

Invitation for Bids

Issued by

**New York State Office of General Services
Business Services Center**

**On Behalf of New York State Division of
Homeland Security and Emergency Services**

For

FIRE APPARATUS – CUSTOM PUMPER



BID DUE DATE: January 9, 2015 by 2:00 PM

Issue Date: November 21, 2014

Questions Due: December 12, 2014

Designated Contact:

Lori Brewster

Voice: 518-485-5616

bsc_ifbs@ogs.ny.gov

Alternate Contact:

Kimberly Miller

Voice: 518-485-5616

bsc_ifbs@ogs.ny.gov

Table of Contents

1. INTRODUCTION	4
1.1 Overview	4
1.2 Designated Contact	4
1.3 Key Events	4
1.4 Minimum Qualifications	5
1.5 IFB Questions and Clarifications	5
1.6 Examination of Contract Documents	5
1.7 Bid Exceptions	6
2. BID SUBMISSION	6
2.1 Instructions for Bid Submittal	6
2.2 Packaging of IFB Response	7
3. ADMINISTRATION INFORMATION	7
3.1 Issuing Office	7
3.2 Method of Award	7
3.3 Price	8
3.4 Delivery	8
3.5 Term of Contract	8
3.6 Method of Payment	8
3.7 Electronic Payment	9
3.8 Past Practice	9
3.9 Dispute Resolution	9
3.10 Prime Contractor Responsibilities	9
3.11 Inspection of Books	9
3.12 Glossary of Terms	10
3.13 Rules of Construction	10
4. SPECIFICATIONS	10
4.1 Product Specifications	10
4.2 Delivery Location	49
4.3 Security Procedures	49
4.4 Anti-Freeze Protection.....	49
4.5 Motor Vehicle Regulations.....	49
4.6 Emissions Controls.....	50
4.7 Rejected Product	50
4.8 Warranty	50

5. CONTRACT CLAUSES AND REQUIREMENTS 50

5.1 Appendix A / Order of Precedence 50

5.2 Procurement Lobbying Requirement 50

5.3 Contractor Insurance Requirement 51

5.4 Tax and Finance Requirement 54

5.5 Opportunities for NYS Certified Minority and Women-Owned Businesses 54

5.6 Freedom of Information Law / Trade Secrets 57

5.7 General Requirements 57

5.8 Contract Terms 57

5.9 Procurement Rights 57

5.10 Debriefings 58

5.11 A. Termination 58

 B. Procurement Lobbying Termination 59

5.12 New York State Vendor File Registration 59

5.13 New York State Vendor Responsibility 59

5.14 Ethics Compliance 60

5.15 Indemnification 60

5.16 Force Majeure 61

5.17 Appendices, Exhibits and Attachments 61

5.18 Mercury Added Consumer Products 61

Attachment 1..... Bid Proposal Forms 62

Attachment 2..... Required Forms/Certifications..... 116

Attachment 3..... Additional Documents to be Submitted with Bid 117

Appendix A Standard Clauses for New York State Contracts

1. Introduction

1.1 Overview

The New York State Office of General Services (OGS) Business Services Center (BSC), on behalf of the New York State Division of Homeland Security and Emergency Services (DHSES) Office of Fire Prevention and Control (OFPC) Academy of Fire Science, is accepting bids for one (1) custom-built fire truck for delivery to Montour Falls, New York. As a result of this Invitation for Bids (IFB), DHSES intends on making a one-time purchase. A Purchase Order shall be issued upon Office of the State Comptroller approval of the contract.

It is recommended for interested vendors to register their contact information with the designated contact below to be added to the bidder solicitation list and to ensure any edits or addendums are received.

1.2 Designated Contact

In compliance with the Procurement Lobbying Law, Lori Brewster, Purchasing Agent, NYS Office of General Services, Business Services Center, has been designated as the primary contact for this procurement solicitation and may be reached by email for all inquiries regarding this solicitation:

Lori Brewster
 NYS Office of General Services
 Business Services Center
 50 Wolf Road – Purchasing Unit
 Albany, New York 12232
 Email: bsc_ifbs@ogs.ny.gov

In the event the designated contact is not available, the alternate designated contact is:

Kimberly Miller
 NYS Office of General Services
 Business Services Center
 50 Wolf Road – Purchasing Unit
 Albany, New York 12232
 Email: bsc_ifbs@ogs.ny.gov

1.3 Key Events

The Table below outlines the schedule for important action dates.

BSC Issues Invitation For Bid (IFB)	November 21, 2014
Deadline for Submission of Bidder Questions	December 12, 2014
BSC Issues Responses to Written Questions (estimated)	December 17, 2014
Bid Due Date/ Bid Opening Date	January 9, 2015 @ 2:00 pm
Contract Date (estimated)	Upon Office of the State Comptroller Approval

1.4 Minimum Qualifications

Bids will be accepted only from authorized manufacturers/dealers. Any dealer submitting a bid hereby guarantees it is an authorized dealer of the manufacturer and that the manufacturer has agreed to supply the distributor with the product required by the dealer in fulfillment of its obligations under any resultant contract with the State. A Manufacturer's Certificate is attached and should be submitted with the bid proposal.

REFERENCES:

If requested, bidder must provide a minimum of five references including references from two of the bidder's largest customers. References shall be commercial or governmental accounts, and should demonstrate the ability of the vendor to perform jobs similar in scope to the size, nature and complexity of the outlined bid. The references shall include the:

- Name, address, contact person, telephone number, fax number, and number of years bidder has serviced the referenced account;
- Volume of business performed within the past three years for each referenced account.

FINANCIAL STABILITY:

If requested, bidder must document its ability to service a contract with dollar sales volume similar to scope of this bid through submission of financial statements documenting past sales history. The bidder must be financially stable and able to substantiate the financial statements of its company. In addition to sales history, current financial statements may be requested and must be provided within five business days. The New York State Office of General Services (OGS) and the Division of Homeland Security and Emergency Services (DHSES) reserve the right to request additional documentation from the bidder and to request reports on financial stability from independent financial rating services. OGS and DHSES reserve the right to reject any bidder who does not demonstrate financial stability sufficient for the scope of this bid.

1.5 IFB Questions and Clarifications

Questions and requests for clarification regarding this IFB shall be directed to:

Lori Brewster, Purchasing Agent
NYS OGS Business Services Center
50 Wolf Road
Purchasing Unit – 3rd Floor
Albany, NY 12232
E-mail: bsc_ifbs@ogs.ny.gov

Questions and/or requests for clarification are only accepted via e-mail. Official answers to questions will be provided via addendum. Deadline for submission of questions will be as stated in Section 1.3 Key Events.

1.6 Examination of Contract Documents

- a. Any Bidder in doubt as to the true meaning of any part of this Invitation for Bid or the proposed contract documents shall submit to bsc_ifbs@ogs.ny.gov a written request for an interpretation thereof. The Commissioner's interpretation of specifications shall be final and binding upon the Contractor.
- b. If a major change is involved on which all bidders must be informed, such request for interpretation shall be delivered, in writing, via e-mail by the closing date for inquiries. Any interpretation of the proposed documents will be made only by an addendum duly issued.
- c. Any addendum issued during the bidding process shall be included in bids and in closing a contract will become a part thereof.
- d. Any verbal information obtained from or statements made by representatives of the Commissioner of General Services at the time of examination of the documents or site shall not be construed as in any way amending Contract Documents. Only such corrections or addenda as are issued in writing to all bidders

shall become a part of the contract. The Commissioner of General Services will not be responsible for verbal instructions.

1.7 Bid Exceptions

The Issuing Office will consider all requests to waive any bid requirement. However, bidders should be aware that failure to obtain a waiver of any bid requirement in advance of bid submission may result in rejection of Bidder's bid and disqualification from the bidding process. Bidders wishing to obtain an exemption or waiver for any part of this solicitation must contact the Issuing Office in writing by the '**Questions Due Date**' as identified in Key Events (Section 1.3). The request must cite the specific section and requirement in the question, and clearly identify any proposed alternative. Requests will be considered and responded to in writing, either via addendum (if the response results in a change to the IFB), or directly to the requesting vendor.

2. Bid Submission

2.1 Instructions for Bid Submission

Only those Bidders who furnish all required information and meet the mandatory requirements will be considered. Submit all required bid documents including bid addenda if any, to the OGS Business Services Center at the following address:

Lori Brewster
NYS OGS Business Services Center
50 Wolf Road
Purchasing Unit - 3rd Floor
Albany, NY 12232

E-MAIL OR FAX BID SUBMISSIONS ARE NOT ACCEPTABLE AND WILL NOT BE CONSIDERED.

The State of New York will not be held liable for any cost incurred by the Bidder for work performed in the preparation and production of a bid or for any work performed prior to the formal execution of a contract. Bids must be received in the above office at or before 2:00 pm eastern on the date indicated in Section 1.3 Key Events. The received time of bids will be determined by OGS BSC at the clock at the above noted location.

Bidders assume all risks for timely, properly submitted deliveries.

LATE BIDS MAY BE REJECTED

Bidders mailing their bid must allow sufficient mail delivery time to ensure receipt of their bid at the specified location no later than the specified date and time. Delays in United States mail deliveries or any other means of transmittal, including couriers or agents of the bidding entity shall not excuse late Bid submissions. Similar types of delays, including but not limited to, bad weather or security procedures for parking and building admittance shall not excuse late Bid submissions. Bidders are cautioned that receipt of bids in the BSC Mailroom is NOT sufficient. BSC cannot be responsible for the actions of your chosen carrier.

Bids must remain open and valid for 120 days from the due date, unless the time for awarding the contract is extended by mutual consent of NYS OGS and the Bidder. A bid shall continue to remain an effective offer, firm and irrevocable, subsequent to such 120 day period until either tentative award of the contract(s) by issuing Office is made or withdrawal of the bid in writing by Bidder. Tentative award of the contract(s) shall consist of written notice to that effect by the issuing Office to the successful Bidder. This IFB remains the property of the State at all times, and all responses to this IFB, once delivered, become the property of the State.

2.2 Packaging of IFB Response

Submit one (1) original of the completed Bid Proposal Form(s) in Attachment 1

**** AND ****

Submit one (1) original of all required Forms / Certifications / Insurance outlined in Attachment 2

**** AND ****

Submit all documents / drawings / information requested in specifications outlined in Attachment 3

**** AND ****

Submit one (1) original of signed addendum (s), if there are any addenda issued

The bid documents must be submitted by mail, hand delivery, overnight carrier or certified mail in a package showing the following information on the outside:

Bidder Company Name and Address

Solicitation Number: IFB-0037

Bid Due Date and Time: January 9, 2015 @ 2:00 PM

Bid for: Fire Apparatus

Important Building Access Procedures for Hand-Delivered Bids:

Building access procedures are in effect at BSC Wolf Road. Photo identification is required. All visitors must register for building access for delivering bids. **Vendors are encouraged to pre-register by contacting the OGS BSC at 518-485-5616 at least 24 hours prior to the bid opening.** Pre-registered visitors are to report to the reception area.

