire-resistant closeouts.

viii. Any passageways for the climate control system air shall be separated from the engine compartment by fire-resistant material.

ix. Piping through the bulkhead shall have fire-resistant fittings sealed at the bulkhead.
Wiring may pass through the bulkhead only if connectors or other means are provided to prevent or retard fire propagation through the bulkhead.

Engine access panels in the bulkhead shall be fabricated of fire-resistant material and secured with fire-resistant fasteners.

These panels, their fasteners and the bulkhead shall be constructed and reinforced to minimize warping of the panels during a fire that will compromise the integrity of the bulkhead.

The vehicle 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 six-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 the roof-mounted equipment installed.

The vehicle shall withstand a 25 mph impact by a 4000 lb automobile at any side, excluding doorways, along either side of the vehicle, with no more than three (3) inches of permanent structural deformation at seated passenger hip height.

This impact shall not result in sharp edges or protrusions in the vehicle interior.

Exterior panels below 35 inches from ground level shall withstand a static load of 2000 lbs. applied perpendicular to the vehicle by a pad no larger than five (5) square inches.

This load shall not result in deformation that prevents installation of new exterior panels to restore the original appearance of the vehicle.

D) Corrosion

Vehicle flooring, sides, roof, understructure and axle suspension components shall be designed to resist corrosion or deterioration from atmospheric conditions and de-icing materials for a period of 12 years or 500,000 miles, whichever comes first.

The vehicle structural system shall maintain structural integrity and nearly maintain original appearance throughout its service life, with NYSDOT’s contract operator’s use of proper cleaning and neutralizing agents.

All materials that are not inherently corrosion resistant shall be protected with corrosion-resistant coatings.

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 two-week (336-hour) salt spray test in accordance with ASTM Procedure B-117 with no structural detrimental effects to normally visible surfaces and no weight loss of over one (1) percent.
vi. The vehicle body and structure, including but not limited to, flooring, sides, roof, understructure, axle suspension components shall resist corrosion or deterioration from atmospheric conditions and road salts for a period of 12 years or 500,000 miles whichever comes first. It shall maintain structural integrity and nearly maintain original appearance throughout its service life, provided that it is maintained by NYSDOT in accordance with the procedures specified in the Manufacturer’s service manual.

vii. With the exception of periodically inspecting the visible coatings applied to prevent corrosion and reapplying these coatings in limited spots, the reapplication of corrosion compounds shall not be required over the 12-year service life of the vehicle.

8.26.28 Towing

A) Towing General
   i. Towing devices shall be provided on each end of the vehicle.
   ii. Towing devices should accommodate flat-towing.
   iii. Each towing device shall withstand, without permanent deformation, tension loads up to 1.2 times the curb weight of the vehicle within 20 degrees of the longitudinal axis of the vehicle.
   iv. The rear towing device(s) shall not provide a toehold for unauthorized riders.
   v. The front towing devices shall allow attachment of adaptors for a rigid tow bar and shall permit lifting of the vehicle until the front wheels are clear of the ground in order to position the vehicle on the towing equipment by the front wheels.
   vi. The rear towing devices shall permit lifting and towing of the vehicle for a short distance, such as in cases of an emergency, for instance to allow access to provisions for front towing of the vehicle.
   vii. The method of attaching the tow bar or adapter shall require the approval of NYSDOT.

Each towing device shall accommodate a crane hook with a one-inch throat.

B) Jacking
   i. It shall be possible to safely jack the vehicle, at curb weight, with a common ten-ton floor jack with or without special adapter, when a tire or dual set is completely flat and the vehicle is on a level, hard surface, without crawling under any portion of the vehicle. Jacking from a single point shall permit raising the vehicle sufficiently high to remove and reinstall a wheel and tire assembly.
   ii. Jacking pads located on the axle or suspension near the wheels shall permit easy and safe jacking with the flat tire or dual set on a six-inch-high run-up block not wider than a single tire.
iii. The vehicle shall withstand such jacking at any one or any combination of wheel locations without permanent deformation or damage.
iv. Jacking pads shall be painted safety yellow or orange for ease of identification and jacking point decals installed.

C) Hoisting
i. The vehicle axles or jacking plates shall accommodate the lifting pads of a two-post hoist system.
ii. Jacking plates, if used as hoisting pads, shall be designed to prevent the vehicle from falling off the hoist.
iii. Other pads or the vehicle structure shall support the vehicle on jack stands independent of the hoist.
iv. The vehicle shall be capable of being lifted by its wheels, and, as necessary to meet tire load requirements, the proper number of wheel lifts and/or adapters must be used.

8.26.29 Floor
A) Design, Lower Deck
i. The floor shall be essentially a continuous plane, except at the wheel housings and platforms.
ii. Where the floor meets the walls of the vehicle, as well as other vertical surfaces such as platform risers, the surface edges shall be blended with a circular section of radius not less than \( \frac{1}{4} \) inch or installed in a fully sealed butt joint.
iii. Similarly, a molding or cover shall prevent debris accumulation between the floor and wheel housings.
iv. The vehicle floor in the area of the entrance and exit doors shall have a lateral slope not exceeding two (2) degrees to allow for drainage.
v. The aisle of the vehicle shall not be sloped more than 5.5 degrees off horizontal.

B) Design, Upper Deck
i. The floor shall be essentially a continuous plane.
ii. Where the floor meets the walls of the vehicle, as well as other vertical surfaces the surface edges shall be blended with a circular section of radius not less than \( \frac{1}{4} \) inch or installed in a fully sealed butt joint.
iii. Moldings or covers shall prevent debris accumulation between the floor and other items.
iv. An increase slope shall be allowed on the upper level, not to exceed 3.5 degrees off the horizontal.

C) Strength
i. The floor deck may be integral with the basic structure or mounted on the structure securely to prevent chafing or horizontal movement and designed to last the life of the vehicle.

ii. Sheet metal screws shall not be used to retain the floor, and all floor fasteners shall be serviceable from one side only.

iii. Any adhesives, bolts or screws used to secure the floor to the structure shall last and remain effective throughout the life of the vehicle.

iv. Tapping plates, if used for the floor fasteners, shall be no less than the same thickness as a standard nut of the size of the threaded fasteners being used, all floor fasteners shall be secured and protected from corrosion for the service life of the vehicle.

v. The floor deck shall be reinforced as needed to support passenger loads.

vi. At GVWR, the floor shall have an elastic deflection of no more than 0.60 inches from the normal plane.

vii. The floor shall withstand the application of 2.5 times gross load weight without permanent detrimental deformation.

viii. The floor, with coverings applied, shall withstand a static load of at least 150 lbs. applied through the flat end of a ½-inch-diameter rod, with a 1/32-inch radius edge chamfer, without permanent visible deformation.

D) Construction, Lower Deck

i. The floor shall be constructed of composite flooring material.

ii. The subfloor and the floor covering shall last the life of the vehicle.

iii. The floor as assembled, including the sealer, attachments and covering, shall be waterproof, non-hygroscopic and resistant to mold growth.

iv. The subfloor shall be resistant to the effects of moisture, including decay (dry rot). It shall be impervious to wood-destroying insects such as termites.

E) Construction, Upper Deck

i. The upper deck floor shall be of the manufacturers’ standard design and materials and shall last the life of the vehicle.

ii. The floor as assembled, including the sealer, attachments and covering, shall be waterproof, non-hygroscopic and resistant to mold growth.

iii. The floor deck shall be reinforced as needed to support passenger loads. At GVWR, the floor shall have an elastic deflection of no more than 0.375 inches (10 mm) from the normal plane.

iv. The floor shall withstand the application of 3.0 times gross load weight without permanent detrimental deformation.

F) Platforms

i. The covering of platform surfaces and risers, except where otherwise indicated, shall be the same material as specified for floor covering.
ii. Trim shall be provided along top edges of platforms unless integral nosing is provided.

iii. The operator’s platform shall be of a height such that, in a seated position, the operator can see an object located at an elevation of 42 inches above the road surface, 24 inches 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.

iv. A warning decal or sign shall be provided to alert the operator to the change in floor level.

G) Farebox Placement

i. Farebox placement shall minimize impact to passenger access, minimize interference with the operator’s line of sight and meet NYSDOT and FTA ADA placement requirements.

ii. If the operator’s platform is higher than 12 inches, then the farebox is to be mounted on a platform of suitable height to provide accessibility for the operator without compromising passengers’ access.

H) Wheel Housings

i. Sufficient clearance and air circulation shall be provided around the tires, wheels and brakes to preclude overheating when the vehicle is operating on the design operating profile. Wheel housings shall be constructed of corrosion-resistant and fire-resistant material.

ii. 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.

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

iv. Wheel housings shall be adequately reinforced where seat pedestals are installed.

v. Wheel housings shall have sufficient sound insulation to minimize tire and road noise and meet all noise requirements of this specification.

vi. Design and construction of front wheel housings shall allow for the installation of a radio or electronic equipment storage compartment on the interior top surface, or its use as an interior luggage rack.

vii. The finish of the front wheel housings shall be scratch-resistant and complement interior finishes of the vehicle to minimize the visual impact of the wheel housing.

viii. If fiberglass wheel housings are provided, they shall be color-impregnated to match interior finishes.

ix. The lower portion extending to approximately 10 to 12 inches above the floor shall be equipped with scuff-resistant coating or stainless steel trim.
x. Wheel housings not equipped with seats or equipment enclosure shall have a horizontal assist mounted on the top portion of the housing no more than four (4) inches higher than the wheel well housing. Additional braces shall be used to capitalize on the use of these areas as storage spaces for passenger possessions such as luggage or shopping bags.

xi. Sufficient clearance shall exist between tires and wheel assemblies and wheel housings to allow for the use of tire snow chains.

8.26.30 Electrical, Electronic and Data Communications Systems

A) Overview

i. The electrical system will consist of vehicle battery systems and components that generate, distribute and store power throughout the vehicle. (e.g., generator, voltage regulator, wiring, relays and connectors).

ii. Electronic devices are individual systems and components that process and store data, integrate electronic information or perform other specific functions.

iii. The data communication system consists of the bi-directional communications networks that electronic devices use to share data with other electronic devices and systems.

iv. Communication networks are essential to integrating electronic functions, both onboard the vehicle and off.

v. Information level systems that require vehicle information for their operations or provide information shall adhere to J1939 data standard.

vi. Data communications systems are divided into three level store the use of multiple data networks.

vii. Components related to the powertrain, including the propulsion system components: engine, transmission, EBS, ABS, ATC, and ASR at a minimum shall be powered by a dedicated and isolated ignition supply voltage to ensure data communication between components exists when the vehicle ignition is switched to the “on” position.

viii. Information level: Components whose primary function is the collection, control or display of data that is not necessary to the safe drivability of the vehicle (i.e., the vehicle will continue to operate when those functions are inoperable). These components typically consist of those required for automatic vehicle location (AVL) systems, destination signs, fareboxes, passenger counters, radio systems, automated voice and signage systems, video surveillance and similar components.

ix. Multiplex level: Electrical or electronic devices controlled through input/output signals such as discrete, analog and serial data information (i.e., on/off switch inputs, relay or relay control outputs). Multiplexing is used to control components not typically found on the drivetrain or information levels, such as lights; wheelchair ramps; doors; heating, ventilation and air conditioning (HVAC) systems (if applicable); and gateway devices.
B) Modular Design
   i. Design of the electrical, electronic and data communication systems shall be modular so that each electronic device, apparatus panel, or wiring bundle is easily separable from its interconnect by means of quick disconnect connectors.
   ii. Power plant wiring shall be an independent wiring harness. Replacement of the engine compartment wiring harnesses shall not require pulling wires through any bulkhead or removing any terminals from the wires.

C) Environmental and Mounting Requirements
   i. The electrical system and its electronic components shall be capable of operating in the area of the vehicle in which they will be installed, as recommended in SAEJ1455.
   ii. Electrical and electronic equipment shall not be located in an environment that will reduce the performance or shorten the life of the component or electrical system when operating within the design operating profile. As a recommendation, no vehicle component shall generate, or be affected by, electromagnetic interference or radio-frequency interference (EMI/RFI) that can disturb the performance of electrical/electronic equipment as defined in SAEJ1113 and UNECE Council Directive 95/54(R10).
   iii. The proposer shall follow recommendations from the vehicle manufacturer and subsystem suppliers regarding methods to prevent damage from voltage spikes generated from welding, jumpstarts, shorts, etc.

D) Hardware Mounting
   i. The mounting of the hardware shall not be used to provide the sole source ground, and all hardware shall be isolated from potential EMI/RFI, as referenced in SAE J1113.
   ii. All electrical/electronic hardware mounted in the interior of the vehicle shall be inaccessible to passengers and hidden from view unless intended to be viewed. The hardware shall be mounted in such a manner as to protect it from splash or spray.
   iii. All electrical/electronic hardware mounted on the exterior of the vehicle that is not designed to be installed in an exposed environment shall be mounted in a sealed enclosure.
   iv. All electrical/electronic hardware and its mounting shall comply with the shock and vibration requirements of SAEJ1455.

8.26.31 Electrical Requirements
   A) Low-Voltage Batteries
i. Suitable batteries comprising the 24 volt DC energy storage system, conforming to SAE Standard J537 shall be provided.

ii. 12VDC batteries shall be connected in a series to provide a nominal 24VDC energy storage system to supply power to the 24VDC electrical system.

iii. Each battery shall have a purchase date no more than 120 days from date of release, and shall be fully maintained prior to shipment to NYSDOT.

iv. Positive and negative terminal ends on the batteries shall have different size studs (7/16” POS and 3/8” NEG) to prevent incorrect installation.

v. A locking mechanism shall positively secure the battery tray to prevent movement.

vi. 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.

vii. 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.

viii. 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.

ix. All power and ground cable ends in the battery and engine compartments shall be coated with dialectic grease.

B) Jump Start Connector

i. An Anderson SB-350 plug, or approved equal, adequately protected from moisture, dirt, and debris shall be provided in the curbside of the engine compartment to jump-start the vehicle.

ii. The connector shall be of heavy-duty design and construction and shall be provided with a durable non-conducting dust cover attached to the connector or battery cables with a lanyard.

iii. The jump start connector shall be easily accessible and be equipped with weather pack connectors, dust cap, adequately protected from moisture, dirt and debris and not be located adjacent to a heat-producing source.

C) Battery Compartment Components

i. The battery compartment shall prevent accumulation of snow, ice and debris on top of the batteries and shall be vented and self-draining.

ii. The battery compartment shall be accessible only from the outside of the vehicle.

iii. All components within the battery compartment, and the compartment itself shall be constructed of 300-series stainless steel at a minimum and shall be protected from damage or corrosion from the electrolyte.
iv. The inside surface of the battery compartment’s access door shall be electrically insulated, as required, to prevent the battery terminals from shorting on the door if the door is damaged in an accident or if a battery comes loose.

v. The battery compartment temperature should not exceed the battery manufacturers’ specification.

vi. The battery hold-down bracket shall be constructed of a nonconductive and corrosion-resistant material (plastic or fiberglass).

vii. The battery compartment access door shall not require any special locking devices to gain access to the switch, and the switch shall be accessible through a dedicated access door located on the exterior of the vehicle.

viii. The door shall be flush-fitting and incorporate a spring tensioner or equal to retain the door in a closed position when not in use.

ix. The batteries shall be securely mounted on a stainless steel tray that can accommodate the size and weight of the batteries.

x. The battery tray, if applicable, shall pull out easily and properly support the batteries while they are being serviced.

xi. The tray shall allow each battery cell to be easily serviced.

xii. A locking device shall retain the battery tray to the stowed position.

xiii. If not located in the engine compartment, the same fire-resistant properties shall apply to the battery compartment.

xiv. No devices that generate electrical sparks shall be located within the battery box.

D) Battery Equalizer

i. A battery equalization system with a minimum capacity of 100 Amps shall be located in the vicinity of the batteries.

ii. The battery equalizer shall maintain a balanced and full charge on all batteries and shall be rated for the maximum current expected to be carried in either the 12-VDC or 24-VDC circuits.

E) Master Battery Switch

i. The location of the master battery switch shall be clearly identified on the exterior access panel, be accessible in less than ten (10) seconds for deactivation and prevent corrosion from fumes and battery acid when the batteries are washed off or are in normal service.

ii. Turning the master switch off with the power plant operating, during an emergency, shall shut off the engine and shall not damage any component of the electrical system.

iii. The master switch shall be capable of carrying and interrupting the total circuit load.

F) Low-Voltage Generation and Distribution
i. The alternator(s) shall have sufficient capacity to maintain charge of fully charged batteries with engine at normal idle conditions on days with average climatic conditions. That is daylight conditions with ambient temperature of 70 degrees Fahrenheit, HVAC in automatic mode at 70 degrees F.

ii. Voltage monitoring and over-voltage output protection (recommended at 32V) shall be provided.

iii. Dedicated power and ground shall be provided as specified by the component or system manufacturer. Cabling to the equipment must be sized to supply the current requirements with no greater than a five (5) percent volt drop across the length of the cable.

G) Circuit Protection

i. All branch circuits, except battery-to-starting motor, shall be protected by current-limiting devices such as circuit breakers, fuses or solid-state devices sized to the requirements of the circuit.

ii. Electronic circuit protection for the cranking motor shall be provided to prevent engaging of the motor for more than 30 seconds at a time to prevent overheating.

iii. Circuit breakers and fuses shall be easily accessible for authorized personnel only.

iv. Fuses shall be used only where it can be demonstrated that circuit breakers are not practicable. This requirement applies to in-line fuses supplied by either the Manufacturer or a supplier.

v. Fuse holders shall be constructed to be rugged and waterproof.

vi. Circuit breakers or fuses shall be sized to a minimum of 15 percent larger than the total circuit load. The current rating for the wire used for each circuit shall exceed the size of the circuit protection being used.

H) Grounds

i. The batteries shall be grounded to the vehicle chassis/frame at one (1) location only, as close to the batteries as possible. All battery grounds shall be coated with dielectric grease.

ii. When using a chassis ground system, the chassis shall be grounded to the frame in multiple locations, evenly distributed throughout the vehicle to eliminate ground loops.

iii. No more than three (3) terminal connections shall be made per ground stud with spacing between studs ensuring conductivity and serviceability.

iv. Electronic equipment requiring an isolated ground of the batteries (i.e., electronic ground) shall not be grounded through the chassis.

I) Low-Voltage/Low Current Wiring and Terminals

i. All power and ground wiring shall conform to specification requirements of SAE Recommended Practice J1127, J1128 and J1292.
ii. Double insulation shall be maintained as close to the junction box, electrical compartment or terminals as possible.

iii. The requirement for double insulation shall be met by wrapping the harness with plastic electrical tape or by sheathing all wires and harnesses with non-conductive, rigid or flexible conduit.

iv. Wiring shall be grouped, numbered and/or color-coded.

v. Wiring harnesses shall not contain wires of different voltage classes unless all wires within the harness are insulated for the highest voltage presenting the harness.

vi. Kinking, grounding at multiple points, stretching, and exceeding minimum bend radius shall be prevented.

vii. Strain-relief fittings shall be provided at all points where wiring enters electrical compartments.

viii. Grommets or other protective material shall be installed at points where wiring penetrates metal structures outside of electrical enclosures.

ix. Wiring supports shall be protective and non-conductive at areas of wire contact and shall not be damaged by heat, water, solvents or chafing.

x. To the extent practicable, wiring shall not be located in environmentally exposed locations under the vehicle.

xi. Wiring and electrical equipment necessarily located under the vehicle shall be insulated from water, heat, corrosion and mechanical damage.

xii. Where feasible, front-to-rear electrical harnesses should be installed above the window line of the lower deck of the vehicle.

xiv. All wiring harnesses over five (5) feet long and containing at least five (5) wires shall include ten (10) percent (minimum one wire) excess wires for spares. This requirement for spare wires does not apply to data links and communication cables.

xv. Wiring harness length shall allow end terminals to be replaced twice without pulling, stretching or replacing the wire.

xvi. Terminals shall be crimped to the wiring according to the connector manufacturer’s recommendations for techniques and tools. All terminals shall be crimped at the time of harness manufacture; no assembly line terminal crimping shall be accepted.

xvii. All cable connectors shall be locking type, keyed and sealed, unless enclosed in water tight cabinets or vehicle interior.

xviii. Pins shall be removable, crimp contact type, of the correct size and rating for the wire being terminated.

xix. Unused pin positions shall be sealed with sealing plugs.

xx. Adjacent connectors shall use either different inserts or different insert orientations to prevent incorrect connections.

xxi. Terminals shall be crimped, corrosion-resistant and full ring type or interlocking lugs with insulating ferrules. 

279
xxii. When using pressure type screw terminal strips, only stranded wire shall be used.

xxiii. Insulation clearance shall ensure that wires have a minimum of “visible clearance” and a maximum of two (2) times the conductor diameter or 1/16 inch, whichever is less.

xxiv. When using shielded or coaxial cable, upon stripping of the insulation, the metallic braid shall be free from frayed strands that can penetrate the insulation of the inner wires.

xxv. All coaxial cable terminations are to be performed at the time of cable manufacturing; no assembly line terminations shall be performed on coaxial cable.

xxvi. Ultra-sonic and T-splices may be used with 8AWG or smaller wire. When a T-splice is used, it shall meet these additional requirements:
   - Shall include a mechanical clamp in addition to solder on the splice.
   - The wire shall support no mechanical load in the area of the splice.
   - The wire shall be supported to prevent flexing.
   - All such connections shall be clearly noted and located in all electrical documentation.
   - All splicing shall be staggered in the harness so that no two (2) splices are positioned in the same location within the harness.

xxvii. Wiring located in the engine compartment shall be routed away from high-heat sources or shielded and/or insulated from temperatures exceeding the wiring and connector operating requirements.

xxviii. The instrument panel and wiring shall be easily accessible for service from the operator’s seat or top of the panel.

xxix. The instrument panel shall be separately removable and replaceable without damaging the instrument panel or gauges.

xxx. Wiring shall have sufficient length and be routed to permit service without stretching or chafing the wires.

J) Electrical Components

i. All electrical components, including switches, relays, flashers and circuit breakers, shall be heavy-duty designs with either a successful history of application in heavy-duty vehicles or design specifications for an equivalent environment.

ii. All electric motors shall be heavy-duty brushless type where practical, and have a continuous duty rating of no less than 40,000 hours (except cranking motors, washer pumps, auxiliary heater pumps, defroster and wiper motors). All electric motors shall be easily accessible for servicing.

K) Electrical Compartments
i. All relays, controllers, flashers, circuit breakers and other electrical components shall be mounted in easily accessible electrical compartments.

ii. All compartments exposed to the outside environment shall be corrosion-resistant and sealed.

iii. The components and their functions in each electrical compartment shall be identified and their location permanently recorded on a drawing attached to the inside of the access panel or door. The drawing shall be protected from oil, grease, fuel and abrasion.

iv. The front compartment shall be completely serviceable from the operator’s seat, vestibule or from the outside.

v. “Rear start and run” controls shall be mounted in an accessible location in the engine compartment and shall be protected from the environment.

8.26.32 Electrical Requirements

A) General

i. If an electronic component has an internal real-time clock, it shall provide its own battery backup to monitor time when battery power is disconnected, and/or it shall be updated by a network component. If an electronic component has an hour meter, it shall record accumulated service time without relying on battery backup.

ii. All electronic component suppliers shall ensure that their equipment is self-protecting in the event of shorts in the cabling, and also in over-voltage (over 32V DC on a 24V DC nominal voltage rating with a maximum of 50V DC) and reverse polarity conditions.

iii. If an electronic component is required to interface with other components, it shall not require external pull-up and/or pull-down resistors.

B) Wiring and Terminals

i. Kinking, grounding at multiple points, stretching and reducing the bend radius below the manufacturer’s recommended minimum shall not be permitted.

C) Discrete I/O (Inputs/Outputs)

i. All wiring to I/O devices, either at the harness level or individual wires, shall be labeled, stamped or color-coded in a fashion that allows unique identification at a spacing not exceeding four (4) inches. Wiring for each I/O device shall be bundled together. If the I/O terminals are the same voltages, then jumpers may be used to connect the common nodes of each I/O terminal.

D) Shielding

i. All wiring that requires shielding shall meet the following minimum requirements. A shield shall be generated by connecting to a ground, which is sourced from a power distribution vehicle bar or chassis.
ii. Shields shall be connected to ground on one (1) end and at one (1) location only, typically a tone end of the cable. However, certain standards or special requirements, such as SAE J1939 or RF applications, have separate shielding techniques that also shall be used as applicable.

iii. When using shielded or coaxial cable, upon stripping of the insulation, the metallic braid shall be free from frayed strands, which can penetrate the insulation of the inner wires. To prevent the introduction of noise, the shield shall not be connected to the common side of a logic circuit.

iv. All shielded coaxial cable terminations are to be performed at the time of cable manufacturing; no assembly line terminations shall be performed on shielded coaxial cable.

E) Communications
   i. Data network cabling shall be selected and installed according to the selected protocol requirements. The physical layer of all network communication systems shall not be used for any purpose other than communication between the system components, unless provided for in the network specifications.
   ii. Communications networks that use power line carriers (e.g., data modulated on a 24V power line) shall meet the most stringent applicable wiring and terminal specifications.

F) Radio Frequency (RF)
   i. RF components, such as radios, video devices, cameras, global positioning systems (GPS), etc., shall use coaxial cable to carry the signal.
   ii. All RF systems require special design consideration for losses along the cable.
   iii. Connectors shall be minimized, since each connector and crimp has a loss that will contribute to attenuation of the signal. Cabling should allow for the removal of antennas or attached electronics without removing the installed cable between them. If this cannot be done, then a conduit of sufficient size shall be provided for ease of attachment of antenna and cable assembly.
   iv. The corresponding component vendors shall be consulted for proper application of equipment, including installation of cables.

G) Audio
   i. Cabling used for microphone level and line level signals shall be 22AWG minimum with shielded twisted pair. Cabling used for amplifier level signals shall be 18AWG minimum.

H) Multiplexing
   i. The primary purpose of the multiplexing system is control of components necessary to operate the vehicle. This is accomplished by processing information from input devices and controlling output devices through the use of an internal logic program.

I) System Configuration
Multiplexing may either be distributed or centralized. A distributed system shall process information on multiple control modules within the network. A centralized system shall process the information on a single control module. Either system shall consist of several modules connected to form a control network.

J) I/O Signals

i. The input/output for the multiplex system may contain four (4) types of electrical signals: discrete, modulating, analogue, serial data.

ii. Discrete signals shall reflect the on/off status of switches, levers, limit switches, lights, etc.

iii. Analog signals shall reflect numerical data as represented by a voltage signal (0–12V, 10–24V, etc.) or current signal (4–20 mA). Both types of analog signals shall represent the status of variable devices such as rheostats, potentiometers, temperature probes, etc. Serial data signals shall reflect ASCII or alphanumeric data used in the communication between other on-board components.

K) Data Communications

i. All data communication networks shall be either in accordance with a nationally recognized interface standard, such as those published by SAE, IEEE or ISO, or shall be provided by the vehicle manufacturer to the contractor and NYSDOT with the following minimum information:
   - Protocol requirements for all timing issues (bit, byte, packet, inter-packet timing, idle line timing, etc.) packet sizes, error checking and transport (bulk transfer of data to/from the device).
   - Data definition requirements that ensure access to diagnostic information and performance characteristics.
   - The capability and procedures for uploading new application or configuration data.
   - Access to revision level of data, application software and firmware.
   - The capability and procedures for uploading new firmware or application software.
   - Evidence that applicable data shall be broadcast to the network in an efficient manner such that the overall network integrity is not compromised.
   - Any electronic vehicle components used on a network shall be conformance tested to the corresponding network standard.

L) Diagnostics, Fault Detection and Data Access

i. Drivetrain performance, maintenance and diagnostic data, and other electronic messages shall be formatted and transmitted on the communications networks.
ii. The drivetrain level shall have the ability to record abnormal events in memory and provide diagnostic codes and other information to service personnel. At a minimum, this network level shall provide live/fail status, current hardware serial number, software/data revisions and uninterrupted timing functions.

M) Programmability (Software)

i. The drivetrain level components shall be programmable by the contractor with limitations as specified by the subsystem supplier.

N) Multiplex Level

i. At a minimum, information shall be made available via a communication port on the multiplex system. The location of the communication port shall be easily accessible.

ii. A hardware gateway and/or wireless communications system are options if requested by NYSDOT.

iii. The communication port(s) shall be located as specified by NYSDOT.

iv. The multiplex system shall have a proven method of determining its status (system health and input/output status) and detecting either active (online) or inactive (offline) faults through the use of on-board visual/audible indicators.

v. In addition to the indicators, the system shall employ an advanced diagnostic and fault detection system, which shall be accessible via either a personal computer or a handheld unit. Either unit shall have the ability to check logic function. The diagnostic data can be incorporated into the information level network or the central data access system.

O) Programmability (Software)

i. The multiplex system shall have security provisions to protect its software from unwanted changes. This shall be achieved through any or all of the following procedures:
   - Password protection.
   - Limited distribution of the configuration software.
   - Limited access to the programming tools required to change the software.
   - Hardware protection that prevents undesired changes to the software.
   - Provisions for programming the multiplex system shall be possible through a PC or laptop. The multiplex system shall have proper revision control to ensure that the hardware and software are identical on each vehicle equipped with the system. Revision control shall be provided by all of the following:
     o Hardware component identification where labels are included on all multiplex hardware to identify components.
Hardware series identification where all multiplex hardware displays the current hardware serial number and firmware revision employed by the module.

Software revision identification where all copies of the software in service display them most recent revision number.

A method of determining which version of these of software is currently in use in the multiplex system.

Revision control labels shall be electronic.

P) Electronic Noise Control

i. Electrical and electronic subsystems and components on all vehicles shall not emit electromagnetic radiation that will interfere with on-board systems, components or equipment, telephone service, radio or TV reception, or violate regulations of the Federal Communications Commission.

ii. Electrical and electronic subsystems on the vehicles shall not be affected by external sources of RFI/EMI. This includes, but is not limited to, radio and TV transmission, portable electronic devices including computers in the vicinity of or onboard the vehicles, AC or DC power lines and RFI/EMI emissions from other vehicles.

8.26.33 Operator Provisions, Controls and Instrumentation

A) Operator’s Area Controls

i. In general when designing the operator’s area, it is recommended that SAE J833, “Human Physical Dimensions,” be used.

ii. Switches and controls shall be divided into basic groups and assigned to specific areas, in conformance with SAE Recommended Practice J680, Revised 1988, “Location and Operation of Instruments and Controls in Motor Truck Cabs,” and be essentially within the hand reach envelope described in SAE Recommended Practice J287, “Driver Hand Control Reach.”

iii. The operator’s work area shall be designed to minimize glare to the extent possible. Objects within and adjacent to this area shall be matte black or dark gray in color wherever possible to reduce the reflection of light onto the windshield. The use of polished metal and light-colored surfaces within and adjacent to the operator’s area shall be avoided.

B) Visor/Sun Shades

i. Three (3) scissor type sunscreens shall be provided at the right- and left-hand windshield and at the operator’s side window that shall allow for infinite positioning.

ii. The sunscreens shall be shaped to minimize light leakage between the sunshades and windshield pillars.

iii. The sunscreens shall not obstruct air flow from the climate control system or obstruct the operation of other equipment.
iv. Deployment of the sunscreen shall not restrict the vision of the rearview mirrors.

v. Sunscreen adjustments shall be made easily by hand.

C) Operator Hand Controls

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

ii. Switches and controls shall be divided into basic groups and assigned to specific areas, in conformance with SAE Recommended Practice J680, Revised 1988.

iii. Location and Operation of Instruments and Controls in Motor Truck Cabs, and be essentially within the hand reach envelope described in SAE Recommended Practice, J287, Operator Hand Control Reach.

iv. Operational controls, instrumentation, switches, and other system controls shall not be mixed with ventilation diffusers and non-operational controls or readouts.

v. Controls shall be located so that boarding passengers may not easily tamper with control settings.

vi. The door control, kneel control, windshield wiper/washer controls, and run switch shall be in the most convenient operator locations. They shall be identifiable by shape, touch, and permanent markings.

D) Switches and Controls

i. All panel-mounted switches and controls shall be of the vehicle manufacturer's standard type.

ii. Text designating position (on/off) shall be a minimum of nine (9) points, and identifying legends shall be a minimum of 11 points.

iii. Extremely condensed or italic type fonts shall not be used.

iv. Graphical symbols shall conform to SAE Recommended Practice J2402, Road Vehicles - Symbols for Controls, Indicators, and Tell Tales, where available and applicable.

v. Color of switches and controls shall be dark with contrasting typography or symbols.

vi. Red type on a black or gray field (or vice versa) shall not be used.

vii. Mechanical switches and controls shall be replaceable, and the wiring at these controls shall be serviceable from the vestibule or the operator's seat.

viii. Switches, controls, and instruments shall be dust and water resistant.

E) Normal Vehicle Operation

i. The following list for Normal Vehicle Operation identifies vehicle controls that are used to operate the vehicle safely and efficiently.
ii. These controls are frequently used or they are critical to the operation of the vehicle. They should be located within easy reach of the operator. The operator shall not be required to stand or turn his/her body to view or to actuate these controls that include:

- Engine Start Button (waterproof)
- Four Position Master Run Switch
- Transmission Shift Select
- Parking Brake
- Emergency Brake
- Power Mirror Control (waterproof)
- Door Control
- High Beam (floor mount)
- Turn Signals (floor mount)
- Hazard Lights
- Defroster and Operators Heater
- Kneel Control
- Windshield Wipers
- Instrument Panel Lighting Intensity

iii. Accelerator and brake pedals shall be designed for ease of ankle motion.

iv. Foot surfaces of the pedals shall be faced with wear-resistant, nonskid, replaceable material.

F) Master Run Switch

i. The run switch shall be a four-position rotary switch with the following functions:

- OFF All electrical systems off, except power available for the passenger interior lighting, stoplights, turn lights, hazard lights, radio, silent alarm, horn, fare box, fire detection equipment, engine compartment lights, auxiliary heater and electronic equipment that require continuous energizing. NOTE: If the vehicle is not operated for a period of three (3) days, the total electric load due to devices that require continuous energizing shall not cause the battery to be discharged below the level necessary to start the engine.

- PARK All electrical systems off, except those listed in OFF and power to destination signs, interior lights and marker lights.

- DAY RUN all electrical systems and engine on, including the headlights, parking lights and marker lights. Daytime running lights (DRL) shall be on.

- NITE/RUN All electrical systems and engine on.

G) Door Control
i. Power-close rear doors shall be equipped with an obstruction-sensing system such that if an obstruction is within the path of the closing doors, the doors will stop and/or reverse direction prior to imparting a 10-lb force on 1 sq. in. of that obstruction. If a contactless obstruction sensing system is employed, it shall be capable of discriminating between the normal doorway environment and passengers or other obstructions within the doorway, and of altering the zones of detection based upon the operating state of the door system.

ii. Doors shall open or close completely less than 3.5 seconds from the time of control actuation.

iii. The door control shall be located on the street side of the operator’s area within the hand reach envelope described in SAE Recommended Practice, J287, *Driver Hand Control Reach*.

iv. The front door shall remain in its commanded state position even if power is removed or lost.

v. Operation of, and power to, the front passenger door shall be completely controlled by the operator.

vi. A control or valve in the operator's compartment shall shut off the power to, and/or dump the compressed air from, the front door mechanism to permit manual operation of the front door with the vehicle shut down.

vii. A green indicator light shall be provided above the rear door that will indicate that the rear door has been activated.

viii. A master door switch which is not within reach of the seated operator when set in the "Off" position shall close the doors, deactivate the door control system, release the interlocks, and permit only manual operation of the doors.

H) Operator Interior Lights

i. The operator's area shall have a light to provide general illumination and it shall illuminate the half of the steering wheel nearest the operator to a level of 10 to 15 foot-candles.

ii. This light shall be operator controlled by a switch located on the operator's control panel or other approved location.

iii. A three-position switch, labeled "Interior Lights; On (at top), Off, Normal" shall control the lights.

   • "On" turns on all lights in any Master Switch position.
   • "Off" turns off lights except as noted.
   • "Normal" turns on all lights in "Night Run" and "Night Park" except as noted in (2).

iv. The first light on each side (behind the operator and the front door) is normally turned on only when the front door is opened, in "Night Run" and "Night Park." As soon as the door closes, these lights shall go out.

v. These lights shall be turned on at any time if the switch is in the "On" position.
vi. To help eliminate windshield reflection on suburban roads where street lighting is at a low level, the second light on each side, when "Night Run" or "Night Park" is selected, shall be controlled by the switch; off in "Off" and on in "Normal." (These lights shall be turned on at any time if the switch is in the "On" position.)

vii. All interior lighting shall be turned off whenever the transmission selector is in the reverse and engine run switch is in the "On" position. The interior lighting design shall require the approval of NYSDOT.

I) Special Controls

i. The following list of special vehicle controls identifies the controls to initiate system diagnostics, aid the physically handicapped passenger, control mirrors and speakers, etc. They are less often used than those in normal vehicle operation. These controls should be within easy reach for viewing and actuation by the operator:

- ABS Diagnostics Test
- Engine Diagnostic Test
- Stop Engine Override
- Passenger Chime/ADA Passenger Chime
- Operators Booster Fan
- Fast Idle
- Public Address System
- Heater Blower
- Interlock
- Operators HVAC
- Diagnostic Light Panel Test
- Fire Suppression Emergency Release
- Destination Sign On/Off
- Hill Holder (guarded)
- Remote Mirror Controls
- Kneel/Ramp Control
- Preheat Start Switch (momentary switch)

J) Passenger Comfort Controls

i. The following list of passenger comfort controls identifies the vehicle controls for the interior vehicle temperature, lighting, air circulation, etc.

iii. The settings of these controls are changed infrequently. The operator shall not be able to see or actuate these controls.