2.3 Information of be Furnished with Bid

The bidder shall submit with its bid detailed specifications, circulars and all necessary data on the product to be furnished. If the product offered differs from the provisions listed, such differences must be explained in detail. Failure to submit any of the above data may result in rejection of the bid. OGS, however, reserves the right to request any additional information deemed necessary for the proper evaluation of bids.

3. Administrative Information

3.1 Issuing Office

This IFB is being released by the New York State Office of General Services Business Services Center on behalf of the New York State Division of Homeland Security and Emergency Services Office of Fire Prevention and Control, Academy of Fire Science.

3.2 Method of Award

Award shall be made by total bid price, to the lowest responsible and responsive bidder.

Consideration will be given to those bidders who can make timely delivery of the specified apparatus. Include guaranteed delivery timeframe on bid proposal.

3.3 Price

Bid Price shall include all services required to deliver the items as specified, including travel, licenses, insurance, administrative, customs, duties, charges and ancillary costs and be net FOB destination to delivery location. Bid price includes any and all costs associated with providing and delivering the items such as those noted below:

Delivery from factory/manufacturer to dealer/distributor destination
 Labor
 Emissions
 Surcharges
 Administrative Costs, Overhead, Profit, etc.
 Assembly

3.4 Delivery

Delivery of the apparatus is required as soon as possible, but no later than 270 calendar days after receipt of a Purchase Order (a/r/o). Due to the conditions of the grant that funds this purchase, time is of the essence. Include Guaranteed Delivery timeframe on the Bid Proposal Form. Contractor shall coordinate delivery with DHSES with 24 hour notice required.

Delivery shall be made in accordance with instructions on Purchase Order from the agency. If there is a discrepancy between the Purchase Order and what is listed on the Invitation to Bids, it is the contractor's obligation to seek clarification from DHSES.

3.5 Term of Contract

It is the intention of the State to make one-time purchase via a Purchase Order. The contract shall commence upon Office of the State Comptroller (OSC) approval and shall terminate upon the delivery/acceptance and payment of the items.

The State of New York retains the right to cancel this contract for convenience, provided that the Contractor is given at least sixty (60) days written notice of DHSES' intent to cancel. Any cancellation by DHSES under this section shall in no event constitute or be deemed a breach of any contract resulting from this IFB and no liability shall be incurred by or arise against DHSES, its agents and employees therefore for lost profits or any other damages resulting there from. This provision should not be understood as waiving the State's right to terminate the contract for cause or stop work immediately for unsatisfactory work, but is supplementary to that provision. See Section 5.14 – Termination.

3.6 Method of Payment

Upon delivery and acceptance of product specified, an invoice shall be submitted to the Business Services Center Accounts Payable Unit. Invoice will be processed in accordance with established procedures of the Office of General Services and the Office of the State Comptroller (OSC) and payments will be subject to the prompt payment provisions of Article XI-A of the New York State Finance Law.

Invoice must contain the Purchase Order number and Invoice shall be consistent with the Purchase Order issued. Invoices without the required information will be returned to Contractor to be completed as required. All invoices must be submitted for payment to either:

NYS DIVISION OF HOMELAND SECURITY
c/o OGS BUSINESS SERVICES CENTER
ACCOUNTS PAYABLE UNIT
PO BOX 2117
ALBANY, NEW YORK 12220-0117

-- OR --

accountspayable@ogs.ny.gov

3.7 Electronic Payment

Contractor shall provide complete and accurate billing invoices in order to receive payment. Billing invoices submitted must contain all information and supporting documentation required by the contract, the agency, and the State Comptroller. Payment for invoices submitted by the contractor shall only be rendered electronically unless payment by paper check is expressly authorized by the Commissioner, at the Commissioner's sole discretion, due to extenuating circumstances. Such electronic payment shall be made in accordance with ordinary State procedures and practices. The Contractor 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 e-mail at epunit@osc.state.ny.us, or by phone at 518-486-1255. Contractor 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.

3.8 Past Practice

The failure to exercise any right hereunder in the past shall not operate as a waiver of such right. No breach of this Agreement shall be deemed waived unless such waiver shall be in writing and signed by the party claimed to have waived. No waiver of any breach of the Agreement at any time in the past shall constitute a waiver of subsequent breach.

3.9 Dispute Resolution

It is the policy of the Office of General Services Business Services Center to provide vendors with an opportunity to administratively resolve disputes, complaints or inquiries related to bid solicitations, contract awards, and contract administration. OGS Business Services Center encourages vendors to seek resolution of disputes through consultation with Business Services Center staff. All such matters will be accorded impartial and timely consideration. Interested parties may also file formal written disputes. A copy of the OGS BSC Dispute Resolution Procedures for Vendors may be obtained by contacting the designated contact person identified on the front of the bid document.

3.10 Prime Contractor Responsibilities

The State will contract only with the successful Bidder who is the Prime Contractor. The Issuing Office considers the Prime Contractor, the sole Contractor with regard to all provisions of the IFB, and the contract resulting from the IFB.

No subcontract entered into by the Contractor shall relieve the Contractor of any liabilities or obligations in this IFB or the resultant contract. The Contractor accepts full responsibility for the actions of any employee or subcontractor who carry out any of the provisions of any contract resulting from this IFB.

3.11 Inspection of Books

It is expressly understood and agreed that DHSES and the New York State Comptroller shall have the right to inspect and audit the Contractor's records covered under this Agreement, in accordance with his statutory responsibility to examine the books and accounts of every Agency. The New York State Comptroller requires, and the Contractor agrees to, the retention of all material that is pertinent to an audit of the operations under any contract resulting from this IFB for a full six-year period.

3.12 Glossary of Terms

“Issuing Office” shall mean the Office of General Services Business Services Center.

“Contractor”/“Vendor” shall mean a successful company awarded a contract pursuant to this IFB.

“Invitation for Bid” or “IFB” shall mean this document.

The “State” shall mean The People of the State of New York, which shall also mean the New York State Office of General Services Business Services Center and the Division of Homeland Security and Emergency Services.

“Commissioner” shall mean the Commissioner of Division of Homeland Security and Emergency Services or duly authorized representative.

“Offeror” or “Offerer” or “Bidder” shall mean any person, partnership, firm, corporation or other authorized entity submitting a bid to the State pursuant to this IFB.

3.13 Rules of Construction

Words of the masculine and feminine genders shall be deemed and construed to include the neuter gender. Unless the context otherwise indicates, the singular number shall include the plural number and vice versa, and words importing persons shall include corporations and associations, including public bodies, as well as natural persons. The terms “hereby,” “hereof,” “hereto,” “herein,” “hereunder,” and any similar terms, as used in this IFB refer to this IFB.

4. Specifications

4.1 Product Specifications

FIRE APPARATUS – CUSTOM PUMPER

QUANTITY = 1

INTRODUCTION -- PROPOSAL REQUIREMENTS

The New York State Division of Homeland Security and Emergency Services (DHSES) NYS Office of Fire Prevention and Control (OFPC) Academy of Fire Science, hereafter known as the NYS Academy of Fire Science, has opted to develop this specification as an “open design” so as to not restrict proposals from multiple manufacturers. While it is the intent to be “generic in nature”, the agency will adhere to some minimal standards that will not be allowed to be in variance. Some of these include, but are not limited to, financial stability, bonding capabilities, quality components and service for example, and will be listed as “**no exception**” items. Anywhere it clearly states “**no exceptions**”, the manufacturer must clearly indicate their compliance with these items. If the manufacturer’s standard is in variance of a generic component, it should realize that the variable component may or may not be an acceptable alternate to those specified. **If in variance, the manufacturer shall fully describe their alternate offering with details as to its quality in being equal or engineering support data to support the claim.** It is the full intent of the agency to be opened minded to the extensive variations of construction and components, yet it will be the manufacturers responsibility to fully illustrate their sound design standards and proven field performance.

It is the intent of these specifications to secure apparatus constructed to withstand the severe and continuous use encountered during fire service training evolutions. The apparatus must be of the latest type, carefully designed and constructed with due consideration to the nature and distribution of the load to be sustained.

These specifications detail the requirements for general design criteria of cab and chassis components, fire pump and related components, water tank, fire body, electrical components, painting, and equipment. In evaluating the bid proposals to determine which proposal is the most advantageous, these major items shall be considered.

Apparatus and equipment must meet the specific requirements and intent of the requirements as specified herein. All items of these specifications shall conform to the character of the proposed apparatus and the purpose for which it is intended. Criteria as specified by the National Fire Protection Association 1901, latest edition, as approved by the American Insurance Association and International Association of Fire Chiefs, are hereby adopted and made a part of these specifications the same as if they were written out in full, insofar as they apply and are not specifically modified in the following detailed specifications. Each bidder shall provide only that equipment as required in the following specifications.

The fire apparatus and equipment to be furnished in meeting these specifications must be the products of an established, reputable fire apparatus manufacturer. Each bidder shall furnish satisfactory evidence of the manufacturer's ability to construct, supply service parts and technical assistance for the apparatus specified. Each bidder must state the location of the factory and location for post delivery service.

FIRE APPARATUS DOCUMENTATION

The chassis shall be certified by the apparatus manufacturer as conforming to all applicable federal motor vehicle safety standards in effect at the date of contract. This shall be attested to by the attachment of a FMVSS certification label on the vehicle by the contractor who shall be recognized as the responsible final manufacturer.

VEHICLE RECORDS

The successful bidder, and any successors, shall be responsible for preparing and maintaining a record file of parts and assemblies used to manufacture the apparatus. These records shall be maintained in the factory of the bidder for a minimum of twenty (20) years. File shall contain copies of any and all reported deficiencies, all replacement parts required to maintain the apparatus, and original purchase documents including specifications, contract, invoices, incomplete chassis certificates, quality control reports and final delivery acceptance documents, the purchaser shall have access to any and all documents contained in this file upon request.

CHASSIS

Bidders shall propose a Four Door Medium Size Custom Chassis with seating for 6.

GENERAL CONSTRUCTION

The complete apparatus, assemblies, subassemblies, component parts, etc., shall be designed and constructed with the due consideration to the nature and distribution of the load to be sustained and to the general character of the service to which the apparatus is subjected when placed in service. All parts of the apparatus shall be designed with a factor of safety, which is equal to or greater than that which is considered standard and acceptable for this class of equipment in firefighting service. All parts of the apparatus shall be strong enough to withstand general service under full load. The apparatus shall be so designed that the various parts and readily accessible for lubrication, inspection, adjustment and repair.

Bidder's specifications must meet minimum requirements of NFPA 1901, 1911; Underwriters Laboratories, Inc.; and all State and Federal Department of Transportation vehicle regulations at time of sale of unit.

The apparatus shall be designed and constructed, and the equipment so mounted, with due consideration to distribution of the load between front and rear axles that all specified equipment, including a full complement of specified ground ladders, full water tank, loose equipment, and firefighters shall be carried without overloading or injuring the apparatus.

MANUFACTURER RESPONSIBILITY

At least fifteen similar units must have been sold and delivered of the type described herein. The entire apparatus (to include cab, chassis, body, pump, and water tank) **MUST** be manufactured in the United States.

SERVICE CENTER AND PARTS DEPOT

The successful bidder shall have an authorized service center, with a staff of factory-trained mechanics, well versed in all aspects of service for all major components, of the apparatus within a 100-mile radius of the NYS Academy of Fire Science designed and equipped to service and store apparatus indoors. In addition, the bidder shall maintain a separate service facility at the manufacturing site, in order to satisfy the need for possible major emergency service work.

SERVICE CENTER INFORMATION

The center must provide a full time staff of experienced technicians with all of the required equipment to provide modern, accurate and efficient service. Bidders shall state the size of their shop and office area in square feet. They shall state the location of the facility and provide photos of both the exterior and interior of the center. Accuracy of the description of the service center is of great importance.

TECHNICAL INFORMATION

Bidder shall furnish free of charge, upon request, technical information, graphs, charts, photographs, engineering diagrams, steering geometry, drive train certifications, instruction guides, or other documentation as requested to show that the equipment offered fully complies with these specifications.

DELIVERY TIME

Each bidder shall state the completed apparatus delivery time based on the number of calendar days, starting from the date the purchase order is received by the vendor.

IMPORTANT! All bidders shall clearly state their commitment to a delivery schedule that is firm. After submission of bid, there will be no negotiations of delivery period. The dates and delivery times shall be adhered to. If the delivery of the completed unit extends beyond the stated delivery per contract, there will be a late delivery penalty imposed of \$500 per day that the unit is not delivered. It is understood that the purchaser is responsible for timely information return and also any extensive changes of the unit once ordered. If any changes are to extend the delivery quoted, the manufacturer shall be given 10 days to request an extension based on any customer changes. If not, the delivery shall remain firm. In the case where the manufacturer delivers late, the penalty amount shall be deducted from the balance due at time of the actual delivery, **NO EXCEPTIONS!**

USER'S LIST

The bidder shall include a current "User's List" with a minimum of ten (10) units that are within 250 miles of the NYS Academy of Fire Science, 600 College Avenue, Montour Falls, NY. This list shall include customer name, person to contact, address and telephone number.

MATERIAL AND WORKMANSHIP

All equipment furnished shall be guaranteed to be new and of current manufacture, to meet all requirements of these specifications.

All workmanship shall be of high quality and accomplished in a professional manner so as to insure a functional apparatus with a pleasing, aesthetic appearance.

SALES ENGINEER

The successful bidder shall designate a competent individual to perform the contractor's sales engineer functions. The sales engineer shall provide a single point interface between the purchaser and the contractor on all matters concerning the contract.

APPROVAL DRAWINGS

Detailed blue prints should be provided to the purchaser indicating a general layout of the unit. The purchaser, manufacturer's representative and the apparatus manufacturer shall each have a copy of this blue print. Upon purchaser's approval, this print shall become a part of the total contract.

Drawing shall show, but is not limited to, such items as the chassis being utilized, lights, sirens, all compartment locations and dimensions, special suction, discharges, etc. The blue print shall be a visual interpretation of the unit as it is to be supplied and must show top, rear, front, road side, curb side and a pump panel layout.

INSPECTION VISITS

The successful bidder shall provide three (3) factory inspection trips to the apparatus manufacturer's facility. Transportation, meals, lodging, and other requisite expenses shall be the bidder's responsibility.

Accommodations shall be for four (4) Agency representatives per trip.

The factory visits shall occur at the following stages of production of the apparatus:

- Pre-construction meeting.
- Pre-painting of complete apparatus.
- UL Pump test and Final inspection upon completion

Travel arrangements less than 200 miles from the manufacturing facility shall be via ground transportation. Beyond the 200 mile radius, the trip shall be via a mutually agreed upon airline.

The NYS Academy of Fire Science maintains the right to inspect the apparatus, within normal business hours, at any other point during construction. Expenses incurred during non-specified inspection visits shall be the responsibility of the NYS Academy of Fire Science.

During inspection visits, the NYS Academy of Fire Science reserves the right to perform actual performance tests to evaluate completed portions of the unit. Testing shall be accomplished with the assistance and resources of the contractor.

DELIVERY, DELIVERY ENGINEER, AND TESTING

Delivery of the apparatus to the NYS Academy of Fire Science shall be FOB Destination and all associated costs shall remain the contractor's responsibility.

On initial delivery of the fire apparatus, a qualified and responsible delivery engineer of the contractor shall demonstrate the apparatus and provide initial instruction to representatives of the NYS Academy of Fire Science representatives regarding the operation, care, and maintenance of the apparatus and equipment supplied.

Road performance requirements and test

Maximum grade that the vehicle will be expected to climb: **13.5%**

Maximum road speed: **68 MPH**

At the time of delivery, a road test shall be conducted by representatives of the NYS Academy of Fire Science and the manufacturer's representative. With the apparatus fully loaded, during which a continuous run of ten miles or more shall be made under all driving conditions, the apparatus shall show no loss of power or evidence of overheating. The engine, transmission, drive shaft or shafts, rear axles, and tires shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. The vehicle shall negotiate curves and corners at reasonable speeds without undue sway and without loss of control. The vehicle shall meet the following requirements:

A) The apparatus, with a full water tank, shall comply with the gross axle weight ratings, the overall gross vehicle weight rating, and the chassis manufacturer's load balance guidelines, with sufficient margin to accommodate anticipated personnel, hose, tool and equipment loading. Documentation from a certified scale, confirming this requirement, shall be provided by the seller.

B) The apparatus, fully loaded and starting from a full stop shall be capable of accelerating to 35 MPH from a standing start within 25 seconds on a level, paved highway without exceeding the manufacturer's governed RPM for the engine.

C) The service brakes shall be capable of stopping a fully loaded vehicle in 35 feet at 20 MPH on a level, paved highway, without pulling to either side, or pulsating, or otherwise compromising the safe handling of the vehicle.

D) The apparatus, fully loaded shall be capable of obtaining a speed of 63-68 MPH on a level, paved highway, and with the engine not exceeding its full load governed RPM.

E) The apparatus fully loaded and starting from a full stop, shall be capable of accelerating to a speed of **25 MPH on a 7% grade, dry, paved highway, within 60 seconds**, and with the engine not to exceed its full load governed RPM at any point during the test. **(Test exceeds NFPA 1901 specification.)**

Pre-delivery testing and acceptance

Pump tests shall consist of those specified in NFPA 1901 Chapter 16. The pump certification tests of this chapter shall be conducted at the apparatus manufacturer's approved facility, witnessed by representatives of the NYS Academy of Fire Science, and certified by Underwriter's Laboratory. The information stamped on the test plate, mounted at the pump operator's panel, shall agree with these test results.

The manufacturer shall perform the "Manufacturer's Pre-delivery Test" (pump and piping hydrostatic test). This test need not be witnessed by representatives of the NYS Academy of Fire Science.

A delivery engineer shall be furnished for up to two (2) eight-hour days for training sessions, including weekends and/or evenings, to instruct operators in the proper operation and maintenance of the apparatus. Training will occur at the delivery location, at a time to be determined by the NYS Academy of Fire Science.

ACCEPTANCE

Road performance testing, as specified in this document, shall be performed at the time of delivery, prior to payment. All other acceptance testing shall be performed at the manufacturing facility, documented and witnessed as specified herein. Prior to payment, all documentation shall be reviewed, and determined to be in compliance with this specification.

INSTRUCTION MANUALS/DRAWINGS, SCHEMATIC

In accordance with standard commercial practices and as required by NFPA 1901 Section 4.20.2., applicable to each vehicle (including body and special equipment) furnished under the contract, the following listed manuals and schematics, in the quantity specified, shall be provided at time of delivery of the vehicle.

The contractor shall supply at time of delivery, two (2) copies of a complete operation and service manual covering the complete apparatus as delivered and accepted.

"AS BUILT" WIRING SCHEMATICS

In accordance with standard commercial practices and in accordance with NFPA 1901 Section 4.20.2.3, the manufacturer shall supply two (2) copies of "AS BUILT" wiring schematics/diagrams for the entire vehicle at the time of delivery.

BIDDER TO SUPPLY ALL PROPOSED DIMENSIONS

The axle and total weight ratings of the completed apparatus shall not be less than the following minimum acceptable weight ratings:

- MINIMUM FRONT G.A.W.R.: 20,000 pounds
- MINIMUM REAR G.A.W.R.: 31,000 pounds
- MINIMUM TOTAL G.V.W.R.: 50,000 pounds

The bidder shall include the principle dimensions, front G.A.W.R., rear G.A.W.R., and total G.V.W.R. of the proposed apparatus. Additionally, the bidder shall provide a weight distribution of the fully loaded, completed vehicle; this shall include a filled water tank, specified hose load, miscellaneous equipment allowance in accordance with NFPA-1901 requirements, and an equivalent personnel load of 250 lbs. per seating position. The axle ratings are recognized as MINIMUMS. The individual manufacturers' weight analysis shall determine the finished axles supplied. The manufacturer shall be responsible to submit the weight analysis with the bid and offer the appropriate axles at time of bid, not after the fact. The finished apparatus must allow for 2000# of loose equipment, not inclusive of hose, ladders or suction.

This is purely "loose tool" allocation. For example, while the NYS Academy of Fire Science spec states a "minimum" 20,000 pound front axle and weight analysis determines it to be too marginal with the intended load in a distributed fashion, the manufacturer shall default and include the next largest axle to accommodate the load intended. NYS Academy of Fire Science will not pay additional monies for larger axles later in the contract!

REQUIRED PROPOSAL BLUEPRINT

A scale drawing of the specific apparatus being proposed shall be submitted WITH THE BID. **Drawings of similar units or demo units shall not be permitted!** Bidders should be clear that this provision is requiring a SCALE drawing of the truck which is actually being bid. The drawing shall be done at the manufacturer's facility by the manufacturer's engineering department in order to guarantee the accuracy of the drawing. Failure to comply with this requirement shall be grounds for rejection of the bid! Drawings shall include top, front, rear, road side, curb side and a pump panel layout.