- Climate Control
- Temperature Select
- Interior HVAC
K) Operator’s Amenities

i. A hook to hold the operator’s coat or other garments shall be provided.

ii. A hook and loop strap shall be provided beneath the coat hook to secure the operator’s coat.

iii. A device shall be provided to securely hold the operator’s drink container, which may vary widely in diameter. The drink holder shall be mounted within easy reach of the operator and shall have sufficient vertical clearance for easy removal of the container. When the container is in the device, the operator’s view of the road shall not be obstructed, and leakage from the container shall not propagate to any switches, gauges or controls.

iv. An enclosed operator storage area shall be provided with a positive latching door and lock. The minimum size is 2750 in.³.

8.26.34 Windshield Wipers

A) Windshield Wipers

i. The vehicle shall be equipped with a windshield wiper for each half of the windshield.

ii. At 60 mph, no more than ten (10) percent of the wiped area shall be lost due to windshield wiper lift.

iii. Windshield wiper motors and mechanisms shall be easily accessible for repairs or service.

iv. The fastener that secures the wiper arm to the drive mechanism shall be corrosion-resistant.

v. Windshield wiper motors shall be electric two-speed / intermittent wiper.

B) Windshield Washers

i. The windshield washer system, when used with the wipers, shall deposit washing fluid evenly and shall completely wet the entire wiped area.

ii. The windshield washer system shall have a minimum five (5) gallon reservoir, located for easy refilling from outside the vehicle. Reservoir pumps, lines and fittings shall be corrosion-resistant and shall include a means to determine fluid level.

8.26.35 Operator’s Seat

i. The operator’s seat shall be comfortable and adjustable so that people ranging in size from a 95th-percentile male to a 5th-percentile female may operate the vehicle.

ii. Seat shall be equipped with a Lap and Shoulder (Three-Point) Seat Belt

iii. The belt assembly should be an auto-locking retractor (ALR). Seat belt shall be stored in automatic retractors.
iv. The belt shall be mounted to the seat frame so that the operator may adjust the seat without resetting the seat belt.

v. The seat and seat belt assembly as installed in the vehicle shall withstand static horizontal forces as required in FMVSS 207 and 210.

vi. Seat belts shall be provided across the operator’s lap and diagonally across the operator’s chest. The operator shall be able to use both belts by connecting a single buckle on the right side of the seat cushion. Three-point seatbelts shall be emergency locking retractor (ELR) in design.

vii. All seat belt assemblies shall come equipped with a warning switch device to remind operators to buckle up.

viii. The lap belt assembly shall be a minimum of 72 inches in length.

ix. Two (2) adjustable armrests shall be provided.

x. While seated, the operator shall be able to make seat adjustments by hand without complexity, excessive effort or being pinched. Adjustment mechanisms shall hold the adjustments and shall not be subject to inadvertent changes.

xi. Seat cushions shall be fully padded with at least three (3) inches of materials in the seating areas at the bottom and back.

xii. Seat cushions shall be constructed of open-cell polyurethane (FMVSS 302) foam and fabric that meets FTA Docket 90A.

xiii. The seat bolster shall be adjustable.

8.26.36 Mirrors

A) Exterior Mirrors

i. The vehicle shall be equipped with corrosion-resistant, outside rearview mirrors mounted with stable supports to minimize vibrations as supplied by Hadley or approved equal.

ii. Mirrors shall be electrically operated and heated and shall be controlled by membrane switches as supplied by the mirror manufacturer.

iii. Mirror heads shall be at least eight (8) x 14 inches in size with 80/20 split mirrors, 80 percent flat and 20 percent convex.

iv. Mirrors shall be firmly attached to the vehicle to minimize vibration and to prevent loss of adjustment with a breakaway mounting system. Mirrors shall permit the operator to view the roadway along the sides of the vehicle, including the rear wheels. Mirrors shall be positioned to prevent blind spots.

v. Mirrors shall retract or fold sufficiently to allow vehicle washing operations but avoid contact with windshield.

vi. Exterior mirrors shall be installed with a breakaway mounting system.

vii. The heaters shall be energized whenever the operator’s heater and/or defroster is activated or activated independently by using the mirror/defrost switch located on the side console.
B) Interior Mirrors
i. Mirrors shall be provided for the operator to observe passengers throughout the vehicle without leaving the seat and without shoulder movement. The operator shall be able to observe passengers in the front/entrance and rear/exit areas (if applicable), anywhere in the aisle, and in the rear seats.

8.26.37 Windows
A) Windshield
i. The windshield(s) shall permit an operator’s field of view as referenced in SAE Recommended Practice J1050. The vertically upward view shall be a minimum of 14 degrees, measured above the horizontal and excluding any shaded band. The vertically downward view shall permit detection of an object 3½-feet high no more than two (2) feet in front of the vehicle. The horizontal view shall be a minimum of 90 degrees above the line of sight. Windshield pillars shall not exceed ten (10) degrees of binocular obscuration. The windshield shall be designed and installed to minimize external glare as well as reflections from inside the vehicle.

ii. The windshield glazing material shall have a ¼-inch nominal thickness laminated safety glass conforming to the requirements of ANSI Z26.1 Test Grouping AS-1 and the recommended practices defined in SAE J673.

iii. The upper portion of the windshield above the operator’s field of view shall have a dark, shaded band and be marked AS-3, with a minimum luminous transmittance of five (5) percent when tested in accordance to ASTM D-1003.

B) Operator’s Side Window
i. The operator’s side window shall be the sliding type, requiring only the rear half of the sash to latch upon closing. When in an open position, the window shall not rattle or close during braking. This window section shall slide in tracks or channels designed to last the service life of the vehicle. The operator’s side window shall not be bonded in place and shall be easily replaceable. The glazing material shall have a single-density tint.

ii. The operator’s view, perpendicular through operator’s side window glazing, should extend a minimum of 33 inches (840 mm) to the rear of the heel point on the accelerator, and in any case must accommodate a 95th-percentile male operator. The view through the glazing at the front of the assembly should begin not more than 26 inches (560 mm) above the operator’s floor to ensure visibility of an under-mounted convex mirror. The operator’s side window construction shall maximize ability for full opening of the window.

iii. The operator’s side window glazing material shall have a ¼-inch nominal thickness safety glass conforming to the requirements of ANSI Z26.1-1996 Test Grouping AS-2 and the recommended practices defined in SAE J673.

iv. The design shall prevent sections from freezing closed in the winter.
v. Light transmittance shall be 75 percent on the glass area below 53 inches from the operator platform floor. On the top-fixed-over-bottom-slider configuration, the top fixed area above 53 inches may have a maximum five (5) percent light transmittance.

vi. The operator’s side window will be of the type known as full slider hidden frame (flush “Euro-Look”) and will not be counted as an egress window.

C) Side Windows
i. Non-egress windows may be bonded in place but shall be easily replaceable without disturbing adjacent windows and shall be mounted so that flexing or vibration from engine operation or normal road excitation is not apparent.

ii. All aluminum and steel material will be treated to prevent corrosion.

iii. Emergency egress windows shall be easily replaceable without disturbing adjacent windows and shall be mounted so that flexing or vibration from engine operation or normal road excitation is not apparent.

D) Emergency Exit (Egress) Configuration
i. Emergency exit windows shall meet or exceed the requirements of 49 CFR 571.217 – FMVSS217; Bus Emergency Exits and Window Retention and Release.

ii. Emergency escape windows shall be able to be opened with the use of durable release handles.

iii. Metal identification and instruction signs for opening egress windows shall be installed by rivets on the inside of the window frame or between windows on the sidewall panel (mullion).

iv. The window material shall conform with the requirements of ANSI Z26.1-1996, “Standard for Type AS-5 Safety Glazing Materials,” except for Test Number 17, which shall subject the specimen to 100 cycles with less than four (4) percent hazing and 500 cycles with less than 12 percent hazing.

v. Windows on the bus sides and in the rear door shall not exceed 59 percent luminous transmittance, as measured by ASTM E-424. Luminous transmittance shall be measured by ASTM D-1003.

vi. Windows over the destination signs shall not be tinted.

vii. Side windows glazing material shall have a minimum of 3/16-inch nominal thickness tempered safety glass. The material shall conform to the requirements of ANSI Z26.1-1996 Test Grouping 2 and the recommended practices defined in SAE J673.

viii. All side and door windows shall be heat-rejecting glass with a solar heat gain coefficient (SHGC) of no greater than 40 percent and a visible light transmission of no less than 75 percent. Lower light transmission may be considered if SHGC values of less than 40 percent can be attained.

ix. All glass treatments shall be permanent, within the glass and/or in the center membrane. Surface films are not permitted.
x. SHGC and light transmission performance shall be defined by the National Fenestration Rating Council.

8.26.38 Heating, Ventilation and Air Conditioning

A) Capacity and Performance

i. The HVAC climate control system shall be capable of controlling the temperature and maintaining the humidity levels of the interior of the vehicle as defined in the following paragraphs.

ii. With the vehicle running at the design operating profile with corresponding door opening cycle, and carrying a number of passengers equal to 150 percent of the seated load, the HVAC system shall control the average passenger compartment temperature within a range between 65 and 80 °F, while maintaining the relative humidity to a value of 50 percent or less. The system shall maintain these conditions while subjected to any outside ambient temperatures within a range of ten (10) to 95 °F and at any ambient relative humidity levels between five (5) and 50 percent.

iii. When the vehicle is operated in outside ambient temperatures of 95 to 115 °F, the interior temperature of the vehicle shall be permitted to rise 0.5°F for each degree of exterior temperature in excess of 95 °F.

iv. When the vehicle is operated in outside ambient temperatures in the range of -10 to 10 °F, the interior temperature of the vehicle shall not fall below 55 °F while the vehicle is running on the design operating profile.

v. System capacity testing, including pull-down/warm-up, stabilization and profile, shall be conducted in accordance to APTA’s Recommended Practice “Transit Bus HVAC System Instrumentation and Performance Testing.”

vi. Additional testing shall be performed as necessary to ensure compliance to performance requirements stated herein.

B) Capacity and Performance Requirements

i. The air-conditioning portion of the HVAC system shall be capable of reducing the passenger compartment temperature from 115 to 95 °F in less than 20 minutes after engine start-up using refrigerant R134a.

ii. Engine temperature shall be within the normal operating range at the time of start-up of the cool-down test, and the engine speed shall be limited to fast idle, which may be activated by an operator-controlled device.

iii. During the cool-down period, the refrigerant pressure shall not exceed safe high-side pressures, and the condenser discharge air temperature, measured six (6) inches from the surface of the coil, shall be less than 45 °F above the condenser inlet air temperature.

iv. The appropriate solar load as recommended in the APTA “Recommended Instrumentation and Performance Testing for Transit Bus Air Conditioning System,” shall be used.
v. There shall be no passengers on board, and the doors and windows shall be closed.

C) Controls and Temperature Uniformity

i. The HVAC system excluding the operator’s heater/defroster shall be centrally controlled with an advanced electronic/diagnostic control system with provisions for extracting/reading data.

ii. The HVAC system shall be compliant with J1939 Communication Protocol for receiving and broadcasting of data.

iii. Hot engine coolant water shall be delivered to the HVAC system operator’s defroster/heater and other heater cores by means of an auxiliary coolant pump manufactured by Ametek Rotron or approved equal, sized for the required flow, which is brushless and seal-less, having a minimum maintenance-free service life for both the brushless motor and the pump of at least 40,000 hours at full power.

D) Fully Automatic Climate Control System

i. The climate control system shall be fully automatic and control the interior average temperature to within ±2 °F of the specified temperature control set point.

ii. Interior temperature distribution shall be uniform to the extent practicable to prevent hot and/or cold spots. After stabilization with doors closed, the temperatures between any two (2) points in the passenger compartment in the same vertical plane, and six (6) to 72 inches above the floor, shall not vary by more than 5 °F with doors closed. The interior temperatures, measured at the same height above the floor, shall not vary more than ±5 °F from the front to the rear from the average temperature determined in accordance with APTA’s “Recommended Instrumentation and Performance Testing for Transit Bus Air Conditioning System.”

E) Auxiliary Heater

i. An auxiliary heater fired by diesel fuel shall be provided to supplement the heat supplied by the engine and shall have an output necessary to meet the performance criteria. The heater shall be equipped with safety devices to prevent over fueling, overheating due to loss of coolant or water pump failure, and operation during conditions of low battery voltage.

ii. Auxiliary heater shall have capability of functioning in the supplemental mode and preheat mode. The supplemental mode shall automatically cycle the auxiliary heater “on” and “off” according to the coolant temperature. No operator input shall be required when the engine is running.
iii. Preheat mode shall be enabled through a single-pole double-throw momentary switch. With the master run switch in the “off” position, toggling the switch to its momentary upward (“on”) position shall enable the auxiliary heater to operate in preheat. Once in preheat mode, the unit shall continue to operate and cycle until either the preheat switch is switched to its momentary downward (“off”) position, or the master run switch is turned “on,” or the time elapsed exceeds 60 minutes, at which time the preheat mode will automatically be disabled. The supplement mode will always override the preheat mode.

iv. The auxiliary heater coolant pump shall shut down when the coolant is up to temperature during the supplemental mode. With the engine running, there shall be coolant flow through the heater while interior temperature so warrants. The temperature sensor shall constantly measure the coolant temperature and cycle “on” if required, at which time the coolant pump turns on.

v. The auxiliary heater shall be equipped with a self-priming fuel pump. The unit shall be electronically controlled with appropriate diagnostics for troubleshooting. Operation, as well as diagnostic data, shall be stored and shall be retrievable through an IBM compatible PC. The auxiliary heater maintenance/diagnostic information shall be communicated through the appropriate protocol, SAE J1939.

F) Air Flow

i. The cooling mode of the interior climate control system shall introduce air into the vehicle at a minimum rate of 25 cubic feet per minute (cfm) per passenger based on the standard configuration vehicle carrying a number of passengers equal to 100 percent of the seated load. The air shall be composed of no less than ten (10) percent outside air. Airflow shall be evenly distributed throughout the vehicle, with air velocity not exceeding 60 feet per minute on any passenger. The ventilating mode shall provide air at a minimum flow rate of 20 cfm per passenger.

ii. Airflow may be reduced to 15 cfm per passenger (100 percent of seated load) when operating in the heating mode. Heated air introduced into the vehicle shall contain no less than 15 percent outside air. In the heating mode, the fans shall activate immediately to ensure an air outlet temperature of at least 70 °F air outlet temperature. Outside airflow may be cutoff during initial up/cool down, provided that manual manipulation is not required. The heating air outlet temperature shall not exceed 120 °F under any normal operating conditions.

iii. The climate control blower motors and fans shall be designed such that their operation complies with the interior noise level requirements.

G) Upper Deck A/C Ducts

i. Air ducts shall extend the greatest length of the vehicle as is practical.
ii. Provision shall be made to provide conditioned air to flow down the glass of the side windows to provide de-misting of the interior windows and cooling of passengers.

iii. Individual air outlets shall be installed above each paired (two-seat) seating position in a panel that also contains a stop request button and two (2) individual LED reading lights.

H) Lower Deck A/C Ducts

i. Air ducts shall extend the greatest length of the vehicle as is practical.

ii. Provision shall be made to provide conditioned air to flow down the glass of the side windows to provide de-misting of the interior windows and cooling of passengers.

iii. Vents shall be placed as needed to provide conditioned air to all passengers including those in the areas where passenger mobility devices will be used.

iv. Individual air outlets shall be installed above each paired (two-seat) seating position in a panel that also contains a stop request button and two (2) individual LED reading lights.

I) Requirements for “Fresh Air” Mixture

i. The air shall be composed of no less than ten (10) percent outside air. Provision shall be made for up to 100 percent fresh air on days when outside air temperature is in a range where operation of the air conditioning compressor is not required. This requirement is designed to reduce fuel usage when possible.

J) Operator’s Compartment HVAC Requirements

i. A separate heating, ventilation, defroster and air conditioning systems for the operator’s area shall be provided and shall be controlled by the operator. The system shall meet the following requirements:

ii. The heater and defroster system shall provide heating for the operator and heated air to completely defrost and defog the windshield, operator’s side window, and the front door glasses in all operating conditions. Fan(s) shall be able to draw air from the vehicle body interior and/or exterior through a control device and pass it through the heater core to the defroster system and over the operator’s feet. A minimum capacity of 100 cfm shall be provided. The operator shall have complete control of the heat and fresh airflow for the operator’s area.

iii. The defroster supply outlets shall be located at the lower edge of the windshield. These outlets shall be durable and shall be free of sharp edges that can catch clothes during normal daily cleaning. The system shall be such that foreign objects such as coins or tickets cannot fall into the defroster air outlets. Adjustable ball vents or louvers shall be provided at the left of the operator’s position to allow direction of air onto the side windows.
iv. A ventilation system shall be provided to ensure operator comfort and shall be capable of providing fresh air in both the foot and head areas. Vents shall be controllable by the operator from the normal driving position. Decals shall be provided, indicating “operating instructions” and “open” and “closed” positions. When closed, vents shall be sealed to prevent the migration of water or air into the vehicle.

v. Using a separate, dedicated evaporator, the climate control system shall be designed to maintain the operator’s compartment temperatures within the range specified for the passenger compartment. The unit shall operate when the climate control switch is in the “Cool” position. It shall have a separate thermostatic control.

K) Air Filtration

i. Air shall be filtered before entering the AC system and being discharged into the passenger compartment. The return air filter shall meet the ANSI/ASHRAE 52.1 requirement for five (5 percent or better atmospheric dust spot efficiency, 50 percent weight arrestance, and a minimum dust holding capacity of 120 g per 1,000 cfm cell. Return air filters shall be easily removable for service, and shall be cleanable.

ii. Manually controlled shut-off valves in the refrigerant lines shall allow isolation of the compressor and dehydrator filter for service.

iii. To the extent practicable, self-sealing couplings utilizing O-ring seals shall be used to break and seal the refrigerant lines during removal of major components, such as the refrigerant compressor.

iv. The condenser shall be located to efficiently transfer heat to the atmosphere and shall not ingest air warmed above the ambient temperature by the vehicle mechanical equipment, or to discharge air into any other system of the vehicle.

v. The location of the condenser shall preclude its obstruction by wheel splash, road dirt or debris.

vi. HVAC components located within six (6) inches of floor level shall be constructed to resist damage and corrosion.

L) Entrance/Exit Area Heating

i. Heat shall be supplied to the entrance and exit areas to prevent accumulation of snow, ice, or slush with vehicle operating under design operating profile and corresponding door opening cycle. Sufficient heat shall be applied to the front entrance platform area. Heater outlets shall not restrict boarding space in the vestibule area and shall be flush mount or shielded. Rear door platform heat shall be provided from the floor level heating system controlled automatically through the HVAC when in the “heat” mode of operation.

M) Floor-Level Heating
i. Sufficient floor-level convection heaters shall be provided to evenly supply convection heated air across the length of the vehicle. Control of the floor-level heating shall be through the main heating system’s electronic controls.

8.26.39 Body

A) Design

i. The vehicle shall have a clean, smooth, simple design, primarily derived from vehicle performance requirements and passenger service criteria. The exterior and body features, including grilles and louvers, shall be shaped to facilitate cleaning by automatic vehicle washers without snagging washer brushes. Water and dirt shall not be retained in or on anybody feature to freeze or bleed out onto the vehicle after leaving the washer. The body and windows shall be sealed to prevent leaking of air, dust or water under normal operating conditions and during cleaning in automatic vehicle washers for the service life of the vehicle.

ii. Exterior panels shall be sufficiently stiff to minimize vibration, drumming or flexing while the vehicle is in service. When panels are lapped, the upper and forward panels shall act as a watershed. However, if entry of moisture into the interior of the vehicle is prevented by other means, then rear cap panels may be lapped otherwise. The windows, hatches and doors shall be able to be sealed. Accumulation of spray and splash generated by the vehicle’s wheels shall be minimized on windows and mirrors.

iii. Body materials shall be selected and the body fabricated to reduce maintenance, extend durability and provide consistency of appearance throughout the service life of the vehicle. Detailing shall be kept simple, and add-on devices and trim shall be minimized.

B) Pedestrian Safety

i. Exterior protrusions along the side and front of the vehicle greater than ½ inch and within 80 inches of the ground shall have a radius no less than the amount of the protrusion. The streetside exterior rearview mirror, cameras and required lights and reflectors are exempt from the protrusion requirement. Advertising frames shall protrude no more than ⅞ inch from the body surface. Grilles, doors, bumpers and other features on the sides and rear of the vehicle shall be designed to minimize toeholds or handholds.

ii. Exterior protrusions shall not cause a line-of-sight blockage for the operator.

C) Bodily Serviceability
Only exterior panels that are above the rubrail may be structural components. Exterior surface panels shall not be installed or retained with visible fasteners. All exterior panels shall be properly aligned with no gaps, offsets or exposed unfinished edges. Exterior side panels above the rubrail and below the daylight opening shall be repairable and replaceable by a 3M mechanic in less than 1.5 hours for a section up to five (5) feet long (excluding repainting). Exterior panels below the rubrail shall be repairable and replaceable by a 3M mechanic in less than 30 minutes for a section up to five (5) feet long (excluding repainting).

D) Rain Gutters
i. Rain gutters shall be provided to prevent water flowing from the roof onto the passenger doors and operator’s side window. When the vehicle is decelerated, the gutters shall not drain onto the windshields, operator’s side window or door boarding area. Cross sections of the gutters shall be adequate for proper operation.

E) License Plate Provisions
i. Provisions shall be made to mount standard-size U.S./Canada license plates per SAE J686 on the front and rear of the vehicle. These mounting provisions shall be recessed mounting only so the license plates can be cleaned by automatic vehicle-washing equipment without being caught by the brushes. The rear license plate provision shall be illuminated as per SAE J587.

ii. All brackets and miscellaneous fasteners required for attaching the front and rear license plates to all vehicles shall be provided.

F) Rub Rails
i. Rub rails composed of flexible, resilient material shall be provided to protect both sides of the vehicle body from damage caused by minor sideswipe accidents with automobiles. Rub rails shall have vertical dimensions of no less than two (2) inches (50 mm) with the centerline no higher than 35 inches above the ground between the wheelwells.

ii. The rubrails shall withstand impacts of 200 ft-lbs. of energy from a steel-faced spherical missile no less than nine (9) inches in diameter and of a 500-lb load applied anywhere along their length by a rigid plate one (1) foot in length, wider than the rubrail, and with a ¼-inch end radii, with no visible damage to the rubrail, retainer or supporting structure.

iii. The rub rail may be discontinued at doorways, wheel wells and articulated joints if applicable. A damaged portion of the rub rail shall be replaceable without requiring removal or replacement of the entire rub rail.

G) Fender Skirts
i. Features to minimize water spray from the vehicle in wet conditions shall be included in wheel housing design.
ii. Any fender skirts shall be easily replaceable. They shall be flexible if they extend beyond the allowable body width. Wheels and tires shall be removable with the fender skirts in place.

H) Splash Aprons
   i. Splash aprons, composed of ¼ in. minimum composition or rubberized fabric, shall be installed behind and/or in front of wheels as needed to reduce road splash and to protect underfloor components.
   ii. The splash aprons shall extend downward to within six (6) inches off the road surface at static conditions. Apron widths shall be no less than tire widths.
   iii. The splash aprons shall be bolted to the vehicle understructure.
   iv. The splash aprons and their attachments shall be inherently weaker than the structure to which they are attached. The flexible portions of the splash aprons shall not be included in the road clearance measurements.
   v. The splash apron shall be installed as necessary to protect the wheelchair loading device from road splash.
   vi. Other splash aprons shall be installed where necessary to protect vehicle equipment.

I) Service Compartments and Access Doors
   i. Conventional or pantograph 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 lubricant and transmission fluid.
   ii. Access openings shall be sized for easy performance of tasks within the compartment, including tool operating space.
   iii. Access doors shall be of rugged construction and shall maintain mechanical integrity and function under normal operations throughout the service life of the vehicle.
   iv. Access doors 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 vehicle washing operations.
   v. All access doors shall be retained in the open position by props or counterbalancing with over-center or gas-filled springs with safety props and shall be easily operable by one person. Springs and hinges shall be corrosion resistant.
   vi. Latch handles shall be flush with, or recessed behind, the body contour and shall be sized to provide an adequate grip for opening.
   vii. Access doors, when opened, shall not restrict access for servicing other components or systems.
   viii. If precluded by design, the manufacturer shall provide door design information specifying how the requirements are met.
ix. Access doors larger than 100 square inches in area shall be equipped with corrosion-resistant flush-mounted latches or locks except for coolant and fuel fill access doors.

x. All such access doors that require a tool to open shall be standardized throughout the vehicle and will require a nominal 5/16-inch square male tool to open or lock.

J) Battery Compartment

i. The battery compartment shall be constructed of stainless steel, securely mounted and sealed to the vehicle body structure isolated from dissimilar metals to prevent galvanic corrosion.

ii. The batteries shall be securely mounted on a stainless steel tray with steel slides that can accommodate the size and weight of the batteries.

iii. The battery tray shall pull out easily and properly support the batteries while they are being serviced.

iv. The tray shall allow each battery cell to be easily serviced and filled.

v. A locking device shall retain the battery tray in the stowed position.

vi. The battery compartment or enclosure shall be vented and self-draining.

vii. The battery compartment shall be accessible only from outside the vehicle and the compartment door openable without tools.

viii. All components within the battery compartment, and the compartment itself, shall be protected from damage or corrosion from the electrolyte and gases emitted by the battery, and from snow, slush, salt spray, mud, etc. generated from environmental conditions outside the vehicle.

ix. The inside surface of the battery compartment's access door shall be electrically insulated, as required, to prevent the battery terminals from shorting on the door if the door is damaged in an accident or if a battery comes loose.

x. The master battery switch accessibility requirements are defined in the Electrical section.

8.26.40 Bumpers

A) Location

i. Bumpers shall provide impact protection for the front and rear of the vehicle with the top of the bumper being 27 inches (±2 inches), above the ground. Bumper height shall be such that when one vehicle is parked behind another, a portion of the bumper faces will contact each other.

B) Front Bumper

i. No part of the vehicle, including the bumper, shall be damaged as a result of a 5 mph impact of the vehicle at curb weight with a fixed, flat barrier perpendicular to the vehicle’s longitudinal centerline.
ii. The bumper shall return to its pre-impact shape within ten (10) minutes of the impact.

iii. The bumper shall protect the vehicle from damage as a result of 6.5 mph impacts at any point by the common carriage with contoured impact surface defined in Figure 2 of FMVSS 301 loaded to 4000 lbs., parallel to the longitudinal centerline of the vehicle.

iv. It shall protect the vehicle from damage as a result of 5.5 mph impacts into the corners at a 30 degree angle to the longitudinal centerline of the vehicle.

v. The energy absorption system of the bumper shall be independent of every power system of the vehicle and shall not require service or maintenance in normal operation during the service life of the vehicle.

vi. The bumper may increase the overall vehicle length specified by no more than seven (7) inches.

vii. Mounting provisions shall be provided for an integrated bike rack.

C) Bicycle Racks, Exterior

i. Each vehicle shall be equipped with a bicycle rack or capable of accommodating at least two (2) bicycles.

ii. The racks, located on the front of the vehicle above the bumper, shall be constructed of durable corrosion resistant stainless steel and fold up when not in use.

iii. The rack shall be capable of being raised and lowered with one hand and both racks shall load or unload independently of the other.

iv. The rack shall only contact the bicycle tires and will by design prevent contact between the two (2) bicycles.

v. Mounting of bicycle racks shall meet all NYSDOT requirements.

vi. Manufacturer shall present available bike racks to NYSDOT during the approved equal process.

D) Bicycle Rack, Interior

i. It is desired that provision for the placement of bicycles be included in the interior of the vehicles.

ii. Contractors are requested to include their proposal for interior bicycle accommodation with their response to this RFP.

E) Rear Bumper

i. No part of the vehicle, including the bumper, shall be damaged as a result of a 2 mph impact with a fixed, flat barrier perpendicular to the longitudinal centerline of the vehicle.

ii. The bumper shall return to its pre-impact shape within ten (10) minutes of the impact.
iii. When using a yard tug with a smooth, flat plate bumper two-feet wide contacting the horizontal centerline of the rear bumper, the bumper shall provide protection at speeds up to 5 mph, over pavement discontinuities up to one (1) inch high, and at accelerations up to 2 mph/sec.

iv. The rear bumper shall protect the vehicle when impacted anywhere along its width by the common carriage with contoured impact surface defined in Figure 2 of FMVSS 301 loaded to 4000 lbs., at 4 mph parallel to or up to a 30 degree angle to the longitudinal centerline of the vehicle.

v. The rear bumper shall be shaped to preclude unauthorized riders standing on the bumper. The bumper shall not require service or maintenance in normal operation during the service life of the vehicle.

vi. The bumper may increase the overall vehicle length specified by no more than seven (7) inches.

vii. Bumper material shall be corrosion-resistant and withstand repeated impacts of the specified loads without sustaining damage. These bumper qualities shall be sustained throughout the service life of the vehicle.

8.26.41 Paint
A) Finish and Color
i. All exterior surfaces shall be smooth and free of wrinkles and dents.

ii. Exterior surfaces to be painted shall be properly prepared as required by the paint system supplier prior to application of paint to ensure a proper bond between the basic surface and successive coats of original paint for the service life of the vehicle.

iii. Drilled holes and cutouts in exterior surfaces shall be made prior to cleaning, priming and painting, where possible, to prevent corrosion.

iv. The vehicle shall be painted prior to installation of exterior lights, windows, mirrors and other items that are applied to the exterior of the vehicle.

v. Body filler materials may be used for surface dressing, but not for repair of damaged or improperly fitted panels.

vi. Paint shall be applied smoothly and evenly with the finished surface free of visible dirt and the following other imperfections:
   - Blisters or bubbles appearing in the topcoat film
   - Chips, scratches or gouges of the surface finish
   - Cracks in the paint film
   - Craters where paint failed to cover due to surface contamination
   - Overspray
   - Peeling
   - Runs or sags from excessive flow and failure to adhere uniformly to the surface
• Chemical stains and water spots
• Dry patches due to incorrect mixing of paint activators
• Buffing swirls

vii. All exterior finished surfaces shall be impervious to diesel fuel, gasoline and commercial cleaning agents.

viii. Finished surfaces shall resist damage by controlled applications of commonly used graffiti-removing chemicals.

ix. Proper adhesion between the basic surface and successive coats of the original paint shall be measured using an Elcometer adhesion tester as outlined in ASTM D4541-85. Adhesion shall be a minimum 300 ft-lbs.

x. The vehicle manufacturer shall supply test samples of the exterior surface for each step of the painting process that may be subject to adhesion testing as per ASTM G4541-87 and ASTM D4145-85. ASTM D4541-93 may be used for inspection testing during assembly of the vehicle.

B) The vehicles shall be treated with a base coat/clear coat paint system. Decals, Numbering and Signing

i. Monograms, numbers and other special signing shall be applied to the inside and outside of the vehicle as required. Signs shall be durable and fade-, chip- and peel-resistant. They may be painted signs, decals or pressure-sensitive appliqués. All decals shall be installed per the decal supplier recommendations. Signs shall be provided in compliance with the ADA requirements defined in 49 CFR Part 38, Subpart B, 38.27.

ii. NYSDOT will supply a list of interior and exterior decals including size and location during the pre-production process.

iii. ADA priority seating signs as required and defined by 49 CFR shall be provided to identify the seats designated for passengers with disabilities.

iv. Requirements for a public information system in accordance with 49 CFR shall be provided.

8.26.42 Exterior Lighting

i. All exterior lights shall conform to FMVSS and NYSDOT requirements. 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.

ii. All exterior lights shall be designed to prevent entry and accumulation of moisture or dust, and each lamp shall be replaceable in less than five (5) minutes by a 2M mechanic helper.

iii. Commercially available LED (Light Emitting Diode)-type lamps shall be used wherever certified LED lights are available.
iv. The LED lights are to be direct wired and constructed with each LED potted in place and the lenses spin welded to the lamp assembly.

v. Lamps, lenses and fixtures shall be interchangeable to the extent practicable.

vi. Two (2) hazard LED lamps, located in the engine compartment, shall be visible from behind when the engine service door is opened if the rear lights are located in the engine service door.

vii. Light lenses shall be designed and located to prevent damage when running the vehicle through an automatic vehicle washer.

viii. Lights located on the roof and sides (directional and marker signal lights) of the vehicle shall have protective shields to protect the lens against minor impacts.

ix. Directional signal lights shall be provided on each side of the vehicle in front of each wheelhousing.

x. The rear tail, turn (directional) and stoplights shall be LED lights and be arranged in a vertical configuration, located on the rear corner panel of the vehicle and not on the engine door. Two (2) white back up lights shall be provided.

xi. All lights shall be sealed to prevent intrusion of moisture. A red, rear auxiliary brake light shall be installed centered above the engine door in a final location to be approved by NYSDOT. All brake lights shall activate upon release of the accelerator pedal by the operator.

xii. Lamps at the front and rear passenger doorways shall comply with ADA requirements and shall activate only when the doors open.

xiii. These lamps shall illuminate the street surface to a level of no less than one (1) foot-candle for a distance of three (3) feet outward from the outboard edge of the door threshold.

xiv. The lights may be positioned above or below the lower daylight opening of the windows and shall be shielded to protect passengers' eyes from glare.

xv. With the master switch in the day run position, the vehicle headlights (only) shall illuminate with reduced voltage provisions.

xvi. Hazard lamps shall activate during the wheelchair ramp deployment and stow cycle.

xvii. An LED kneeling/ramp light, adjacent to the entrance door will flash when either the ramp or kneeling system are activated and operating.

xviii. Visible and audible warnings 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.

xix. LED lamps shall be provided in the engine and all other compartments where service may be required to generally illuminate the area for night emergency repairs or adjustments.
xx. These service areas shall include, but not be limited to, the engine compartment, the communication box, junction/apparatus panels and passenger door operator compartments.

xxi. Lighting shall be adequate to light the space of the service areas to levels needed to complete typical emergency repairs and adjustments.

xxii. LED strip lights, minimum of four (4) total lights are to be provided throughout the engine compartment.

xxiii. All service area lights shall be suitable for the environment in which they are mounted.

xxiv. Engine compartment lamps shall be controlled by a switch mounted near the rear start controls.

xxv. All other service area lamps shall be controlled by switches mounted on or convenient to the lamp assemblies.

xxvi. Power shall latch on with activation of the switch and shall be automatically discontinued (timed out) after 30 minutes to prevent damage caused by inadvertently leaving the service area lighting switch in the “on” position after repairs are made.

8.26.43 Interior Panels and Finishes

A) General Requirements

i. Materials shall comply with the Recommended Fire Safety Practices defined in FTA Docket 90-A, dated October 20, 1993 as well as FMVSS 302.

ii. Materials shall be selected on the basis of maintenance, durability, appearance, safety, flammability, and tactile qualities. Trim and attachment details shall be kept simple and unobtrusive. Materials shall be strong enough to resist everyday abuse and vandalism; they shall be resistant to scratches and markings. Interior trim shall be fastened to supporting surfaces to avoid resonant vibrations under normal operational conditions.

iii. Interior surfaces more than ten (10) inches below the lower edge of the side windows or windshield shall be shaped so that objects placed on them fall to the floor when the coach is parked on a level surface.

iv. Selection of colors and material of all interior decoration elements will be made by the NYSDOT’s design consultant before the end of the clarifications process.

B) Front End

i. The entire front end of the vehicle shall be sealed to prevent debris accumulation behind the dash and to prevent the operator's feet from kicking or fouling wiring and other equipment.

ii. The front end shall be free of protrusions that are hazardous to passengers standing or walking in the front of the vehicle during rapid decelerations.
Paneling across the front of the vehicle and any trim around the operator's compartment shall be formed metal or plastic material.

Formed metal dash panels shall be painted and finished to the quality equal to the highest standards of the industry.

Plastic dash panels shall be reinforced, as necessary, vandal-resistant, and replaceable.

All colored, painted, and plated parts forward of the operator's barrier shall be finished with a dull matte surface to reduce glare.

C) Rear End

i. The rear bulkhead and rear interior surfaces shall be paneled with melamine-type material and trimmed with stainless steel, aluminum, or plastic.

ii. Panels shall be easily replaceable and tamper resistant. They shall be reinforced, as necessary, to resist vandalism and other rigors of transit vehicle service.

iii. Individual trim panels and parts shall be interchangeable to the extent practicable.

iv. Interior side trim panels shall be melamine-type material or approved plastic trim panel material.

v. Panels shall be easily replaceable and tamper-resistant. They shall be reinforced, as necessary, to resist vandalism and other rigors of transit vehicle service. Individual trim panels and parts shall be interchangeable to the extent practicable.

vi. Untrimmed areas shall be painted and finished to the quality described in the painting section of this document. Interior panels required to meet FMVSS 302.

D) Operator Area Barrier

i. A barrier or bulkhead shall be integrated with the stairwell and shall be located between the operator and the street-side front passenger seats.

ii. A door shall be included that defines the operator’s area. The door shall extend from the dash area to the rear part of the operator’s area and shall demark the Operator’s area from the public’s area of the vehicle.

iii. The barrier shall minimize glare and reflections in the windshields directly in front of the barrier from interior lighting during night operation. Location and shape must permit full seat travel and reclining possibilities that can accommodate the shoulders of a 95th-percentile male.

iv. The partition shall have a side return and stanchion to prevent passengers from reaching the operator by standing behind the operator’s seat.

v. The lower area between the seat and panel must be accessible to the operator. The partition must be strong enough in conjunction with the entire partition assembly for mounting of such equipment as flare kits, fire extinguishers, microcomputer, public address amplifier, etc.
vi. The panel installation shall minimize noise and rattles.