FAMA COMPLIANCE

The apparatus manufacturer must be a current member of the Fire Apparatus Manufacturer's Association (FAMA) to be abreast of all safety standards, industry recalls and latest requirements of the technical committee recommendations.

STEPPING, STANDING AND WALKING SURFACES

All stepping, standing, and walking surfaces on the body shall meet NFPA 1901 anti-slip standards. Upon request by the purchaser, the manufacturer shall supply proof of compliance with this requirement.

UNDERWRITERS LABORATORIES INC. (UL) EXAMINATION AND TEST

Where a third party is required for testing purposes, that party shall be Underwriters Laboratories, Inc. (U.L.) or equal. NO EXCEPTIONS!

CERTIFICATION

When the unit successfully meets all the requirements outlined in NFPA 1901, current edition, UL shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance with NFPA 1901.

LINE VOLTAGE ELECTRICAL SYSTEM CERTIFICATION

When the unit successfully meets all the requirements outlined in NFPA 1901, current Edition, UL shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance.

GENERAL APPARATUS DESCRIPTION "PUMPER FIRE APPARATUS"

The unit shall be designed to conform fully to the "Pumper Fire Apparatus" requirements as stated in the **NFPA 1901 Standard (Latest Edition)**, which shall include the following required chapters as stated in this revision:

- Chapter 1 Administration
- Chapter 2 Referenced Publications
- Chapter 3 Definitions
- Chapter 4 General Requirements

- Chapter 5 Pumper Fire Apparatus
- Chapter 12 Chassis and Vehicle Components
- Chapter 13 Low Voltage Electrical Systems and Warning Systems
- Chapter 14 Driving and Crew Areas
- Chapter 15 Body, Compartments and Equipment Mounting
- Chapter 16 Fire Pumps and Associated Equipment
- Chapter 18 Water Tanks

CAB SAFETY SIGNS

The following safety signs shall be provided in the cab:

- A label displaying the maximum number of personnel the vehicle is designed to carry shall be visible to the driver.
- “Occupants must be seated and belted when apparatus is in motion” signs shall be visible from each seat.
- “Do Not Move Apparatus When Light Is On” sign adjacent to the warning light indicating a hazard if the apparatus is moved (as described in subsequent section).
- A label displaying the height, length, width, and GVWR of the vehicle shall be visible to driver. This label shall indicate that the NYS Academy of Fire Science must revise the dimension if vehicle height changes while vehicle is in service.

CHASSIS DATA LABELS

Labels affixed to the vehicle shall be in accordance with NFPA 1901 Sections 12.1.4 and 12.2.3.3:

Chassis Data

- Chassis Manufacturer
- Production Number
- Year Built
- Month Manufactured
- Vehicle Identification Number

CAB AND CHASSIS

- Cab and Chassis shall be manufactured of **aluminum or stainless steel**.
- The cab shall be a custom tilt style, built for fire service. The cab shall be a cab over engine design with integral tilt mechanism.
- Cab shall be designed, fabricated, assembled in its entirety, and installed on the frame rails in the factory of the bidder. This requirement shall eliminate any split responsibility in warranty and service. If a manufacturer opts to utilize a sourced cab and chassis, they shall accept full responsibility of warranty and coverage of the unit under that warranty for the entire life of the warranty. This will be a third party assumed warranty to eliminate the purchaser from being responsible for warranty disputes.
- The apparatus frame shall have a lifetime warranty, and only the company providing the warranty may cut or notch the frame. Cutting or notching of the frame must be done with prior approval of the NYS Fire Academy. Each main frame rail shall be fabricated from 110,000 PSI minimum yield strength steel.
- The chassis shall incorporate leaf springs for the suspension on the front and rear axles.

CAB ROOF

The cab roof shall be raised above the crew seating area between 8 inches and 12 inches.

CRASH TESTING CERTIFICATION

To ensure the safety of the cab occupants and cab integrity, proof of third party testing shall be provided. The cab shall be certified for SAEJ2422 side impact, SAEJ2420 with ECER29 cab front impact, and ECER29 cab roof strength. NO EXCEPTIONS!

CAB DOORS

There shall be a heavy duty piano type stainless steel hinge on each door. Dimensions of the pins used shall be at least 3/8" diameter. Hinges shall be slotted for ease of horizontal and vertical adjustment. There shall be a cab door seal and the doors shall close flush with the side of the cab. A heavy duty belting material shall be used to prevent the cab doors from opening more than 90 degrees. Door latches shall be stainless steel.

ENTRY STEP AREA

The steps used to enter the cab shall be an integral part of the cab, and shall be constructed of non-corrosive material. The steps shall be tread-plate material or grip-strut. The steps shall be at least 8" deep. The floor shall be recessed at least 3" at the steps to avoid interference while climbing up or down the steps.

DOOR WARNING CHEVRON

Each cab door shall have a reflective chevron on the inside of the door covering at least 96 square inches of the bottom portion of the door.

EXTERIOR CAB OVERLAY

A bright finish aluminum tread plate overlay shall be affixed to the exterior rear cab wall to prevent scratches to the cab. The overlay shall be sealed with caulking around the edges to prevent moisture and dirt from getting between the cab and overlay.

WINDSHIELD WIPERS

Windshield wipers shall be electrically operated, with one motor for each wiper. Wipers shall have hi/low/intermittent settings, and shall be self-parking.

EXTERIOR GRAB HANDLES

A knurled or serrated handrail shall be provided at each cab door entrance. Grab rails shall be offset to prevent fingers from being pinched when opening or closing doors. Stanchions shall be chrome plated and have a rubber gasket between stanchion and cab.

INTERIOR GRAB HANDLES

A vertically mounted handrail shall be installed at each cab door entrance. Additionally, each door shall have a horizontal handrail installed on the door.

MIRRORS

Rear view mirrors shall be remote controlled.

FENDERETTES

Wheel well openings shall be trimmed with replaceable, bolt on, polished stainless steel fenderettes. The fenderettes shall have a gasket material to protect the cab.

CAB SEATING & ACCESSORIES**DRIVER'S SEAT**

The driver's seat shall be a high-back bucket seat. The seat shall have a tapered and padded seat cushion with lumbar support. The seat shall have fore and aft adjustment, height adjustment, front of seat tilt, rear of seat tilt and a reclining seat back. All seat movements shall be electrically controlled.

The seat shall be equipped with a red integrated 3-point shoulder harness with lap belt and an automatic retractor built into the seat assembly.

OFFICER'S SEAT

The officer's seat shall be a fixed base high-back bucket seat. The seat shall include a SCBA storage area with integral headrest. The seat shall include a Zico Quick-Loc SCBA mounting bracket (QLM-U-OPR). The seat shall include padded inserts for use when SCBA is not present. The seat shall be equipped with an IMMI ReadyReach seatbelt, red in color.

CREW SEATS

In addition to the driver and officer seating positions, there shall be at least four more crew seats. The crew seats shall be a flip-up style wherever it will provide a space and access advantage. Each seat shall include an SCBA storage area with integral headrest. The seat shall include padded inserts for use when SCBA is not present. Each seat shall be equipped with an IMMI ReadyReach seatbelt, red in color. The crew seats shall include Zico Quick-Loc SCBA mounting brackets (QLM-U-OPR) for mounting SCBA.

SEAT UPHOLSTERY MATERIAL

The seats shall be upholstered with heavy duty material as provided by the seat manufacturer.

DASH & CONSOLE LAYOUT

Each bidder must submit a dash and switch panel layout with their proposal to be approved by the NYS Academy of Fire Science at the pre-construction meeting. The gauges that must be included in the dash are:

- 1) Speedometer
- 2) Engine tachometer with hour meter
- 3) Engine oil pressure
- 4) Engine coolant temperature
- 5) Transmission oil temperature
- 6) Battery voltage
- 7) Ammeter
- 8) Front air pressure
- 9) Rear air pressure
- 10) Fuel level
- 11) Air cleaner restriction

AUXILLARY MANUAL CAB TILT

In addition to the powered cab tilt system, a backup manual tilt system shall be installed.

ANTENNA INSTALLATION

Two (2) antenna mounting bases (with coaxial cable) shall be provided and installed on the cab roof, behind the light bar, one each side. The attached antenna cable shall be run down the interior cab for radio installation in custom center console.

PUMP SHIFT CONTROL

The pump shift control and pump engaged indicator lights shall be mounted in the custom center console in a position within easy reach of the driver, to be approved by the NYS Academy of Fire Science. This control shall be equipped with a mechanical type device to prevent inadvertent activation or de-activation. The lever positions and indicator light shall be clearly marked.

CAB SUPPLEMENTAL DEFROSTER FANS- Maradyne (or equal)

Two (2), 12v, individually switched, two (2) speed, supplemental defroster fans shall be mounted in inboard positions of the windshield.

CAB HEAT AND AIR CONDITIONING

Both the front and the rear of the cab shall have heat and air-conditioning.

FRONT BUMPER, EXTENSION & ACCESSORIES**FRONT BUMPER**

The front bumper shall consist of a one (1) piece, minimum 0.25" thick steel channel, a minimum of 12.00" high and shall be attached to the front of the chassis frame. The outer corners shall be angled back slightly.

The bumper shall be painted same color as truck body.

There shall be a "lollipop" style post and marker light at each corner of the front bumper, which shall allow the driver to determine the location of the bumper when parking or maneuvering in tight spaces. (This marker also serves to discourage firefighters from sitting on the bumper and scratching the paint on the cab corners with SCBA.)

TOW HOOKS

Two (2) front forged steel tow hooks shall be fastened directly to the frame web, installed to the top of the bumper for easy access. The tow hooks shall be fastened with grade 8 bolts and nuts.

AIR & BRAKE SYSTEM**BRAKE SYSTEM**

A dual circuit, air operated braking system, meeting the design and performance requirements of FMVSS-121 and the operating test requirements of NFPA 1901, latest edition, shall be installed. It shall be direct air type with dual air treadle in the cab. The system shall be powered by an engine mounted, gear driven air compressor protected by a heated air dryer and heated automatic moisture ejectors.

ABS SYSTEM- Meritor Wabco (or equal)

An Anti-Skid Braking System (ABS) shall be provided to improve braking control and reduce stopping distance. This braking system shall be fitted to the axles and all electrical connections shall be environmentally sealed, water/weatherproof, and vibration resistant.

This system shall have a three (3) year or 300,000 mile parts and labor warranty as provided by the manufacturer.

AUTOMATIC TRACTION CONTROL (ATC)- Meritor Wabco (or equal)

To further improve vehicle drive characteristics, the unit shall be fitted with automatic traction control (ATC). This system shall control drive wheel slip during acceleration from a resting point. An extra solenoid valve shall be added to the ABS system. The system shall control the engine and brakes to ensure efficient acceleration.

The system shall be equipped with a dash-mounted light that shall come on when ATC is controlling drive wheel slip. The system shall also include an "off road traction" dash mounted switch that will allow the operator to momentarily allow for more wheel slip when the unit is in deep mud or snow.

This system shall have a three (3) year or 300,000 mile parts and labor warranty as provided by the manufacturer.

A mud & snow switch shall be provided on the dash that is integrated into the ABS and ATC systems.

BRAKE AIR RESERVOIRS

There shall be a minimum of three (3) air reservoirs installed in conformance with best automotive practices. Reservoir capacity total shall be a minimum of 800 cubic inches.

For ease of maintenance, each air system reservoir shall be equipped with a **heated automatic moisture ejector**.

A **heated air dryer** shall be furnished.

AIR LINES

The entire chassis air system shall be plumbed utilizing reinforced, Synflex air lines. All of the airlines shall be color coded to correspond with an air system schematic and shall be adequately protected from heat and chafing.

AIR COMPRESSOR

Air compressor shall be a minimum of 18 cu. ft. per minute capacity. Air brake system shall be the quick build up type. The air compressor discharge line shall be stainless steel braid reinforced Teflon hose.

A pressure protection valve shall be installed to prevent the use of air horns or other air operated devices should the air system pressure drop below 80 psi (552 kPa).

The chassis air system shall meet NFPA 1901, latest edition for rapid air pressure build-up.

PARKING BRAKE

Parking brake shall be of the spring-actuated type, mounted on the rear axle brake chambers. The parking brake control shall be mounted on the cab center instrument panel, offset toward the driver. A red indicator light shall be provided in the driver dash panel that shall illuminate when the parking brake is applied.

In addition to the rear maxi brakes, front service brakes shall be equipped with a "parking" feature that shall automatically be applied with the parking brake, providing a full all-wheel "braking" system.

FRONT WHEELS & TIRES

The front wheels shall be ten stud, hub piloted steel disc type, painted job color.

The front tires shall be a tubeless radial highway tread. Manufacturers to state brand and rating of tires to be supplied by them.

REAR WHEELS & TIRES

The rear wheels shall be ten stud, hub piloted steel disc type, painted job color.

The rear tires shall be a tubeless radial with traction tread. Manufacturers to state brand and rating of tires to be supplied by them.

ENGINE, TRANSMISSION & ACCESSORIES

ENGINE

Engine shall be a diesel (turbo-charged), electronically controlled per the following specifications:

- Min. Horsepower 400 bhp (minimum)
- Peak Torque As necessary to meet performance specifications
- Drive line 1810 Series Minimum

Engine oil filters shall be engine manufacturers branded or approved equal. Engine oil filters shall be accessible for ease of service and replacement.

Engine shall be installed in accordance with engine manufacturer's instructions, and the chassis manufacturer shall furnish proof of engine manufacturer's approval of engine installation.

COOLING/RADIATOR

Radiator shall be brass with bolted steel top and bottom tanks. There shall be a sight glass in the radiator to check the coolant level without removing the radiator cap. The sight glass shall be readily accessible and easily viewed, thru an access door or panel in the cab.

Engine coolant shall be treated with supplementary coolant additives (SCA's) required by the engine manufacturer. Engine coolant shall provide anti-freeze protection to -30° F. The mixture shall be per the engine manufacturer's specifications.

A transmission oil to liquid cooler shall be furnished.

RADIATOR SKID PLATE

The chassis shall be designed with a removable heavy-duty radiator skid plate to protect the radiator from debris or obstructions under the chassis. The skid plate shall be constructed from steel, which shall enclose the lower section of the radiator and cooling system components mounted on the lower section of the radiator. The skid plate shall be designed so the angle of approach is not affected.

CHARGE AIR COOLER

The charge air cooler shall be constructed of aluminum with cast aluminum side tanks.

The charge air cooler shall be mounted directly ahead of the radiator and to the radiator headers. Rubber isolators shall be used at the mounting points to reduce transmission of vibrations.

The piping between the charge air cooler and engine shall use heavy duty hoses with stainless steel bands. Bands are used to maintain the shape of the hose during changing turbo boost pressures. The hoses shall be attached with stainless steel constant torque hose clamps.

COOLING SYSTEM FAN

The engine cooling system shall incorporate a heavy duty fan, installed on the engine and include a shroud.

The fan shall be equipped with an air operated clutch fan, which shall activate at a pre-determined temperature range.

The cooling fan shall be automatically and continuously engaged when the pump is engaged.

Re-circulation shields shall be installed to ensure that air which has passed through the radiator is not drawn through it again.

Heavy duty silicone heater hoses shall be furnished for the heater system. All coolant hoses shall be equipped with constant torque type hose clamps. All integral hoses supplied with the engine shall be as supplied by the engine manufacturer.

The engine manufacturer's required spin on water filter shall be furnished as provided by the engine manufacturer. Manual shut off valves at the filter shall also be furnished.

LOW COOLANT INDICATOR LIGHT AND ALARM

A low engine coolant indicator light located in the dash instrument panel shall be provided. An audible alarm shall be provided to warn of the low coolant condition.

ENGINE BRAKE

A Jacobs Engine brake (or equal) shall be furnished for increased braking capabilities. Controls shall be as provided by the engine manufacturer and shall be activated by the driver with a three position switch for HI-OFF-LOW.

The engine brake shall illuminate the chassis brake lights when the engine brake is engaged and operating.

The engine brake shall be interlocked with the pump shift and shall automatically disengage any time the apparatus is shifted from road gear to pump gear.

ENGINE FAST IDLE

A fast idle control for the engine shall be provided. The fast idle shall be controlled by an ON/OFF switch on the dash.

An electronic interlock system shall prevent the fast idle from operating unless the transmission is in "Neutral" and the parking brake is fully engaged. If the fast idle control is used in conjunction with a specified engine/transmission driven component or accessory, the fast idle control shall be properly interlocked with the engagement of the specified component or accessory.

AIR CLEANER

An engine air cleaner shall be provided. Air cleaner shall include a dry type element. Air cleaner shall be installed in accordance with the engine manufacturer's recommendations. The air cleaner shall be easily accessible when the hood is tilted.

SPARK ARRESTOR

A spark arrestor shall be installed in the chassis air intake system. This arrestor shall be mounted behind the intake grille to filter out airborne embers. The spark arrestor housing must be easily accessible when the cab is tilted.

ACCELERATOR CONTROL

The accelerator pedal shall be positioned for comfort with ample space for fire boots and adequate clearance from the brake pedal control. The accelerator pedal shall become non-functional when apparatus is placed in pump mode.

TRANSMISSION

Transmission installation shall be in accordance with the transmission manufacturer's specification.

An illuminated push button control shall be mounted in the cab, convenient to the driver. Shift control shall be approved by the transmission manufacturer.

TRANSMISSION OIL LEVEL SENSOR

The transmission shall be equipped with the oil level sensor (OLS); this sensor shall allow the operator to obtain an indication of the fluid level from the shift selector. The sensor display shall provide the following checks: correct fluid level, low fluid level and high fluid level.

DRIVE LINE DROP GUARDS

Drive lines shall be equipped with loop type drive shaft drop guards as necessary to prevent damage to the apparatus if a failure of a universal joint or drive shaft should occur. Final approval of number and location shall be by the NYS Academy of Fire Science.

EXHAUST SYSTEM

The exhaust system shall be installed in accordance with the engine manufacturer's requirements and meet all Environmental Protection Agency and State noise level requirements. Exhaust system components shall be securely mounted and easily removable.

The diesel particulate filter/muffler shall be fabricated from stainless steel and of a size compatible with the engine exhaust discharge.

Exhaust tubing shall be a minimum of 16 gauge stainless steel from the turbocharger on the engine to the inlet of the diesel particulate filter. Any flexible exhaust tubing shall be HDT stainless steel type. To minimize heat build-up, exhaust tubing within the engine compartment shall be wrapped with an insulating material. Exhaust shall be wrapped from the turbocharger to the entrance of the muffler. Material shall be held in place with worm gear type clamps.

The exhaust shall extend from the mufflers Diesel Particulate Filter (DPF) to the side of the vehicle and shall be constructed from minimum of 16-gauge aluminized steel tubing. The exhaust discharge shall be routed vertically to terminate above the highest point of the apparatus.

A straight, chrome plated, exhaust deflector shall be installed on the exhaust outlet.

FUEL SYSTEM

FUEL TANK

Fuel tank shall be a minimum of fifty (50) gallon capacity.

The fuel tank shall be held in place by stainless steel straps and fasteners.

The fuel lines shall be wire braid reinforced fuel hose. The lines shall be carefully routed and secured.

The fuel fill shall be located on the officer's side.

FUEL COOLING SYSTEM

A fuel cooling system shall be provided. The heat exchanger shall be a tube and fin type and shall be a separate unit. The cooler shall be mounted forward of the radiator and plumbed to the fuel return line.

FUEL FILTER/WATER SEPARATOR

A heated fuel/water separator shall be furnished with indicator light and audible alarm on the dash.

STEERING & HANDLING

The steering wheel shall be vinyl padded. There shall be a self-canceling, directional signal lever and a traffic hazard switch on the steering column. The high beam activator shall be controlled by pulling the directional signal lever toward the driver.

The steering column shall have a separate lever control for tilting and telescoping capability.

The apparatus shall be able to turn 180 degrees (clockwise or counter-clockwise) in a street that is 55' wide between curbs, without backing.

The apparatus shall have a steering cramp angle of 42 degrees or better.

The apparatus shall have an angle of approach/departure of at least 10 degrees.

A dual power steering system shall be provided. Systems with one gear and a right side linkage are not acceptable.

ROAD SAFETY KIT

A DOT required road safety kit shall be furnished with the following equipment:

- 2 1/2 lb. B-C fire extinguisher
- Triangle safety reflectors
- Wheel lug wrench

CHASSIS / BODY ELECTRICAL & ACCESSORIES**CHASSIS ELECTRICAL SYSTEM**

All electrical wiring in the chassis shall be SXL cross link insulated type. Wiring is to be color coded and include function codes on both sides. Wiring harnesses shall be routed in protective, heat resistant loom, securely and neatly installed.

All external harness interfaces shall be of a triple seal type connection to ensure a proper connection. The cab/chassis and the chassis/body connection points shall be mounted in accessible locations. Complete chassis wiring schematics shall be supplied with the apparatus.