E) Modesty Panels
i. Sturdy divider panels constructed of durable, unpainted, corrosion-resistant material complementing the interior shall be provided to act as both a physical and visual barrier for seated passengers.

ii. Design and installation of modesty panels located in front of forward-facing seats shall include a handhold or grab handle along its top edge.

iii. These dividers shall be mounted on the sidewall and shall project toward the aisle no farther than passenger knee projections in longitudinal seats or the aisle side of the transverse seats.

iv. Modesty panels shall extend from at least the window opening of the side windows, and those forward of transverse seats shall extend downward to 1- and 1½-inch above the floor.

v. Panels forward of longitudinal seats shall extend to below the level of the seat cushion. Dividers positioned at the doorways, where applicable, shall provide no less than a 2½-inch clearance between the modesty panel and a fully open, inward opening door, or the path of a deploying flip-out ramp to protect passengers from being pinched.

vi. Modesty panels installed at doorways shall be equipped with grab rails if passenger assists are not provided by other means.

vii. The modesty panel and its mounting shall withstand a static force of 250 lbs. applied to a four × four-inch area in the center of the panel without permanent visible deformation.

F) Front Interior Spaces
i. The entire front end of the vehicle shall be sealed to prevent debris accumulation behind the dash and to prevent the operator’s feet from kicking or fouling wiring and other equipment.

ii. The front end shall be free of protrusions that are hazardous to passengers standing at the front of the standee line area of the vehicle during rapid decelerations.

iii. Paneling across the front of the vehicle and any trim around the operator’s compartment shall be formed metal or composite material.

iv. Composite dash panels shall be reinforced as necessary, vandal-resistant and replaceable.

v. All colored, painted and plated parts forward of the operator’s barrier shall be finished with a surface that reduces glare.

vi. Any mounted equipment must have provision to support the weight of equipment.

G) Rear Bulkheads of Upper and Lower Decks
i. The rear bulkhead and rear interior surfaces shall be material suitable for exterior skin; painted and finished to exterior quality; or paneled with melamine-type material, composite, scratch-resistant plastic, fabric or carpeting and trimmed with stainless steel, aluminum or composite.

ii. The rear bulkhead paneling shall be contoured to fit the ceiling, side walls and seat backs so that any litter or trash will tend to fall to the floor or seating surface when the vehicle is on a level surface.

iii. Any air vents in this area shall be louvered to reduce airflow noise and to reduce the probability of trash or litter being thrown or drawn through the grille.

iv. If it is necessary to remove the panel to service components located on the rear bulkhead, then the panel shall be hinged or shall be able to be easily removed and replaced.

v. Grilles where access to or adjustment of equipment is required shall be heavy duty and designed to minimize damage and limit unauthorized access.

H) Headlining

i. Ceiling panels shall be made of durable, corrosion resistant, easily cleanable material.

ii. Headlining shall be supported to prevent buckling, drumming or flexing and shall be secured without loose edges.

iii. Headlining materials shall be treated or insulated to prevent marks due to condensation where panels are in contact with metal members.

iv. Moldings and trim strips, as required to make the edges tamperproof, shall be stainless steel, aluminum or plastic, colored to complement the ceiling material.

v. 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.

I) Fastening

i. Interior panels shall be attached so that there are no exposed unfinished or rough edges or rough surfaces.

ii. Fasteners shall be corrosion resistant.

iii. Panels and fasteners shall not be easily removable by passengers.

iv. Exposed interior fasteners should be minimized, and where required shall be tamper resistant.

J) Insulation

i. Any insulation material used between the inner and outer panels shall minimize the entry and/or retention of moisture.

ii. Insulation properties shall be unimpaired during the service life of the vehicle.
iii. Any insulation material used inside the engine compartment shall not absorb or retain oils or water and shall be designed to prevent casual damage that may occur during maintenance operations.

iv. The combination of inner and outer panels on the sides, roof, wheel wells and ends of the vehicle, and any material used between these panels, shall provide a thermal insulation sufficient to meet the interior temperature requirements.

v. The vehicle body shall be thoroughly sealed so that the operator or passengers cannot feel drafts during normal operations with the passenger doors closed. Insulation shall meet the requirements of FMVSS 302.

K) Floor Covering
   i. The floor covering shall be fabricated from PVC and shall have a non-skid walking surface that remains effective in all weather conditions.
   ii. The flooring shall be self-adhesive type as manufactured by Gerflor or approved equal.
   iii. The floor covering, as well as transitions of flooring material to the main floor and to the entrance and exit area, shall be smooth and present no tripping hazards.
   iv. Seams shall be welded per flooring manufacturer’s specifications.
   v. The standee line shall be approximately two (2) inches wide and shall extend across the vehicle aisle.
   vi. The color and pattern shall be consistent throughout the floor covering.
   vii. Materials used in the stairwell shall be consistent with those used in the rest of the vehicle.
   viii. All step nosing shall be properly secured and shall minimize the possibility of tripping.
   ix. Step nosing shall be lit with internal LED lighting.
   x. Any areas on the floor that are not intended for passenger access, such as areas “swept” during passenger door operation, shall be clearly and permanently marked.
   xi. The floor shall be easily cleaned and shall be arranged to minimize debris accumulation.
   xii. The floor covering shall closely fit the sidewall in a fully welded butt joint or extend to the top of the cove.

8.26.44 Interior Lighting

A) Lower Deck
   i. The lower deck passenger interior lighting system shall utilize LED lighting sources to provide an adequate amount of lighting to accommodate passenger needs while preventing windshield glare.
ii. Allowable average light level for the rear bench seats shall be seven (7) foot-candles.

iii. Floor surface in the aisles shall be a minimum of ten (10) foot-candles, vestibule area a minimum of four (4) foot-candles with the front doors open and a minimum of two (2) foot-candles with the front doors closed.

iv. The front entrance area and curb lights shall illuminate when the front door is open and master run switch is in the “Lights” positions.

v. Rear exit area and curb lights shall illuminate when rear door is unlocked.

vi. The light source shall be located to minimize windshield glare with distribution of the light focused primarily on the passengers’ reading plane.

vii. High power solid state LED strip shall be in one (1)-foot section increments with high power LED designed to maintain on average 60-70 percent of original brightness after 60,000 hours of operation.

viii. Lens material shall be non-flammable polycarbonate.

ix. Lens shall be sealed to inhibit incursion of dust and insects and must be easily removable for service.

x. If threaded fasteners are used they shall be held captive in the lens.

xi. Access panels shall be provided to allow servicing of components located behind light panels.

xii. Individual driver modules shall be provided for each light fixture.

xiii. Driver module shall have built-in self-protection of thermal shut-down and restart, PWM (Pulse Width Modulation) output to regulate light level, reverse polarity protection.

xiv. When the master switch is in the RUN or NITE/RUN mode, the first light module on each side of the coach shall slowly fade to darkness when the front door is placed in the closed position and light output shall illuminate to reach maximum light level when the door is opened.

xv. Solid state LED lighting shall have unlimited on-off cycles.

xvi. Failure of any light fixture or driver module shall be indicated via telltale light panel or dashboard display. The system shall insure supply current and lighting fixture temperature to be approximately the same for all of the driver modules, and will indicate which module(s) have a problem.

xvii. The light system may be designed to form part of the air distribution duct.

xviii. Step lighting for the stairwell between lower and upper floor levels shall be provided and shall illuminate in all engine run positions. The step lighting shall be an LED strip light integrated into the step nosing and be installed on the front of all risers.

xix. Blue LED lamps shall be supplied under every other aisle seat installed in a staggered format with a wire security cage installed over each blue LED lamp to prevent theft. The number and location of lamps shall be at the direction of NYSDOT during the pre-production meeting.
xx. Two (2) lower sidewall mounted lights shall be provided in each wheelchair securement location to illuminate the area and the securement system attachment points. Blue LED lights shall be positioned to reduce windshield glare in night run mode.

xxi. The lighting shall be low-profile to minimize tripping and snagging hazard for passengers and shall be shielded as necessary to protect passengers’ eyes from glare. Blue LED lamps should be pointed to the floor to illuminate the floor and reduce windshield glare.

B) Seating Areas Upper Deck
   i. General lighting in the upper deck area shall be provided so that passengers can safely navigate through the aisle and other walkable surfaces while entering and exiting the vehicle.

   ii. LED lamps shall be supplied under each seat to light the aisles. The number and location of lamps shall be at the direction of NYSDOT during the pre-production meeting.

   iii. Passenger service modules shall be mounted on the underside of the HVAC ducts and shall include individually controlled and adjustable LED passenger reading lights; an exit signal push button, red in color; and individual air distribution outlets. These outlets shall be adjustable from fully closed to fully open position.

C) Operator’s Area
   i. The operator’s area shall have lights to provide general illumination which shall illuminate the half of the steering wheel nearest the operator to a level of five (5) to ten (10) foot-candles.

   ii. Access for maintenance and replacement of equipment shall be provided by panels and doors that appear to be an integral part of the interior.

   iii. Removal of fixtures or equipment unrelated to the repair task to gain entry is prohibited. Panels shall be provided in overhead light fixtures to easily access air lines, air lines/tanks, and wiring mounted behind, sized for easy reach and identified with permanent decals on the inside of the access doors.

   iv. Access doors shall be hinged with gas props or over-center springs 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 vehicle. All access door fasteners shall be captive with permanently secured staked metal retainers. Nuts and/or fixtures that engage panel fasteners shall be permanently affixed to the frame.

   v. Access doors for the door actuator compartments shall be secured with hand screws or latches, secured in the open position with over-center springs and shall be sealed to prevent entry of mechanism lubricant into the vehicle interior. All fasteners that retain access panels shall be captive in the cover.

D) Floor Panels
i. Any access openings in the floor shall be sealed to prevent entry of fumes and water into the vehicle interior. Flooring material shall be flush with the floor and shall be edge-bound with stainless steel, or anodized aluminum, to prevent the edges from coming loose.

ii. Access openings shall be asymmetrical so that reinstalled flooring shall be properly aligned. Fasteners (non-machine thread screws are not acceptable) shall tighten flush with the floor. Floor hatch(es) may be secured in the locked position with a 5/16-inch square key.

iii. The number of special fastener tools required for panel and access door fasteners shall be minimized.

8.26.45 Passenger Accommodations

A) Accommodations

i. NYSDOT recognizes that ramp location, foot room, hip-to-knee room, doorway type, width, seat construction, floor level type, seat spacing requirements, passenger accessibility ramp number of wheelchair positions, etc. ultimately affect seating capacity and layout.

B) Passenger Seating

i. The passenger seating arrangement in the vehicle shall be such that seating capacity is maximized and in compliance to the following requirements.

ii. All passenger seats shall be equipped with three-point seat belts which shall comply with FMVSS 210 regulations.

iii. Seating and interior trim shall have features to maximize passenger comfort. The seat cushion shall be supported by springs. The seat cushion and back shall be padded with a cellular foam product and be no less than two (2) inches thick in areas contacted and loaded by passengers in the normal seated position and shall be upholstered with vinyl or leather and/or fabric materials.

iv. Seats, back cushions and other pads shall be securely attached and shall be detachable by means of a simple release mechanism so that they are easily removable by maintenance personnel but not by passengers. To the extent practicable, seat cushions and pads shall be interchangeable throughout the vehicle. Materials shall have high resistance to tearing, flexing and wetting.

C) Lower Deck Seating

i. Passenger seats in front of the rear door shall be arranged in a longitudinal configuration facing the centerline of the vehicle. These seats shall be of the “flip-up” style to provide space for accommodation of mobility devices as well as the storage of bicycles.

ii. The remainder of the seats on the lower deck level shall be of the reclining type where possible and shall be of padded high quality.

D) Upper Deck Seating
i. Hip-to-knee room measured from the center of the seating position, from the front of one seat back horizontally across the highest part of the seat to a vertical surface immediately in front, shall be a minimum of 28 inches. At all seating positions in paired transverse seats immediately behind other seating positions, hip-to-knee room shall be no less than 27 inches.

ii. Foot room, measured at the floor forward from a point vertically below the front of the seat cushion, shall be no less than 14 inches. Seats immediately behind the wheel housings and modesty panels may have foot room reduced.

iii. The aisle between the seats shall be no less than 20 inches wide at seated passenger hip height. Seat backs shall be shaped to increase this dimension to no less than 24 inches at 32 inches above the floor (standing passenger hip height).

E) Structure and Design – Lower Deck Seating
   i. Lower deck seats shall be from the Kiel Ligero series or approved equal with the following salient attributes
      • Overall weight of double seats with all belts and mounting structure shall not exceed 100 pounds (maximum).
      • Top of seat to be tapered for maximum viewing
      • Seat belts shall be mounted on the outside of the seat for easy maintenance and change out, not internally mounted inside the seat.
   ii. The vehicle manufacturer shall work with NYSDOT’s design consultant’s design team and seat manufacturer’s engineering team to design the most appropriate seating layout to accommodate the largest number of seated passengers while also accommodating efficient circulation for fully-abled passengers as well as those who have disabilities.
   iii. The passenger seat frame and its supporting structure shall be constructed and mounted so that space under the seat is maximized.
   iv. Seats, structures and restraints around the securement areas shall not infringe into the mobility device envelope or maneuverability.
   v. The transverse seat structures shall be attached to the sidewall and the floor with sufficient strength for the intended service.
   vi. NYSDOT shall have final authority over all seat and interior decoration choices.

F) Structure and Design – Upper Deck
   i. Upper deck seats shall be luxurious, reclining seats known as Kiel Avance or approved equal with the following attributes
      • Overall weight of double seats with all belts and mounting structure shall not exceed 100 pounds (maximum).
      • Top of seat to be tapered for maximum viewing
      • Seat belts shall be mounted on the outside of the seat for easy maintenance and change out, not internally mounted inside the seat.
ii. Reclining seats shall be installed in as many positions as possible. It is understood that certain positions such as the last row and some places around the stairwell will have no or limited recline.

iii. All upper deck passenger seats shall be arranged in a transverse, forward-facing configuration.

iv. Each pair of transverse, forward-facing seats, except the rear seats, shall accommodate two (2) adult passengers.

v. Seat frames shall be constructed of high-strength, fatigue-resistant, welded steel with a durable powder-coated, corrosion-resistant colored finish that complements the coach interior.

vi. The seat frame shall be wall mounted with heavy gauge steel brackets and shall be attached to the coach floor with a heavy duty stainless steel T pedestal.

vii. The seat back shall recline a minimum of one (1) inch to a maximum of five (5) inches (127 mm) maximum with an infinite number of stops.

viii. The reclining seat backs shall be provided with a dress-up feature to facilitate coach cleaning. Seat width shall be a minimum of 36 inches and a maximum of 40.50 inches (1029 mm). The aisle shall not be less than 14 inches (356 mm) wide.

ix. Seats shall be equipped with fold down tray tables where possible which should approximate the design found on airliner coach seats.

x. All seating positions shall be equipped with a USB charging port providing at least 2 amps of 5 VDC for use of charging portable electronic devices.

G) Seat Construction Materials

i. Seat cushions shall be supported by steel serpentine springs. Seat covering shall be high-quality wool fabric as determined by NYSDOT’s design and branding contractor.

ii. Wool fabric shall be tested to a minimum of 60,000 rubs per the Wyzendeek test method.

iii. Seat foam padding shall be polyurethane. Seat upholstery shall be able to be removed with ease to aid for cleaning/replacement purposes.

H) Passenger Assists

i. Passenger assists in the form of full grip, vertical stanchions or handholds shall be provided for passenger safety during ingress and egress.

ii. 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 vehicle and out the exit door, a vertical assist shall be provided either as the vertical portion of the seat back assist or as a separate item so that a 5th-percentile female passenger may easily move from one assist to another using one hand and the other without losing support.
iii. All handholds and stanchions at the front doorway, around the farebox, and at interior steps for bi-level designs shall be powder-coated in a high-contrast color to be determined by NYSDOT’s design and branding contractor.

iv. Excluding those mounted on the seats and doors, the assists shall have a cross-sectional diameter between 1¼- and 1½-inches or shall provide an equivalent gripping surface with no corner radii less than ¼ inch.

v. All passenger assists shall permit a full hand grip with no less than 1½ inches of knuckle clearance around the assist.

vi. Passenger assists shall be designed to minimize catching or snagging of clothes or personal items and shall be capable of passing the NHTSA Drawstring Test.

vii. Any joints in the assist structure shall be underneath supporting brackets and securely clamped to prevent passengers from moving or twisting the assists.

viii. Seat handhold design and placement shall be determined by NYSDOT’s design and branding contractor.

ix. Door-mounted passenger assists shall be powder-coated steel.

x. Connecting tees and angles shall be welded or powder-coated metal castings.

xi. Assists shall withstand a force of 300 lbs. applied over a 12-inch lineal dimension in any direction normal to the assist without permanent visible deformation.

xii. All passenger assist components, including brackets, clamps, screw heads and other fasteners used on the passenger assists shall be designed to eliminate pinching, snagging and cutting hazards and shall be free from burrs or rough edges.

I) Front Doorway

i. Front doors, or the entry area, shall be fitted with NYSDOT and ADA-compliant assists.

ii. Assists shall be as far outward as practicable, but shall be located no farther inboard than six (6) inches from the outside edge of the entrance step and shall be easily grasped by a 5th-percentile female boarding from street level.

iii. Door assists shall be functionally continuous with the horizontal front passenger assist and the vertical assist and the assists on the wheel housing or on the front modesty panel.

J) Vestibule

i. The aisle side of the operator’s barrier, the wheel housings and when applicable the modesty panels 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.

ii. These assists shall have sufficient clearance from the barrier to prevent inadvertent wedging of a passenger’s arm.
iii. A horizontal passenger assist shall be located across the front of the vehicle and shall prevent passengers from sustaining injuries on the fare collection device or windshield in the event of a sudden deceleration.

iv. Without restricting the vestibule space, the assist shall provide support for a boarding passenger from the front door through the fare collection procedure. The assist shall be no less than 36 inches above the floor.

v. The assists at the front of the vehicle 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 operator’s barrier, wheel housings or front modesty panel.

K) Rear Doorway

i. Vertical assists that are functionally continuous with the overhead assist shall be provided at the aisle side of the transverse seat immediately forward of the rear door and on the aisle side of the rear door modesty panel(s).

ii. Passenger assists shall be provided on modesty panels that are functionally continuous with the rear door assists.

iii. Rear doors, or the exit area, shall be fitted with assists having a cross-sectional diameter between 1¼- and 1½-inches or providing an equivalent gripping surface with no corner radii less than ¼ inch, and shall provide at least 1½ inches of knuckle clearance between the assists and their mounting.

iv. The assists shall be designed to permit a 5th-percentile female to easily move from one assist to another during the entire exiting process.

v. The assists shall be located no farther inboard than six (6) inches from the outside edge of the rear doorway step.

L) Overhead (Lower Deck)

i. Except forward of the standee line and at the rear door, a continuous, full-grip, overhead assist shall be provided.

ii. This assist shall be located over the center of the aisle seating position of the transverse seats. The assist shall be no less than 70 inches above the floor.

iii. Overhead assists shall simultaneously support 150 lbs. on any 12-inch length. No more than five (5) percent of the full grip feature shall be lost due to assist supports.

M) Wheel Housing Barriers/Assists (Lower Deck)

i. Passenger assists shall be mounted around the exposed sides of the wheel housings (and propulsion compartments if applicable), which shall also be designed to prevent passengers from sitting on wheel housings.

ii. Such passenger assists shall also effectively retain items, such as bags and luggage, placed on top of wheel housings.

8.26.46 Passenger Doors

A) General
i. Door systems shall be all electric, Plug Slide doors with minimal protrusion during operation.

ii. Doorways will be provided in the locations and styles as follows. Passenger doors and doorways shall comply with ADA requirements.

iii. The front door shall be located forward of the front wheels and under direct observation of the operator.

iv. The rear door shall be located forward of the center axle.

B) Materials and Construction

i. Structure of the doors, their attachments, inside and outside trim panels and any mechanism exposed to the elements shall be corrosion resistant.

ii. Door panel construction shall be of corrosion-resistant metal or reinforced non-metallic composite materials.

iii. When fully opened, the doors shall provide a firm support and shall not be damaged if used as an assist by passengers during ingress or egress.

iv. Door edges shall be sealed to prevent infiltration of exterior moisture, noise, dirt and air elements from entering the passenger compartment, to the maximum extent possible based on door types.

v. The closing edge of each door panel shall have no less than two (2) inches of soft weather stripping.

vi. The doors, when closed, shall be effectively sealed, and the hard surfaces of the doors shall be at least four (4) inches apart.

vii. The combined weather seal and window glazing elements of the front door shall not exceed ten (10) degrees of binocular obstruction of the operator’s view through the closed door.

C) Dimensions

i. When open, the doors shall leave an opening no less than 75 inches in height.

ii. Structure of the doors, their attachments, inside and outside trim panels, and any mechanism exposed to the elements shall be corrosion-resistant. Door panel construction shall be of corrosion resistant materials.

iii. The front door clear width shall be a minimum of 36 inches with the doors fully opened. The rear door clear width shall be a minimum of 43 inches with the doors fully opened.

D) Door Glazing

i. All passenger doors shall be glazed for no less than 75 percent of the respective door opening area of each section.

ii. Door glazing shall be easily replaceable.

iii. Door glazing shall be bonded to door frame with readily available glass adhesive.
iv. The front door panel glazing material shall conform to the requirements of ANSI Z26.1 Test Grouping 2 and the recommended practices defined in SAE J673.

E) Door Protection
   i. Exterior: The exterior projection of the doors beyond the side of the vehicle shall be minimized and shall not block the line of sight of the rear exit door via the curb-side mirror when the doors are fully open. The exterior projection of both doors shall be minimized and shall not exceed two (2) inches during the opening or closing cycles or when doors are fully opened.
   ii. Interior: Projection inside the vehicle shall not cause an obstruction of the rear door mirror or cause a hazard for passengers.

F) Door Height Above Pavement
   i. It shall be possible to open and close either passenger door when the vehicle loaded to gross vehicle weight rating is not knelt and parked with the tires touching an eight (8)-inch-high curb on a street sloping toward the curb so that the street-side wheels are five (5) inches higher than the right-side wheels.

G) Closing Force
   i. Closing door edge speed shall not exceed 12 inches per second, and opening door speed shall not exceed 19 inches per second.
   ii. Power doors shall not slam closed under any circumstance, even if the door is obstructed during the closing cycle.
   iii. If a door is obstructed during the closing cycle, the pressure exerted on the obstruction shall not increase once initial contact has been made.
   iv. Whether or not the obstruction-sensing system is present or functional, it shall be possible to withdraw a 1½-inch-diameter cylinder from between the center edges of a closed and locked door with an outward force not greater than 35 lbs.

H) Rear Door Closing Force
   i. Rear doors shall be equipped with an obstruction-sensing system such that if an obstruction is within the path of the closing doors, the doors will stop and/or reverse direction prior to imparting a ten (10)-lb force on one (1) square inches of that obstruction.
   ii. If a contactless obstruction sensing system is employed, it shall be capable of discriminating between the normal doorway environment and passengers or other obstructions within the doorway, and of altering the zones of detection based upon the operating state of the door system.

I) Actuators
   i. Doors shall open or close completely in not more than 3.5 seconds from the time of control actuation and shall be subject to the closing force requirements.
ii. Door actuators shall be adjustable so that the door opening and closing speeds can be independently adjustable to satisfy the above requirements.

iii. Actuators and the complex door mechanism shall be concealed from passengers but shall be easily accessible for servicing.

iv. Door actuators and associated linkages shall maximize door holding forces in the fully open and fully closed positions to provide firm, non-rattling, non-fluttering door panels while minimizing the force exerted by the doors on an obstruction midway between the fully open and closed positions.

J) Door Operation

i. The rear doors shall be operator enabled and passenger controlled.

ii. Switches shall be placed inside the vehicle adjacent to the rear passenger doors so that passengers can trigger the opening of the rear doors.

iii. Switches shall be placed on the rear doors so passengers outside the vehicle can trigger opening of the rear doors for loading.

iv. A blue colored switch marked with the universal symbol for disabled access shall be located on the rear door so that people in wheelchairs of with other similar needs can notify the vehicle operator that they need to enter the vehicle. This system should ring the same chime used for wheelchair securement area stop request and light the operator’s indicator used for the same purpose.

v. The operator shall control the enabling of the opening mechanism, which shall be annunciated by illumination of a green light near the door.

vi. Locked doors shall require a force of more than 300 lbs. to open manually. When the locked doors are manually forced to open, damage shall be limited to the bending of minor door linkage with no resulting damage to the doors, actuators or complex mechanism.

K) Rear Door Interlocks

i. See “section 23C Door Brake Interlock System”.

L) Emergency Operation

i. In the event of an emergency, it shall be possible to manually open doors designated as emergency exits from inside the vehicle using a force of no more than 25 lbs. after actuating an unlocking device.

ii. The unlocking device shall be clearly marked as an emergency-only device and shall require two (2) distinct actions to actuate.

iii. The respective door emergency unlocking device shall be accessible from the doorway area.

iv. The unlocking device shall be easily reset by the operator without special tools or opening the door mechanism enclosure.

v. Doors that are required to be classified as “emergency exits” shall meet the requirements of FMVSS 217.

M) Door Control
i. The door control shall be located in the operator’s area within the hand reach envelope described in SAE Recommended Practice J287, “Hand Control Reach.” The operator’s door control shall provide tactile feedback to indicate commanded door position and resist inadvertent door actuation. The door control is to be located on the side console. The front door shall remain in commanded state position even if power is removed or lost.

ii. A five-position operator’s door controller or push button switches may be used.

iii. The control device shall be protected from moisture. Mounting and location of the door control device handle or switches shall be designed so that it is within comfortable, easy arm’s reach of the seated operator.

iv. The door control device handle shall be free from interference by other equipment and have adequate clearance so as not to create a pinching hazard.

v. If a 5 position door control valve is used, the position of the door control handle shall result in the following operation of the front and rear doors:
   - **Center position:** Front door closed, rear door(s) closed or set to lock.
   - **First position forward:** Front door open, rear door(s) closed or set to lock.
   - **Second position forward:** Front door open, rear door(s) open or set to open.
   - **First position back:** Front door closed, rear door(s) open or set to open.
   - **Second position back:** Front door open, rear door(s) open or set to open.

vi. A control or valve in the operator’s compartment shall shut off the power to, and/or dump the power/air from, the front door mechanism to permit manual operation of the front door with the vehicle shut down.

vii. A master door switch, which is not within reach of the seated operator, when set in the “off” position shall close the rear/center doors (if applicable), release the interlocks and permit only manual operation of the rear/center doors.


A) Loading System for Double Decker Vehicle

i. An automatically controlled, power-operated ramp system compliant to requirements defined in 49 CFR Part 38, Subpart B, §38.23c shall be located in the front door opening and shall provide ingress and egress quickly, safely and comfortably, both in forward and rearward directions, for a passenger in a wheelchair from level street or eight (8)-inch-high curb.

ii. The wheelchair loading system shall be located at the front door, with the powered ramp being of a simple hinged, flip-out type design being capable of deploying to the ground at a maximum 6:1 slope.

B) Loading System for Level Boarding
i. For level-boarding during BRT operations, where the vertical and horizontal transition from the vehicle floor and the vehicle stop platform boarding and alighting surface is no more than two (2) inches, provision shall be made to allow mobility devices to load through both doors.

C) Wheelchair Accommodations

i. Wheelchair securement systems shall be compatible with the passenger seat system and shall comply with all applicable regulations in force when the vehicles enter service.

ii. Two (2) wheelchair securement locations, as close to the wheelchair loading system as practical, shall provide parking space and securement system compliant with ADA requirements for a passenger in a wheelchair, in which the primary position shall be on the street side of the coach.

iii. Securement areas shall be a minimum 30 × 48 inches as required by the ADA.

iv. A separate three-point body belt securement shall be provided to effectively secure wheelchair passengers.

v. Final configuration will be decided during the RFP negotiation process.

D) Interior Circulation

i. Maneuvering room inside the vehicle shall accommodate easy travel for a passenger in a wheelchair to and from the loading device and to and from the designated securement areas.

ii. The securement areas shall be designed so that no portion of the wheelchair protrudes into the aisle of the vehicle when parked in the designated securement area(s).

iii. When both positions are in use, aisle space of more than 20 inches shall be maintained.

iv. Areas requiring 90-degree turning of wheelchairs should have a clearance arc dimension no less than 45 inches, and in the securement area where 180-degree turns are expected, space should be clear in a full 60-inch-diameter circle.

v. A vertical clearance of 12 inches above the floor surface should be provided on the outside of turning areas for wheelchair footrests.

E) Lighting Requirements

i. Lighting for the mobility assist areas shall be designed to meet Title 13 and ADA and FMVSS 404 standards.

ii. Lighting shall be provided to effectively illuminate the loading area.

iii. Light shall be activated by the ramp master switch on the operator’s dash and shall automatically illuminate when this switch is in the “on” position.

iv. The lighting design shall minimize the effect of glare on passengers entering the vehicle through the door.
v. During ramp operation, the street surface shall be illuminated to a minimum of six (6) candlepower a distance of three (3) feet beyond the external dimensions of the ramp platform once deployed.

vi. Additional lighting shall be provided to ensure illumination of the instruction placard and the manual override when it is in use.

F) Roof Escape Hatches

i. Rooftop ventilators are prohibited because of the height of these vehicles.

ii. A breakable safety glass panel shall be installed to fulfill the emergency egress requirement of the regulations.

iii. A glass breaking system shall be installed near the emergency escape panel. A switch shall be wired to the vehicle electrical system which will inform the vehicle operator that the escape panel release system has been used or tampered with.

8.26.48 Intelligent Transportation Systems (ITS)

A) Video Surveillance

i. The Proposer shall provide and install a video surveillance system for use by the vehicle operator to view the upper deck.

ii. CCTV shall be installed on all buses adding an element of safety for customers and employees. The following shall be available from the CCTV system:

iii. CCTV cameras shall be IP based with images/streams being available to the transit operator and HVTMC/Police if required via a web portal with integration into the ICMS.

iv. CCTV cameras views will be agreed to and set up in advance.

v. CCTV cameras shall be enclosed by a protective dome or other protective housing or lens as agreed.

vi. CCTV shall provide a view of the entire bus both upper and lower decks.

vii. Vehicle CCTV will integrate with the back office requirements and CCTV installed at bus shelters as specified within Attachment 23: Technology Specification.

viii. The exact number of on-board CCTV cameras will be depended on the mounting position, type of camera, field of view, etc., but as a minimum the camera(s) shall provide a view of each deck, as well as rearward and forward facing view out of the vehicle.

ix. The rearward view camera shall also operate as a reverse view camera to be viewed on the driver’s interior view monitor while reversing.

B) Destination Signs

i. LED based SAE J-1939 compatible destination sings shall be provided and located in the front, right side and rear of each vehicle.
ii. Front sign shall be the largest size that will fit in the space provided by the vehicle manufacturer.

iii. The sign located near the front door shall not block the operator’s critical horizontal line of sight.

iv. Display areas of destination signs shall be clearly visible in direct sunlight and/or at night.

v. Signs shall be installed to allow replacement by a 3M mechanic within 30 minutes.

vi. All signs shall be controlled via the single RTPI operator interface control panel.

vii. The destination sign compartments shall be designed to meet the following minimum requirements:
    • Prevent condensation and entry of moisture and dirt.
    • Prevent fogging of both compartment window and glazing on unit itself.
    • Access shall be provided to allow cleaning of inside compartment window and unit glazing.
    • Front window shall have an exterior display area of no less than 8.5 in. high by 56 in. wide.

C) Real Time Passenger Information (RTPI)
i. In order to ensure information is readily available to the customer, increase the overall journey experience and encourage modal shift RTPI next stop on vehicle displays (OVD) and on vehicle audio (OVA) announcements shall be installed on all transit vehicles utilized under this RFP.

ii. The AVL system shall be linked to the RTPI system. Algorithms will be in place to use the AVL information to accurately predict when a bus will be arriving/departing a particular stop and populate the OVD and OVA.

iii. OVD shall employ TFT, OLED or other high resolution displays

iv. Displays shall be located in both the lower and upper deck areas of the vehicles.

v. OVDs shall be located as necessary for all passengers to clearly view the OVD information and will be secured in place with appropriate brackets.

vi. Depending on seating layout and sight line distances, it may be necessary to place more than one display on each deck. It may also be necessary to place displays in the center of the vehicles so that information can be viewed from distance.

vii. Speakers to be installed on the bus allowing for on board vehicle announcements.

viii. OVD shall have the ability for messages to be placed on one or both of the lines by HVTMC/transit operator.

ix. OVD shall have the ability to show current time as well as “next stop” and “now at” stop information.

x. OVA shall have the functionality to provide “next stop”, “approaching” and “now at” announcements.

xi. OVA shall not be used for anything other than providing next stop information in accordance with ADA regulations

xii. The RTPI system should have a control module that is accessible to the bus driver

xiii. The RTPI driver’s module shall have a functionality that displays future stops and the ultimate destination.

xiv. Real time information on Metro-North and potentially other transit services shall be displayed to passengers throughout the bus journey

xv. On board RTPI displays and announcements will integrate with the back office requirements and shelter displays specified within Attachment 23: Technology Specifications.

D) Public Address Systems

i. A public address system (PA) shall be installed that allows the driver to address the passengers directly as needed.

ii. An exterior public address speaker shall be included so that the driver can address people outside of the vehicle as needed.
iii. The public address system shall utilize the manufacturer’s standard public address speakers
iv. If not otherwise provided as part of another part of the ITS system specified in this RFP, a public address amplifier shall be provided and installed in the vehicle.
v. The vehicle operator shall have access to the PA systems volume control and inside-outside speaker activation.
vi. A boom type microphone of the type that uses a tubular conductor to route voice to a transducer mounted in the microphone base.
vii. The microphone shall be activated by a floor switch
viii. The PA system shall be used with the next stop announcement system.

E) Automatic Vehicle Location
i. An Automatic Vehicle Location (AVL) system shall be supplied, integrated and maintained as part of each vehicle at the contractor’s expense.
ii. The AVL system shall have the following capabilities:
   • On board computer based AVL shall have the ability to feed into and populate the RTPI system.
   • AVL location of each bus shall be updated at least every 30 seconds.
   • AVL system on the bus shall communicate with the back office central system via GPRS.
iii. AVL system shall integrate with the back office requirements specified within Attachment 23: Technology Specification.

F) Automatic Passenger Counting (APC)
i. In order to monitor bus patronage on journeys and where passengers board and alight an APC system shall be installed.
ii. This will consist of hardware on every transit vehicle and a back office software package to monitor information and historically log information with the ability to run reports on this stored information. The requirements of an APC system are:
   • The APC system shall be installed on each vehicle to monitor bus patronage at every entry/exit from the bus.
   • The APC system shall provide multi directional counting so that passenger boarding and alighting figures can both be obtained.
   • The APC system shall have the ability to provide location based information on bus patronage. This shall be geocoded and fed into the ICMS.
   • The APC system shall be at least 95% accurate in counting passenger boarding and alighting.
   • The APC system shall qualify the passenger count by recording date and time and time of door opening and closing.
iii. The APC system will integrate with the back office requirements as specified within Attachment 23: Technology Specifications.

G) Passenger WiFi
   i. Free WiFi shall be provided on all vehicles to improve customer satisfaction.
   ii. A WiFi system shall be installed in vehicle and consist of the following:
       • WiFi routers and associated antenna’s to be installed on all vehicles.
       • WiFi shall utilize a 4G modem and support 4G networks or the most advanced system commonly available at the time of system implementation.
       • System shall allow for at least 50 concurrent connections.
       • The WiFi system shall allow for secure remote updates of the passenger WiFi system when vehicle is parked in the bus yard when out of revenue service.
       • There shall be no data connection between the passenger WiFi system and any vehicle electronic systems.
   iii. The on bus WiFi shall integrate with the back office requirements and WiFi to be installed in bus shelters as specified within Attachment 23: Technology Specification.

H) USB Charging
   i. USB charging shall be supplied at each passenger seating position.
   ii. Each USB charging port shall be complaint with the USB 3.1 standard and shall have the capacity to charge compatible devices at a minimum of 2 amps each.
   iii. Each charging port shall have 2 USB 3.1 type A receptacles.
   iv. Each USB charger shall be connected to the vehicle's 12VDC or 24VDC system independently and shall have its own DC-DC converter.
   v. Each USB port shall be protected with its own fuse.
   vi. Each USB port shall be easily replaceable or otherwise easily serviceable
   vii. Each forward facing seat located in front of another forward facing seat shall have a USB charging port located in the seatback in the area near the fold down table located on the seat back.
   viii. Each seating position not located directly behind a seat equipped with a fold down table and USB port will have a USB port located in a place easily reachable by the passenger using that seat.
   ix. All USB port locations shall be proposed by the Contractor and vehicle manufacture to NYSDOT or their designee for approval.

I) Fare Collection and Ticketing
i. It is required that off-board payment solutions be offered through fare collection machines at each BRT stop, and the Contractor is encouraged to develop a fare payment mobile application available at virtual app stores for multiple operating systems.

ii. It is required that off-board payment solutions shall accept credit/debit cards and MetroCards.
   - The fare collection machines shall be procured and installed by the Contractor.
     - Once MTA replaces current MetroCard technology, the Contractor must update the fare payment system, including MTA fare payment integration and fare collection machines at all bus shelters to support the future MTA fare payment technology.
     - These machines shall issue tickets/receipts with a barcode or QR code that can be scanned by the on-board ticket validators.

iii. The fare payment mobile app shall accept payments by credit/debit cards and PayPal.
   - The fare payment mobile app shall be supplied by the Contractor.
   - The fare payment mobile app shall enable passengers to pay fares using their own mobile devices.
   - The fare payment mobile app shall issue a digital ticket with a barcode or QR code that can be scanned by the on-board ticket validators.

iv. On-board ticket validators shall be installed on each vehicle.
   - The ticket validators shall be supplied by the Contractor.
   - The ticket validators shall be installed on all buses at entry points.
   - The ticket validators shall be easily accessible to all passengers and shall comply with ADA standards.
   - The ticket validators shall validate paper and mobile tickets through either barcode or QR code and accept MetroCards.
   - The ticket validators shall flag issues with ticket validity to the driver.
   - The ticket validators shall integrate with the off-board fare payment machines and the fare payment mobile app as specified within Attachment 23: Technology Specification.
     - Once MTA replaces current MetroCard technology, the Contractor must update the fare payment system, including MTA fare payment integration and on-board MetroCard validators to support the future MTA fare payment technology.

v. It is required that on-board cash payments be accepted.
   - It is preferable that on-board cash payments be processed through automated fareboxes, in which case the fareboxes shall be supplied by the Contractor.
It is preferable that the fareboxes accommodate NFC technology, to allow for this emerging technology as well as allow for a swift transition into a possible future MetroCard technology.

J) Transit Signal Priority (TSP)
   i. TSP shall be installed on all buses and at selected junctions (by the NYSDOT) helping to reduce transit time and ensuring a reliable bus journey.
   ii. In order to achieve interoperability with the Westchester Bee Line service Opticom GPS must be used.
   iii. The transit operator shall install TSP on every bus and integrate it with the back office system supplied by NYSDOT.
   iv. The TSP system shall be comprised of:
       - Opticom TSP model 2100/1 GPS Control Unit,
       - Opticom 1050 GPS/Radio Antenna to be installed on each vehicle
   v. TSP shall integrate with the ICMS as specified within Attachment 23: Technology Specification.

K) System Accommodations
   i. At minimum the Proposer will be obligated and shall anticipate costs and effort to provide the following:
      - Cabinetry to house components
      - Power to operate the different systems
      - Connections to vehicle electronics to provide customarily used data
      - Installation of components such as passenger displays
      - Installation of video surveillance systems
      - Installation of antennas and sensors
      - Supply and Installation of all necessary ITS cables and wiring as per ITS contractor’s instructions.
      - Supply and installation of secure communications between ITS systems and back office

8.27. Attachment 27: Service Expansion Plans

The following is an update to the Mass Transit Task Force given in June 2015, detailing the potential expansion of the Intercounty BRT service. All capital cost and fleet size estimates are based on assumptions at the time of the presentation.

8.28. Attachment 28: **Off-Board Fare Payment Machines**

### 8.28.1. Background

Since its inception, the Lower Hudson Transit Link has prioritized seamless integration with other local and regional transit systems as a key system goal. Critical to this effort is the acceptance of MetroCards as a form of fare payment. Allowing a two-hour transfer after they are first swiped, the MetroCard is used in Westchester County on the Bee Line, as well as in New York City on all bus and subway services. To provide for fare system integration, the Contractor will be responsible for installing, operating, and maintaining technological infrastructure required to support the MetroCard fare system.

In the next several years, the MTA plans to phase out the MetroCard in favor of a new state-of-the-art fare payment technology. The Contractor is responsible for working with the MTA to ensure that all necessary technology is procured and installed onboard and at stations. The Contractor is responsible for all costs incurred as a result of the technology switch.

### 8.28.12. Fare Payment System Costs

The Contractor is responsible for procuring and maintaining all equipment necessary for **off-board fare payment machines**, which shall accept payment by credit and debit card only. Table 1 below presents estimated costs for the installation and long-term operation of these machines. These are indicative costs that were estimated based on a market review of existing transit systems that utilize off-board credit/debit machines. MetroCard integration (specified in Attachment 23). Historic unitary costs of MetroCard system elements are listed in Table 1 below, as a non-binding quote, to gauge the MetroCard system’s financial impact.

**Table 1: Past MetroCard Fare payment system costs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unitary costs</strong></td>
<td></td>
</tr>
<tr>
<td>Off-board credit/debit MetroCard fare collection machine—(used on the Select Bus System in New York City)</td>
<td>$10,000 to $13,23,000</td>
</tr>
<tr>
<td><strong>Fixed costs</strong></td>
<td></td>
</tr>
<tr>
<td>Server equipment</td>
<td>$149,000</td>
</tr>
<tr>
<td>Depot equipment</td>
<td>$93,000</td>
</tr>
<tr>
<td>Installation and acceptance</td>
<td>$30,000</td>
</tr>
</tbody>
</table>
### Operational costs

<table>
<thead>
<tr>
<th>Operational Costs</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine maintenance</td>
<td>$600 per machine per year</td>
</tr>
<tr>
<td>Software/back office requirements</td>
<td>$900 per machine per year</td>
</tr>
</tbody>
</table>

8.28.3. Fare Collection Machine Installation

The Contractor shall install a total of **26** off-board MetroCard fare collection machines. Table 2 below specifies how many machines must be installed at each stop in the system, as well as the total historic unitary cost of procuring the equipment. Note that no eastbound stations in White Plains require a MetroCard fare payment machine, as the LHTL will not serve intra-Westchester trips. Because of extremely low demand at westbound-boarding stops in Rockland County, any passengers wishing to use MetroCard credit/debit fare collection machines will be directed to the machines located at the corresponding eastbound stop.

The Contractor shall provide fare collection machines as outlined below, and liquidated damages will be assessed for failure to maintain fully functioning fare collection systems. NYSDOT will require fare collection machines across the LHTL system to be operational and functioning per system specifications at least 96% of the time. Below that percentage, NYSDOT will assess liquidated damages as follows:

<table>
<thead>
<tr>
<th>Fare Payment Technology Availability Percentages</th>
<th>Liquidated Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>94% to 95.99%</td>
<td>$500.00</td>
</tr>
<tr>
<td>90% to 93.99%</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>89.99% and below</td>
<td>$1,500.00</td>
</tr>
</tbody>
</table>

In the event of a malfunctioning fare collection machine, the Contractor shall be responsible for prompt repairs. NYSDOT will require that the machine be fixed within 48 hours from identification and will assess liquidated damages in the amount of $100.00 per day for each day thereafter.
<table>
<thead>
<tr>
<th>Municipality</th>
<th>Stop</th>
<th>Direction</th>
<th>Location</th>
<th>Number of MetroCard Fare Payment Machines</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffern</td>
<td>Chestnut Street</td>
<td>EB</td>
<td>Hallett Pl. &amp; Chestnut St.</td>
<td>1</td>
<td>$23,000</td>
</tr>
<tr>
<td>Airmont</td>
<td>Airmont Road</td>
<td>EB</td>
<td>Airmont Rd. at NY 59</td>
<td>1</td>
<td>$23,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WB</td>
<td>NY 59 at Airmont Rd.</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>Monsey</td>
<td>Monsey Park &amp; Ride</td>
<td>EB and WB</td>
<td>Main St. at NY 59</td>
<td>2</td>
<td>$46,000</td>
</tr>
<tr>
<td>Spring Valley</td>
<td>Spring Valley Transit Center</td>
<td>EB and WB</td>
<td>Franklin St. at Municipal Plaza</td>
<td>2</td>
<td>$46,000</td>
</tr>
<tr>
<td>Nanuet</td>
<td>Exit 14 Park &amp; Ride</td>
<td>EB</td>
<td>NY 59 EB &amp; Forman Dr.</td>
<td>1</td>
<td>$23,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WB</td>
<td>Exit 14 Park &amp; Ride lot</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>West Nyack</td>
<td>Palisades Center Lot J</td>
<td>EB and WB</td>
<td>Palisades Center Dr. Lot J</td>
<td>2</td>
<td>$46,000</td>
</tr>
<tr>
<td>West Nyack</td>
<td>Macy’s</td>
<td>EB and WB</td>
<td>Palisades Center Dr. &amp; NY 59</td>
<td>2</td>
<td>$46,000</td>
</tr>
<tr>
<td>Nyack</td>
<td>Central Nyack</td>
<td>EB</td>
<td>NY 59 &amp; Mountainview Av.</td>
<td>1</td>
<td>$23,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WB</td>
<td>NY 59 &amp; Mountainview Av.</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>Nyack</td>
<td>Downtown Nyack</td>
<td>EB</td>
<td>Artopee Way &amp; Franklin St.</td>
<td>2</td>
<td>$46,000</td>
</tr>
<tr>
<td>Location</td>
<td>Intersection</td>
<td>Direction</td>
<td>Property Description</td>
<td>Units</td>
<td>Price</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------------</td>
<td>-----------</td>
<td>--------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>South Nyack</td>
<td>Artopee Way &amp; Franklin St. (south side of Artopee)</td>
<td>WB</td>
<td>0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>South Nyack</td>
<td>Franklin St. &amp; Clinton Ave. (west side of Franklin)</td>
<td>EB</td>
<td>2</td>
<td>$46,000</td>
<td></td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Franklin St. &amp; Clinton Ave. (east side of Franklin)</td>
<td>WB</td>
<td>0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Broadway &amp; WB I-287 on-ramp</td>
<td>WB</td>
<td>1</td>
<td>$23,000</td>
<td></td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Broadway &amp; NY 119</td>
<td>EB</td>
<td>1</td>
<td>$23,000</td>
<td></td>
</tr>
<tr>
<td>Tarrytown</td>
<td>US 9 at W. Elizabeth St.</td>
<td>WB</td>
<td>1</td>
<td>$23,000</td>
<td></td>
</tr>
<tr>
<td>Tarrytown</td>
<td>Depot Plaza</td>
<td>EB and WB</td>
<td>2</td>
<td>$46,000</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Tarrytown Rd. &amp; Central Av. (west side of Tarrytown Rd.)</td>
<td>EB</td>
<td>0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Tarrytown Rd. &amp; Central Av. (east side of Tarrytown Rd.)</td>
<td>WB</td>
<td>1</td>
<td>$23,000</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Main St. &amp; Bank St.</td>
<td>EB</td>
<td>0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Hamilton Ave. &amp; Ferris Ave.</td>
<td>WB</td>
<td>2</td>
<td>$46,000</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Main St. &amp; Court St.</td>
<td>EB</td>
<td>0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>White Plains</td>
<td>Martine Ave. &amp; Court St.</td>
<td>EB and WB</td>
<td>1</td>
<td>$23,000</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Street 1</td>
<td>Street 2</td>
<td>Street 3</td>
<td>Count</td>
<td>Total</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------</td>
<td>--------------</td>
<td>---------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>White Plains</td>
<td>Broadway</td>
<td>EB and WB</td>
<td>Main St. &amp; Broadway</td>
<td>1</td>
<td>$23,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>26</strong></td>
<td><strong>$598,000</strong></td>
</tr>
</tbody>
</table>
8.29 Attachment 29: Design Guidelines for LHTL Vehicles

Design Guidelines for LHTL Vehicles

Introduction

These guidelines are being distributed so that proposers engaged in preparing proposals for the NYSDOT Lower Hudson Transit Link project have an idea of the impact design choices will have on vehicle procurement budgets.

The LHTL project design consultant has identified a color scheme including 2 to 4 shades of blue and one of gold that will be used for the brand identity for the transit portion of the project.

The exterior design of the vehicles will draw from the palette above, and will be provided to the Contractor by the design consultant once this design is approved by NYSDOT.

Interior bus guidelines

Most bus and coach manufacturers use a number of pre-formed parts of ABS plastic or other types of material. Normally these items make up a great amount of the surface area inside their buses. The colors of these parts should be chosen from the gray spectrum of the bus manufacturer’s materials.

Stanchions, grab handles, stair rails and other such devices shall be powder coated in the above gold color (Pantone color 130 C or RAL 1003). In areas where this color would be inappropriate because of glare issues, black may be used.
Seat quality shall be equivalent to that defined in the vehicle specification, Attachment 26 to the RFP. Technical requirements shall be enforced including requirements for seat belts.

Seating surfaces shall be mainly covered with fabric normally used in commuter service coaches, which is 85% wool and 15% polyester. Headrest areas shall have a permanently affixed inset of high quality PVC with anti-microbial properties that facilitate hygiene and ease of cleaning.

All seat backs shall be covered with a gray carpet-like material which is a mainstay of coach seat materials.

General guidelines for upper deck seating:

- Upper floor seats shall be equipped with fold down footrests.
- Seats shall have other accessories as defined in the RFP

General guidelines for lower deck seating:

- Lower seats may vary in finishing as there may need to be different seats in different positions.
- Back to back seats shall have solid, permanent closeouts that prevent accumulation of trash and dirt. If required, these closeouts shall have access panels necessary for the maintenance of the vehicles such as access to brake chambers and similar devices. These panels shall be locked closed with keys owned by the operator and shall not be able to be disassembled by passengers.
- Center-facing, flip-up seats shall be used in the mobility device securement areas. These seats will probably not have backs high enough to install PVC headrest inserts so there is no longer a requirement for this feature to be incorporated.

Design approval

As defined in the RFP, final color scheme and other interior and exterior decorating choices will be worked through in a design review event between the successful contractor and NYSDOT’s design consultant, with final decision responsibility resting with NYSDOT.

It is anticipated that seat fabric patterns and colors will be chosen from one of the main seat fabric manufacturer’s selections and will feature colors that represent the official colors chosen for the system. Custom graphics are not anticipated to be part of the seat fabric design.

Flooring color and pattern will also be decided at a later date but will be chosen from the manufacturer’s standard colors and patterns.
8.29. Attachment 30: Q&A

9 ICM

1. Section 1.2D – Are queue jump lanes envisaged for Routes 59 and 119, or are they simply being investigated?
   Yes – Transit priority lanes, with or without queue jump signalization, are proposed at three intersection locations on Route 59.

2. Section 1.2E - Is it the intention of NYSDOT to include other transit operators in Westchester and Rockland in the HVTMC?
   Yes, it is the intention of NYSDOT to eventually include other transit operators in the HVTMC. The timing of this is yet to be determined.

3. Section 3,4E – May we presume that delays caused by others will not impact milestone achievement in Transit ICM Systems Integration?
   NYSDOT’s Transit ICM System Integration RFP will provide information regarding BRT delay information. The selected Contractor is required to monitor, document and account for casual factors leading to service delays or deviations to the service plan.

4. Section 4.4.11.1 – What is the difference between the contractor’s operations control (dispatchers) and the Transit Operations Coordinator at the HVTMC? From the requirements, these would seem to be duplicative.
   Full-time staffing at the HVTMC is required of the transit operator so that all parties can maintain visibility of conditions on the network and work together to implement solutions. The operator has the option of locating their control room functions in the HVTMC if this is logistically easier for them.

5. Section 4.4.11.1 – What are the days and hours that the HVMTC must be staffed by the Contractor? May the staff requirement at HVTMC be relaxed during times when the number of buses is low, such as nights and weekends?
   As described in the ‘Deliverable’ section, the HVTMC must be staffed for the full span of service of the LHTL intercounty BRT system, including nights and weekends.

6. Section 8.22.2.8 – Mention of potential routing strategies for drivers raises the question of whether the authorized routing include designated variants at the driver’s or dispatcher’s option, or will these be allowed in emergencies only?
   NYSDOT shall provide necessary route deviation information in the event of an emergency. The selected Contractor may discuss with NYSDOT the development of alternative service plans for potential pre-defined non-emergency diversion routes.

7. Section 8.22.2.8 – In the case of non-standard routings, who will validate clearances for oversize vehicles?
NYSDOT will take on the responsibility for confirming clearances for non-standard routings.

8. Section 8.22.2.5 - This section references a Concept of Operations (ConOps) for the new service. Can this be provided to proposers?
   Yes, this is being released with the LHTL Systems Integrator RFP at the beginning of August.

9. Section 8.22.3.1.A – We question why service deviations and variations in run time are listed as characterizations of transit service. With proper management, these can be minimized and almost eliminated.
   The characteristics listed under 8.22.3.1 are all informational needs for the ICM system, not characterizations of its nature.

10. Section 8.22.4.4 - Can the transit representative in the HVTMC be in contact with the Contractor’s dispatcher instead of with individual drivers or with both?
    It is expected that the transit representative in the HVTMC maintain communication with drivers through any method they find most effective.

11. Section 8.22.6.1. – May we assume the KPI indicates Key Performance Indicators?
    Yes, KPI stands for Key Performance Indicators.

12. Section 8.22.6.3 – What type of data connections with the CCTVs and PAX information use at the shelters and bus stations?
    Data connections, in regards to communication, will be a cable (coaxial) connection, or a SIM card-based solution provided by the client. Data connections will vary based on the equipment; for instance, RTPI screens are likely to require an XML data stream (vendor-dependent). CCTV feeds will be IP-based, which need to support H264 or H265 encoding, 30 frames per second and provide pan-tilt-zoom (PTZ) control.

13. Section 8.22.6.3 – Is there an option to have the camera enclosures built in by the shelter manufacturer?
    The designs for the shelters are not yet finalized, and these types of comments and questions will help inform the final design. The shelter will already be fully powered with conduit and j-boxes for power and data.

14. Section 8.22.6.6 – We are concerned that streaming video from a bus to a control center may not be mature and readily available technology. Is it NYSDOT’s expectation to be able to view any camera at anytime? What is the maximum number of cameras DOT wishes to view simultaneously?
   Yes, it is NYSDOT’s expectation to be able to view any camera at any time.
2. There is no limit on the number of cameras viewed at any one time as this will be relevant to the each individual incident/event, however cameras will not be constantly streaming outside of these occasions.

15. Section 8.22.7.1 – Please define the word latency as used in “such latency as to interfere with the boarding process”. We understand the word latent to be “hidden”. Latency refers to the delay between the input and the desired outcome. In this section it is referring to the passenger transaction (input) and the boarding process (outcome).

16. What are the expectations for the AVL feeds, 30 seconds or real-time?
   30 seconds or less

17. Section 8.22.8.3 – We question use of CAD/AVL to re-route buses, rather than direct and immediate radio communication. Is there a reason that radio use is not desired to be the primary means of dispatcher direction?
   Radio communication can be used as the primary means of dispatcher, however this information shall be duplicated in the CAD/AVL system to allow ICMS a real time view of bus operations.

18. Section 8.22.8.3 – Please define ICMS Decision Support System.
   The ICMS Decision Support System (DSS) is a key component of the ICM system. The DSS is intended to provide situational awareness of the network and decision making guidance to the HVTMC. The ICMS DSS will identify changes in the network and recommend response plans under various incident scenarios. The response plans include actions for each sub-system connected to the ICMS. A typical response plans may include strategies for VMS, ramp metering, signal re-timing and diversion to transit. In the event of a strategy involving a change to LHTL Transit Operations, the appropriate guidance will be communicated via the ICMS interface to the Transit Service Coordinator.

19. Section 8.23.3.3.C – Please define the limits of the RTPI system in its ability to interpret detours and diversions.
   NYSDOT expects the RTPI system to accept route detours and diversions, interpret these and populate the relevant RTPI displays with revised real time information. The limits will depend on the chosen system as some are more developed than others.

20. Section 8.23.3.5.A – May we presume that historic data will be logged in a back office system rather than on board the vehicle?
   Yes, the contractor is expected to have a comprehensive back office system.

21. Section 8.22.3.8 - This very brief discussion appears to assume the use of an transit signal priority system we believe to be obsolete. In the metro NYC area, this was used in Staten Island for 14 intersections on Bay Street and Victory Blvd., as a “proof
of concept”. It was replaced with an entirely different approach and this new approach has been the standard used by MTA/NYCT and NYCDOT on the entire length of Victory Blvd. and all successive BRT/SBS other projects. We respectfully recommend that NYSDOT review its approach to transit signal priority technology for this project.

Opticom GPS has been chosen for the system to ensure interoperability with the Westchester Bee-Line, a major regional transit provider that provides key connections from the LHTL service in Westchester County. More details on the system requirements are available in Attachment 26 (Vehicle Specification), Section 47.J.

22. Section 8.23.3.7 – How will off board receipt dispensers and on board ticket validators agree on what the code of the day (hour? other criterion?) will be to accept the receipt?
   There is a flat ticket rate, therefore peak and off-peak does not apply. The date of the ticket needs to be printed on the receipt for visual inspection and encoded into the QR code for the on-board validator.

23. Will the State provide furnishings to the Contract for its operations at the ICM Control Center?
   Yes, the State will provide all necessary furnishing for the Contractor’s HVTMC resource.

24. Please detail the Contractor’s contractual responsibility for managing Transit Signal Priority during daily operations.
   The Contractor is responsible for the transit signal priority equipment onboard the vehicle to be maintained and operational at all times.

25. Are there existing systems in place that the contract will need to leverage in order to communicate with other transit operators (i.e. Metro-North and Bee-Line)?
   No, all existing systems have been specified in the RFP.

26. When installing technology solutions at bus stops and shelters, can the sites be modified or relocated?
   The station sites cannot be relocated. NYSDOT will install the shelters and associated infrastructure (concrete pads, etc.) and the Contractor will be responsible for installing technology solutions into this new infrastructure. If there are concerns with the capacity of the designs, the Contractor can work with NYSDOT to ensure the station design can accommodate their needs.

27. Please clarify whether CCTV is required at each bus stop location and bus stop shelter.
   Yes, CCTV will be required at each bus stop location/shelter.

28. Please indicate the State’s expectation for the length of time CCTV footage will be archived. The length of time also impacts the cost, which the contractor must factor into its proposal.
The State does not require CCTV footage to be archived, this will be up to the Contractor to decide for their own operations.

29. Please clarify which party is responsible for installing the bus stop equipment and communication – the State or the contractor? The Contractor is responsible for installing the technology equipment at the bus shelters. NYSDOT will provide the shelters and the communications connections – it is up to the Contractor to procure the communications contracts.

30. Does the State have a preferred method of communication from the control centers to the vehicles or from road supervisors to vehicles? GPRS/3G/4G is the preferred communications method. Radio communications can also be utilized, but on bus AVL is expected to communicate with the back office through GPRS/3G/4G.

31. Is there a pre-existing standard system that the operator needs to use in order to communicate to its vehicles and services in case of a city, state or national disaster or emergency? There is no pre-existing standard used to communicate with vehicles in case of a city, state or national disaster.

32. Do NYSDOT personnel require access to the contractors operating facility? Yes, as stated in Section 4.2.9 of the RFP, ‘NYSDOT reserves the right to inspect the Proposer’s facilities and/or other transit systems where the Proposer has supplied the same or similar services.’

33. Is there a specific security card system and card reader to gain access to buildings and rooms at the ICM? The Contractor’s HVTMC resource(s) will be given access cards to allow entry to the HVTMC.

34. The RFP indicates that NYSDOT will own all data. Please confirm that the data referenced is the data provided by the CCTV, communications system, etc provided to support this service, and not the Contractors internal business systems, including e-mail, driver attendance systems, internal budgeting and accounting data, etc. NYSDOT will own any intellectual property required to transition to a new operator, as well as any data provided to ICM system. Further, RFP Draft Contract Article 14 states “At the time of completion of the work, the CONSULTANT shall make available to the STATE all documents and data pertaining to the work or to the PROJECT which materials at all times shall be the property of the STATE.” Data is defined as any information generated or produced under NYSDOT Contract #C031487 as a result of the requested services being provided.

35. The RFP indicates that “all Data shall remain in the Continental United States”. Please be more specific as to which data is being referred to? For instance, some e-mail systems or file sharing system are hosted internationally.
All sensitive, personal, private and mission-critical data shall not be transmitted or stored outside the Continental United States.

36. The RFP states in Section 6.1 that “the Contractor will not transfer Data unless directed to do so in writing by NYSDOT.” Please clarify very broad statement. Any transfers of data must be either expressly required under the deliverables and work plans approved by the NYSDOT Project Manager. All not- previously approved data transfers, to any other party must be requested prior to such transfer. The Contractor must err on the side of caution when transferring data.

37. The RFP states that “at the end of the Contract, Contractor may be required to transfer Data to a new Contractor…” Please clarify whether the State, the incoming contractor or the incumbent contractor is responsible for the cost of the data transfer and conversion. The Contractor is responsible for the cost of transfer in a readily-usable industry-standard format and should include such costs with their proposal. The Contractor is also responsible for technical assistance to facilitate transfer and data conversion. The Cost of actual conversion shall be the responsibility of the new Contractor.

38. The RFP states that “all Data must be encrypted at all times…” Does this include data on all servers as well as PC’s? Yes, all data on all systems shall be encrypted.

39. Please provide the NYSDOT data retention requirements for the specific data associated with this project.
   All data associated with this project shall be retained for the duration of the contract plus a reasonable time beyond the contract to allow for transfer of data back to NYSDOT in useable form, or transfer to a new Contractor. NYSDOT will discuss specific data retention requirements with the selected Contractor during contract negotiations and after contract award (during the contract’s life).

40. Please indicate what types of connectivity solutions will be available in each shelter for internet service (Fiber, cable, other)? There will be a mixture of Fiber and 3G/4G connectivity. The Contractor will provide the 3G/4G connectivity and final connections to the Fiber network where this is available.

41. Please provide the number of Closed-circuit Television (CCTV) that are required on each bus and at each depot.
   The number of CCTV required will depend on the type of CCTV installed, mounting positions, field of view, etc., but as a minimum it is expected that each shelter will have one CCTV camera and on-board the buses there will be a view of each deck, as well as rearward and forward-facing views.

42. Please confirm that the requirement of Section 8.23.3.6. Wi-Fi – does not require conflicting information. Item B. requires “The passenger Wi-Fi shall have a 4G
The passenger Wi-Fi on vehicle shall have a 4G modem and support 4G networks and the passenger Wi-Fi at shelters shall connect through a fixed connection with the 4G as an alternative, should fixed connections not be available.

43. Section 8.22.5.3: The onboard systems will send and receive route, schedule, and position information on feeds operated by and provided by other agencies. This will likely require the intervention of the systems integrator to ensure mutually acceptable feeds providing accurate information.

a. This seems to contradict with other requirements, as the onboard system to support CAD/AVL, APC, and RTPI does not require data from other transit agencies.

   CAD/AVL and APC data will be passed directly to the ICM system to map the buses in real time to allow the real-time passenger information (RTPI) system to stay updated. This also provides an additional source of travel time data to both the data fusion engine and the live micro-simulation model. As a direct result of this information NYSDOT will be able to determine the effectiveness of Transit Signal Priority and use the results to modify traffic signal timings. The data can also be used to derive the performance statistic for the bus routes, such as availability and achieved headway, as well as any other performance metrics identified in the transit contract.

   RTPI requires data to provide passengers with information on other transit connections in the region, such as schedules and on-time status from MTA Metro-North data (as detailed in Section 8.23.3.3.B). The ICM Systems Integrator (being chosen through another RFP NYSDOT is releasing) is tasked with working with the Transit Operator to integrate data feeds to and from the ICM system.

b. Please confirm that NYSDOT expects the proposed onboard system to support CAD/AVL, APC, and RTPI to operate the fleet in supporting the transit service for the Dark and Light Blue route as well as the Dark and Light Gold routes, as identified in Section 8.21.7 of the RFP.

   This is correct.

c. If data from “other transit agencies” is required onboard the bus, please clarify what types of data and the purpose of this data?

   Real-time passenger information requires information to provide passengers with information on other transit connections in the region, such as schedules and on-time status from MTA Metro-North data (as detailed in Section 8.23.3.3.B). The ICM Systems Integrator (being chosen through another RFP NYSDOT is releasing) is tasked with working with the Transit Operator to integrate data feeds to and from the ICM system.
44. Section 8.23.3.1: ICM System Components and Requirements – Automatic Vehicle Location (AVL) Subsection 1: The system shall integrate with the ICMS and be viewable on the ICMS GIS dashboard. The AVL solution provider will be required to work closely with the ICM System Integrator to ensure this is achieved.

Can you please provide details on the ICMS GIS dashboard?

a. What is the ICMS GIS dashboard, is this a video wall?
   The dashboard is part of the ICMS Graphical User Interface. One of the options for this interface is that it can be displayed on a video wall in the HVTMC to highlight metrics if requested by NYSDOT.

b. Is the vendor to provide the GIS dashboard?
   No, it will be procured as part of the ICM system (by the Systems Integrator being chosen through another RFP NYSDOT is releasing) and data from the transit operator will be mapped onto it.

c. Is this customer facing?
   No, this will just be available in the HVTMC.

45. Section 8.26.47, Subsection C, Real Time Passenger Information (RTPI): It is noted that the On Vehicle Display (OVD) shall employ TFT, OLED, or other high resolution displays and have one or two lines of text. These specifications are very limited and reduce competition. Would NYSDOT also accept LCD sign or a 2-line LED sign?
   These need to be dynamic. While LCD should be fine, NYSDOT prefers not to want the limiting old-tech linear LED signs.

10 Infrastructure Procurement and Maintenance

46. Section 3.1 – Will there be stations (which we interpret to mean enclosed buildings) or simply shelters, or simply stop signs/benches at all stops on the routes? Please specify which stops will received what level of investment?
   NYSDOT will provide new bus shelters and related pedestrian improvements at all of the stops envisioned for the transit routes.

47. Section 4.2.1 – Providing Capital Infrastructure – Request for additional information regarding expansion and who will be responsible for the new purchase of equipment. Are there supplemental funds when service is expanded (i.e. shop equipment, bus shelters, facility expansion and electronic equipment including software updates)
   When service is expanded, NYSDOT will provide all on-street capital infrastructure, including shelters and the communications links for the Contractor to use. The Contractor will be responsible for procuring, installing and maintaining all transit technology in the shelters and in the vehicles, and for procuring any additional
vehicles that are needed to expand the service. NYSDOT will seek a supplemental agreement for the additional scope and cost associated with expanding the service.

48. Section 4.4.5.2 – At what point must title to ITS equipment (in-shelter technology) be transferred to NYSDOT?
The title to ITS equipment must be transferred to NYSDOT upon system(s) acceptance by NYSDOT.

49. Section 4.4.6.5 – This section suggests the contractor must determine the fleet size; elsewhere, 19 peak vehicles are alluded to. Which takes precedence?
Initial analyses of the routes and their peak vehicle requirements have been conducted by NYSDOT; however, the contractor is expected to determine optimum fleet size to fit their schedule and service plan submitted with the RFP response.

50. Section 4.4.7.1 (Also Sections 4.4.4.1 and 4.4.8.2) - Does contractor have cost liability for vandalism or fare equipment robbery attempts?
The Contractor should cover this liability under the General Liability and/or any other applicable insurance.

51. Section 8.19 Paragraph 2 – While the Contractor will be responsible for “maintaining the functionality” of the on-time information, certain systems are provided by others, and may impact this functionality in ways beyond the control of the Contractor. May we anticipate appropriate relief?
The operator is expected to maintain the systems so that they are able to receive information feeds and then display them. The Contractor is responsible for the work of it’s employees and any subcontractor contracted under this Contract. If there is a disruption to another operator’s feed, this will be taken into account in NYSDOT’s quarterly review of system performance.

52. Section 8.19 Paragraph 3 – What proportion of the multi-user facilities at Spring Valley, Palisades Center (Macy’s) and White Plains are to be maintained by the Contractor?
There will be new shelters built for the system at all stops indicated in the Transit Service Plan, and these shelters and their associated amenities and technological components are to be maintained by the Contractor.

53. Section 8.23.3.7 (To be installed at bus stops) – It is unclear if NYSDOT will be responsible for furnishing, stocking, unloading, securing, and accounting for tickets and revenues therefrom.
The required Metrocard fare reader collection machines do not dispense tickets nor accept cash. They simply collect fares from pre-filled MetroCards and issue proof-of-payment receipts. These are the same machines utilized on the MTA’s Select Bus System. The Contractor will be responsible for the ongoing maintenance of these
machines, including stocking paper for the proof-of-payment receipts. NYSDOT shall not be responsible for furnishing, stocking, unloading, securing, and accounting for tickets and revenues therefrom; the selected Contractor shall be responsible for these duties.

54. Section 8.23.3.7 – Please clarify what level of vandal resistance and fraudulent access protection is required.

The RFP indicates that the State will provide Bus Stops and Shelters and that the contractor must provide technology at these locations and transfer ownership to the State.

a. Which entity is responsible for the cost of repairing damage to bus stops and shelters caused by vandalism, vehicle accidents, acts of nature, or other causes?

b. Which entity is responsible for the cost of repairing damage to associated technologies caused by vandalism, vehicle accidents, acts of nature, or other causes?

The proposer needs to determine an appropriate level of design to protect their obligations under the agreement and any limits under the appropriate liability insurance.

55. Section 8.23.3.7 – Who will provide security at stops, shelters, stations, and on board buses?

CCTV at each bus shelter will provide a feed that can be viewed by the HVTMC. There will also be CCTV on-board buses as well as the standard law enforcement protocols.

56. Is it correct to assume the NY DOT has designed all bus stops in compliance with ADA and Title VI requirements?

All bus stops and shelters are being designed in line with ADA requirements and national and international best practices of accessibility and inclusivity.

57. Please confirm which bus stops the Real-time Passenger Information (RTPI) are to be installed and whether this list constitutes each bus stop or only those with shelters.

All bus stops are currently designated to have shelters. All shelters will require RTPI to be procured, installed, and maintained by the Contractor.

11 Fare Payment

58. Section 4.2.10 – Are fare changes, including any proposed by the contractor, subject to Title VI and Disparate Impact analysis, and if so, is this a contractor responsibility?

Yes fare changes are subject to Title VI and it is the Contractor’s responsibility.

59. NEW Section 4.4.10.2 – Please clarify if Metro-North Unitickets to be accepted on the new bus service are offered on connecting Pascack Valley trains via Spring Valley and connecting Main Line/Bergen County Line and Port Jervis trains via
Suffern as well as connecting Hudson Line trains via Tarrytown and Harlem Line trains via White Plains?

Metro-North Unitickets are only planned to be pursued for the Hudson Line and Harlem Line services as the LHTL intercounty bus service’s focus is trans-Hudson trips.

60. Section 4.4.10.2 – Since it is considerably faster for a Rockland County commuter to Manhattan to utilize Coach USA (Rockland/Red and Tan) service from Nanuet Park and Ride and other locations than to utilize the new bus service to a railhead and thence train to New York City, are there any plans for through or joint fares between the LHTL and any of the Coach USA (Rockland/Red and Tan or Short Line) or even Monsey Trails north-south services which intersect it? Likewise, MNR Limited trains from Spring Valley or Suffern put passengers in Manhattan in an hour, much faster than a connection over Tarrytown or White Plains. Is this to be recognized?

There are no plans to pursue joint fares between the LHTL intercounty BRT service and any of the private interstate bus companies that serve the region.

61. Section 4.4.10.2 – Is there any requirement to accept electronic payments onboard? Electronic payments are only to be accepted through the off-board fare payment machines.

62. Section 4.4.12.2. – Will fare arrangements with Rockland County Community College and other colleges be continued? If so, is it anticipated that students will use their ID card? Will on-board fare collection be required to reject expired cards?

In 4.4.12.3, it says that ‘The Contractor is encouraged to develop a range of discounted and institutional tickets that is similar to what is offered today, as well as work with local business and institutions to create new fare types.’ The Contractor’s approach to these services will be scored under the ‘creativity and innovation’ evaluation criteria in Section 6.1.3.3.

63. Section 8.21.8 – Will the MTA MetroCard be acceptable for local trips within Rockland County?

While Transport of Rockland does not accept MetroCard, MetroCard fare payment shall be accepted for trips within Rockland County using the LHTL BRT service.

64. Section 8.21.9.1 – We are concerned about the high proportion of passengers paying cash or buying what amounts to single ride transportation. However, for those using the off-board machines, not only is off-board payment an extra step for passengers, who must arrive at stops that much earlier (thus negating any time saving of reduced dwell time), but the aggregate cost of purchasing, servicing, and securing TVMs and ticket validators might even exceed the cost of putting a second employee (conductor or fare inspector) on almost every bus! Further in this regard, Modification 1 to the RFP states that fare enforcement personnel may be used on board to verify that all
persons hold validated transportation. Will enabling legislation permit them to issue citations to passengers without proper transportation?

There is no legislation enabling operators to issue citations to passengers.

65. Section 8.23.3.7 – Please clarify what varieties of MTA MetroCards will be accepted by NYSDOT-supplied fare collection machines. NYSDOT shall not be supplying any fare collection machines. This is the responsibility of the selected Contractor, whose fare collection machines accept all varieties of MetroCards. On board readers shall accept all varieties of MetroCard.

66. Section 8.23.3.7 (To be installed onboard) – Must fareboxes accept MTA MetroCards? If so, what varieties?

It is not required that the on-board fareboxes accept MetroCards. The off-board fare collection machines will satisfy this function.

67. Section 8.23.3.7 (To be installed onboard) – What denominations of bills and/or coins must fareboxes accept?

This decision is up to the contractor.

68. Section 8.23.3.7 (To be installed onboard) – Is it the Contractor’s choice of what means of registration there will be for cash deposits in fareboxes, and means of extracting and accounting for cash deposits?

Yes, this is the contractor’s choice.

69. NEW Section 8.23.3.7 (To be installed onboard) – If rear door is to be used for entry, how is driver to enforce passengers not validating transportation, or to identify those with validation issues, in a situation with multiple entries through both doors simultaneously?

In Section 4.4.12.4, the contractor has been given a choice of providing either driver-controlled inspection of tickets and passes through front-door boarding or provision of ticket inspectors on all routes to enforce fare payment, and explaining why they chose one over the other in their proposal.

70. Section 8.26.47 – Paragraph 2 (a) indicates that “The fare collection machines (at bus shelters) will be procured and installed by the Contractor.” NEW Section 8.21.9.1 indicates that “Off-board payment machines (supplied by NSDOT) will be able to accept MetroCard…” The (supplied by NYSDOT) is a typo and will be removed from the RFP (See Revised RFP dated 8/22/2016). The fare collection machines at bus shelters will be procured and installed by the Contractor.