WIRING HARNESS DESCRIPTION

The wiring harness contained on the chassis shall be designed to utilize wires of stranded copper or copper alloy of a gauge rated to carry 125% of maximum current for which the circuit is protected without exceeding 10% voltage drop across the circuit. Wiring must be uniquely identified by color code or circuit function code. The identification of the wiring shall be referenced on a wiring diagram. All wires shall conform to SAEJ1127 (Battery Cable), SAEJ1128 (Low Tension Primary Cable), SAEJ1560 (Low Tension Thin Wall Primary Cable).

The covering of harnesses shall be moisture resistant loom with a minimum rating of 194 Degrees Fahrenheit and a flammability rating of VW-1 as defined in UL62. The covering of jacketed cable shall have a minimum rating of 194 degree Fahrenheit.

All harnesses must be securely installed in areas protected against heat, liquid contaminants and damage. The harness connections and terminations shall use a method that provides a positive mechanical and electrical connection and are in accordance with the device manufacturer's instructions. No connections within the harness may utilize wire nuts, insulation displacement, or insulation piercing components.

All circuits shall conform to SAEJ1292 per NFPA recommendations. All circuits must be provided with low voltage over current protective devices. These devices shall be readily accessible and protected against heat in excess of component rating, mechanical damage, and water spray. Star washers are not to be used for ground connections.

DIRECT GROUNDING STRAPS

Direct grounding straps shall be mounted to the following areas; frame to cab, frame to body and frame to pump enclosure. All exposed electrical connections shall be coated with anti-corrosion compound to prevent corrosion.

EMI/RFI PROTECTION

The apparatus shall incorporate the latest designs in the electrical system with state of the art components to insure that radiated and conducted electromagnetic interference (EMI) and radio frequency interference (RFI) emissions are suppressed at the source.

The apparatus proposed shall have the ability to operate in the environment typically found in fire ground operations with no adverse effects from EMI/RFI.

EMI/RFI susceptibility is controlled by utilizing components that are fully protected and wiring that utilizes shielding and loop back grounds where required. The apparatus shall be bonded through wire braided ground straps. Relays and solenoids that are suspect to generating spurious electromagnetic radiation are diode protected to prevent transient voltage spikes.

12 VOLT ELECTRICAL SYSTEM TESTING

The apparatus low voltage electrical system shall be tested and certified by the apparatus manufacturer. The certification shall be provided with the apparatus. The tests shall be performed in accordance with NFPA 1901 Section 13.14.

BATTERY CABLE INSTALLATION

All 12-volt battery cables and battery cable harnessing installed by the apparatus manufacturer shall conform to the following requirements:

- SAE J1127 - Battery Cable
- SAE J561 - Electrical terminals, eyelets and spade type
- SAE J562 - Nonmetallic loom
- SAE J836A - Automotive metallurgical joining
- SAE J1292 - Automotive truck, truck-tractor, trailer and motor coach wiring
- NFPA 1901 - Standard for automotive fire apparatus

Battery cables and battery cable harnessing shall be installed utilizing the following guidelines:

- Splices shall not be allowed on battery cables or battery cable harnesses.
- For ease of identification and simplified use, battery cables shall be color coded. All positive battery cables shall be marked red in color. All negative battery cables shall be black in color.
- For ease of identification, all positive battery cable isolated studs throughout the cab and chassis shall be red in color.
- For increased reliability and reduced maintenance, all electrical buss bars located on the exterior of the apparatus shall be coated to prevent corrosion.
- An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

ALTERNATOR(S)

The alternator(s) provided shall meet the requirements of NFPA 1901 (2009 Edition) Section 13. The installation shall include brushless design with an integral self-diagnostic regulator and rectifier for compact installation. Manufacturers shall clearly state the brand alternator(s) being proposed and indicate the availability for replacement on a local basis.

BATTERY SYSTEM

Maintenance free batteries shall be provided. Manufacturers shall clearly state the brand of battery being proposed, cold cranking amperage and reserve capacity. Wiring for the batteries shall be 4/0 welding type dual path starting cables for SAEJ541.

BATTERY STORAGE

Batteries shall be securely mounted in fixed stainless steel trays located on each side of the chassis frame. Complete access shall be provided when the cab is fully tilted. Batteries shall be mounted on non-corrosive matting material. Bidders shall clearly outline the details of their mounting in the bid proposal and also compliance to non-corrosive mountings.

BATTERY BOX COVER

The battery box shall be overlaid with a cover. This cover shall protect the batteries from road spray, snow and road debris. The cover of this box shall be easily removable for inspection, testing and maintenance of the batteries. Bidders should outline the installation and confirm that batteries are enclosed style.

BATTERY DISCONNECT SWITCH

The chassis batteries shall be wired in parallel to a single 12 volt electrical system, controlled through a heavy duty master disconnect switch. The master disconnect switch shall be located within easy access of the driver upon entering or exiting the cab. All electrical circuits shall be disconnected when the switch is in the "OFF" position.

BATTERY JUMPER STUDS

A set of battery jumper studs, (red) and (black) shall be provided to allow the battery system to be jump started or charged from an external source. The studs shall be located on the driver's side of the chassis and shall be equipped with rubber protector caps. Bidders to state brand of materials utilized.

120 VOLT SHORELINE CONNECTION - "SUPER" AUTO EJECT

One (1) Kussmaul "Super" Auto Eject model 091-55-30-120 (or equal), automatic, 120 volt, 30 amp shoreline disconnect shall be provided for the on board, 120 volt battery charging systems. The disconnect shall be equipped with a male receptacle, which shall automatically eject the shoreline when the vehicle starter is energized. A label shall be provided indicating voltage and amperage ratings.

SHORELINE POWER INLET PLATE

A shoreline power receptacle information plate shall be permanently affixed at or near the power inlet. The plate shall indicate the following;

- Type of Line Voltage
- Current Rating in Amps Power Inlet Type (DC or AC)
- The auto-eject connection shall be equipped with a weatherproof cover.
- The shoreline receptacle shall be located in the area directly adjacent to the driver's side cab door.

BATTERY CHARGER / AIR COMPRESSOR SYSTEM

A Kussmaul model #091-9-1200, "Pump Plus 1200" (or equal) air compressor/high output battery charger shall be provided for maintaining the vehicle's air / battery system. Output current shall be 40 amperes @ 12 volt DC.

The air compressor shall maintain the air pressure in the chassis air brake system while the vehicle is not in use. The air compressor shall have a rated input at 12 volt DC @ 12 amps and an output of 0.30 SCFM @ 80 psi.

An LED bar graph display shall be located near the shoreline connection to monitor the battery status.

SHORELINE RECEPTACLE

Two (2) 120 volt 5-15R household type receptacles shall be located in the specified body compartment as directed by the NYS Academy of Fire Science. The receptacles shall be wired into the shoreline receptacle to provide a 120 volt power source for equipment.

LIGHTING - CAB INTERIOR

Two (2) combination red/white LED dome lights shall be furnished in the cab. The lights shall be Weldon brand Model #8080 (or equal). Each dome light shall have an integral selector switch. Each dome light shall also activate when the respective, adjacent cab door is opened.

"DO NOT MOVE APPARATUS" WARNING LIGHT WITH AUDIBLE ALARM

A red flashing warning light with an integral audible alarm, shall be functionally located in the cab to signal when an unsafe condition is present such as an open cab door or body compartment door, an extended ladder rack, a deployed stabilizer, an extended light tower or any other device which is opened, extended or deployed which may cause damage to the apparatus if it is moved.

The audible alarm shall have some method to silence the alarm in the case of a malfunction of the alarm or system. The silence shall automatically "reset" and shall sound when the apparatus is shut down and restarted.

This light shall be activated through the parking brake switch to signal when the parking brake is released. This light shall be labeled "DO NOT MOVE APPARATUS WHEN LIGHT IS ON".

ACCESSORY POWER OUTLETS

Two (2) 12 volt "cigar lighter" style accessory outlets shall be installed in the cab of the truck for the agency's accessory devices. The outlets shall be located as directed in the custom center console for devices such as cellular phone chargers.

12 VOLT ACCESSORY CIRCUITS AND CAB MOUNTED ITEMS

Dedicated 12 volt power and ground circuits shall be provided in the center console as required for the purpose of powering the following equipment:

- Four (4) Streamlight Fire Vulcan LED Model #44451 hand lights with 12 volt DC direct wire chargers (to be provided by the bidder and mounted in a location to be approved by the NYS Academy of Fire Science).
- One (1) circuit for a future mobile radio.

CAMERA SYSTEM

A camera system shall be provided to allow the driver to see the rear and both sides of the apparatus while seated in the driver seat. The system shall include a flat panel LCD color monitor mounted adjacent to the driver. The system shall include a color camera that shall be mounted at the rear of the vehicle as well as a camera on each side of the vehicle.

The camera system shall be wired to automatically activate when the chassis transmission is placed in reverse and when manually activated by switch located near the driver.

The monitor for the camera system shall be mounted in easy view of the driver and approved by the NYS Academy of Fire Science.

DAYTIME RUNNING LIGHTS

The chassis head lights shall have integrated circuitry to actuate the low beam headlights at a maximum of 80 percent of capacity whenever the chassis engine is running and the transmission is engaged into drive or reverse.

CORNERING LIGHTS

The apparatus shall be provided with two (2) Whelen (or equal) cornering lights. Said lights shall be clear with Halogen bulbs and activate/ cancel with turning signals and located on the sides of the front bumper.

DOT MARKER LIGHTS AND REFLECTORS

Truck-Lite #60115Y (or equal) yellow LED side marker and turn lights shall be provided on the apparatus lower side, forward of rear axle, one (1) each side.

Truck-Lite Model #19 (or equal) red LED clearance lights shall be provided on the apparatus rear upper, one (1) each side at the outermost practical location.

Truck-Lite Model #33740R (or equal) LED 3-lamp identification bar will be provided on the apparatus rear center. The lights shall be red in color.

Truck-Lite #98034Y (or equal) yellow reflectors shall be provided on the apparatus body lower side, as far forward and low as practical, one (1) each side if the apparatus is 30' long or longer.

Truck-Lite #98034R (or equal) red reflectors shall be provided on the apparatus rear, one (1) each side at the outermost practical location.

Two license plate brackets with stainless steel hardware shall be provided. The rear license plate shall be illuminated.

TAIL, STOP, TURN AND BACK-UP LIGHTS

Two (2) LED red combination tail and stop lights, shall be mounted one each side at the rear of the body.

Two (2) LED amber arrow turn signal lights, shall be mounted one each side, on a vertical plane with the tail/stop lights.

Two (2) white halogen back-up lights, shall be mounted one each side on a vertical plane with the turn/tail/stop signals. These lights shall activate when the transmission is placed in reverse gear.