71. Please clarify who shall provide the off-board fare collection machines.
The fare collection machines at bus shelters will be procured and installed by the Contractor.

72. Section 8.28.3 – We are concerned that passengers directed to other locations in the absence of a fare collection machine will be in danger of missing their bus, and further, in physical danger (which could translate to liability for the State and the Contractor) if they cut across streets or traffic lanes to access the machine, and then return to the stop for the direction of intended travel. Further, we are concerned that machine failures with but one or two machines available will seriously affect the service (as this is written, every one of the dozen or so NJ Transit ticket vending machines on the 8th Avenue side of Penn Station New York, the busiest railroad station in the western hemisphere, has been out of service for credit and debit card sales for a week).

NYSDOT has conducted an analysis to determine how many fare collection machines are needed and in which locations along the route. Passengers will also have the option to pay on-board with cash or through the mobile app, should the ticket machine be out of order. The Contractor is responsible for pricing out a suitable maintenance regime.

73. Section 8.23.2.7 – Is it anticipated that MTA MetroCard sales will be available anyplace in Rockland County?

As part of NYSDOT’s responsibility to facilitate arrangements its agreement with NYSDOT, the MTA MetroCard will look to identify potential MetroCard merchants in Rockland County. These are commonly established at existing stores, much like the vendors throughout Westchester County identified on this website: http://tripplanner.mta.info/metrocardmerchants/

74. Section 8.16 On Time Performance - Paragraph 6 – The term ‘enforcement of off-board payment’ is used. Please define what means would be considered acceptable to enforce this, in light of continued availability of fareboxes, apparent inability to accept cash in offboard vendors, and the likelihood that a high proportion of riders will continue to use single fares paid at the time of travel.

In Section 4.4.12.4, the contractor has been given a choice of providing either driver-controlled inspection of tickets and passes through front-door boarding or provision of ticket inspectors on all routes to enforce fare payment, and explaining why they chose one over the other in their proposal.

12 Vehicles

75. Section 3.1 – Project Objectives – Why did NYSDOT decide to request a double decker bus? Was this done with only a staff review? Why the double decker style was chose over a BRT articulated bus that is used with other transit systems? Is there a review that indicates prototype double decker buses investigated by staff to ensure there are no non-negotiable vertical constraints along the path of travel and at stops,
including the Tappan Zee Bridge? Did NYSDOT receive a letter of intent stating that all manufacturers can meet the deadlines and bus specification requirements?

We have serious concerns about the vehicle specified in Attachment 26, regarding elements of safety, security, applicability and viability (including any Buy America, Buy New York, or sourcing requirements). Specifically, we have seen only limited successful application of the double deck concept in North America (see attached roster of modern double deck buses in transit and suburban service in North America – double decks comprise but six tenths of one percent of the total transit bus fleet in North America). We have seen several calamitous accidents including loss of life when route deviation was undertaken in low clearance areas. We have personally experienced potential personal injuries on steps between decks, as well as delays to schedules occasioned by passengers trying ascend and descend simultaneously, or too close to the actual stop to alight without delay. We have seen rampant vandalism on upper decks, even with cameras and periscopes in use. We can envisage security situation involving controlled substances being bought, sold and used on upper decks, and possibly other criminal intent in this remote area from the driver. We have seen difficulties in controlling the vehicle under high wind conditions such as occasionally occur on the river crossing, and also at higher speeds under severe weather conditions (rain, ice, snow). We request reconsideration of the specified vehicle, using an “or equal” concept to provide efficient, economic, attractive, customer-friendly, schedule-friendly vehicles, with appropriate passenger capacity, equal ability to process the ingress and egress of passengers and fare payment or validation or inspection, and a better capability and familiarity as to maintenance, parts supply, and of course, longevity in front-line service.

1. The choice to use double decker buses was decided early in the planning phases of the project, and has been carefully vetted in terms of safety, performance, and maintenance support. It remains one of the foundation blocks of the LHTL project.
2. NYSDOT and its consultants performed an audit of the corridor in November of 2014 to confirm bridge clearances and ensured there were no non-negotiable vertical constraints from bridges and overpasses.

76. Section 3.1 – Project Objectives – Is there a law when towing a double decker bus on the various routes?
Contractors should work with their towing and recovery subcontractors to stay within legal requirements if and when it may be necessary to move a disabled double decker vehicle.

77. Section 4.4.3.4 - Does this section apply to service vehicles described in Section 4.4.3.2, and to other service vehicles which may be required but have not been specified herein?
Section 4.4.3.4 only refers to vehicles for revenue service (See Revised RFP dated 8/22/2016).
78. Section 4.4.3.5 – Some federal regulations are applicable only if this is a federally financed project. Please clarify which regulations attach to this project.

The only federal requirements that would apply to non-federally funded transit projects are:
- Drug & Alcohol Testing 49 CFR Parts 40 and 382
- Americans with Disabilities Act (ADA)

The project is subject to State regulations in addition to the federal requirements listed above.

79. Section 4.4.4.1 – Notwithstanding the use of the phrasing including the singular “facility” in the first sentence, and given the use of “facilities” in the rest of this paragraph, may we assume that there will be no objection to providing the service from multiple facilities if we determine that this is the most efficient means of doing so?

There will be no objection to providing the service from multiple facilities.

80. Section 4.4.6.6 – The response time of 20 minutes from occurrence to accidents/incidents may not always be feasible due to traffic and a number of other scenarios. Would NYSDOT accept 45 minutes as an alternative?

45 minutes is acceptable considering the geographic expanse of the coverage area.

81. Section 4.4.16.9 – Does this requirement contemplate Contractor-provided automatic external defibrillators (AEDs)? If so, please define the quantities and locations at which they will be required.

There is no requirement to have AEDs on the vehicles.

82. Section 8.25.4.4 – We are concerned that buses built by an offshore manufacturer (even if assembled in the United States) may require OEM assistance at some point, which conceivably could violate the CONUS requirement. How should we address this issue?

The Contractor can request a waiver of the restriction against transmitting data outside of the Continental United States. A waiver for transmission of vehicle diagnostic data, unaccompanied by any other sensitive, personal, financial data which does not present a significant breach of Information Security, would likely be eligible for such a waiver.

83. Section 8.26 – These appears to be an Alexander Dennis Enviro 500 Spec. Can you confirm that this is the bus you are requesting for this project?

While the Alexander Dennis Enviro 500 would satisfy the requirements of this specification, it may not be the only vehicle that meets the requirements of this RFP. Some Alexander Dennis photos and diagrams were used as examples in the preparation of the vehicle technical specification for the sake of expeditiousness.
84. Section 8.26 – In one section the specifications reference a third axle but on page 239 the drawing provided only shows 2 axles. Can this be clarified?

This diagram was copied in from the APTA White Book and is an aid in illustration of approach, breakover and departure angles. It was assumed that vehicle manufacturers and proposers would find the drawing informative enough to understand the requirements.

85. Section 8.26 – There is no mention of alternative fuel vehicles in the specifications. Is NYSDOT making any funds available to add hybrid-electric or other alternative fuel powertrain options for this project?

Alternative fuel will be at the option of the respondent. It was not in the spec, nor is NYSDOT funding it. There are programs administered by NYSERDA that respondents may wish to pursue. NYSDOT is unsure if an alternative propulsion system design for this vehicle exists.

86. Section 8.26 – Is there anyone in the NYSDOT Maintenance Function or in the Audit Function that would be a resource for any additional questions regarding the vehicle maintenance program and/or reporting requirements for that program?

While it is unclear what is being requested of NYSDOT Fleet or Audit, NYSDOT will address specific questions regarding the CO314789 RFP before the extended Q&A deadline.

87. Section 8.26 – This is a detailed bus specification. We question whether this is either illegal or simply unwise. If the specification is designed to accommodate only one specific manufacturer, that might be considered uncompetitive and hence illegal. Indeed, specification apart, there appears from our research to be a single manufacturer capable of building to US requirements, and this in turn has created our concerns about sourcing.

At least two and possibly more manufacturers on the global market are capable of providing vehicles that will fulfill the needs of this RFP.

88. Section 8.26.9 – The dimensions indicate a maximum height. As many of the structures in the counties are of arch design, please indicate the maximum height at the eaves.

Clearance heights for the bridges and other structure crossing the roads along the routes have been confirmed. The bus drivers would be expected to travel only in lanes marked for the height of their vehicle, the same practice of all vehicles of this height.

89. Section 8.26.9 – We are concerned that this has been checked on all routes and plausible deviations. Will NYSDOT warrant that these dimensions will clear on any and all possible routes for the intended service?
Clearance heights for the bridges and other structure crossing the roads along the routes have been confirmed. The bus drivers would be expected to travel only in lanes marked for the height of their vehicle, the same practice of all vehicles of this height.

90. **Section 8.26.39.C - Vehicles require 2 exterior bicycle rack** Section 8.26.39.D requires accommodation for bikes in the interior of the bus. In actual operation, will customers with bikes be given a choice on bike stowage on-board the vehicles? Exterior bicycle racks are required on each vehicle. Interior bicycle accommodation is desired. Proposers are asked to describe their plan for interior bicycle accommodation (if any) as part of their proposal.

91. **Section 8.26.44 - What is the requirement for the number of seats in the bus?** There is one mention of the upper deck with 55 seats (page 307) but no mention of the number of lower deck seats required. Can you specify? The Technical Specification (Attachment 26) states in Section 44.E.2: ‘The vehicle manufacturer shall work with NYSDOT’s design consultant’s design team and seat manufacturer’s engineering team to design the most appropriate seating layout to accommodate the largest number of seated passengers while also accommodating efficient circulation for fully-abled passengers as well as those who have disabilities.

After close of the second Q&A round, NYSDOT will release an RFP modification which will read as follows: ‘The Contractor shall propose the most appropriate seating layout to accommodate the largest number of seated passengers while also accommodating efficient circulation for fully-abled passengers as well as those who have disabilities.’

92. **Section 8.26.47.H – We question why 110VAC charging is not provided.** This is common on Greyhound and Bolt Bus coaches, and is much-used and appreciated by customers. USB charging ports are required at each seating position. Proposer may choose to provide additional types of charging if they so choose.

93. **Section 8.26.47 (Paragraph 5) – Please define “automated fareboxes”.** See also comment on placement of NFC provisions. Automated fareboxes refers to fareboxes that automate the ticketing system – an automated version of manual fare collection. This does not refer to a specific brand or type of farebox that performs this function.

94. **Section 8.16 On Time Performance –** Has the performance standard taken account of delays accruing to passenger injuries using steps on the double deck vehicles, or even the extra time for passengers to use the stairways, as well as conflicts between ascending and descending passengers?
The performance standards have been set for the system based on industry standards and are expected to be achievable by the transit operator. Section 4.4.6.14 describes the corrective measures action for the contractor if assessed liquidated damages.

95. The double decker specification requires a non-American product be purchased. Does the State acknowledge that Buy American provisions do not exist for this contract? Correct, the Buy American provisions do not apply to this contract.

96. Please provide the State’s expectations for vehicle replacement within the 14-year base term as well as if the contract is extended to the additional 6 option years. Does NYDOT have an estimate of the useful life of the specified vehicle? Assuming it is less than 14 years would the proposer then have to provide the cost for a replacement fleet? Asset Amortization and Renewal Risk – the specified vehicle service life and the contract life do not match, and will clearly require fleet renewal with a potential two years (and a maximum of eight) in which to amortize the second group of vehicles. This simply makes the financial model unworkable.
Regardless of the term of the Contract, the vehicles should be replaced no later than the rated service life which is estimated at 12 years. It is the Contractor’s responsibility to maintain an acceptable fleet throughout the term of the Contract.

97. Please provide the State’s required spare ratio of the revenue fleet. The Contractor shall provide this in the Proposal.

98. Given the specifications for the vehicle that seem to be only able to be met by one out-of-state vehicle manufacturer, will approved equal vehicles be allowed/accepted, including vehicles with the same or greater seating capacity made in the State of New York? If so, how will these vehicles be evaluated or what is the method of receiving approvals prior to proposal submission.
At least two and possibly more manufacturers in the global market are capable of providing vehicles that will fulfill the needs of this RFP. Additionally, New York State manufacturer bias is not included in this contract. Proposers may request clarification on any aspect of this RFP.

99. If the Contractor deems that the schedules merit a smaller capacity vehicle at various points during the service due to lower capacity would NYSDOT entertain a mixed fleet option of larger double-decker transit buses and single deck coaches? The current set of routes specified in this RFP requires the Double Decker bus as the solution; if any changes to the routing/services is determined as part of downstream amendments to the contract, the recommendations regarding vehicle types made by the operator at that time will be taken into consideration.

13 Performance Standards/Liquidated Damages

100. Section 4.4.6.8 – Does a Force Majeure exception include bridge/lane/roadway closures, and severe (but not catastrophic) weather?
The second paragraph of Attachment 16 defines what would be considered force majeure. Incidents not specifically named here will be taken into account in NYSDOT’s quarterly review of system performance, should they occur and have an impact on service.

101. Section 8.16, On Time Performance - No performance measure is shown for delays in arrival at the final terminal. Is this intentional? The final terminal is included in the time points indicated in 1.1 and 1.2, and 1.5 notes that the bus should ‘arrive[s] at the final terminal not more than 5 minutes

102. Section 8.16, On Time Performance – It is required that “Dwell time at stops should be minimized so that the average boarding time is no greater than two (2) seconds per passenger”. Does this include door opening and closing time as well as activation of kneeling feature and waiting to depart until boarding customers are seated, or take into account wheelchair and semi-ambulatory passenger boarding and alighting?
Yes, this takes into account all of the activities mentioned above, as the measure is an average time across stops. The contractor’s operating plan should talk about how they are going to achieve this measure.

103. Section 8.16 – Is bus movement while passengers are on stairs between decks permitted?
Yes.

104. Section 8.16 On Time Performance – Will NYSDOT be providing all stations, shelters and stops with level boarding curbs? No, the proposed bus stop platforms will not feature level boarding curbs. The specified buses must be low-floor and equipped with wheelchair boarding ramps.

105. Section 8.16 On Time Performance - Paragraph 3 – It is indicated that On Time Performance Standards take into account acceptable service delays and incidents and accidents. While the realm of minor delays and accidents/incidents is understandable, please explain how severe incidents (such as crane collapses) are taken into account in development of the standards.
Severe incidents are covered under force majeure, as described in the second paragraph of Attachment 16.

106. Section 8.16 On Time Performance – Paragraph 3 – As a rule of traffic engineering, road traffic tends to increase by 2%-2.5% per year. Thus, over the contract period, road traffic may be expected to increase by 32%-40%. In addition, road traffic spikes on a cyclical basis based on seasonality, day of week, and special events. Please indicate how these variations and increases have been taken into account in performance standards and relief therefrom.
The Integrated Corridor Management strategy that will be undertaken in the corridor seeks to continually improve network performance through better situational awareness and response to incidents. Additionally, as written in section 4.4.6.11, ‘NYSDOT also reserves the right to review and modify these performance requirements and metrics as deemed necessary to facilitate continuous improvement of service.’ These reviews will ensure that performance standards are realistic as the years progress. (Revised RFP dated 8/22/2016)

107. Section 8.16 Other Requirements – Paragraph 1 – May we presume that “prior approval” will be given in the case of consistent, systemic, or fleetwide defects in the vehicles, determined not to be caused by the Contractor’s maintenance thereof?

Section 8.17.7 – We are concerned that some items which are specified in detail in the vehicle specification could conceivably cause a Contractor to violate the road call frequency standards. May we anticipate appropriate relief?

NYSDOT is leaving the choice of vehicle up to the Contractor. There is more than one vehicle on the global market that fits the requirements of this specification. It is the responsibility of the Contractor to insure that they choose the vehicle that has the best quality, reliability, durability and general track record to use for this service. While this contract is not subject to all of the FTA requirements it is in the proposer's best interest to use the purchasing diligence requirements of FTA regulations to help prevent the kinds of problems with components the proposer is describing. Further, the Contractor should protect itself by insuring that the vehicles are constructed properly and maintained in a state as close to perfect as reasonable and to report any systemic issues to NYSDOT as soon as they come up.

In Attachment 16: “Operating Performance Standards,” the second paragraph of the introduction discusses Force Majeure, which includes any events happening because of "any other cause beyond the Contractor's control." This paragraph describes the protections available to a Contractor from damages in events that are truly out of its control. If on the other hand, a systemic problem could have been prevented by the Contractor applying an adequate amount of due diligence in the choice, purchasing process and maintenance of the vehicles, then the penalty assessed by NYSDOT would be fair and proper.

108. Section 8.16 Other Requirements – Paragraph 4 – In regard to “failure to maintain, may we presume that relief will be given for failures of systems out of the Contractor’s control, such as TSP, WiFi, and the like? The RFP is firm regarding that all on-board systems provided by the selected Contractor across the fleet shall be operational and functioning as per system specifications at least 98% of the time, with the specifics of this aspect of the contract to be negotiated with the selected Contractor prior to contract execution (wherein any discussion regarding the granting of any relief will occur to NYSDOT’s satisfaction).
109. Section 8.18 Paragraph 1.7.4 – please define precisely the Base and Stretch Target percentages.

The base and stretch targets are at the discretion of NYSDOT and will be set before the launch of the service.

110. Section 8.24 – Some liquidated damages appear excessive and may well provoke challenges.

The liquidated damages in the RFP are based on precedent. (Revised RFP dated 8/22/2016)

111. Section 4.4.6.3 – We respectfully suggest quarterly review of schedules rather than annual; as impacts can occur frequently and should be handled appropriately. Review of schedules has changed from annually to quarterly.

112. Section 8.16 On Time Performance Paragraph 3 – Please confirm if the embedded allowances for routine service delays take into account seasonal/cyclical traffic fluctuations (Fridays before summer weekends, three day holiday weekends, heavy travel holidays such as Thanksgiving Wednesday and Sunday, etc.).

On-time performance will be a quarterly assessment performed by NYSDOT that will take an average of all time points recorded. This will help to even out seasonal/cyclical traffic fluctuations. NYSDOT will also consider mitigating circumstances in its assessment of liquidated damages. A quarterly On-Time Performance Report was added to the Revised RFP.

113. The liquidated damages provisions as written create a double jeopardy risk for the Contractor in that multiple damages can be assessed for the same incident. We request the State consider re-evaluating the performance requirements that precipitate Liquidated Damages. Some are duplicative, excessive or are based on unrealistic measurements. For example:

a. Underperforming routes, by definition, do not meet on-time performance standards. There is already a LD for on-time performance.

Underperforming routes is defined as any route that achieves less than 90% on-time performance for two consecutive months. The RFP details the actions that need to be taken by the Contractor to bring the underperforming routes into compliance. If the actions of the contractor are not successful then the liquidated damages for underperformance may be assessed. Section 4.4.6.14 describes the corrective measures action for the contractor if assessed liquidated damages.

b. On-time performance LDs are assessed on a per-stop basis. If a bus is late at one stop, and cannot skip a stop or face additional penalties, it is likely the bus will be late for the remainder of the stops and perhaps for multiple trips. There is no cap on penalties making for unlimited risk.

On-time performance will be a quarterly assessment performed by NYSDOT that will take an average of all time points recorded. NYSDOT will be setting time points for the routes – not all stops will be assessed as on-time performance time.
points. Section 4.4.6.14 describes the corrective measures action for the contractor if assessed liquidated damages.

114. On-time performance expectations are higher than the norm for bus transit in New York or for that matter any urban system and are more reflective of a rail service. Given the lack of grade separation, conflicts with other traffic etc., please re-evaluate this expectation by polling the on-time performance experience of TZ Express, MTA Bus and other similar providers in the area. On-time performance standards have been taken from the Transit Capacity and Quality of Service Manual (Revised RFP dated 8/22/2016)

115. Please re-evaluate the State’s dwell-time expectation of 2 seconds per passenger. Having operated double decker buses this dwell time is unachievable given the time to step into the vehicle, pay fare, and walk to the passenger seat (some of which are upstairs) safely, or board using a wheelchair or other assistive device. This standard has been removed from the RFP. (Revised RFP dated 8/22/2016)

116. What is the appeal process for Liquidated Damages? Section 4.4.6.14 describes the corrective measures action for the contractor if assessed liquidated damages.

14 Marketing/Advertising

117. Section 4.4.9.6 – Are advertisements permitted on the BRT service web site? Yes, web advertising can serve as a revenue source. As stated in Section 4.4.9.4, ‘All material to be disseminated to the public…must adhere to the MTA Advertising Standards (available at http://web.mta.info/mta/realestate/ad_tele.html) and be reviewed and approved by NYSDOT prior to use and dissemination. NYSDOT expressly reserves the right to disapprove any marketing material content for any reason, in NYSDOT’s sole discretion.’

118. Section 4.4.9.3. - If there are video and/or other electronic visual and/or audio media in the bus shelters, may they contain advertisements – whether or not the contractor derives any revenues therefrom? Absolutely no advertising will be allowed in bus shelters.

15 Transit Service Planning

119. Section 3.1 – Project Objectives: What alternatives are in place if a double decker bus route is diverted? What alternatives does NYSDOT have outlined if double decker buses are diverted or restricted from the Tappan Zee Bridge? What solutions are for events outside human control, such as sudden natural disasters, for which no one can be held responsible if there are road closures preventing vehicles from providing service.
Alternative routings will be developed and agreed with NYSDOT and the Contractor in accordance with the Integrated Corridor Management Decision Support System. In Attachment 16 of the RFP, there is a description of the Contractor’s responsibility regarding delays that are considered to be included under force majeure, including severe weather events and other disasters, natural or otherwise.

120. Section 4.4.10.1 – Do the stipulated connections with MNR trains take precedence over the headways mandated by Attachment 21?
At peak times (defined as when there are MORE than 4 trains per hour in the predominant direction at Metro-North stations), the 15-minute headways take precedence. In the off-peak (defined as when there are LESS than 4 trains per hour in the predominant direction at Metro-North stations), connections with scheduled trains take precedence.

121. Section 4.4.10.1 – Are the stipulated connections with MNR trains effective at Spring Valley with MNR Pascack Valley trains and at Suffern with MNR Port Jervis Line Trains and NJT Main and Bergen County Line Trains, as well as the Hudson and Harlem Lines east of the Hudson?
The priority train connections are the Metro-North stations in Tarrytown and White Plains. Passengers looking to connect to west-of-Hudson train lines are far more likely to use the less-expensive Transport of Rockland services to travel to these stations.

122. Section 4.4.10.1 – Please define those routes in Rockland County which are considered “major transit providers” to and from which connections should be maintained by LHTL Intercounty BRT.
The LHTL should provide seamless connectivity to as many complementary transit services as possible. However, given the quantity of transit providers in the LHTL region, synchronizing BRT schedules with all regional routes may not always be practical. As a guideline, the BRT operator shall adhere to the following hierarchy of transit service coordination when building schedules:
1. Metro-North
2. TOR
3. Bee-Line
4. NJ Transit
5. Other public or private bus providers (NYSDOT to verify with the selected Contractor).

123. Section 4.4.10.1 - Will NYSDOT ensure that the Contractor receives timely information about delays of feeder buses in Rockland County so that inter-county BRT bus departures could be delayed as little as possible, while still making connections (and liquidated damages be avoided)?
Currently, the feeder buses have no AVL equipment and do not feed any real-time information into the ICMS. As such, information on delays will not be available to the Contractor.

124. Section 8.19 Paragraph 3 – Please indicate which stops are near side and which are far side at each intersection and which intersections will have transit signal priority.

Based on current design, the following list provides near side and far side designations with its associated direction of travel.

**Eastbound route:**
- Stop 2: Airmont Rd at Rt 59: (traveling northbound) - far side
- Stop 5: Exit 14 Park & Ride: (traveling eastbound) - far side
- Stop 8: Central Nyack: (traveling eastbound) - far side
- Stop 9: Nyack (Art太平e Way): (traveling westbound) - near side
- Stop 10: South Nyack: (traveling eastbound) - near side
- Stop 11: Tarrytown/NY119: (traveling southbound) - mid-block
- Stop 13: Tarrytown/Broadway: (traveling southbound) - near side
- Stop 15: Westchester County Center: (traveling eastbound) - near side
- Stop 16: Main St: (traveling eastbound) - mid-block
- Stop 17: Galleria Mall at Main St: (traveling eastbound) - near side

**Westbound route:**
- Stop 2: Airmont Rd at Rt 59: (traveling westbound) - far side
- Stop 5: Exit 14 Park & Ride: off road, within Park & Ride
- Stop 8: Central Nyack: (traveling westbound) - near side
- Stop 9: Nyack (Art太平e Way): (traveling northbound) - near side
- Stop 10: South Nyack: (traveling westbound) - far side
- Stop 11: Tarrytown/NY119: (traveling northbound) - mid-block
- Stop 15: Westchester County Center: (traveling westbound) - far side
- Stop 16: Hamilton Ave: (traveling westbound) - mid-block

**One shelter for both eastbound and westbound routes:**
- Stop 1: Chestnut Street: (traveling eastbound) - near side
- Stop 3: Monsey Park & Ride: off road, within Park & Ride
- Stop 4: Spring Valley Transit Center: off road, within Transit Center
- Stop 6: Palisades Center Park & Ride: off road, within Park & Ride
- Stop 7: Macy’s: off road, within parking lot
- Stop 14: Tarrytown MNRR Station: off road, within Depot Plaza
- Stop 18: Martine Ave at Court St: (traveling westbound) - mid-block
- Stop 19: Main St at Broadway: (traveling eastbound) - near side

All signalized intersections along the proposed bus routes will be equipped with Transit Signal Priority.
125. Section 8.21.1 – Is the Transit Service Plan, beyond the material included in this section, a public document available to Proposers, or is this the entirety of the Plan?
Attachment 21 contains the guidelines by which the BRT operator shall build a detailed transit service plan. Precise schedules, routings, etc. will form a significant component of each proposer’s bid package and will be assessed by NYSDOT’s evaluation committee.

126. Section 8.21.1 – Under other bus connections in the second paragraph, is there any reason that Coach USA (Short Line, OWL, and Red & Tan/Rockland), Greyhound, Clarkstown Mini-Trans, Spring Valley Jitney, Monsey Trails, and Village of Kiryas Joel Transit are omitted?
Metro-North is the priority connection of the LHTL, and other services shall be considered where possible.

127. Section 8.21.3.2 – In describing the present transit network, is there any reason the carriers indicated in the above Question are omitted?
Please see the response to Question 126.

128. Section 8.21.3.2 – In light of the duration of the contract, it is likely that NJ Transit and Metro-North may be involved in passenger service restoration on the CSX West Shore route, which cuts through the corridor almost directly behind Palisades Center. Should a stop at a potential West Shore Service station be contemplated, or is the station at Palisades Center Parking Lot J being designed for this use?
Should passenger service be restored on the CSX West Shore route, effective transfers to and from the LHTL intercounty bus system will be considered by NYSDOT

129. Section 8.21.3.2 – In light of the duration of the contract, it is likely that the west of Hudson Metro North service may well have direct access to midtown Manhattan upon completion of the Amtrak Gateway and related projects; this is likely to reduce trips from Rockland to Metro North stations in Westchester (but may increase trips connecting to railheads at Spring Valley and Suffern). Please indicate if and how this should be taken into account.
The markets which NYSDOT intends to serve with the LHTL intercounty bus service are inter-Rockland and Westchester County trips and cross-Hudson services. Although the Gateway and related projects are important for the region, NYSDOT is not accounting for these in the service plan for this system.

130. Section 8.21.3.2 – Figure 2 - May we assume that this pie chart refers only to Eastbound boardings? Is it average weekday or just peak period?
The pie chart refers to eastbound boardings on an average weekday peak period.

131. Section 8.21.3.2 – Figure 3 – This map does not specify the proportion of riders using rail vs. bus (or auto) on Rockland – Manhattan trips either via New Jersey or via Westchester. May we have access to this information?


“Rockland-to-Manhattan work travel data from RHTS was segmented by mode to better understand how travel choice affects the total number of commuters.

**Bus (Private Coach) = 36%**
- 4,661 commuters

**Train = 28%**
- 450 commuters use TZx and transfer to Hudson or Harlem Lines.
- 532 commuters drive to Tarrytown and transfer to the Hudson Line.
- 108 commuters take the ferry from Haverstraw to Ossining and transfer to the Hudson Line.
- 1,060 commuters take the Main/Bergen or Pascack Valley Lines.
- 1,493 commuters drive to New Jersey and transfer to train or ferry.
- 3,643 total rail commuters

**Auto Only = 36%**
- 4,584 commuters”

132. Section 8.21.3.2 - Figure 4 - This circle map indicates 3,990 destinations in these Westchester locations from Rockland, whereas Figure 3 indicates 13,700 Rockland to Westchester trips. Are the remainder auto users versus transit, or are they other-than-circled destinations in Westchester, and if so, where?

Figure 4 indicates some clusters of work destinations around the LHTL corridor. The other trips not shown in this maps end at other parts of Westchester County. Detailed information can be obtained at the Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES), provided by U.S. Census Bureau at http://lehd.ces.census.gov/. The New NY Bridge Mass Transit Task Force Final Transit Recommendations, from February 2014, available at http://www.newnybridge.com/documents/2014-02-28-mttf-final-report.pdf, offers the following map:
Figure 24: Work Trip Destinations in Westchester County for Rockland Residents (Source: LEHD)

133. Section 8.21.3.2 – Figure 5 - The TZx Time Profile shows Eastbound boardings starting about 0345, whereas the first Eastbound trip departs Spring Valley at 0447. Is there a more accurate version available? For more accurate time profile data, please refer to the table below.
134. Section 8.21.3.2 – Figure 5 – In addition to questioning the accuracy of the data in Figure 5, we are concerned that the low usage of the line in off peak periods may be dependent on the availability and frequency of service provided, rather than being reflective of the latent market. The service plan put forward in this RFP accounts for this possibility.

135. Section 8.21.3.3. – Are there any further breakdowns of actual destinations of connecting passengers who would use the LHTL service for part of their journey? For instance, of those heading for Manhattan via MNR, how many are destined for midtown, lower Manhattan, or other New York City locales? Although there is no pre-packaged analysis at this level of detail, this information could be obtained from the Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES), provided by U.S. Census Bureau at http://lehd.ces.census.gov/.

136. Section 8.21.3.4 – We have noted that almost two thirds of passengers on TZx use one way cash fares or ten ride tickets. This indicates a cross-section of ridership who cannot or chose not to buy bulk transportation, possibly resulting from the socioeconomic characteristics of the market. As we suspect this is unlikely to
change in the near-to-middle-term future we question the wisdom of the investment in advance ticket sales outlets, TVMs, and a dependence on same to reduce dwell time. Are proposers permitted to generate potential solutions other than these?

There is a desire to connect to a regional fare system and so the use of onboard MetroCard fare collection machines readers (and MetroCard’s eventual replacement) are required (use of off board MetroCard technology is not required). However, as detailed in Section 4.4.12.3, the Contractor will be scored under the ‘creativity and innovation’ evaluation criteria for additional creative fare solutions. The reference to credit/debit cards for the off-board payment system that was removed in Modification #1 has been added back into the RFP language (Please see Changed to the RFP)

137. Section 8.21.3.4 - Regarding dwell time, extensive observation indicates that the spikes in fare collection-related dwells are both from first time or infrequent users, and those veteran or regular users who attempt to “negotiate” the fare in various ways, hoping they will delay others sufficiently that they will be admitted with partial or no payment. Routes with a high proportion of cash and one way tickets are especially subject to such delays, again making an investment in off-board ticketing of questionable worth. May we examine this aspect of the dwell time challenge with a view toward achieving the same goals in different ways? Please see the answer to Question 136.

138. Section 8.21.4.3 - Please define peak periods, based on specific times for each route at origination points.

Peak times have been added for all routes (Revised RFP dated 8/22/2016).

139. Section 8.21.4.4 – Service span is clearly vital, but the ability to meet specific travel criteria is even more important. The ability to return from a late work day, or a dinner, or a show in Manhattan, is critical (as is the ability to return home when a child is ill, or when the work day ends early), and are hallmarks of a good service. Some carriers use guaranteed ride home taxi service. Examining connecting schedules, such as Metro-North arrivals from Manhattan in the late evening, should define end-of-day trips, but at the same time, late trips can also have the effect of making riders uncomfortable if made to wait in areas considered unsafe. May we propose adjustments to the pattern schedules required to accommodate known market aspirations?

The service plan is as written and there are to be no changes to routes and frequencies as outlined in the RFP. Through the ongoing operation of service, the planning will evolve over time to serve market demands.

140. Section 8.21.4.5 – The second paragraph of this section deals largely with line haul operations between suburban stops. The area in the vicinity of White Plains and certain other urbanized areas can severely affect overall speeds and schedule
adherence (thus affecting commercial speed and viability). Have any potential counter-measures been implemented or are any contemplated?
Yes - Transit Signal Priority will be implemented along the route and transit priority lanes are proposed at select locations.

141. Section 8.21.4.6 – Is it permissible for the contractor to devise a service plan using express, limited, skip stop, zone express, or other services which do not stop at all locations on a given route (noting that an excess number of passenger stops would be a friction factor to potential travelers)?
Please see the answer to Question 139.

142. Section 8.21.5 – Under General Public engagement, may the Contractor establish a Customer Advisory Committee?
NYSDOT will determine at a later date if a Customer Advisory Committee is necessary.

143. Section 8.21.6 – Regarding signal upgrades (including transit signal priority) and ramp metering, has there been validation of running times with microscopic, stochastic simulation models such as Aimsun or VISSIM? Likewise, has there been forecasting schedule validation using actual buses?
Microscopic simulation models are being developed to evaluate the impact of transit priority signal plans and to define the operating parameters for ramp metering.

144. Section 8.21.7 – It would appear that the proposed service plan is a “major change” in service. As we understand it, this requires a number of studies related to Title VI of the Civil Rights Act. Insofar as there are elements of the service plan which clearly deteriorate quality of service to some markets (Example: Travel from Suffern to Westchester County will require a transfer where one does not currently exist, and there is a major diminution in scheduled service to and from Suffern,) does this change require a Title VI assessment and if so, is it the responsibility of the State or the Contractor?
Title VI assessments are the Contractor’s responsibility.

145. Section 8.21.7.2 and following – All connection charts omit several rail (and bus) connections available at various stops, which must be considered in building schedules.
See response to Question 122. Effort was made to portray the priority connections of the LHTL intercounty bus service in the connection diagrams.

146. Section 8.21.7.2 and following - Does NYSDOT warrant specified running times (since vehicle quantities, and hence costs, will be based on realistic running times)?
The NYSDOT does not warrant specified running times. Responsibility regarding the impact of the running times on cost estimates for the bid are sole responsibility of the bidder. The running times presented in the RFP are projections offered for indicative purposes.

147. Section 8.21.7.2 - Is the Dark Blue route to operate but a single peak hour trip in each direction on weekends, as seems to be indicated? The Dark Blue route’s weekend peak periods run from 6:00 a.m. to 8:30 a.m. and from 4:30 p.m. to 6:30 p.m., resulting in a total of two 2.5-hour long peak periods each. In association with a 60-minute headway, each peak period should have at least two trips in each direction, in each peak period. Therefore, the minimum number of weekend trips is 8, with 4 Suffern-bound and 4 Palisades Center-bound.

148. Section 8.21.7.3 – Notwithstanding the investment in faster service, we note that several of the peak running times indicated are a diminution of service quality over extant Tappan Zee Express schedules. For instance, the current service is advertised at between ten and thirteen minutes between Nanuet Park & Ride and Palisades Center Lot J Park & ride, whereas the running time indicated in this section shows 16 minutes. The overall Spring Valley to White Plains peak hour schedule at present is carded at 61 minutes, whereas the proposed running time in this section is shown as 73 minutes. May we please have clarification as to the method of generating the proposed times, and whether these have been tested under actual conditions (as they currently exist)? Running times presented at section 8.21.7.3 are only indicative, and were estimated based on historical data for peak-hour traffic speeds. These travel times were generated independently of current TZx schedule, and were not tested under actual conditions. Once operation starts, running times that can be reliably achieved should be used in building the final schedule.

149. Section 8.21.7.4 – If the Shared Use Path is important to serve on weekends, we respectfully suggest that a connecting rail line and/or a trunk bus line from Manhattan and/or North Jersey, on the west side of the Hudson, should be served instead of simply depending on connections via White Plains. Many hikers live in North Jersey. The weekend service runs from Lot J, which is a convenient access point from northern New Jersey.

150. Do routes run in both directions all the time? For example, for the routes with a span of service of 4:00am to midnight, do buses start at both ends at 4:00am, or does the first bus start in Rockland at 4:00am and the last bus leaves Westchester at midnight?
Buses in the off-peak direction can start their service with the first bus that completes the peak trip. Example: At the beginning of service at 4:00 a.m., only a peak trip, which would be eastbound, has to be scheduled. Only when the vehicle assigned to that trip arrives at the eastern terminal, and is ready to return to service, the morning service in the off-peak direction (westbound) starts. Hooking trips results in lower fleet requirements and overall system costs. The same consideration could be considered for the end of the span of service.

151. When the required minute frequency starts at 4:00am is that is both directions simultaneously or just in the eastbound direction as most of the riders will be heading into Westchester in the AM. Same question for all routes. This pertains to just the eastbound (peak) direction. Likewise, there is no need to offer a last eastbound (off-peak) direction bus at the end of the day (a midnight eastbound departure). Please consult the answer to question 150 for an example.

152. Need clarification on the routing in White Plains. Will the buses loop through White Plains with no layover or does the eastbound trip end at Court St. and then deadhead to Broadway and Main Street to start the westbound trip? This would require a layover time somewhere in White Plains. We recommend the eastbound trips end on EJ Conroy and the westbound trips start at Broadway & Main. Contractors should factor in layover time in White Plains. The current TappanZee Express service lays over on Main Street between Martin Luther King Jr Boulevard and Court Street, although any future layover locations will need to be agreed with the City of White Plains.

153. On the light gold route there is no exact span of service given? This was addressed in the Revised RFP issued on 8/22/2016.

154. Are buses going to be expedited on Route 87/287? ICM improvements on I-287 will improve travel conditions for all traffic by about 10% during peak times.

155. The current Tappan Zee express service has 22 trips across the bridge between Westchester before 9:00am. The new schedule with 3 routes crossing the bridge will have 26 trips arriving in Westchester between 6:00am and 9:00am (if there is a 3 hour peak period defined for each route). With the increase in capacity of the buses, and the additional trips. What will happen if the additional ridership does not materialize and service has to be reduced? Buses are being purchased and cost estimated based on a set of assumptions for the market that may or may not occur. NYSDOT will work with the operator to evaluate service levels and whether they need to be adjusted, but it is not envisioned that service levels will be reduced from those required in the Transit Service Plan.
156. Route descriptions are not street specific. (i.e. could use Route 59 or 287). Should be assume the fastest route using the highway (287) when possible? NYSDOT has identified new stations and associated amenities, as well as local area improvements at fixed stop locations detailed in the RFP. However, it is up to the operator to determine how best to navigate between these stops, using routes that may vary throughout the day according to traffic variations on the roadway network. While I-287 is nearly always the fastest route between stops, parallel Routes 59 and 119 may offer better alternatives at certain hours of the day or when certain incidents (identified by the ICM system) affect traffic flow on I-287.

16 Staffing

157. Section 5.1.8 - May some of the positions such as Training and Safety Director be satisfied by collateral responsibility for someone already on contractor’s staff or are they expected to be dedicated employees to this project? If an existing staff member is available and able to dedicate the resources the various key personnel positions require, the proposer is welcome to include them in the staffing plan. In the evaluation of this aspect of the proposal, NYSDOT will evaluate in regards to the amount of effort that will be expended and the quality and qualifications of the nominees for these key positions.

158. Section 8.17.1.2.14.A – Is there an exception to the requirement that all maintenance personnel must be employees of the Contractor for vendor and subcontractor employees involved with maintenance? There is no requirement in the RFP that maintenance personnel must be hired employees of the Proposer.

159. Section 8.17.1.5 – Do “Mechanic” requirements include vendors and subcontractors? All legal and contract requirements regarding maintenance personnel qualifications, training, substance abuse testing and regulation, as well as any other similar legal requirements flow down to the subcontractor(s). This is standard industry practice and reflects requirements of local, state and federal laws, rules and regulations.

160. Section 8.17.1.5.2C - Can apprentices involved in an apprenticeship program be approved to work on this fleet provided they have proposer supervision? All staff working under this contract must meet or exceed the required qualifications for their title.

161. Section 8.17.1.5.3J&K - Does NYSDOT supercede Federal ADA regulations as they pertain to vision and hearing accommodations?
No.

162. Section 8.17.3.1, 3.2, 3.3 – Can towing be handled by sub-contractors?
Yes.

163. Section 8.17.3.1, 3.2, 3.3 - Can warranty repairs be completed on or off Contractor’s property?
Yes.

164. Section 8.17.3.5 – May tire provision and maintenance be by specialist third parties under contract to Contractor?
Yes.

165. Section 8.17.8.1(i) – Most employee changing rooms are not equipped with showers. Is this a NYSDOT requirement that must be met?
No, but NYSDOT is considering to modify RFP regarding this requirement.

166. The operational start date for a number of key positions in this project will be over a year from the date of proposal submittal. Commitments from potential managers one to two years in advance of a project start is problematic and may deny NY DOT good talent that becomes available closer to the start of a potential hire date.
There are provisions in the RFP for proposing and changing of staff:

a. We request NY DOT eliminate the liquidated damages associated with a change in key personnel.
Proposers are evaluated and scored on the key personnel presented in the proposal. The Department expects that those personnel or personnel with equivalent or greater experience will work on the contract. There are provisions in the contract to allow for a Request for Change of personnel. Also there are liquidated damages that may be assessed if the Contractor does not submit a Request for Change or is unable to get approval for changes in key personnel within the stated time frame in the RFP (Please see Revised RFP dated 8/22/2016).

b. We request NY DOT reduce the number of key positions to be named in the proposal to just the General Manager.
The key personnel roles have been identified for major components of project delivery and will not be changed.

17 Contract Questions

167. Section 3.2 – NYSDOT “reserves the right to adjust the service at any time”, what compensation mechanisms will be in the contract to provide some comfort to the Contractor in a scenario where service is materially reduced especially in the initial years. The RFP requires a significant long term capital investment in buses
and facility infrastructure that may not otherwise by used elsewhere and this the Contractor per the RFP could face significant exposure if NYSDOT decided to reduce or worse eliminate service for reasons not related to Contractor service levels?

NYSDOT may consider an increase in the overall payment rate based on lowering the service level below a certain threshold should NYSDOT order a marked reduction in service. NYSDOT may also consider adjusting the overall payment rate should it order a marked increase in service. Either would lead to amending the contract.

168. Section 4.2.8 – Can NYSDOT provide clarity over the process that would determine the fair market value of the vehicles? Generally in prior contracts the value of the fleet at various end of month dates prior to contract inception to avoid any confusion/disagreement during the contract term. Straight-Line Depreciation.

169. Section 4.2.10 – What notice period will NYSDOT provide to the Contractor before implementing new fares?

It is up to the selected Contractor to recommend changes in fares as the selected Contractor is responsible to keep the fares. In a situation where NYSDOT makes the call to change fares, NYSDOT will provide the selected Contractor with 60 day notice, to give time for the Operator to file tariff and put out notices before 30 day notice period.

170. Section 4.3.1 – Generally on what basis would NYSDOT reject the replacement of Key Personnel?

The minimum qualifications for each Key Personnel title are defined in the RFP. Key Personnel not meeting those requirements may be rejected by NYSDOT.

171. Section 4.3.1 – Who are defined as “Key Personnel”?

Section 5.1.8 details the Key Personnel.

172. Section 5.2.1.3 – By its very nature, Emergency Work cannot be forecast as to frequency, severity, cause, or cost. What assumptions should be made?

The Proposer should be knowledgeable of emergencies that may arise in the performance of the work referenced in the RFP and should plan their costs accordingly.

173. Section 6.1.3.3C – Does the reference to “Schedule” indicate the operating bus transit schedule, or the project schedule?

This refers to the project schedule (Please see Revised RFP dated 8/22/2016).
174. Section 6.1.5.2 C - Will offerors be provided the committee’s questions in advance of the interview?
NYSDOT reserve the right to provide bidders with clarification questions either before, during or after the interview, and assures all bidders of receiving fair and equitable treatment during each of the proposal evaluation steps.

175. Section 7.4 - Please specify any required methodology or format for monthly invoices.
Section 7.4 paragraph 4 includes a link for instructions on submitting monthly invoices.

176. Section 7.4 - Please indicate maximum payment cycle time for uncontested invoices.
Please refer to the Draft Contract, Attachment 1 for payment terms and conditions.

177. Section 7.4 - Please define progress payments, and circumstances under which they are envisaged.
Please refer to the Draft Contract, Attachment 1 for payment terms and conditions.

178. Section 3.5 – We do not believe that the Intercity Bus Fare index is now published.
The Consumer Price Index for Intercity Bus Fare has been changed from Series ID CUUR0000SS53021 to CUUR0100SASR4, Northeast Urban, Transportation Services (Please see Revised RFP dated 8/22/2016).

179. Section 3.5 - Regarding the stipulated Intercity Bus Fare Index (and assuming its resumption in the future), this could easily be a negative or flat index, given the preponderance of severe price competition in this industry segment. If this transpires, how will the optional years agreement be calculated?
NYSDOT would treat a flat or zero index as no change in the rates established in the contract.

180. Section 4.4.12.7 – While making passive provisions for an anticipated MTA New Fare Payment System is not unreasonable and can be anticipated, both making detailed provisions for this change, and costing it at this point, are not reasonably possible, given the level of detail now made public by MTA. Therefore, we respectfully suggest that this conversion be the subject of a future and separately priced change order to this contract. What is the project cost of transferring from the current MetroCard system to the new one?
NYSDOT will seek a supplemental agreement to the contract to add the scope of services and costs associated with the transition to MTA New Fare Payment System.

181. Section 8.1, Article 4 – Does “Consultant” mean “Contractor”? If so, the language on page 72 states “the AGREEMENT shall be for 5 years…” What does this paragraph refer to?
Yes, Consultant and Contractor are the same. The 5 years is a mistype. The term of the contract has been changed to 20 years with no authorized extensions.

182. Section 8.1, Article 6 – This section refers to a Payment Schedule in Attachment 24. We could not find one in Attachment 24. Where is it located?
This should refer to Attachment 13 (Please see Revised RFP dated 8/22/2016).

183. Section 8.1, Article 12.B.3 – Is the reference to “field work” only applicable to construction projects, or are bus operations considered “field work”?
Section 8.1, Article 12.B.3 is not applicable to this project and has been removed.

184. Section 8.1, Article 12 – Is the NYSDOT insurance requirement inclusive of additional exposure accruing to personal injuries due to passenger use of stairways on double deck vehicles?
Yes, the Contractor must have the required insurance coverage for all injuries, including those predicated on “slip and falls” connected to stairways within vehicles.

185. Section 8.1, Article 15 – Considering that the NNYB is a major project, and that other local major projects (East Side Access, 2nd Avenue Subway) have been delayed not by years but by decades, the possibility that such delays, or subsequent closures of any part of the route may impact asset lives. Would this be considered a Force Majeure situation?
The New New York Bridge is on schedule to open in April 2018, well before the launching of the transit system in October 2018.

186. Section 8.1, Appendix B – Does the requirement for use of US Flag Vessels apply if there are no federal funds in the acquisition of foreign goods, such as buses and components thereof?
This is a state funded project so Appendix B does not apply.

187. Section 8.7 - Please indicate if consideration toward general diversity goals may be granted if the proposer will utilize collective bargaining agreements with labor organizations providing substantial and defined diversity in the work force, with a specified percentage of the contract spent on such diverse workforce.
The proposer/contractor is required to meet or make good faith efforts reach the M/WBE/SDVOB goals in the RFP. If the proposer cannot meet the M/WBE/SDVOB goals they are required to complete attachments 7a and 8a as well as the Goal Attainment Explanation Letter. M/WBE and SDVOB firms must be certified by the Empire State Development or OGS, respectively.

188. Section 8.20 Paragraph 1 – Does the term “Due Within XX Days of Startup” refer to NTP or to commencement of revenue operations? Within XX days of the NTP.

189. Will Federal Transit Administration funding be used at any time for the duration of this contract for the operation of this service? If so, will the compensation under this contract be modified as necessary to accommodate additional regulations that will impact cost? This contract is 100% state funded.

190. 4.4.15.8 Contract Transition requires the incumbent Contractor to train the successor Contractor. It is typically the in-coming contractor’s responsibility to handle training for its own personnel. Specifically, what type of training will the incumbent be responsible for providing? The incumbent operator would not be expected to "train" the new operator but more accurately "orient" the new operating company as to how operations have been running under the incumbent operator's contract. The incumbent contractor will have developed policies and procedures, as well as route structures and run cuts under their contract to NYSDOT, and all of these pieces of information should be conveyed from the incumbent contractor to a new contractor at turnover time. If vehicles or facilities are also to be transferred between operators, there should also be a complete transfer of service records, maintenance policies and procedures, etc.

191. The Notes in Attachment 14 Cost Attachment 6-27-16 states that “Pricing submitted shall be for the initial 12-year contract term.” Please clarify whether the initial base term is 14 years or 12 years. The base term of contract #C031487 is 20 years (Please see Revised RFP dated 8/22/2016).

192. Please clarify how operating revenues are to be utilized after collection. Will they be considered a credit against invoices for the month in which they are collected? Section 4.4.12.1 states that the Contractor shall collect and retain all operating revenue raised from the operation of the BRT service. The anticipated revenue collection should be used to generate the composite revenue mile monthly billing rate in the contractor’s bid.

193. Section 8, Article 5, Item 1 – Is the amount a minimum State will be required to be paid to the Contractor? Or is it a cap on the amount and State can reduce what
was initially proposed in the RFP? If so, the Contractor may have incurred costs to meet the requirements of the Contract and how will that be reconciled? The value in Article 8, Item 1 of the contract will be the total value of the proposer’s bid. This is the maximum amount payable under the contract unless a supplemental agreement is executed for additional scope and/or costs and approved by the Department, the Attorney General’s Office and the Office of the State Comptroller.

194. Section 8, Article 8 states that the Contractor will be paid in monthly progress payments. What is the time period between submission of invoices and payment? Net 30 days? NYS Finance Law requires that payments be made within 30 days of receipt of invoice after which the payment may be eligible for interest.

195. Section 8, Article 10a – Will the Contractor be able to provide a proposal amount of cost required to perform the work for the State to consider and approve before such supplemental agreement is entered and amount be mutually agreed upon? Yes.

196. Section 8, Article 10a – Will the State be prohibited from directing such work in this section herein until such supplemental agreement is entered? The RFP states at Section 3.6 that all rates for extension of service will be mutually agreed between the parties. This provision appears to conflict with the RFP. If NYSDOT pursues an extension of service the contractor and NYSDOT will negotiate agreed upon rates for a supplemental agreement. The contractor should not perform any work associated with that supplemental agreement until it is approved by the NYSDOT, the Attorney General’s Office and the Office of the State Comptroller.

197. Section 8, Article 11 – The intent of the section is to ensure indemnification by the Contractor to the State. Since payment for services is separate from an indemnification request, can the sentence starting with “The State may retain such monies…” through the second to last sentence of the first paragraph be deleted? Or can we elect a process for the parties to discuss an issue of indemnification in good faith? Also note that it is likely that any payment of indemnification amounts will be paid by and through the Contractor’s insurance and should therefore not be withheld from payment.

No changes to the terms of Section 8, Article 11 will be considered.

198. Section 8, Article 12 A(3)(a) – The requirement to supply ACORD 855 (Construction) form should be deleted as inapplicable.

No changes to Section 8, Article 12 A(3)(a) will be considered. The section provides the discretion for the Department to specify what form will be satisfactory to the Department, thus Contractors may request use of an alternate means of proof of coverage in lieu of the ACCORD 855 (Construction) form.
199. Section 8, Article 12(B)(3), Special Protective and Highway Liability Policy; (7) Professional Liability/Errors and Omissions; (8) Railroad Protective Liability Insurance; and (9) Marine Protection & Indemnity should be deleted as inapplicable.

Section 8, Article 12(B)(3), Special Protective and Highway Liability Policy; (7) Professional Liability/Errors and Omissions; (8) Railroad Protective Liability Insurance; and (9) Marine Protection & Indemnity are not applicable to this project and have been removed.

200. Section 8, Article 14 – There are records that the Contractor maintain as originals per Federal and State regulations. Will the State accept copies of the same? Where Contractor provides documentation of the any applicable federal and state regulation require maintenance of original records by the Contractor, the Department will except copies in lieu of originals.

201. Section 8, Article 15 – Depending on the delay or hindrance, this may trigger certain issues that may also delay or hinder the Contractor from performing the work. Additionally, costs may increase or be incurred on the delay and hindrance. If the state is unwilling to compensate such costs, will the Contractor be able to provide notice that it must terminate that portion of the work to reduce its exposure or consider equitable compensation?

No, the Contractor is not granted discretion to terminate or modify any portion of work. The Department, in its sole discretion, may consider extensions of time to allow for the work to be completed.

202. Section 8, Article 17(a)(b)(c) – what is the notice period by the State for a termination for convenience, termination for unsatisfactory performance, and termination for certification filed that is intentionally false or incomplete?

Section 8, Article 17(a) – For termination for convenience, can the Contractor provide notice with an applicable period? Section 8, Article 17(b) – What is defined as unsatisfactory performance and can there by a cure period or agreement to cure?

Section 8, Article 17 Termination of the RFP’s draft contract has been amended.

203. Section 8, Article 17(a)(b)(c) – Do not provide a mechanism for the Contractor to recover for vehicles and other equipment purchased which is required to be recovered over the life of the Contract. How are these costs to be recovered by the Contractor is the Contract is terminated?

The Contractor bears the risks of loss for all terminations.

204. Section 8, Article 17 – Can the Contractar terminate the Contract for non-payment or cease performance of the Contract if non-payment continues for a mutually agreed time period?

No, the Contractor does not have any additional rights to terminate for non-payment or late payment beyond those provided under applicable New York State statutes and case law. Payment obligations of the State are subject to Section 41
205. Section 8 – As the Consultant is an entity, can it be confirmed that his Article relating to death or disability of Contractor is not applicable? Section 8, Article 18 would not be applicable to publicly traded firms or entities whereby the death or disability of small number of individuals would not impact the entities ability to perform the contract to the required standards or impact the ability of the entity to remain a going concern.

206. Section 8, Article 28(d)(e) – Can this be further clarified to ensure it is understood that it is only the Contractor and its subcontractors that participate in the services? It may be the intent of the article, but the question is what is considered any legal entity associated with the Contract? Can that mean the parent company, or affiliates even though they are not performing work and are not in privity of Contract?
For purposes of Section 8, Article 27(d) and (e), the word “associated” means any legal entities that join together to undertake the contract, as in partnerships and joint ventures, but does not mean affiliates and parent companies, provided such affiliates and parent companies do not have a role in contract performance, and whose qualifications are not submitted as part of the Consultant’s Technical qualifications.

207. Section 8, Article 29 – Can confidentiality of information be mutual? Can either party disclose information by court order or subpoena or requires such disclosure which other party can be notified and receiving party cooperate with the disclosing party to limit such disclosure?
No, the information in the system is owned entirely by the State of New York. As such, all releases must be approved by the State of New York who will make the determination as to the appropriateness and legality and limitations of any request for its release. Any information related to the contract itself and the business arrangements, proposal, etc. would be subject to the Freedom of Information Law (FOIL), and NYSDOT would make the determination as to the appropriateness of its release. Note the exceptions for information related to trade secrets is a very narrow exception under FOIL.

208. Section 8, Article 32 – Can the Contractor have a cc notice to its general counsel? It is the responsibility of the Contractor’s contact person to forward any notices to the appropriate party.

209. Section 8, Appendix A, Section 6 – Will it be confirmed that there are certain employees excluded from overtime pay under the Motor Carrier Exemption if there is interstate services as part of this Agreement? There is no interstate travel planned in this RFP.
18 Contract Pricing

210. Section 3.5 – Please confirm if the rate adjustment based on CPI-U for the option years is to be based on a CPI-U going back to contract start at 2017, or if it is to commence afresh at option start in January 2031?

The rate adjustment will be applied to the rates will be adjusted annually effective on January 1, 2018, at the request of the contractor, and calculated using the previous September’s Index.

211. Section 6.1.4.1 of the RFP references a cost per revenue hour for operations. Attachment 14 requests costs on a per revenue mile basis. Please clarify the method of pricing.

Section 6 of the RFP has been completely revised. Revised Section 6.4 states that: ‘Cost scores shall be calculated using the following method: The cost proposal with the lowest Composite Per Revenue Mile Monthly Billing Rate (based on 132,251 total revenue miles) shall receive a perfected cost score of 30 points. Proposals with higher total Composite Per Revenue Mile Monthly Billing Rate shall receive proportionately lower cost proposal scores.’

212. Please indicate whether the per mile rate be invoiced and paid monthly.

Article 7 and Article 8 of the Draft Contract stipulates monthly payments to contractors.

213. Section 3.5, Contract Term and Rate Adjustments states that the contract be extended by the 6 year option term, “the Consumer Price Index – All Urban Consumers (CPI - U), as published by the U.S. Department of Labor, Bureau of Labor Statistics, will be used as a basis for adjusting the hourly rates/lump sum deliverable amounts, subject however to a maximum allowable annual increase cap of 3.0%.”

a. Please clarify that this means price adjustments based upon the CPI will be made for each of the six option years.

Please see the response to Question 210 and the Revised RFP dated 8/22/2016.

b. Please clarify the price basis on which the CPI is applied. In other words, under the “one price” averaging method proposed in the RFP, there is no final base year (Year 14) price on which to apply the CPI.

Please see the response to Question 210 and the Revised RFP dated 8/22/2016.

214. In order to ensure consistency in pricing between vendors, please provide the number of anticipated annual revenue hours and annual revenue miles for pricing purposes. Allowing proposer to develop their own might lead to an aggressive proposer assuming a much higher MPH rate than is realistic, resulting in more miles and a lower cost per mile. This puts public safety, as well as the State at risk for poor performance quality, service disruption and higher costs in the future.
The RFP specifies 132,251 total revenue miles per month. The estimated ranges (indicative numbers only) are as follows:

- Annual service distance is approximately 1,580,000 miles
- Annual service time is between 87,000 and 89,000 hours.

The RFP does not mandate specific schedules. It is up to the Contractor to develop their own detailed service schedule to meet service requirements as outlined in the RFP.

215. Considering the substantial capital investment, when can the successful proposer anticipate the payment of lump sum(s) for tasks 4.4.1, 4.4.2 and 4.4.3? In installments or only at the end of the transition period? At completion and NYSDOT approval of all deliverables for each task. (i.e., the contractor can submit and invoice for their bid price for 4.4.1 once the Final Project Management Plan is delivered and approved by NYSDOT).

216. A single flat rate which is unchanged for the entire base period has never been used in a U.S. or European transportation contract. Since union contracts, health insurance costs, fuel and other operating costs increase annually, the State is not only asking the proposer to estimate costs over a 14-year period, but also average those costs into a single rate resulting in contractor profit windfalls in the early years and devastating deficits in later years. With GAAP accounting principles making it illegal to accrue profits in one year for use in future years, the contractor will be obligated to book these profits and losses in the year they were earned. This will have a devastating impact on the success of this project in a number of ways.

First, in order not to lose money the proposer will have to build its rate based on Year 14 costs and profits and charge that rate in Year 1 rather than an average of the 14 years. This is the only way a Contractor can show a profit in years seven through fourteen of the project. This results in New York taxpayers paying millions in excess profits over the life of the project.

Second, if the above method is not used, the contractor will experience huge losses in the latter years of the contract which could force the project into bankruptcy or force strict cost controls including labor wage and benefit reductions and the resulting deterioration in morale, service reliability and safety that comes from such a draconian management approach. No responsible contractor would bid a project this way forcing the proposer to use the preceding method above to price this contract.

Please see the response to Question 210 and Revised RFP dated 8/22/2016.

217. As long as a proposer meets the requirements of the RFP, will the NYSDOT also consider cost saving proposals not specifically called for in the RFP? Yes, as long as the proposer meets all requirements in the RFP, they are allowed to propose cost-savings proposals.

218. As described in the pre-proposal meeting, the services described in this RFP solicitation are only a portion of the total service envisioned by the BRT Study.
Assuming a single fixed cost per mile pricing must remain unchanged for 14-years, how will additional service be added (requiring additional capital, staff, etc.)?
Please see Revised RFP dated 8/22/2016.

219. In addition, both State and Federal employment laws, taxes, healthcare laws & premiums, fuel, etc. will likely change during the initial 14-year terms in ways that cannot be conceived or budgeted by the contractor. We request additional costs caused by changes in laws or regulations beyond the contractor’s control be accommodated.
See question 210 above.

220. Because of the significant role of technology in this project and the rapid and accelerating pace of technology development, the Contractor must expect that new technologies, substitute technologies, and technology upgrades will occur several times during the first 14 years. Since there is no way of knowing the costs of supporting and maintaining those technologies, the Contractor requests that equitable adjustment be permitted in the future.
See question 210 above.

221. We request a clause that allows the contract to be re-opened after each 5-year period (or other predetermined period) in which the contractor can request and justify an adjustment in its cost based on changes in technology or law impacting the cost basis of the original assumptions.
See question 210 above.

222. Storage facility pricing means the full service bus garage including parking?
Yes.

19 Proposal Evaluation Process

223. In awarding points for low cost, will a standard number of units be used to level the comparison? In other words, if a proposer has a 5% lower per mile rate, but 10% more miles, would that proposer be considered the lower or the higher cost proposer?
The proposer is not bidding miles, just a fixed Composite Per Revenue Mile Monthly Billing Rate (132,251 total revenue miles).

224. Please describe the procurement process after proposals are received. Will DOT shortlist proposers? Negotiate with more than one proposer? Ask for Best and Final Offers?
The evaluation process has been revised and detailed in the RFP Section 6 Proposals Evaluation, including establishing an initial best value shortlist, an optional best and final offer feature, and negotiating with the one vendor offering the state the best value.

225. Section 6.1.1.8 – Please confirm how State Finance Law 163(10)(a) works?
Per SFL Section 163(10)(a): “In the event two offers are found to be substantially equivalent, price shall be the basis for determining the award recipient or, when price and other factors are found to be substantially equivalent, the determination of the commissioner or agency head to award a contract to one or more of such bidders shall be final.” The RFP’s revised Section 6 Proposal Evaluation Process provides additional information.

20 General RFP Clarification Questions and Comments

226. Section 2.1 – This section, and verbal commentary at the mandatory pre-bid meeting, indicates a WBE/MBE percentage requirement of 23%, whereas Section 6.1.2.2 indicates a requirement of 3%. Please clarify.
   a. The combined M/WBE utilization goal has been set at 23%. Proposers must complete Attachment 7, M/WBE Participation Information. Proposers not able to meet the set goal must provide an acceptable Attachment 7a M/WBE Subcontractor Solicitation Log and a Goal Attainment Letter. Upon execution of the Contract the Contractor may request an M/WBE waiver.
   b. Is the goal meant to be achieved in each year of the contract or over the term of the contract (base + options)?
      The combined 23% MWBE goal is based on the proposed percent MBE and WBE utilization of total cost of the contract for the entire 20 year term of the contract.
   c. Are only state certified M/WBE’s the only suppliers who can be considered or may locally certified suppliers be used to meet the goals?
      Only New York State certified M/WBE firms qualify.

227. Section 4.4.16.3 – PTSB is not in the Acronym Glossary – does this refer to the NYS Public Transportation Safety Board?
   Section 4.4.6.7 spells out Public Transportation Safety Board with a link to NYSDOT PTSB requirements.

228. Section 3.3 - TSP is defined as Transit Service Plan. The same abbreviation is used later in the RFP to mean Transit Signal Priority. “TSP” should refer to “Transit Signal Priority.” NYSDOT will update the glossary accordingly.

229. Section 4.4.16.11 - 4.4.16.14 – Does “Safety Board” and “NYSDOT Safety Board” mean the NYS Public Transportation Safety Board (PTSB) and not the U.S. National Transportation Safety Board (NTSB)?
   Both the “Safety Board” and the “NYSDOT Safety Board” are referring to the NYS Public Transportation Safety Board (PTSB).

230. What are the State policies for Procurement? Can these be provided?
Overall, NYSDOT is required to comply with State Finance Law Section 163 as well as NYS Economic Development Law and other applicable state laws for all procurements.

231. Section 5.1.6 - Are the plans referenced in this section to be done by all offerors or just the winning Contractor.
   Part I, Technical and Management Proposal shall include all sections listed in 5.1 from Section 5.1.1 Cover letter and Title Page through 5.1.10 Diversity Practices Questionnaire.

232. Section 8.1, Appendix B, last page - Was this page intentionally left blank?
   Yes.

233. Section 8.21.8 – The words “proscribed tariff process” should read “prescribed tariff process”, as proscribed means forbidden.
   Please see Revised RFP dated 8/22/2016.

234. Section 8.24 (last page) – Was this page intentionally left blank?
   Yes.

235. Section 8.25 – Please define Authorized User
   Authorized User for purposes of Section 8.25 shall mean the State of New York, acting by and through the Department of Transportation.

236. Section 8.25.14 – This section indicates “need to change this language to reflect FOIL”. Has this been changed?
   Article 14 has been revised to clarify that in must be read in concert with Article 29.

237. Section 8.26.47.B.1 – The word “sings” should be “signs”
   Please see Revised RFP dated 8/22/2016.

238. Section 8.22.4.8.F – We respectfully suggest changing the word “repair” to “arrange for repairs of”.
   Please see Revised RFP dated 8/22/2016.

239. Section 8.22.4.9 – We respectfully request changing the words “will set up” to “will staff”
   Please see Revised RFP dated 8/22/2016.

240. Please provide the list of attendees at the mandatory pre-proposal meeting.
   The list of parties who attended the mandatory pre-proposal meeting was released in the announcement dated 8/22/2016.
241. Please provide written assurance that the routes developed by the State can be safely operated by a double decker vehicle. If there is a report or other documentation evidencing this review, please provide it in response to this question. NYSDOT and its consultants performed an audit of the corridor in November of 2014 to confirm bridge clearances and ensure there were no non-negotiable vertical constraints from bridges and overpasses. A more thorough audit of the route will be conducted alongside the Contractor to identify low-hanging power lines, trees, and other remediable obstructions to service.

242. Will the Contractor be exempt from paying any tolls that may be levied along the route? If not, what is the location and cost of each toll? Tolls will be waived.

243. During the mandatory pre-proposal meeting, there was a discussion of the State strictly enforcing proposal page limits. We did not find a reference to page limits in the RFP. Please confirm that there are no proposal page limits in this RFP. NYSDOT is confirming that while it prefers concise and efficiently worded proposals, there are no page limits, give the size of the RFP and the subject matter in hand. In addition, NYSDOT is expressing a preference for proposals which provide additional details whereby doing so allows NYSDOT to develop a deeper and more clearer understanding of how that portion of the reply is responsive to the RFP.

21 Suggestions for Follow-Up

244. Section 3.5 – We respectfully suggest that the essence of what should come through from each proposer is evidence of its capability in operating a service like the LHTL. Requiring forecasting of labor cost, fuel cost, and other imponderables, is asking for both a stronger knowledge of academic economics and forecasting (and having a better crystal ball) than it is of how to manage a transportation operation, and consistently please (and attract) customers. To better balance and satisfy the needs of NYSDOT, we respectfully suggest that all proposers be required to forecast the duration of contract costs using a standard price index, specified by NYSDOT. In this way, the critical essence of all bids is more easily evaluated, and the possibility of a winner-take-all or loser-bet-the company is eliminated. The former situation will enrich shareholders at taxpayer expense, and the latter will require severe disruption to the State, the passengers, and will cost a rebid. This has happened in the UK several times in which major multi-national companies underbid on rail passenger franchises, and either went belly-up, or simply walked away from the contract. Either way, it cost the government and the customers dearly. Please see Question #210 and Revised RFP dated 8/22/2016.

245. Section 4.4.2.1.C – We respectfully suggest that the RFP should allow for and encourage meetings at the facilities of the Contractor, as we believe that there is
real value to this project, and others, if NYSDOT staff and others involved become more familiar with transit operations being conducted from such facilities.

Section 4.2.9 states that NYSDOT reserves the right to inspect the Proposer’s facilities and/or other transit systems where the Proposer has supplied the same or similar services.

246. Section 8.13 – An additional milestone is respectfully suggested – “Completion of Schedule and Running Time Calibration and Verification”

NYSDOT has revised the RFP’s Liquidated Damages & Incentives Schedule to allow for this milestone.

247. Section 8.16, On Time Performance - It is stated that a bus is not on-time if it “Arrives at intermediate time points not more than one minute early”. This criterion is difficult to accomplish in practice, and compliance could cause traffic delays or even hazards. As long as departure is not early, we see no problem here, and we respectfully suggest omission of this part of the standard. This has been removed from the Revised RFP dated 8/22/2016.

248. Section 8.16, On Time Performance – While unintentional missing of stops is a valid penalty item, dispatcher-instructed missing of stops (expressing) is a key methodology in restoring headways and ultimately, timely performance, when delays arise. We respectfully suggest that such directed express operation should not be penalized, particularly when the precipitating delays are caused by factors beyond the Contractor’s control.

Stops shall not be skipped to improve on-time performance. Please explain in your operations plan how you will restore headways when delays arise.

249. Section 8.20 – We respectfully suggest that it would be helpful to Proposers if details of the numerous reports required were provided, so that it could be assured that compliance with NYSDOT requirements was assiduously followed. Details of required reports will be provided to the awarded contractor.

250. Section 8.20 Paragraph 1 – We respectfully suggest changing the name “Customer Complaint Report” to “Customer Comment Report” as we anticipate that the vast majority of comments will be compliments, or constructive suggestions. Please see Revised RFP dated 8/22/2016.

251. Section 8.23.3.7 (To be installed onboard) Part G – We respectfully suggest that the NFC component may well be better placed in the ticket validator or in a separate component than the farebox. The placement of fare collection components within the vehicles will be at the discretion of the contractor.
252. Section 8.24 – We respectfully suggest clearly specified relief for out of service time caused by problems beyond the contractor’s control, such as parts availability, accident damage, and the like.
Please see the Revised RFP dated 8/22/2016.

253. Section 8.25.5 – Portable devices with data may be necessary for field checks, diagnoses, and repairs, thus violating this restriction. Indeed, even the pulling of farebox and TVM vaults or downloading data could conceivably violate this section. We respectfully suggest rewording or reconsideration of this mandate. NYSDOT may consider revising its governing ITS policy should the selected Contractor offer a superior response in this regard.

22 Other Suggestions

254. Section 8.21.4 – The key passenger-serving concepts omit Service Awareness and Ease of Information availability. For a market largely dependent on cash fares, internet information access is of little use. Published schedules and maps are of greater use, and we respectfully suggest that all stops, shelters and stations have hard-copy maps and timetables for all routes clearly posted and current, and that such publications be widely circulated.
The proposer is free to provide anything additional to the requirements of the RFP that they think will improve the service or customer experience.

255. Section 8.21.4.1 – While safety must always be the highest priority, research has shown that for passengers, it is assumed, until proven wrong by headlines and front-page photos. Thus, we respectfully suggest that this should be relocated from a passenger-serving concept to a clear mandate (in the same hierarchy as providing vehicles and operators).
This is from a section that was drafted, agreed, and publically released during Phase A of the project and would not be changed.

256. Section 8.21.4.2 – The above comment also applies to service reliability. On time performance is assumed until proven wrong, by multiple incidence of delays, and especially, delays which are insufficiently explained, both in real time and after the fact. Again, a schedule which can be believed and trusted is a “birthright” of passengers, not an amenity nor a service concept. Note that this also applies to equipment reliability. Again, we respectfully suggest that these be delineated as “clear mandates” and nothing less.
This is from a section that was drafted, agreed, and publically released during Phase A of the project and would not be changed.

257. Section 8.21.4.3 – Since off peak ridership is a key to service success, and since incremental costs are relatively modest, consideration of a 15 minute base service is respectfully suggested. Recent studies have ranked service frequency as far
more important to potential passengers than technological improvements and availability.

Please see the answer to Question 139.

258. Section 8.21.4.5 – Speed, per se, is important, but perceived speed as a factor in overall portal to portal trip time, is even more important. Continued progress to destination, ease of connections, observation of competing modes, are all components of the subliminal friction factors which create modal choice. Further, since speed on any trip component (such as the new bus service as a component of a Manhattan trip, or a Westchester trip which involves a walk) can be affected by factors beyond the carrier’s control, we respectfully suggest that specific relief from target speeds under defined circumstances be granted. These are target average speeds, not steadfast requirements.

259. Section 8.21.4.6 – Since NYSDOT is specifying stop locations, we respectfully suggest that this service objective be converted from a Contractor responsibility to a basic service attribute.

This is intended for the proposer to understand the objectives of the system. Additionally, this is from a section that was drafted, agreed, and publically released during Phase A of the project and would not be changed.

260. Section 8.21.7 – Though we realize that office occupancy rates on the Westchester Avenue/White Plains East corridor have declined, we respectfully suggest consideration of extending peak hour trips to this area, and eventually, to Stamford CT.

As stated in the answer to Question 139, the planning of the service will evolve over time to serve market demands through the ongoing operation of service.

261. Section 8.21.7.1 – The use of the terms “stations”, “shelters”, and “stops” should be standardized. We respectfully suggest that Stations should be characterized by an indoor waiting area, with the possibility of passenger amenities such as restrooms, vending machines and/or a café/snack bar, and perhaps even auto-rental facilities. Shelters should have a waiting area out of heavy weather, perhaps with heat available in the winter (as have Chicago transit warming shelters), and a bench. A stop will have a sign. All will have the following “birthright” (clear mandate) features – a bench, a display with a current timetable for all routes serving that location, whether on this system or not, a system and a line map of these routes, a spider map showing all routes FROM this stop to all key destinations, and an information display on next bus arrivals (and any information on service irregularities).

The language is used consistently in the RFP. All stations will have one consistent design.
262. Section 8.21.7.2 – We suggest that the use of forced transfers between routes in which a through service is currently provided will not only be inefficient from an equipment and manpower standpoint, but will substantially diminish market potential. Research has indicated that even guaranteed connections diminish ridership by at least 25%, and in this case, the likelihood is that this may be an extra transfer in a trip involving at least two other transfers! Further, the proposed service represents a diminution of service from present TZx levels which, combined with OWL trips, have no fewer than 22 daily trips to and from Suffern, to less than half that number! We respectfully suggest that the Suffern service be re-examined and reconsidered, and further, that all trips begin and end at the Suffern MNR/NJT station for ease of connections.

Ridership to and from Suffern represents approximately 10% of all passengers, and the Suffern service terminating at Lot J was seen as the most cost-effective way to serve these customers and to allow them to transfer to services serving Nyack, Tarrytown, and White Plains. Transfers to express services at Lot J from Suffern buses are a common practice today, and the new route configuration offers clear express and local options for these passengers. The stop that is currently utilized by the TZx will be retained as it allows for ample layover facilities and is proximate to the downtown. It is unlikely that any riders are transferring to and from the Suffern MNR/NJT transit service here.