STEP LIGHTS

Chrome plated, shielded chassis and body step lights shall be provided and controlled with marker light actuation. Step lights shall be located to properly illuminate all body and chassis access steps and walkway areas.

RUNNING BOARD STEP LIGHTS

Two (2) recessed step lights shall be provided in the lower front face of the body near each side running board step, one (1) each side. The lights shall be located a minimum of 6" from the running board step and shall be activated by a control switch located on the pump operator's panel.

DUNNAGE AREA LIGHTING

Two (2) step lights shall be provided in the dunnage area to provide adequate illumination of this area.

DECK LIGHTS/ WORK LIGHTS

Two Collins FX12 deck lights shall be provided and installed on the rear stanchions. These lights shall be controlled by a switch on each light, as well as by a single master switch in the master switch console.

REAR BODY SCENE LIGHTS

Two (2) Whelen (13-degree angle) Opti-scene lights (or equal) with a CLEAR prismatic inner lens shall be installed. The scene lights shall be equipped with replaceable halogen bulbs and an chrome flange. The lights shall be switched from the cab dash and with automatic back-up light circuit.

GROUND LIGHTS – CAB

One (1) Truck-Lite (or equal) rubber mounted white LED ground light shall be provided under each side cab door entrance step, four (4) total. The ground lights shall turn on automatically with each respective door jamb switch and also by a master ground light switch in the warning light switch console.

Each light shall illuminate an area at a minimum 30" outward from the edge of the vehicle. The rear crew door ground lights shall be positioned at an angle rearward to provide illumination at the pump panel and the front of the body work areas.

GROUND LIGHTS - FRONT BUMPER

One (1) Truck-Lite (or equal) rubber mounted white LED ground lights shall be provided under each side of the front bumper facing forward, two (2) total. The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.

GROUND LIGHTS - PUMP PANEL

One (1) Truck-Lite (or equal) rubber mounted white LED ground light shall be provided under each side pump panel running board, two (2). The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.

GROUND LIGHTS - REAR

One (1) Truck-Lite (or equal) rubber mounted white LED ground light shall be provided under each rear body corner, two (2) total. The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.

BODY ELECTRICAL SYSTEM

PUMP ENCLOSURE WORK LIGHTS

Work lighting shall be provided inside the pump enclosure providing a minimum of 20 candlepower illumination.

ENGINE COMPARTMENT WORK LIGHTS

Work lighting shall be provided inside the engine enclosure that will provide a minimum of 20 candlepower illumination.

COMPARTMENT LIGHTS

Each individual, equipment storage compartment will be equipped with LED track style lighting around the perimeter of each compartment opening. These shall have easily replaceable segments that make up the total "run" of lights, per compartment. All lights shall be activated by door switches.

NFPA LIGHTING PACKAGE

The following warning light package shall include all of the minimum warning light and actuation requirements for the current revision of the NFPA 1901 Fire Apparatus Standard, latest Edition. The lighting as specified shall meet the requirements for both "Clearing Right of Way" and "Blocking Right of Way" as noted.

LIGHT PACKAGE ACTUATION CONTROLS

The entire warning light package shall be actuated with a single warning light switch located on the cab switch panel. The wiring for the warning light package shall engage all of the lights required for "Clearing Right of Way" mode when the vehicle parking brake is not engaged. An automatic control system shall be provided to switch the warning lights to the "Blocking Right of Way" mode when the vehicle parking brake is engaged.

NFPA ZONE A, UPPER

A minimum 72" cab roof warning lightbar (Whelen #FN72VLED (or equal)) shall be furnished and rigidly mounted on top of the cab roof. The lightbar shall be equipped with the following minimums and manufacturers shall outline the model and lights provided:

- Two Front Corner Red Linear LED's
- Two Red Forward Facing Linear LED's
- Two White Forward Facing Linear LED's
- Two Rear Corner Red Linear LED's

The forward facing white LED flashers shall be disabled automatically for the "Blocking Right of Way" mode.

NFPA ZONE C, UPPER

Two (2) Whelen #B6MMRAP (or equal) shall be installed at the upper rear of the truck body in a location approved by the NYS Academy of Fire Science and in accordance with NFPA 1901, latest edition. LED beacon shall be **red (with clear lens)** with lower **amber (with clear lens)** rear directional.

NFPA ZONES B & D REAR, UPPER

The lighting requirement for this area is covered by the lights noted in Zone "C" - Upper.

NFPA ZONES B & D FRONT, UPPER

The lighting requirement for this area is covered by the lights noted in Zone "A" - Upper.

NFPA ZONE A, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

The lower zone A warning lights shall be mounted in the chassis grill.

NFPA ZONE C, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side directly below the DOT stop, tail, turn and backup lights. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

NFPA ZONES B & D FRONT, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

The lower zone B & D warning lights shall be mounted on the sides of the front bumper.

NFPA ZONES B & D MIDSHIP, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

NFPA ZONES B & D REAR, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

WARNING LIGHT SYSTEM CERTIFICATION

The warning light system(s) shall be certified by the light system manufacturer(s), to meet all of the requirements in the latest Edition of the NFPA 1901 Fire Apparatus Standard as noted in the General Requirements section of these specifications. The NFPA required "Certificate of Compliance" shall be provided with the completed apparatus.

ELECTRIC HORN

A single electric horn activated by the steering wheel horn button shall be furnished.

BACK-UP ALARM

A solid state back-up alarm shall be provided and installed at the rear of the apparatus under the tailboard. The back-up alarm shall activate automatically when the transmission is placed in reverse gear and the ignition is "on".

AIR HORNS

Two (2) Grover (or equal) "stutter tone" type air horns shall be at the front of the vehicle. The air horns shall be mounted in full compliance with NFPA 1901. A 3/8" minimum airline "teed" with equal distance from each horn shall be installed.

Both air horns shall be recessed in the front bumper.

The air horns shall be controlled by dual lanyards hanging within easy reach of the driver and the officer. There shall also be a momentary **push button** (clearly labeled) **on the pump panel** to activate the air horns.

ELECTRONIC SIREN- WHELEN (or equal)

One (1) electronic siren, capable of firing two (2) 100 watt speakers, shall be provided featuring: bottom mount control head in cab. Manufacturer shall clearly state the model furnished.

The electronic siren and speakers shall meet the NFPA required SAE (Society of Automotive Engineers) certification to ensure compatibility between the siren and speakers.

Two (2) 100 watt siren speakers shall be provided, recessed in the front bumper and wired to the electronic siren.

WEATHER BAND AM/FM/CD RADIO

A Weather Band/AM/FM radio shall be installed in the cab accessible to the driver. An appropriate antenna shall be supplied and mounted on the roof of the apparatus. The speakers shall be located as follows:

- (2) Located in the Front of the cab
- (2) Located in the Rear of the cab

PUMP AND PLUMBING

PUMP; Mid-ship mounted

- **Hale or Waterous single-stage**
- **1500 G.P.M.**
- **Pump panel shall be approximately 54" wide**

The pump shall meet the requirements of NFPA 1901, 2009 edition, Chapter 16.

PUMP ASSEMBLY

The pump shall be of a size and design to mount on the chassis rails of truck chassis, and have the capacity of **1500 gallons** per minute (U.S. GPM), NFPA 1901 rated performance.

The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.

The manufacturer shall supply at time of delivery copies of the pump manufacturer's certification of hydrostatic testing, the engine manufacturer's current certified brake horsepower curve.

PUMP SHIFT CONTROL

The drive unit shall be equipped with a power shift. The shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder with stainless steel shaft. An air operated in-cab control for rapid shift shall be provided that locks in road/pump with a neutral position for use when manual override is required.

PUMP SHIFT INDICATOR LIGHTS

Three (3) green warning lights shall be provided to indicate to the operator(s) when the pump has completed the shift for Road to Pump position. Two (2) green lights to be located in the truck driving compartment and one (1) green light on pump operator's panel adjacent to the throttle control. All lights to have appropriate identification/instruction plates.

TRANSMISSION LOCK

The automatic transmission furnished in the chassis shall have a lock-up assembly which brings the transmission to direct drive and prevents the transmission from shifting gears while in the pumping mode.

BRAKING SYSTEM

A positive braking system shall be provided to prevent vehicle movement during pumping operations. The air brakes furnished must satisfy this requirement.

PUMP MOUNTS

Extra heavy duty pump mounting brackets shall be furnished. These shall be bolted to the frame rails in such a position to perfectly align the pump so that the angular velocity of the drive line joints shall be the same on each end of the drive shaft. This shall assure full capacity performance with a minimum of vibration. Mounting hardware shall utilize Grade 8 bolts. Under no circumstance shall the pump function as a frame cross member.

PRESSURE CONTROL & ACCESSORIES

PRESSURE GOVERNOR AND MONITORING DISPLAY

A Class1 Total Pressure Governor Plus will be provided. The pressure governor will be designed to maintain a desired engine speed or pump pressure along with displaying diagnostic information. The pressure governor will have a preset for selecting predetermined pressures or RPM, and an emergency return to idle.

Inputs to the control panel from the pump discharge and intake pressure sensors shall be electrical.

The discharge pressure display shall show pressures from 0 to 400 psi. The intake pressure display shall show pressures from -30 in. Hg to 400 psi.

There shall be two control modes, PRESSURE and RPM. No discharge pressure or engine RPM variation shall occur when switching between pressure and RPM modes. When the pump engaged interlock signal is recognized, an "OK TO PUMP" LED shall light to indicate throttle ready. At this point the governor shall be in pressure mode with the engine RPM set to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase.

The program features shall be accessed via push buttons located on the front of the control panel. The program shall support manual control of pump discharge pressure and RPM settings, field programmable presets, and diagnostic capabilities. Safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor, monitoring and master pressure display shall be programmed to interface with the specified engine.

INTAKE RELIEF VALVE

An intake relief valve system shall be plumbed on the suction side of the pump to comply fully with NFPA 1901 (Latest Edition) requirements. Excess pressures shall be plumbed to discharge water under the pump enclosure away from the pump operator.

INTAKE RELIEF VALVE HOSE CONNECTION

The intake relief valve shall be provided with a 2.5" National Standard Thread (NST) adapter for hose connection, piped to discharge below the curb side pump running board.

PUMP PRIMER

The pump primer shall be a Trident Air primer. Primer shall be plumbed outboard of MIV valve. The priming system shall be plumbed to allow one suction to be primed and placed into operation, and the opposite suction to be primed while the first suction is being used to draft. Further, when operating from a pressurized source on one intake, the cap on the opposite intake shall not be pressurized.