263. Section 8.23.3.7 – Recent experience with QR code readers in gates at NJ Transit stations in Secaucus Jct. and Newark International Airport Rail Station have indicated a steep learning curve and substantial processing time even among daily passengers and sophisticated travelers, as well as difficulty in reading even some valid codes. We are unaware if this is a function of ticket (target) size, but respectfully encourage NYSDOT to research this aspect of the dwell time reduction program.

As detailed in Section 6.1.3.3, the proposer will be scored on ‘creativity and innovation…in delivering the transit ICM technology and fare payment solutions’

264. Section 8.24 – Just as there are penalties for poor reporting and incentives for proper reporting, we respectfully (and confidently) suggest incentives for compliments and an absence of complaints, more so than simply the reporting of such commentary.

There are incentives for the customer satisfaction survey. Assessing compliments is too subjective.

23 Identification of Major Risks

265. Macroneconomic Risk - the need to have a crystal ball to predict key cost drivers in 2038 (and every year thereafter), including labor cost, fuel cost, maintenance cost of vehicles with little track record, etc.

Please see the Revised RFP dated 8/22/2016.
Major Liquidated Damages Penalty Risk – Startup and Level of Service damages, regardless of whether beyond the Contractor’s control, are both sufficient to eliminate an entire year’s profit for every day they are imposed. Late delivery and acceptance of unique vehicles we did not have a role in specifying is a good example of how this risk can impact us. Aggregated Small Liquidated Damages Penalty Risk – the extensive list of liquidated damages can aggregate to be substantially damaging, especially if beyond Contractor’s control. Failure of fare collection equipment specified by others, catastrophic or continuous traffic delays, weather-related delays, and traffic-induced early arrivals will all be punitive in terms of liquidated damages.

Liquidated damages have been changed. Please see Revised RFP dated 8/22/2016.

Vehicle Risk – the mandate to acquire buses of a unique design, specified by others, available from but one or two sources, none of which have produced such a vehicle for this type service, and inherently, the wrong vehicle for the service, with service, security, safety potential hazards, combines with an estimated cost of about a million dollars a copy makes this an untenable risk. Even the calculation of numbers of vehicles needed, based on what we regard as uncalibrated schedule times and service patterns, can be destructive, based on capital and operating cost.

As noted above, the choice to use double decker buses was decided early in the planning phases of the project, and has been carefully vetted in terms of safety, performance, and maintenance support. It remains one of the foundation blocks of the LHTL project. The vehicle calculations provided in the RFP are indicative for what might be needed to run the service. It is up to the Contractor to procure the appropriate number of vehicles to provide service according to the detailed schedules they include in their proposals.

Market/Service Risk – the contract could be considered a failure if ridership goals (which are hinted at, but are unspecified) are unattained, or if substantial ridership diminution occurs. Insufficient market data are provided (and may even be unavailable) to project an optimal service package. We do not believe the service specified matches both the latent and patent market, and there appears to be little opportunity to change within the mandates of the Request for Proposal. Further, recent studies (including one by The Transit Center) have indicated that frequent and reliable service are valued much more highly than the technology on which this service has been prognosticated.

The transit service plan in the RFP specifies frequent service (every 15 minutes at peak times and every 30 minutes at off-peak times/weekends) and the contract seeks to ensure a reliable service through performance standards enforced by liquidated damages.
269. **Passenger Injury Risk** - double deck buses increase liability as a result of passenger accidents especially on stairways (although accidents involving such buses have claimed several lives in recent years, and produced many injuries); further, the requirement that passengers cross busy highways to find **off board** fare collection machines when they are placed only in the peak direction, or to find any such machines when one or more are out of service, increases Contractor liability substantially. The safety concerns with the double-deckers have been addressed in previous analyses. The questioner refers to the few stations where NYSDOT does not require **off board** MetroCard fare payment machines as ridership is small or non-existent (additionally, riders have the option of paying in cash, with a MetroCard, with a mobile phone or with a Uniticket on the vehicles, if they are unable to use an offboard debit/credit card machine).

270. **Electronics Obsolescence Risk** – the many iterations of electronic equipment to support almost any function (fare collection, traffic engineering, passenger counting, vehicle location, passenger information, etc.), owing to rapid change and improvement, imposes a significant risk of unforecastable cost escalation. The likelihood of required re-investment in order to update to state-of-the-art (and to replace hardware and software no longer commercially available) is substantial. Some of the equipment may require a mid-life upgrade or a replacement where some equipment may last the entire contract. The Operators should have experience with this type of technology and should be able to identify what assumptions they need to factor into their bid. Proposers should identify which technology may need to be replaced or upgraded during the course of the contract.

271. **Termination Risk** – the fact that NYSDOT may terminate the contract at its own convenience, and has a responsibility only to reimburse outstanding operating costs, leaving the Contractor to absorb major investment costs of facilities, vehicles and equipment, imposes a tremendous risk which is well beyond that of a normal commercial undertaking. **Section 8, Article 17 – Termination, has been amended.**

24 **Attachment 26 Vehicle Specs: Additional Questions (272 through 319)**

272. 3.1 Project objectives: Why did NYSDOT decide to request a double decker bus? Was this done with only a staff review? Why the double decker style was chose over a BRT articulated bus that is used with other transit systems? Is there a review that indicates prototype double decker buses investigated by staff to ensure there are no non-negotiable vertical constraints along the path of travel and at stops, including the Tappan Zee Bridge? Did NYSDOT receive a letter of intent stating that all manufacturers can meet the deadlines and bus specification requirements?
3.1 Project objectives: What alternatives are in place if a double decker bus route is diverted? What alternatives does NYSDOT have outlined if double decker buses are diverted or restricted from the Tappan Zee Bridge? What solutions are for events outside human control, such as sudden natural disasters, for which no one can be held responsible if there are road closures preventing vehicles from providing service.
Answered in main question list.

3.1 Project objectives: Is there a law when towing a double decker bus on the various routes?
Answered in main question list.

3.5. Contract terms: The section of this RFP does make note of the mandated life expectancy which is 12 years of a bus with no option period or funds to purchase additional buses for the life of the contract.
Answered in main question list.

4.2.1 Providing capital infrastructure: Request for additional information regarding expansion and who will be responsible for the new purchase of equipment. Are there supplemental funds when service is expanded (i.e. shop equipment, bus shelters, facility expansion and electronic equipment including software updates)
Answered in main question list.

9 Dimensions, C Road Clearance, 5) Ground clearance shall be no less than nine (9) inches, (8 inches at jacking pad) except within the axle zone and wheel area. Request approval for ground clearance shall be no less than 8 inches.
Approved. One inch lower is within normal measuring tolerances and road dimension standards. Offeror is responsible for outcomes resulting from this request.

10 Vehicle Performance, B Power Requirements, 4) The propulsion system shall enable the vehicle to achieve and maintain a speed of 40 mph on a 2½ percent ascending grade and 15 mph on a ten (10) percent continuous ascending grade. Request approval to use test results contained in Altoona report number LTI-BT-R1411.
Approved. Altoona and IQA test standards will be sufficient.

10 Vehicle Performance, B Power Requirements, 5) Values are assumed to be sustained: The Manufacturer shall supply NYSDOT with data if there is a variance between peak performance and sustained vehicle performance. Further clarification requested on required data.
NYSDOT will work this out with the selected Contractor.

280. 12 Engine Cooling, A General, page 243, 3) A spring-loaded, push-button type valve or lever shall be provided to safely release pressure or vacuum in the cooling system with both it and the water filler no more than + - 60 inches above the ground. Request deviation for location to be no more than 68 inches above the ground.

Approved. 68 inches is well within the reach of a 5th percentile person.

281. E. Heat Exchangers, page 244, 1) Radiators with a fin density greater than 12 fins per inch or a louvered slit design shall not be allowed. 2) No heat-producing components or climate-control system components shall be mounted between the engine cooling air intake aperture and the radiator. 3) The radiator and charge air cooler shall be designed to withstand thermal fatigue and vibration associated with the installed configuration. 4) The radiator and charge air cooler cores shall be easily cleaned (to include engine side core surface) with appropriate washing equipment. Request approval to use 13 fins per inch. Request approval to mount the brake system air cooler in front of the water radiator.

Both are approved, as long as this configuration was what was tested by vehicle, engine and transmission manufacturers during their IQA and other approval processes.

282. I. Charge air cooling, page 245, 7) The cross section of all charge air piping shall not be less than the cross section of the intake manifold inlet. Request approval that CAC inlet pipe at 3.5" and a 4" intake manifold, both of which meets Cummins IQA approval.

Approved. Must be consistent with engine manufacturer’s IQA process.

283. J Transmission cooling, 4), page 245, 1) The transmission shall be cooled by a dedicated heat exchanger sized to maintain operating fluid within the transmission manufacturer’s recommended parameters of flow, pressure and temperature. 2) The transmission cooling system shall be matched to the retarder and engine cooling systems to ensure that all operating fluids remain within recommended temperature limits established by each component manufacturer. 3) In the event that an engine coolant to transmission fluid heat exchanger is used, the engine cooling system shall provide coolant bypass flow to the transmission cooling system with the engine thermostats closed so that transmission cooling shall occur even if the engine is not yet up to operating temperature. 4) Unless cooling system design requires otherwise, the transmission cooler is to be the first component to receive cold water from the radiator outlet. 5) All coolant return piping, aside from the thermostat bypass line, is to be plumbed in after the transmission cooler.

Request approval to use manufacturer standard cooling system which has a different layout (see drawing AR10390 which meets Cummins IQA and Allison
sign off). Request approval to use manufacturer standard cooling system layout. See drawing AR10390 which meets Cummins IQA and Allison sign off. Both are approved. Must be consistent with engine and transmission manufacturer’s qualification processes.

284. H. Belt-driven accessories, page 247, 1) NYSDOT requires that all belt-driven accessories are attached only to the powertrain and not to the vehicle chassis. Request approval for one alternator and Thermo-King air con compressor to be chassis mounted as shown in drawing AR10171. Approved. Contractor and vehicle manufacturer must take responsibility for issues created by this configuration. Many vehicles have been constructed with AC Compressor/alternator mounted in this manner with good results. No other belt driven systems may be frame mounted.

285. 14. Drive Shaft, page 248, 1) The drive shaft shall be guarded to prevent hitting any critical systems, including brake lines, vehicle floor or the ground, in the event of a tube or universal joint failure. 2) Drive shaft angles shall be limited to recognized industry norms and shall not be greater than the angles specified by the: universal joint manufacturer's specifications. 3) Drive shaft slip joint shall be robust enough to last the life of the transmission. 4) Slip Joint and Universal joint lubrication points shall be easily accessed so that ease of normal maintenance is facilitated. 5) The universal end cap retention bolts shall be retained by metal lock clips that prevent the bolt from loosening by deforming the metal clip against the head of the retention bolt. Lock Tite or similar thread locking chemical shall not be used to retain these bolts. Request approval to use self-locking nuts for universal end cap retention bolts. Conditionally Approved, as long as this is the vehicle manufacturer’s standard installation method.

286. 15. Powertrain Serviceability, D. Fluid fillers, page 248, 1) Engine oil and the radiator filler caps shall be hinged to the filler neck and closed with spring pressure or positive locks to prevent leakage. 2) All fluid fill locations shall be properly labeled to help ensure that the correct fluid is added. 3) All fillers shall be easily accessible with standard funnels, pour spouts and automatic dispensing equipment. 4) All lubricant sumps shall be fitted with magnetic-type drain plugs or magnets. 1. Request approval to use engine manufacturer's standard twist lock caps with lever pressure release. Approved, as long as this is the configuration used by the vehicle manufacturer during engine IQA process.

287. 16. Power steering, page 249, 1) Power steering is the only engine-driven hydraulic system allowed. 2) Hydraulically actuated tag axle steering is considered to be part of the powersteering system. 3) Power steering system service tasks shall be minimized and scheduled no more frequently than those of other major
vehicle systems. 4) All elements of the power steering system shall be easily accessible for service or unit replacement. 5) Critical points in the power steering system shall be fitted with service ports so that portable diagnostic equipment may be connected or sensors used for an off-board diagnostic system. 6) The power steering system shall operate within the allowable temperature range as specified by the power steering component and the power steering hydraulic fluid manufacturer. 7) Power steering lines shall not be solid metallic lines but shall be flexible lines to dampen pump noise from entering the passenger compartment. 8) All power steering lines shall be isolated from the vehicle structure with resilient mounts to limit the amount of noise that enters the passenger compartment. Request approval to use manufacturer's standard power steering lines which are a mix of stainless steel and flexible hose.

**Mix of Stainless steel and flex lines complies with spirit of specification is approved. Please note that other parts of spec requiring noise isolation to keep power steering noise from passenger compartment are still in effect.**

288. **18 Fuel system, A Diesel fuel filter, page 250, 1)** A fuel/water separation system as supplied by Racor, model 382 or approved equal shall be provided and mounted as close to the fuel tank as possible in a location to facilitate service. Request approval to use Cummin's standard OEM filters. Approved. Cummins filters are approved as long as they are the same as those fitted during the powertrain IQA process.

289. **B Diesel fuel lines, page 250, 1)** Fuel lines shall be securely mounted, braced and supported as designed by the vehicle manufacturer to minimize vibration and chafing and shall be protected against damage, corrosion or breakage due to strain or wear. 2) Manifolds connecting fuel containers shall be designed and fabricated to minimize vibration and shall be installed in protected locations to prevent line or manifold damage from unsecured objects or road debris. 3) Fuel hose and hose connections, where permitted, shall be made from materials resistant to corrosion and fuel and protected from fretting and high heat. Fuel hoses shall be accessible for ease of serviceability. 4) Fuel lines shall be capable of carrying the type of fuel specified by NYSDOT (i.e., up to B20 type fuel). 5) Fuel lines shall be rated and sized to prevent freezing and plugging due to condensation and/or fuel gelling in extreme winter. 6) The fuel lines forward of the engine bulkhead shall be in conformance to SAE Standard J1149 149 Type 1 for corrosion-resistant stainless steel tubing or SAE Standard J844 for nylon tubing color coded orange. Request approval for fuel pipes to be zinc plated. Approved. Zinc plated lines are compliant with requirement for corrosion resistant piping.

290. **C Fuel tank, page 250, 1)** The fuel tank(s) and its mountings and fasteners shall be made of 300 series or ASTM A240 corrosion-resistant stainless steel or plastic if the vehicle manufacturer normally offers such a tank as a regular option. 2) The
fuel tank(s) shall be securely mounted to the vehicle to prevent movement during vehicle maneuvers. 3) The fuel tank(s) shall be equipped with an external, hex-head drain plug. 4) The plug shall be at least 1/2" inches in size and shall be located at the lowest point of the tank(s). 5) The fuel tank(s) shall have an inspection plate or easily removable filler neck to permit cleaning and inspection of the tank(s) without removal from the vehicle. 6) The tank(s) shall be baffled internally to prevent fuel-sloshing regardless of fill level. 7) The baffles or fuel pickup location shall assure continuous full power operation on a six (6) percent upgrade for 15 minutes starting with no more than 25 gallons of fuel over the unusable amount in the tank(s). 8) The vehicle shall operate at idle on a six (6) percent downgrade for 30 minutes starting with no more than ten (10) gallons of fuel over the unusable amount in the tank(s). 9) The materials used in mounting shall withstand the adverse effects of road salts, fuel oils and accumulation of ice and snow for the life of the vehicle. 1. Request approval to fit manufacturer's standard tank which is aluminum type. 3. Request approval that plug is an internal socket hex plug instead of hex head. 7. No current manufacturing test data available. 8. No current manufacturing test data available. Standard tank is approved. Internal socket head plug is approved. Sections 7 and 8 are included in specification to protect potential offerors from experiencing fuel flow problems when operating on grades or other angles other than flat with tanks that are not full. Offerors are responsible for acceptance of these exceptions to the specifications and will suffer the penalties that go with running out of fuel as part of the contract stipulations for liquidated damages due to preventable mechanical failures.

291. 19, Exhaust system, page 252, 1) The exhaust pipe shall be designed to prevent exhaust gases and waste heat from discoloring or causing heat deformation to the vehicle. 2) The entire exhaust system shall be adequately shielded to prevent heat damage to any vehicle component, including the exhaust after-treatment compartment area. 3) The exhaust outlet shall be designed to minimize rain, snow or water generated from high-pressure washing systems from entering into the exhaust pipe and causing damage to the after-treatment system. 4) Exhaust gases and waste heat shall be discharged from the street-side of the vehicle under the rear bumper. Request approval that exhaust to be discharged off-center on curbside of vehicle under the rear bumper. Approved, with the condition that exhaust flow shall not be allowed to blast over sidewalks and bus stops when vehicle pulls away from stops.

292. 20, Chassis A Suspension, page 252, 1) The front, drive and tag axle suspensions shall be pneumatic type. 2) The basic suspension system shall last the service life of the vehicle without major overhaul or replacement. 3) Adjustment points shall be minimized and shall not be subject to a loss of adjustment in service. 4) Routine adjustments shall be easily accomplished by limiting the removal or disconnecting
the components. 5) All wheels and axles shall be properly aligned before vehicle delivery. An alignment report shall be included with each vehicle's quality assurance documentation and shall be delivered to the customer when the vehicle is delivered. 6) Each vehicle shall be weighed before delivery. Each axle shall be weighed separately. Weight slips from each vehicle shall be delivered with the vehicle. Vehicles shall be weighed at curb weight with full fuel and fluids but no passengers or operators on board.

2. Comply with understanding that basic suspension system does not include airbags, dampers, link joints, ARB and ARB bushes, leaf springs and bushes, ball joints, and track rod ends. Approved, with stipulation that request for clarification regards warranty conditions and not design goals.

293. 1) The front and tag axles shall be solid beam non-driving with a load rating sufficient for the vehicle loaded GVWR and shall be equipped with unitized, maintenance free, grease type wheel bearings and seals. 2) All friction points on the front axle shall be equipped with replaceable bushings or inserts and, if needed, lubrication fittings shall be easily accessible from a pit or hoist. 3) The steering geometry of the outside (front lock) wheel shall be within two (2) degrees of true Ackerman up to 50 percent lock measured at the inside (back lock) wheel. 4) The steering geometry shall be within three (3) degrees of true Ackerman for the remaining 100 percent lock measured at the inside (back lock) wheel. 5) Steering effort shall be measured with the vehicle at GVWR, the vehicle not moving with the brakes released and the engine at normal idling speed on clean, dry, level, commercial asphalt pavement and with the tires inflated to recommended pressure. 2) Under these conditions, the torque required to turn the steering wheel ten (10) degrees shall be no less than five (5) ft.-lbs. and no more than ten (10) ft.-lbs. 3) Steering torque may increase to 70 ft.-lbs. when the wheels are approaching the steering stops, as the relief valve activates. 4) Power steering failure shall not result in loss of steering control. 5) With the vehicle in operation, the steering effort shall not exceed 55 lbs. at the steering wheel rim, and perceived free play in the steering system shall not materially increase as a result of power assist failure. 6) Gearing shall require no more than seven turns of the steering wheel lock-to lock. 7) The 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 operator. 3. No current manufacturing test data available, and 5. No current manufacturing test data available. Approved, pending manufacturer performing test and agreeing to assure compliance with spec when vehicles are delivered.

295. Table 2, Steering wheel height, page 256: Further clarification required for where these measurement points are to be taken from. Measurement points are to be taken from where the vehicle operator’s heel contacts floor behind accelerator pedal.

296. Drive axle, F General, page 257, 1) The vehicle shall be driven by a heavy-duty portal type drive axle produced by ZF, model AV 132 or approved equal. 2) Drive axle capacity shall be no less than 23,000 lbs. 3) Axle shall have a load rating sufficient for the vehicle loaded to GVWR. 4) The drive axle shall have a design life to operate for not less than 300,000 miles on the design operating profile without replacement or major repairs. 5) The lubricant drain plug shall be magnetic type. The axle and driveshaft components shall be rated for both propulsion and retardation modes with respect to duty cycle. 1. Request approval for model AV133. AV133 is Equal as it is a newer, updated version of AV132.

297. 24 Parking emergency brake, A air brakes, page 258, 1) The parking brake shall be a spring-operated system, actuated by a valve that exhausts compressed air to apply the brakes. 2) The parking brake system shall be enabled when the air pressure is at the operating level per FMVSS 121. Request approval to use manufacturer’s braking system using multi-circuit protection valve. Approved, compliance with FMVSS 121 still required.

298. B Emergency brake release, 1) An emergency brake release shall be provided to release the brakes in the event of automatic emergency brake application. 2) The operator shall be able to manually depress and hold down the emergency brake release valve to release the brakes and maneuver the vehicle to safety. 3) Once the operator releases the emergency brake release valve, the brakes shall engage to hold the vehicle in place. 4) Air to the emergency brake release system shall be provided by a dedicated emergency air tank which shall be adequately sized to provide for a minimum of three (3) applications of the emergency park brake release system. Request approval to use manufacturer’s braking system using multi-circuit protection valve. Approved.

299. B Air compressor, pages 259/260, 1) The engine-driven air compressor shall be sized to charge the air system from 40 psi to the governor cutoff pressure in less than four (4) minutes while not exceeding the fast idle speed setting of the
2) An auxiliary air filter (oil coalescing filter) shall be installed between the dryer and supply reservoir. 1. No current manufacturing test data available, and 2. Request approval to use manufacturer's standard air filter which incorporates oil coalescing filter as standard. Pressure build requirement stands pending report from manufacturer. Manufacturer’s standard filter approved.

300. C Air lines & fittings, page 260, 1) Air lines, except necessary flexible lines, shall conform to the installation and material requirements of SAE Standard J844 for nylon tubing if not subject to temperatures over 200°F. 2) The air on the delivery side of the compressor where it enters nylon tubing shall not be above the maximum temperature limits as stated in SAE J844. 3) Nylon tubing shall be installed in accordance with the following color-coding standards: 12. Green: Indicates primary brakes and supply. 13. Red: Indicates secondary brakes. 14. Brown: Indicates parking brake. 15. Yellow: Indicates compressor governor signal. 16. Black: Indicates accessories. 4) Continuously insulated P-Clamp type line supports shall be used to prevent movement, flexing, tension, strain and vibration. 5) Rigid lines shall be supported at no more than 30-inch intervals. 6) Nylon lines may be grouped and shall be supported at 24-inch intervals or less. 7) The compressor discharge line between power plant and body-mounted equipment shall be flexible convoluted stainless steel line, or may be flexible Teflon hose with a braided stainless steel jacket. 8) Flexible hoses shall be as short as practicable and individually supported. They shall not touch one another or any part of the vehicle except for the supporting grommets. 9) Flexible (braided) lines shall be supported at two-foot intervals or less. 10) Air lines shall be cleaned externally and internally before installation and shall be installed to minimize air leaks. 11) All air lines shall be routed to prevent water traps to the extent possible. 12) Grommets or insulated clamps shall be employed to protect air lines at all points where they pass through understructure components. Request approval to use manufacturer's standard color coding for air lines. Manufacturer’s standard pneumatic system flex line color coding is approved. Other requirements calling for provisions that protect lines from damage and wear in service stand.

301. E Air dryer system, page 261, 1) An active compressed air dryer system shall be installed to prevent accumulation of moisture and oil in the air system, be rated for transit applications and be sized to meet the requirements of the air system. 2) The air dryer system shall include a replaceable desiccant bead, electrically heated drain, and thermostatically controlled activation device. 3) The air dryer shall be easily accessible and with the exception of a dust shield, no other vehicle equipment shall require removal to service the air dryer. 4) A 2M/3M mechanic shall be able to replace the desiccant in less than 15 minutes. 5) A self-draining oil separator shall be installed upstream of the air dryer to collect/remove oil from
the air system and shall be equipped with a manual drain easily accessed from under the vehicle. 6) The sump and drain shall be electrically heated. Further clarification required on this specification. See section B above allowing manufacturer’s standard air dryer installation.

302. 26 Structure, D Corrosion, 8) The vehicle structure shall be corrosion resistant stainless steel. All exposed floor surfaces under the finished vehicle shall be protected with nonflammable undercoating. Request approval that chassis is mixture of high grade carbon steel and stainless steel at high corrosion areas. Corrosion protective treatment consists of MS polymer, Formoa 760, fully applied to the underside of the body and chassis. Body is aluminum and GRP. Approved.

303. C Hoisting, page 265, 1) The vehicle axles or jacking plates shall accommodate the lifting pads of a two-post hoist system. 2) Jacking plates, if used as hoisting pads, shall be designed to prevent the vehicle from falling off the hoist. 3) Other pads or the vehicle structure shall support the vehicle on jack stands independent of the hoist. 4) The vehicle shall be capable of being lifted by its wheels, and, as necessary to meet tire load requirements, the proper number of wheel lifts and/or adapters must be used. Request approval that vehicle will be lifted using a 3-post hoist or wheel lifting equipment. Lifting and jacking procedures provided in user manuals. Approved.

304. 28 Floor, D Construction, Lower Deck 1), The floor shall be constructed of composite flooring material. Request approval to use Finnish birch plywood BB WBP BS 1203 manufactured to BS 6566 (BS EN 636 - 1/2/3). Rot and termite treated GLA (‘Xyligen’ glue line additive) plus preservative treated Tana lith ‘E’ to heavy loading (Hazard Class 4) and kiln dried to 15% moisture content. Wisa-wire ‘F’ phenolic film 400g/m² on underside for a fire retardancy specification approved to BS 476, part 7, class 1 and FMVSS 302/CMVSS 302. Plywood supported by 12-year warranty. Approved.

305. 32 Operator Provisions, Controls and instrumentation, D Switches and controls, 4) Graphical symbols shall conform to SAE Recommended Practice J2402, Road Vehicles - Symbols for Controls, Indicators, and Tell Tales, where available and applicable. Request approval to use ISO standard symbols. Approved.

306. 32 Operator Provisions, Controls and instrumentation, F Master Run Switch, 2) The run switch shall be a four-position rotary switch with the following functions: a) OFF All electrical systems off, except power available for the passenger interior lighting, stoplights, turn lights, hazard lights, radio, silent alarm, horn,
fare box, fire detection equipment, engine compartment lights, auxiliary heater and electronic equipment that require continuous energizing. NOTE: If the vehicle is not operated for a period of three (3) days, the total electric load due to devices that require continuous energizing shall not cause the battery to be discharged below the level necessary to start the engine. b) PARK All electrical systems off, except those listed in OFF and power to destination signs, interior lights and marker lights. c) DAY RUN all electrical systems and engine on, including the headlights, parking lights and marker lights. Daytime running lights (DRL) shall be on. d) NITE/RUN All electrical systems and engine on. Request approval for engine run switch and start button that provides same logic in place of a four-position rotary switch. Approved, as long as logic is same as specification.

307. 38 Body, F Rub rails, 1) Rub rails composed of flexible, resilient material shall be provided to protect both sides of the vehicle body from damage caused by minor sideswipe accidents with automobiles. Rub rails shall have vertical dimensions of no less than two (2) inches (50 mm) with the centerline no higher than 35 inches above the ground between the wheel wells. Request approval to delete rubrail. Approved.

308. 38 Body, F Rub rails, 2) The rubrails shall withstand impacts of 200 ft.-lbs. of energy from a steel faced spherical missile no less than nine (9) inches in diameter and of a 500-lb. load applied anywhere along their length by a rigid plate one (1) foot in length, wider than the rubrail, and with a ¼-inch end radii, with no visible damage to the rubrail, retainer or supporting structure. Request approval to delete rubrail. Approved.

309. 38 Body, F Rub rails, 3) The rub rail may be discontinued at doorways, wheel wells and articulated joints if applicable. A damaged portion of the rub rail shall be replaceable without requiring removal or replacement of the entire rub rail. Request approval to delete rubrail. Approved.

310. 38 Body, J Battery Compartment, 9) The inside surface of the battery compartment’s access door shall be electrically insulated, as required, to prevent the battery terminals from shorting on the door if the door is damaged in an accident or if a battery comes loose. Request approval to delete requirement for inside of door to be insulated as battery cradle is grounded. Approved.

311. 43 Interior Lighting, A Lower Deck, 16) Failure of any light fixture or driver module shall be indicated via telltale light panel or dashboard display. The system shall insure supply current and lighting fixture temperature to be approximately
the same for all of the driver modules, and will indicate which module(s) have a problem. Request further clarification if a known product can provide this level of specific requirements. This specific level of detail not provided by standard manufacturer’s equipment. Please provide details of manufacturer’s standard system for reference.

This particular requirement was intended to insure that the interior lighting system has fail over and diagnostic capabilities. Please verify that the vehicle proposed has an interior lighting system that is robust, reliable and has internal diagnostic capabilities.

312. 44 Passenger Accommodations, D Upper Deck Seating, 1) Passenger seats shall be arranged in forward-facing configuration with a minimum of 55 reclining and cushioned passenger seats. The Proposer shall provide seat layout to the NYSDOT’s design consultant once NYSDOT has approved the seat manufacturer and model number. Request approval for minimum number upstairs seats to be 53 instead of 55. Request approval that recliners will be provided where applicable.

Approved pending approval of final seating layout.

313. 44 Passenger Accommodations, E Structure and Design - Lower Deck Seating, 1) Lower deck seats shall be from the Kiel Ligero series or approved equal with the following salient attributes: • Overall weight of double seats with all belts and mounting structure shall not exceed 100 pounds (maximum). • Top of seat to be tapered for maximum viewing • Seat belts shall be mounted on the outside of the seat for easy maintenance and change out, not internally mounted inside the seat. • Seats to be supplied with an electronic seat availability motorizing system that mounts in drivers area to alert driver to empty seats on upper salon as well as seated positions not utilizing their seat belts. Request approval to provide Lazzerini GTS 3600/Pratico as equal to Kiel seats.

Kiel seating is recommended as the seating specified is of a known quality, safety and durability. Other manufacturer’s products may be substituted as long as they are of a quality and durability equal to the recommended standard and are compliant with the requirements stated in the specification. Note that requirement for electronic seat occupancy monitoring system has been deleted.

314. 44 Passenger Accommodations, F Structure and Design - Upper Deck, 1): 1) Upper deck seats shall be luxurious, reclining seats known as Kiel Avance or approved equal with the following attributes• Overall weight of double seats with all belts and mounting structure shall not exceed 100 pounds (maximum).• Top of seat to be tapered for maximum viewing• Seat belts shall be mounted on the outside of the seat for easy maintenance and change out, not internally mounted inside the seat. • Seats to be supplied with an electronic seat availability motorizing system that mounts in drivers area to alert driver to empty seats on
upper salon as well as seated positions not utilizing their seat belts. Request approval to provide Lazzerini GTS 3600 as equal to Kiel seats. Kiel seating is recommended as the seating specified is of a known quality, safety and durability. Other manufacturer’s products may be substituted as long as they are of a quality and durability equal to the recommended standard and are compliant with the requirements stated in the specification. Note that requirement for electronic seat occupancy monitoring system has been deleted.

315. 44 Passenger Accommodations, F Structure and Design - Upper Deck, 8) The reclining seat backs shall be provided with a dress-up feature to facilitate coach cleaning. Seat width shall be a minimum of 36 inches and a maximum of 40.50 inches (1029 mm). The aisle shall not be less than 14 inches (356 mm) wide. Request further information on what 'dress-up' feature refers to. Seatbacks shall be covered with dark grey fabric similar to carpet as specified in RFP Attachment 29: Design Guidelines for LHTL Vehicles.

316. 45 Passenger Doors, C Dimensions, 1) When open, the doors shall leave an opening no less than 75 inches in height. Request approval for an opening no less than 72 inches in clear height. Approved.

317. 45 Passenger Doors, E Door Projection, 1) Exterior: The exterior projection of the doors beyond the side of the vehicle shall be minimized and shall not block the line of sight of the rear exit door via the curb-side mirror when the doors are fully open. The exterior projection of both doors shall be minimized and shall not exceed two (2) inches during the opening or closing cycles or when doors are fully opened. Request further clarification as sliding plug door systems will exceed 2 inches projection. Please provide details of door projection throughout operational cycle for comparison with civil engineering of bus stations and stops. The curbside outside rearview mirror should have a view of the rear door area when the door is closed, while the door is in motion and when the door is fully open. This should not be affected by the fact that the door is of the plug slide type. Swing doors often have more door frame protruding when doors are open than plug slide. Bidders could make use of interior and exterior video systems with monitors for operator use in the rear door area if this subject is of concern.

318. 46 Accessibility Provisions, F Roof Escape Hatches, 3) A glass breaking system shall be installed near the emergency escape panel. A switch shall be wired to the vehicle electrical system which will inform the vehicle operator that the escape panel release system has been used or tampered with. Request approval to use break glass (Safe T Punch) type plunger with tamper proof seal. Approved.
47. Intelligent transportation Systems (ITS), G Passenger Wi-Fi. 4) Each USB charger shall be connected to the vehicle's 12VDC or 24VDC system independently and shall have its own DC-DC converter. Request additional clarification on requirement for each USB charger to be 'independently' connected.

Each charging outlet should be independently protected so that the failure of one charger will not disable other chargers. An example is old style Christmas tree lights where the failure of one lamp would disable the entire string.

END OF ADDITIONAL ATTACHMENT 26 QUESTIONS

SECOND ROUND RFP QUESTIONS and ANSWERS

320. The cover states that the deadline for final questions is September 6. However, on Page 2 it is stated that NYSDOT has no obligation to respond to questions submitted after September 9. Please clarify actual deadline. Second round questions are due September 6th with Answers due September 9th.

321. While we cannot question the state’s generosity in deleting the mandatory informational meeting attendance and in opening the competition to other firms, we are concerned that those firms which have taken the trouble to read several versions of the RFP, submit timely questions, and attend the meeting, are being put to disadvantage.

To the contrary, the State believes that firms which have been deeply involved in the RFP and submitted quality questions, (some of which have resulted in changes which more closely align with preferred approaches suggested by the question-raiser), can only benefit those proposers who have invested time in their understanding of the intricacies of this complex long-term project - versus having to absorb all the details in a truncated time frame. Any firm starting their interest after RFP Modification #3 was released has less time to prepare.

322. Section 2.2 We presume the frequent use of the acronym SVDOB is simply a misspelling of proper acronym SDVOB. Is this true? Yes, it should consistently be ‘SDVOB’.

Use of the acronym SDVOB should be consistently applied, which necessary corrections made above/throughout the RFP.

323. Page 14 Please explain what the wording under FAIR AND EQUITABLE means. This is a State Procurement Council guideline, which NYSDOT follows, which promotes fairness in contracting with the business community as well as preserves fair and open competition while ensuring that the procuring agency needs are met.
324. Section 3.4 In Milestone C, the Contractor has little control over possible late delivery of acceptable buses, especially since the Contractor had no role in specification of the vehicle. The same general sentiment applies to Milestone F. 

ANS: NYSDOT may or may not respond to this question. NYSDOT will consider this aspect of the contract in its totality before assessing any liquidated damages.

325. Section 3.5 Please indicate what relief the Contractor has if the CPI substantially exceeds the cap limit of 3% (four of the last ten years have seen this index exceed 3%, once by 150%).

ANS: Any adjustments cannot exceed the 3% cap, regarding less of how high the CPI is running.

326. Section 3.5 There is a reference to hourly operating costs. Please indicate if this is required in addition to vehicle-mile costs, or is to replace that cost factor?

All selected Contractor costs are to be reimbursed via a Composite Per Revenue Mile Monthly Billing Rate (based on 132,251 total revenue miles).

327. Section 3.5 Please clarify if the contract is to be determined based on year 1 costs comparable over all bidders, with escalation to be based on CPI-U, or if the proposer must calculate costs for year 1, escalate it over approximately 20 years using CPI-U, and then divide 20 year costs by vehicle-miles. If the former, how will MBE/WBE proportions be calculated?

The former method applies with MWBE participation to be a percentage of the total 20-year contract value.

328. Section 3.6 We are concerned about normal fine-tuning of service to accommodate seasonal and cyclical travel demands, and special service demands (athletic events, papal visits, holidays, etc.), as well as growth from successful marketing and/or service delivery, or diminution of ridership from macroeconomic trends. Are these all to be the subject of a formal contract amendment?

Yes, any significant or material changes to the contract can be consummated via formal contract amendment.

329. Section 4.26 Please describe the NYSDOT vision for the clearinghouse function which will allocate and distribute revenue between sales and acceptance carriers from Metrocard and Uniticket use, as well as the replacement for MetroCard. Both Bee-Line and TOR currently have agreements with the MTA and with Metro-North to distribute MetroCard and UniTicket fare revenues from the MTA and from Metro-North back to the transit operator. NYSDOT envisions facilitating a similar arrangement with the selected LHTL BRT Contractor.
330. Section 4.2.10 As suggested in our first series of questions, the word “proscribed” in this section should read “prescribed”.
Corrected.

331. Section 4.4.3.2 May we presume that deadhead positioning trips and training and testing trips with empty passenger buses will be acceptable despite the prohibition of non-passenger trips for such vehicles?
Yes, non-passenger trips in the transit vehicles that serve an operational purpose will be allowed.

332. Section 4.4.3.4 Does NYSDOT have a preferred treatment of the remaining value of the second tranche of vehicles acquired when the initial order reaches its life expectancy of 12 years, but after the contract expires? This will leave about five years (over 40%) of vehicle remaining life, assuming the initial Contractor is not the winning Contractor for the second contract.
NYSDOT does not have any preference other than making this a requirement of the selected Contractor.

333. Section 4.4.3.5 Is the NYSDOT vehicle test regime to be considered a minimum? What if the manufacturer or the Contractor wish to perform more extensive testing?
Yes, the NYSDOT vehicle test regime is considered a minimum and the manufacturer or the Contractor may perform more extensive testing if such is in the state’s best interest.

334. Section 4.4.4.3, Second Bullet. Please clarify the meaning of “properly equipment”.
Changed to ‘proper’.

335. Section 4.4.6.2 If the service exceeds these service requirements, how will the Contractor get reimbursed?
Depending upon the selected Contractor approach, NYSDOT will negotiate the inaugural LHTL BRT service level with the selected Contractor prior to award. The selected Contractor shall get reimbursed based upon the contract’s agreed-upon Composite Per Revenue Mile Monthly Billing Rate.

336. Section 4.4.6.11 Please clarify what historical data was used in this reference. There is no historical data available for this service, and this text has been removed from the RFP.

337. Section 4.4.8.2 This reference indicates “off board fare payment machines (location to be determined)”; Section 4.4.12.4 indicates that off board fare payment machines will be at “strategic locations”; Section 8.28.3, Table 2, lists
both specific locations for such machines and their number at each. Please clarify.
The text ‘(locations to be determined)’ has been removed from the first reference in RFP Section 4.4.8.2. Please use Table 2 in section 8.28.3 to determine location and number of machines.

338. Section 4.4.10.1 Do Metro-North connection requirements apply at both Tarrytown and White Plains, or only one of these?
Metro-North connection requirements apply at both Tarrytown and White Plains. As answered in the previous round of questions (Question 121), at peak times (defined as when there are MORE than 4 trains per hour in the predominant direction at Metro-North stations), the 15-minute headways take precedence. In the off-peak (defined as when there are LESS than 4 trains per hour in the predominant direction at Metro-North stations), connections with scheduled trains take precedence.

339. Section 4.4.12.4 This section allows for driver inspection with farebox validation of tickets, or for ticket inspectors. Is it NYSDOT’s intention to equip fareboxes with integral QR code readers, or to provide hand-held devices for ticket inspectors, or to have all QR codes read visually (a seemingly impossible task)?
As outlined in RFP Section 5.1.6.7, the bidder is responsible for choosing a method of fare collection. The successful bidder is then responsible for procuring and installing (where applicable) all related fare-collection equipment to enable this method. NYSDOT will not be responsible for procuring any fare collection equipment for the service.

340. Section 4.4.12.4. Does NYSDOT have a preferred means of ascertaining that QR codes generated by off board machines or mobile devices are correct and current?
The use of onboard optical scanners has been proposed as the best way to ensure that QR codes are correct, current, and valid for travel.

341. Section 4.4.12.6 Will failure to collect a fare from a threatening or menacing passenger engender liquidated damages?
As answered in the first round of questions, NYSDOT will consider mitigating circumstances in its assessment of liquidated damages.

342. Section 5.1.5 Last Paragraph) – Please define Form SCD. Might this be the columnar list of Projected Completion Dates?
SCD refers to ‘Schedule of Contract Durations’.

343. Section 5.1.6.3 Last Sentence Please clarify the meaning of “town required recordings”.
This phrase was inadvertently included and has been removed from the RFP.
344. Section 5.2.1.1 (1) What provisions will be made if the estimated monthly revenue miles (stated as 132,251) proves excessive or insufficient? If NYSDOT agrees, then the contract may be amended to adjust.

345. Section 5.2.1.1 (3) May we presume that the term “fixed per monthly basis for facilities and equipment over the 20 year contract term” allows for changes per the CPI-U in Section 3.5 and elsewhere? The proposed Composite Per Revenue Mile Monthly Billing Rate must include your best estimated of fixed facility and equipment costs for the 20 year term. Any significant or material changes to such expenses, as agreed-upon by NYSDOT, may be adjusted via contract amendment.

346. Section 6.1.4.1 Is the cost per revenue-hour in addition to the cost per revenue-mile which is required under Section 7.4? Costs shall only be per revenue mile. All other costs shall be factored into the Composite Per Revenue Mile Monthly Billing Rate.

347. Section 7.4 The referenced RFP Attachment 24 deals only with Liquidated Damages. Please clarify the reference to payment being fixed per Attachment 24, et al. Refers to adjustments/reductions to payments per the LD schedule.

348. Section 8.10 The fact that NYSDOT has specified a vehicle which can ONLY be procured from an offshore manufacturer is hardly in the spirit of Section 8.10, and disregards the fact that there are equally satisfactory (and in fact, more so) vehicles of better designs for the service available in the United States (and even some within New York). NYSDOT is aware of a factory in the US which builds the required buses.

349. Section 8.16, On Time Performance, Paragraph 1 Please define a time point. Is this a published passenger stop time, or may it be a passing point, and must it be in the public timetable? The identification and formal definition of time points will be determined between NYSDOT and the Contractor after contract award and the development of detailed schedules. It is NYSDOT’s expectation that the time points used for contract-adherence purposes will be the same time points in a published passenger timetable.

350. Section 8.16, On Time Performance, Paragraph 1 Is it correct that a scheduled service which is severely delayed between its last intermediate “time point” (which we presume it left on time) and the final terminal, will still be considered on time? We can envision this happening often between Nyack (or points west)
and Tarrytown, with buses scheduled to terminate at Tarrytown station. If this occurs, passengers will miss their train connections, but the LHTL service will still be considered to have been “on time”.
Final terminals will also be included as time points.

351. Section 8.16, On Time Performance, Paragraph 4 May all or a part of the required 1,500 observations of on time performance be conducted remotely using automatic vehicle monitoring, or must some (and we ask what proportion) be done with physical monitoring?
ANS: It is up to the proposer to determine optimal observation method(s).

352. Section 8.16, On Time Performance, Paragraph 5 We request that the words “unless part of a management strategy to improve the on time performance of all trips, and no passengers are inconvenienced.” be added to this requirement. NYSDOT may consider revising the ‘The operator shall not skip any posted stops to improve on-time performance’ service requirement to consider alternative service policies through an appropriate vetting process with possible approval by NYSDOT.
ANS: NYSDOT may or may not respond to this question. See answer to question 324.

353. Section 8.16, On Time Performance, Paragraph 6 Since there will be no level boarding in place at any stop, why is this mentioned as a means of reducing dwell time?
The vehicles specified in the RFP provide low-floor boarding that achieve as close to level as is possible within the constraints of the project. The word ‘level’ will be replaced with ‘low-floor’.

354. Section 8.16, On Time Performance, Paragraph 7.3 We request the addition to “Underperforming Route Compliance Liquidated Damages” the words “within Contractor control.” In this manner, factors beyond the Contractor’s control will NOT be the subject of liquidated damages.
ANS: NYSDOT may or may not respond to this question. See answer to question 324.

355. Section 8.17, Paragraph 1.5.3.e This section requires personnel to be able to lift loads up to 100 pounds. The National Institute for Occupational Safety and Health (NIOSH) has a lifting equation for calculating a recommended weight limit for one person under different conditions. The lifting equation establishes a maximum load of 51 pounds, which is then adjusted to account for how often you are lifting, twisting of your back during lifting, the vertical distance the load is lifted, the distance of the load from your body, the distance you move while lifting the load, and how easy it is to hold onto the load. We suggest adopting this limit as the requirement instead of 100 pounds.
NYSDOT will consider addressing these concerns, as applicable, with the selected Contractor.

356. Section 8.21.7.2 We have strong disagreement with the diminution of service levels offered to Suffern area passengers by the nature of this Dark Blue route, and by the requirement for all passengers on it to transfer at Palisades Center lot J for onward travel (including to the shopping center itself). We also believe it will require additional buses and employees to operate it as a connecting route. However, this pales by comparison to our belief that this route is illegal as it violates Title VI of the Civil Rights Act, and has a disparate impact (i.e. environmental injustice) on the market it serves. The line serves 14 census tracts in Rockland County. 6 of those have a greater proportion of minority population than the county at large, and 4 of those have a poverty level greater than the county at large.

The routes required under the RFP, have been structured based upon an analysis of current and projected use of bus services, ridership levels, travel times and patterns. NYSDOT analysis indicate that the passengers from Suffern are already making transfers to an express service at Lot J rather than staying on the same bus for what can be over an hour. Therefore the structure of the Dark Blue route offers passengers a wider range of destinations, shorter travel times and more frequent options than prior bus services.

357. Section 8.21.8 Will NYSDOT file the initial tariff for the new routes?
No, it is responsibility of the contractor to apply for authority and once approved to file the appropriate tariff based on the posted fares.

358. Section 8.21.8 Will NYSDOT review proposed fare changes put forth by the Contractor in the tariff filing process separately from the standards of reasonableness it must use in judging tariff filings for other routes? In effect, how will impact on this project, and on the finances of the Contractor, be judged, apart from the impact on passengers and on competing carriers which are the normal standards of measurement of tariff proposals?
The tariffs will be reviewed through the normal NYSDOT approval process which may require additional information not provided in the tariff request.

359. Section 8.22.2.10 It is stated that a number of transit planning activities have been completed which support implementation of the LHTL. May these be made available to either the successful proposer or all proposers? This refers to all the work completed since the start of Phase A of the LHTL project. These materials may be released with NYSDOT’s consent.
360. Section 8.22.2.12 It is stated that “Research on potential types of transit vehicles indicated that the system is best suited by a double deck bus…” May this be made available to either the successful proposer or all proposers? This refers to the vehicle choice memo that was prepared for Rockland County in late 2015. This material may be released with NYSDOT’s consent.

361. Section 8.23.3.7.A.h This section references optical scanners. Section 8.23.3.7 (To Be Installed On Board) references ticket validators. Section 4.4.12.4 references driver inspection, farebox validation, or ticket inspectors. Please clarify what ticket inspection and validation procedures are to be used. The use of onboard optical scanners has been proposed for ticket validation onboard. As outlined in RFP Section 5.1.6.7, the bidder is responsible for choosing a method of fare collection. The successful bidder is then responsible for procuring and installing (where applicable) all related fare-collection equipment to enable this method.

362. Unknown Section, not titled – may be part of Section 26: Item v indicates that it is preferred that on board cash payments be processed through automated fareboxes, in which case the fareboxes shall be supplied by the Contractor. Is NYSDOT aware of any other means of processing on board cash payments? No, NYSDOT is not aware of any other means of processing on board cash payments.

363. Section 8.28.3 In the table of MetroCard Machines, the Westbound stops at Artopee Way and Franklin Street (south side of Artopee), and at Franklin Street and Clinton Avenue (east side of Franklin) show a total cost each of $23,000, but do not list no MetroCard Machines at these locations. Please clarify. Table 2 has been corrected to which lists MetroCard locations has been corrected and replaced for offboard fare collection technology.

364. Section 8.26 May the upper deck of the double deck buses be closed to passengers, perhaps by a stainless steel pantograph gate lockable by the driver, during off peak and evening services when the capacity is unneeded and security concerns are elevated? NYSDOT prefers that no part of the LHTL BRT buses be closed off to passengers.

365. Section 8.29 In the requirement that stanchions, et al be powder coated for coloration, would it be permissible to instead use a textures (easy grip) vinyl in the appropriate color? Vinyl grip tends to wears off quicker, which is why powder coated stanchions are specified. All other stanchions, grab handles and handrails must be the color specified.
366. Capital Costs: Generally, when a private contractor operates public transportation for a public agency, the assets (e.g., vehicles, storage and maintenance facilities, etc.) are owned by the public sector entity. This RFP proposes to have the private sector contractor acquire – whether by purchase or lease – these assets, even though some of these assets (e.g., double deck buses) have a very limited re-sale market. Kindly explain why NYSDOT took this unusual position.

The LHTL BRT system shall be a turn key operation.

367. Incentive to Contractor: As the contractor would have the responsibility for marketing, why is there no financial incentive for the contractor if it is successful in increasing usage? I could understand that NYSDOT would also want to benefit, but shouldn't the contractor get some percentage of the additional revenue?

ANS: NYSDOT may or may not respond to this question. As an incentive mechanism, NYSDOT is allowing the selected Contractor to collect and keep all revenues received under Contract #C031487 during the contract’s 20-year term.

368. Will there be specific requirements in the RFP’s to minimize bus bunching and bus holds for other transit connections?

No, it is up to the Contractor to ensure that their schedules minimize bus bunching and bus holds for other transit connections. In the first round of questions (Question 122), it was noted that the system should provide seamless connectivity to as many complementary transit services as possible. However, given the quantity of transit providers in the LHTL region, synchronizing BRT schedules with all regional routes may not always be practical. As a guideline, the BRT operator shall adhere to the following hierarchy of transit service coordination when building schedules:

1. Metro-North
2. TOR
3. Bee-Line
4. NJ Transit
5. Other public or private bus providers

369. 4.4.2.1 A: Will the NYSDOT ITS (“IT Security” in this case) Policy apply to the “secure project collaboration web site”? In particular, finding a website collaboration tool that is certified FIPS-140-x may be both challenging and costly.

ANS: No.

370. Data will be transmitted (“in motion”) over common carriers between the buses and HVTMC (wireless), and between the bus shelters and HVTMC (wireline or wireless). Does this data need to be encoded by FIPS 140-x by certified HW/SW? Similarly there will be data “at rest” on the busses, shelters and
HVTMC, and does this data need to be encoded by certified FIPS 140-x HW or SW?
A form of security is required. FIPS-140-x is an option but other security protocols will also be considered.

371. 4.4.5.1: Where can we find the “LHTL project ITS Architecture”? NYSDOT’s ICMS RFP will provide this information.

372. During the pre-proposal meeting we asked if there was one or more project Systems Engineering Analyses (per FHWA Rule 940.11 and the corresponding FTA policy) prepared for this project that we could review – and we were told that yes, these were being reviewed by the FHWA Division Office.

ANS: NYSDOT may or may not respond to this question. Please see RFP #C031480 for ICMS Systems Integrator Services and the RFP’s available attachments.

373. 3.1, p. 13 – “NYSDOT reserves the right to adjust service at any time” but does not indicate how pricing will be adjusted in the event of a service adjustment. The combination of a 20 year term and a pricing methodology that provides no assurance to the Contractor of future adjustments means that:
   a. Contractor must consider financial risk for many factors subject to influence entirely outside Contractor’s control, e.g.:
      i. Manipulation of fuel prices to a degree much greater than a broad CPI adjustment. Think of OPEC’s success in raising the price of petroleum products many times over by controlling the production of crude oil
      ii. Current and future legislative and regulatory impacts on labor costs, such as minimum wage legislation, the Affordable Care Act, revision of overtime standards in the FLSA, intervention in collective bargaining, paid family leave, paid parental leave, ADA accommodation requirements and other dynamic influences on employee costs
      iii. Replacement of technology at least once and probably twice during the span of 20 years
      iv. Replacement of buses 12 years hence when unknown regulatory requirements around safety, emissions, or other factors could affect costs significantly
   b. Contractor must mitigate these exposures in the only way possible - by adding risk premiums to its pricing thus raising the State’s costs dramatically. There are a number of ways to mitigate this risk to the Contractor and the related excess costs to the State:
      i. A frequent, but guaranteed, budget review & rate adjustment protocol
      ii. A short term with multiple options for the state to extend, e.g. 5 year base plus 3 five-year options to be exercised at the mutual discretion of State and Contractor
      iii. Provision for reopening pricing in the event of Extraordinary events like the ones listed earlier
Will the State consider such alternatives? May Contractor propose such alternatives?

ANS: The selected Contractor is expected to petition NYSDOT regarding events that significant and material changes lead to the contract’s reimbursement rate. Should NYSDOT agree, such changes shall be carried into the contract via formal supplemental agreement.

374. 4.4.3.5, p. 24 – “NYSDOT will define and oversee a vehicle testing regime…”

Please describe how the tests will be paid for and whether the Contractor needs to include them in its Cost Proposal or whether NYSDOT will pay for testing directly. If the Contractor, please provide the anticipated cost of testing.

Each bidder shall include and factor all costs associated with vehicle testing regimes in the composite monthly billing rate. Based on your experience and expertise, NYSDOT expects each bidder to make their best educated assumption regarding the cost of vehicle testing.

375. 4.4.6.8, p. 29 – “Failure to provide all scheduled service routes and vehicles… will result in NYSDOT assessing liquidated damages in the amount of $10,000.00 for each day that scheduled service is not provided.” Please clarify the term ALL. For example, if one trip is missed on the first day of service, will it result in a LD of $10,000?

All scheduled routes and all vehicles mean all schedules routes and all buses scheduled to run those routes. NYSDOT will consider its options should one scheduled trip be missed on the first day of services yet remind all prospective bidders that they could be subject to the cited LD policy.

376. 4.4.12, p. 37 – Please clarify the fare revenue accounting process. It seems that there is a bit of confusion given this section, Q/A Response #169, and the discussion on Webinar phone call.

a. Will the contractor collect fares and then deduct them from the monthly invoice amount (as is typical in transit system operating contracts)? This reduces risk on the Contractor and keeps the contractor “whole” in its operating cost assumptions and budget. There is no provision in the RFP for this deduction.

The cost of the service as identified in the awarded contract, less the fares collected, is the method for the determination of the monthly invoice amount.

b. Will the contractor need to estimate fare revenue in the “all-inclusive” cost (i.e.: operating cost less fare revenue) in its cost proposal as mentioned on the call? If so, how will the Contractor know when the State will choose to increase fares in the next 20-years?

Yes, the fare revenue will need to be part of the cost. NYSDOT will not seek fare changes without consultation with the operator and the impact on the contract.
c. Will the contractor have the right to raise fares in order to meet its revenue expectations, as loosely indicated in Q/A response #169?

The Contractor has the ability to recommend tariff changes and NYSDOT will review those recommendations as part of the tariff approval process.

377. If the Contractor is to take the risk for farebox revenue, a similar set of questions arise:
   a. What ridership should be estimated for Year 1, since no similar service exists today. **ANSWER: Use the existing TZExpress ridership as a base - Please see RFP Section 8.21.3.2**
   b. Future ridership is subject to factors outside the Contractor’s control:
      a. Gasoline prices
      b. Employment levels
      c. Arrival of new alternatives: ferries, Uber vans, Autonomous Vehicles, etc.
      d. Fare policy is often dictated by social and political factors
   d. As with expense items, Contractor can only mitigate these exposures by adding in risk premiums to its price proposal, thus raising the cost to the State

In the event the Contractor is required to take assume revenue risk, will the State consider provisions that protect the Contractor and the State from these costs? May Contractor propose such provisions?

The Contractor has the responsibility to recommend service and fare changes to minimize risk and to provide appropriate levels of service.

378. 5.1.8.7 & 5.1.8.8, p. 52-53 – Please clarify the roles and responsibilities of the ICM Coordination Manager and HVTMC Transit Service Coordinator Manager positions. It appears that the management functions of the positions are duplicated, and that the ICM Coordination Manager has more of an IT function than a staff management function. Will the ICM Coordination Manager have full-time responsibilities after the initial transition and integrations? Please provide more information so Contractors can understand the DOT’s vision for these two positions.

The HVTMC Transit Service Coordinator Manager is responsible for overseeing and managing the activities of the HVTMC Transit Coordinators. These staff members are responsible for day-to-day transit operations and are the primary transit operational interface with NYSDOT and NYS Thruway Authority. These teams coordinate with any traffic incidents, conditions and events that impact the LHTL service. This role formally commences on Day 1 operations, however, this manager will be required to start work prior to Day 1 to support the development of operational procedures and protocols with NYSDOT and NYS Thruway Authority.

The ICM Coordination Manager will be the role at the Contractor that is responsible for the procurement and integration of transit and ITS technology (in-
they will need to work closely with the ICM Systems Integrator for the project, which is being procured under a separate RFP. They perform more of an IT function, and are responsible for making sure the transit technology operates smoothly and is maintained correctly. In the Project Delivery phase, this role is the primary transit technology interface to the Systems Integrator and the LHTL project team to support design, procurement and integration of transit technology. During Project Operations, this role is the primary transit technology interface to the Systems Integrator and NYSDOT to support maintenance and support of transit technology, including routine and corrective maintenance, and resolution of any issues and faults that impact the ICM system.

379. 5.2.1.1, p. 56 - “Payment for services provided under the project shall be a combination of: (DRAFT; SUBJECT TO CHANGE)” When might this change? Will the proposers have an opportunity to ask questions if changes are made during the proposal development period? This section of the RFP has been finalized. The RFP’s cost proposal submittal rules stand as refined in RFP Modification #3.

380. 8.7, p. 126 – “Please complete the following table...and indicating each firm’s percentage of the total project cost for the contract.” Please indicate the cost basis on which the M/WBE and SDVOB goals are calculated – Total contract cost (including vehicles and equipment) or operating costs. Given the change in compensation method (fixed/variable rather than all variable), it seems that it would be based on operating costs; however, this is not clearly stated in the RFP.

a. Given the value of vehicles, equipment and technologies needed to meet the requirements of this contract, which likely cannot be contracted to a M/WBE or SDVOB, there may not be 23% of the remaining value to be subcontracted.

b. Identifying appropriate M/WBE and SDVOB providers and making a good faith effort takes time. In order to approach M/WBE and SDVOB certified vendors and discuss opportunities with honesty, please provide the goal and value basis for the goal as soon as possible.

The basis for calculating the percentage of MBE, WBE and DSVOB participation is total 20-year contact value, which includes all costs (labor, expenses, capital, etc). It is NYSDOT’s policy to have a 23% contract goal for all of its state-funded non-A/E contracts. NYSDOT expects all bidders to make their best effort to secure MBE/WBE/SDVOB subcontractor utilization while preparing proposals, and to present robust good faith effort documentation should these goals not be met.

381. 8.13, p. 139 – When might the cost proposal workbook be completed? Will the proposers have an opportunity to ask questions once the workbook is distributed?
On August 25, 2016, the RFP’s cost proposal excel spreadsheet was released via RFP Modification #3. All firms on NYSDOT’s list of interested parties received an e-mail alerting them regarding this release.

382. 8.24, p. 206 – Key personnel availability damages indicates a change to $1,000 per title, however, 5.1.8.9 still indicates a $10,000 LD. Please clarify.
RFP Section 5.1.8.9 (Page 55) has been changed and now indicates a $1,000 LD.

383. Article 12, A, Conditions Applicable to Insurance, 3. Certificates of Insurance/Notices (pg. 78); the Department is requiring, unless otherwise agreed, the policies shall be written so as to require that the policy will not be (i) canceled, (ii) materially changed or (iii) permitted to expire or lapse for any reason except upon ten (10) days’ prior written notice to the Department by Certified Mail, Return Receipt Requested at the address stated above. In addition, if required by the Department, the Consultant shall deliver to the Department within ten (10) work days of such request a copy of any or all policies of insurance not previously provided, certified by the insurance carrier as true and complete. The industry standard is to provide Notice of Cancellation in 30 days, 10 Days for Non-payment. The current Cancellation language found on the standard ACCORD form is “Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions”. In addition, the insurance carrier/broker will not agree to provide notices by certified or registered mail. Will the State amend the requirement to the industry standard?
This request is denied.

384. Article 12, A, Conditions Applicable to Insurance, # 7. Policy Renewal/Expiration (pg. 79) The Department is requiring at least ten (10) calendar days prior to the expiration of any policy required by this contract, evidence of renewal or replacement policies of insurance with terms no less favorable to the Department than the expiring policies shall be delivered to the Department. In order to obtain the best possible policy conditions and pricing often renewals are not finalized 10 days prior to expiration. Will the Department modify language to read “upon expiration of any such policy, Consultant shall supply Department with a new and replacement Certificate of Insurance”?
This request is denied.

385. Article 12, 3.a, requires the Contractor provide an ACORD 25 Certificate accompanied by an ACORD 855 “New York Construction Addendum”. Please confirm the ACORD 855 would not be required with respect to this contract as Construction is not required.
The ACORD855 requirement is waived.
386. Article 12, 8, Self-Insured Retention/Deductibles. Will the Department agree to a large deductible insurance program that is collateralized, providing full protection to any Third Party or any Additional Insured even if the claim arises from operations undertaken on behalf of that Additional Insured? The requirements for Self-Insured Retention/Deductibles are clearly stated in the Article 12 Section 8. The Department’s approval or disapproval of any such Self-Insurance program will require documentation and a formal submission of a request demonstrating all requirements are met.

387. Article 6. Consultant’s Risk, please confirm that no Certificate of Insurance will be required as it will be up to the Consultant to determine the types and amounts of coverage required to protect their own risks. The selected Contractor shall provide acceptable proof of all insurances required by contract #C031487 via acceptable certificates (C105, DB120, Acord25, etc).

388. Please confirm, with respect to insurance required, any combination of primary and umbrella/excess insurance to meet the total required limit will be acceptable? The primary insurance must meet or exceed the requirements. The amount of umbrella/excess insurance needed may consider the extent such primary insurance exceeds requirements, in order to meet the $5,000,000 per occurrence requirement for umbrella/excess insurance.

389. Participating in the once-mandatory pre-proposal conference resulted in the publication of each firm’s interest in this project, which is valuable information to other competitors. An understanding of the competitive landscape is the starting point for all of us. If a previously undisclosed competitor is ultimately selected, one who knew about our interest, though we did not know of theirs, do not all the unsuccessful proposers have cause to protest? Please provide the names of all active Prime companies that indicated an interest in submitting a proposal on the requested Bid Response Form as well as those actively communicating with the DOT. RFP Modification #4 re-releases NYSDOT’s list of parties expressing interest in this RFP.

390. 4.4.5.1 Page 34 It is our understanding that all costs related to ICM system integration will be covered as part of the ICM System Integration project, which NYSDOT is procuring separately. Any costs related to integration incurred by the selected Contractor and sub contractors for contract #C031487 will be covered under this separate piece of work. We are not required to estimate the cost of the ICM system integration in our response to contract #C031487. As outlined in RFP Section 4.4.5.1, the selected Contractor shall be responsible for working with the LHTL ICM Systems Integrator (being procured under a separate RFP) to ensure the vehicle systems are interoperable with the ICM
system operating in the corridor. The Contractor shall also be responsible for integrating their scheduling software and other back office functions with the transit ICM elements, both on the vehicles and at shelters. These costs must also be included in your cost proposal.

391. 8.24.3.7 Page 223 Can you please expand upon the requirement that "The mobile app should support multiple riders". The app should have the facility to purchase and validate tickets for multiple customers in a convenient manner on one application. For example, a single customer purchasing 3 tickets (1 for themselves and 2 for friends) should be able to do this all on their one device.

392. 8.24.3.7 Page 223 Is the Contractor’s merchant account associated with the MTA machines for accepting credit/debit cards? The MTA fare collection machines do not accept credit/debit cards. They only collect fare from Metro Cards with value already on them are not required. Onboard MetroCard readers are required.

393. 8.24.3.7 Page 223 Are we required to use QR codes or are we able to select other 2D symbology? QR is required as it is more secure – the QR would be harder to predict/replicate than a bar code.

394. 8.28.2 Page 332 From whom do we purchase the MetroCard fare collection machines? Are you able to provide a point of contact so that we may ask questions pertinent to our proposal? The RFP has been modified to further clarify this aspect of the RFP. NYSDOT shall provide additional information to the selected Contractor and will facilitate any necessary agreements with the MTA and MNR regarding meeting the RFP’s MetroCard and UiTicket requirements. Please note that the selected Contractor shall be responsible for procuring, installing, maintaining, repairing and replacing all fare payment equipment and software. See answer to Question 392.

395. Attachment 30, Question 22: Has NYSDOT confirmed with the MTA that it is possible to introduce a barcode onto the proof-of-payment receipts issued by the MetroCard fare collection machines? Does this functionality currently exist? To what extent can the data encoded into the barcode be customized? What barcode symbologies are supported? Please see the answer to Question 392.

396. Section 3.1 Project and Contract Objectives: This section states that "NYSDOT reserves the right to adjust service at any time". To the extent a reduction in service through deleting routes and / or decreasing scheduled hours or service
frequency reduces the required fleet levels what compensation mechanisms exist for the Contractor? As an example if 20 buses are supplied on a lease for a term of 10 years and NYSDOT decides to reduce the level of service such that only 10 buses are required at the commencement of year 3 of the contract, what relief will be available to the contractor for the remaining 8 years of lease payments? Further while reducing mileage will reduce the variable costs associated with operating the service, delivering this service with 5 or 20 buses for example will result in the same fixed cost. We are accustomed to taking risk in contracts but the unique application of the vehicle type requested increases the risk considerably especially coupled with no contractual liquidated damages for the contractor.

NYSDOT will consider appropriate actions should a decrease in service situation arise.

397. Section 3.5 Normally a longer contract term would provide a contractor with a period of time sufficient to recover the capital employed. However, the 20 year term introduces a degree of cost uncertainty in the latter half of the contract particularly when coupled with a maximum annual cost increase cap of 3% per annum. Many costs have historically outstripped inflation in recent years and are volatile such that a 3% cap per annum does not provide enough assurances especially over the longer term. In other transit contracts these costs are typically carved out and treated differently. Removing a cost category such as fuel and agreeing to move the costs up as well as down in line with market prices or agreed index would take some volatility from the cost proposal. Additionally a longer term contract can actually encourage the cost proposal to be more prudent / cautious than it otherwise would be due to the difficulty in predicting costs / technology / public policy and technology over a 20 year term. We request that the State re-examine the requirement for a 20 year term and / or consider carving out the annual cost cap increase.

The cost of fuel shall be removed from the composite fixed rate calculus. Similar to its construction projects, NYSDOT will allow the cost of fuel to be adjusted on a separate monthly reimbursement basis via the following utility (with guidance): https://www.dot.ny.gov/main/business-center/contractors/construction-division/fuel-asphalt-steel-price-adjustments. NYSDOT expects all other costs to be per RFP Modification #3:

- One loaded fixed annual per revenue mile billing rate (Estimated Monthly Revenue Miles = 132,251), which will NOT include payment for additional ITS equipment and will NOT include payment for facility or equipment expenses.
- Initial ITS equipment shall be installed and set up using a time and materials payment method, to be billed on a schedule agreeable to both parties. Fixed rates for all applicable personnel for additional future ITS work shall be proposed.
Payment for all facilities and equipment shall be on a fixed per monthly basis over the 20 year contract term.

398. Article 17 Termination for NYSDOT Convenience: Where the contract is suspended or terminated by NYSDOT for convenience how would NYSDOT deal with any compensation to the contractor for costs that they would incur as a result of termination for convenience. Such costs could include but are not limited to State or Federal WARN for impacted employees, residual facility and vehicle lease payments to the end of the contract term and other closure related closure costs. We understand this would not amount to loss of anticipated profits for uncompleted work but rather hard/firm contractual and State/Federal obligations.

The Operator bears responsibility for all consequential costs in the event of a termination under Article 17.

399. Attachment 26: Vehicle Specification: We appreciate the NYSDOT initiative to operate an innovative bus service to assist with transportation needs of the community over the longer term. The double deck option selected is an option that we are able to appreciate and support. The State has alluded to acceptance of alternative double deck vehicles we request that the State provide the exact Make, Model and specifications of accepted alternatives so that we can consider these as part of our proposal.

The minimum requirements for vehicle selection are that the vehicle is a high capacity double-deck bus or coach that it is in compliance with all statutory requirements such as FMVSS and FMCSA, as well as NYSDOT-specific requirements. All vehicles must be compliant with all applicable ADA requirements. It is known that the Alexander-Dennis Enviro 500 and the Van Hool TDX fulfill these basic requirements. Other vehicles may also be compliant with these requirements. This list is in no way meant to be considered exhaustive. Bidders should research the market to find the best value vehicle for their needs. The RFP technical specification should be considered a minimum standard, and the vehicles proposed should have the attributes outlined in the specification. Higher-value components are allowable.

400. 8.16 Attachment 15: Bus Operations Requirements: Please clarify what is meant in the RFP driver qualifications section "No more than 2 accidents in the past 5 years are allowed". Does this mean preventable or ANY accidents? While the qualifications were written to indicate any accidents, NYSDOT may consider changing this to preventable accidents instead, and could invoke this change after contractor selection.
401. Can the bidding firm propose additional safety technology that has not been defined in the RFP (ex: Mobile Eye would be a great added resource to support safe operation of the vehicle)?

NYSDOT shall consider any reasonable and responsible additional safety technology only if such is in the state’s best interest. Cost for additional safety technology should be included in your cost proposal.

402. Are we to use current costs in year 1 and then just assume a CPI increase every year thereafter? If so and capped at 3% this may not come close to covering certain cost increases. What does the State mean when they say "we will sit down and talk"?

Yes, you are instructed to use current costs in year 1 and then just assume a CPI increase every year thereafter capped at 3%.

403. 8.16 Attachment 15: Bus Operations Requirements: Assuming we don't have an existing employee to fit every required job description, how do we go about supplying a resume etc.? Present the minimum qualifications and job requirements for any positions to be filled by generic staff.

404. Can we utilize other buses other than new ones and if so, what would be an acceptable age or not acceptable age? Are there any age restrictions/Is there a cap?

NYSDOT may consider utilization of older buses only if such maintains the same high quality level of services required by the RFP. While it is a hard RFP requirement that the LHTL BRT service begin via use of doubledecker buses, as this project progresses, NYSDOT may also consider utilization of other than doubledecker buses with such being consummated via the contract amendment process.

405. Will the winning bidder have the ability to share in the "Advertising" revenue with NYSDOT?

NYSDOT agrees that any advertising revenue is to be retained by the selected Contractor.

406. 8.1 Article 10(a): Will the State be revising this section to reflect that the Consultant and State will consider Consultant's proposal and negotiate a supplemental agreement?

This Article stands as written.

407. 8.1, Pages 102-104, Article 17(a)(b) and (c): Revisions still do not reflect a notice period of termination. What will be the notice period in each of these terminations?
In the unlikely circumstance that would trigger the State’s use of its suspension and termination rights under Article 17, there is no minimum notification period for the State.

408. 8.1, Page 103, Article 17(a): Revisions still do not reflect a notice period of termination. What will be the notice period be for a termination of convenience? There is no minimum notification period for the State under Article 17.

409. 8.1, Pages 102-104, Article 17(a)(b) and (c): Understanding that the response to the initial questions concerning no reimbursement of unamortized vehicles and equipment, will the State understand and consider that a potential Consultant will need to consider this as part of their cost proposal and, if so, can the State consider some language as to how a termination for convenience may impact the Consultant's overall risk and provide some monetary compensation for its losses? The Operator bears responsibility for all losses in the event of a termination under Article 17.

410. Powerpoint Slide Slide 21: What are the “agreed performance targets” with respect to addressing system faults with ICM assets? A Service Level Agreement is being prepared as part of the ICM Systems Integrator RFP.

411. Powerpoint Slide Slide 24: What does NYSDOT consider as an acceptable Computer Aided Dispatch system? NYSDOT will consider a CAD system acceptable if it fulfils the requirements in the RFP and the ongoing operational requirements of the transit and ICM systems.

412. Powerpoint Slide Slide 27: Do we think NYSDOT prefers driver-controlled or proof-of-payment system? As outlined in RFP Section 5.1.6.7, the bidder is responsible for choosing a method of fare collection. NYSDOT does not prefer either method – this choice and its justification are up to the bidder.

413. Powerpoint Slide Slide 29: What are the “relevant” RSS feeds we need to display in shelters? The recommended relevant feeds at the beginning are from Metro-North, NYSDOT, and NYSTA. Once RSS functionality has been included, adding or changing feeds (as required by NYSDOT) is possible as they are in a standard format.

414. Powerpoint Slide Slide 30: What is the “S2S” link shown between the “central system” and HVTMC DSS?
The ‘S2S’ link refers to ‘Server-to-Server’. This should be changed to ‘Center-to-Center’ and will most likely be NTCIPv2 compliant.

415. Since NYSDOT will hold title to all shelter technology, will we need to run any repairs / changes past them in advance, or will they allow us to make these decisions? The successful bidder will have the ability to maintain the transit technology and replace life-expired equipment. If any major technology changes are to be proposed, this should be taken up with NYSDOT.

416. Who is responsible for overall design of the website? The selected Contractor shall make recommendations via NYSDOT participation, reviews and approvals.

417. Who will procure and approve the domain name? The selected Contractor shall make recommendations for NYSDOT review and approvals.

418. NYSDOT is responsible for delivering the new bus shelters. Who is their vendor? Is there an option to have the destination signs built in by the manufacturer? NYSDOT’s contractor, Arup, is leading the design on the shelters and the successful bidder should work with them for integrating the transit technology into the bus shelters.

419. What vendor(s) does MetroNorth use for AVL / RTPI? NYSDOT does not have this information. It is recommended that this question be directed to Metro-North.

420. Section 8 Attachments 8.2, Page 177: What is an annual “Vehicle Engine Tune-Up Report”? This should be part of the preventive maintenance reporting system and should document that the manufacturer’s recommended maintenance practices are being carried out on schedule.

421. Scope of Services, RFP Section 4.4.3, Page 24: Does NYSDOT and Advisors through their due diligence in identifying the specific vehicle type feel that the vehicle will be able to operate over the 14 year term without being replaced? The 14 year base term has been changed to a 20-year base term with no extensions. For standard transit vehicles with FTA financial participation, transit vehicle lifecycles for are established by the FTA currently set at 12 years.

422. Scope of Services, RFP Section 4.4.6.5, Page 28: If the contractor deems that the schedules merit a smaller capacity vehicle at various points during the service due
to lower capacity would NYSDOT entertain a mixed fleet option of larger double deck transit buses and single deck coaches?
See the answer to Question 404.

423. Cost Proposal, RFP Section 5.2.1, Page 55: If federal or state law changes are enacted that impact the proposal including federal payroll tax rates and state fuel tax, can this impact be recovered through the contract?
For fuel changes to fuel costs: Yes, through NYSDOT’s standard monthly fuel reimbursements process. For federal payroll taxes or any other changes in costs, No, as the Provider bears the risk of changes in costs, both positive and negative, other than the CPI and fuel adjustments expressly and directly provided in the contract.