MASTER DRAIN VALVE

A rotary type, 12 port master drain valve shall be provided and controlled at the lower portion of the side pump panel. The valve shall be located in pump compartment lower than the main body and connected in such a manner as to allow complete water drainage of the pump body and all required accessories. Water shall be drained below the apparatus body and away from the pump operator.

A quick connect air chuck connection shall be provided at the pump operators panel and shall be connected to the pump to use compressed air to eliminate any remaining un-drained water or moisture from the pump assembly. (Apparatus may be stored in an unheated facility during winter).

INDIVIDUAL BLEEDERS AND DRAINS- Class 1 quarter turn ball valves

All low point lines shall drain through the master drain valve easily accessible and labeled.

One (1) ¾" individual quarter turn drain valve shall be furnished for each 1.5" or larger discharge and each 2.5" gated auxiliary suction. **Drain piping shall be ¾" and shall not be reduced.** Push pull style drains will not be acceptable.

Drain/bleeder valves shall be located at the bottom of the side pump module panels.

All drains and bleeders shall discharge below the running boards.

STAINLESS STEEL PUMP PLUMBING

ANODE BLOCKS

Two (2) anode blocks shall be provided in the pump manifold to protect the pump from corrosion. A bolt in anode block shall be provided in the suction and discharge side of the pump manifold. The Anodes shall be painted Safety Yellow for identification purposes.

THERMAL RELIEF VALVE

A Thermal Relief Valve shall be provided on the pump. If water temperature in the pump exceeds 120 degrees Fahrenheit, the thermal relief valve shall automatically open and discharge pump water to the atmosphere, through a 3/8" discharge line, routed below the pump module. The thermal relief valve shall automatically close when the water temperature is lowered.

An indicator light shall be provided on the operator's panel to illuminate when the thermal relief valve is activated.

PUMP MODULE

The pump module shall be a self-supported structure mounted independently from the body and chassis cab. The design must allow normal frame deflection without imposing stress on the pump module structure or side running boards. The pump module shall be securely mounted to the chassis frame rails.

The pump module shall be a welded frame work utilizing structural components properly braced to withstand the rigors of chassis frame flex. Pump enclosures manufactured of steel will not be acceptable.

DUNNAGE AREA

A dunnage area shall be provided above the pump enclosure for equipment mounting and storage. This area shall be furnished with a removable 3/16" aluminum tread plate floor and side panels.

PUMP SUCTIONS & AUXILIARY INLETS

SUCTION INLETS

Two (2) 6" N.S.T. suction inlets shall be provided, one on the left pump panel and one on the right pump panel. A removable strainer shall be installed on each inlet.

MASTER INTAKE BUTTERFLY VALVES - ELECTRIC OPERATED

The fire pump shall be fitted with two (2) Master Intake Valves on the main suction inlets. Each valve shall be mounted between the suction tube extension and the suction tube, and shall be recessed behind the pump panel. Each valve shall incorporate a pressure relief valve, set at the pump manufacturers' facility to a rating of 125 PSI. The pressure relief valve shall provide protection for the suction hose even with the valve in the closed position.

The valves shall incorporate NFPA 1901 (Latest Edition) compliance large diameter 3/4" hose air bleed valves, controlled at the operator's panel.

Each valve shall be operated by a twelve (12) volt DC motor, as standard. The electric control shall be mounted on operator's panel. They shall also incorporate an externally accessible hand wheel control manual override, mounted at the suction inlet. The electric controls shall incorporate a placard with status lights to indicate whether the valves are in the closed, open or throttled position. The valves shall not be able to move from fully open to fully closed in under three (3) seconds, in compliance with NFPA 1901 (Latest Edition).

There shall be check valves installed to prevent pressurization of intake plumbing through primer plumbing when operating from a pressurized source.

PUMP SUCTION ENDS

The main pump suction inlets shall be furnished with a standard suction end, terminating with the suction threads protruding through the side panel. Adequate space shall be provided around the suction inlet to allow easy installation and removal of appliances, including those with long handles.

The two (2) suction caps provided as standard equipment shall be supplied

One (1) Kocheck 6" NSTF x 5" Storz 30° degree adapter and cap shall be provided for the left side main suction inlet.

AUXILIARY SIDE SUCTIONS

A total of two (2) 2.5" auxiliary suction shall be provided, 1 at the **driver's side pump panel and 1 on the officer's side pump panel**. The 2.5" auxiliary suction shall terminate with a removable strainer, Kocheck 2.5" NST female swivel with a Kocheck plug and retaining cable.

A 2.5" Akron #8800 series full flow, stainless steel ball valve shall be provided for the side auxiliary suction.

This valve shall be manually operated.

All side gated inlet valves shall be recess mounted behind the side pump panels or body panels. **(No Exceptions)**

TANK TO PUMP

One (1) 3" tank to pump line shall be, piped through the front bulkhead of the tank with a 90 degree elbow down into the tank sump. This line shall be plumbed directly into the rear of the pump suction manifold for maximum efficiency and tank to pump GPM capability, per NFPA 1901.

A check valve shall be provided to prevent accidental pressurization of the water tank through the pump connection. Connection from the valve to the tank shall be made using a rubber "hump" hose.

A 3" Akron full flow, stainless steel ball valve shall be provided between the pump suction manifold and the water tank.

This valve shall be manually operated.

TANK FILL

One (1) 2" gated full flow pump to tank refill line controlled at the pump panel shall be provided. A deflector shield inside the tank shall be furnished. Tank fill plumbing shall utilize 2" high pressure hose for tank connection to accommodate flexing between components.

A 2" Akron, #8800 series (or equal), full flow, stainless steel ball valve shall be provided between the pump discharge manifold and the water tank.

This valve shall be manually operated.

DISCHARGES & ACCESSORIES -SIDE MOUNT

All Kocheck adapters used shall be hard-coat finish.

DRIVER'S SIDE MAIN DISCHARGE #1 & #2

Two (2) discharges shall be provided and located at the driver's side pump panel. The driver's side discharges #1 & #2 shall terminate with NST threads, through the left panel, one each side, above the main pump intake. Discharges shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

A 2.5" Akron, #8800 series, full flow, stainless steel ball valve shall be provided for the driver's side #1 & #2 discharges. The valves shall be equipped with the Akron "Tork-Lok", feature.

The discharge valves shall be equipped with integral Kocheck 2.5" NST, 30 degree elbows.

A 2.5" F x 1-1/2" M and 1.5" NST Kocheck cap shall be installed on driver's side #1 & #2 discharges.

The driver's side #1 & #2 discharge valves shall be each be manually operated.

The driver's side #1 & #2 discharges shall each be equipped with a Class 1 3.5", 0-400 PSI, pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.

The pressure gauges shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals. The color of the illuminated gauge shall be Red.

OFFICER'S SIDE MAIN DISCHARGE #3

One (1) discharge shall be provided and located at the officer's side pump panel. The officer's side discharge shall terminate with NST threads, through the officer's side panel above the main pump intake. Discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

A 2.5" Akron, #8800 series, full flow, stainless steel ball valve shall be provided for the officer's side #1 discharge.

The #3 discharge valve shall be equipped with integral Kocheck 2.5" NST, 30 degree elbow.

A 2.5" F x 1-1/2" M and 1.5" NST Kocheck cap shall be installed on officer's side #3 discharge.

The officer's side #3 discharge valve shall be manually controlled.

The officer's side #3 discharge shall be equipped with a Class 1 (or equal) 3.5", 0-400 PSI, pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.

The pressure gauges shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals. The color of the illuminated gauge shall be red.

OFFICER'S SIDE LARGE DIAMETER DISCHARGE

One (1) 4" discharge, with 4" valve and piping, shall be located on the right side of the vehicle, to supply a four (4) inch hose line. This discharge shall have an electrical operating mechanism that will not permit changing the position of the flow regulating element of the valve from full close to full open, or vice versa, in less than 3 sec. and be controlled at the pump operator's panel marked "LDH DISCHARGE". A 3/4" drain valve will be conveniently located. **A Class 1, 3.5" flowminder (pressure & GPM) is to be installed per manufacturer's instructions and positioned directly above the control.** Installation of the flowminder shall provide for accurate readings +/- 10% of any actual flow greater than 200 GPM with discharge gate fully opened. These valves and piping assembly shall be supported to accept the strain and forces expected with the use of 4" large diameter hose. 4" discharge to be provided with a 30 degree downward sweep elbow, 4" Storz connection and a Kocheck 4" Storz X 2.5" NST male adaptor with a Kocheck 2.5" NST cabled cap.

REAR DISCHARGES #5 & #6

Two (2) 2.5" NST rear discharges shall be provided at the rear of the vehicle, one each side, plumbed from the pump.

The #5 rear discharge shall terminate at the rear of the apparatus below the hosebed on the left within easy reach from a standing position on the ground and allow for use of spanner wrenches and adapters.

The #6 rear discharge shall terminate at the rear of the apparatus below the hosebed on the right within easy reach from a standing position on the ground and allow for use of spanner wrenches and adapters.

Both rear discharges shall be equipped with Kochek 2.5" NST, 30 degree elbow with 2.5" F NST x 1.5" NST M with 1.5" NST cable retained cap.

The rear discharges shall be plumbed utilizing 3" schedule 10, stainless steel piping, 45 degree threaded elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the rear of the vehicle.

A minimum of one (1) Victaulic coupling shall be furnished in each assembly to allow for flex and serviceability.

A 3" Akron, #8800 series, full flow, stainless steel, ball valve shall be provided for each rear discharge. The valve shall be equipped with the Akron "Tork-Lok" feature.

The rear discharge valves shall be electrically controlled via Akron actuator and a controller located on the operator's panel.

The rear discharges shall be equipped with Class 1 3.5", 0-400 PSI, pressure gauges. Each shall be supplied with a bright metal bezel for resistance to corrosion and to protect the lens and case from damage. The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals. The color of the illuminated gauge shall be Red.

DECK GUN DISCHARGE

A deck gun discharge shall be plumbed from the pump to an area on top of the vehicle. The deck gun piping shall be firmly supported and braced.

The deck gun discharge shall be located in the center of the dunnage area above the pump module. A support assembly shall be provided to stabilize deck gun plumbing below deck gun mount flange. The assembly shall not allow movement of the gun as it is charged. Design to be approved by the NYS Academy of Fire Science.

To improve the operation range of the deck gun, the discharge pipe shall be outfitted with a TFT (18") Extend-A-Gun, remote controlled via switch on the pump operator's panel. The extension shall be wired to the hazard light on the cab dash.

The deck gun piping shall be design so the overall height of the deck gun in the mounted/stowed position does not exceed the cab roof height.

The deck gun discharge shall be plumbed utilizing 3" schedule 10, stainless steel piping, 45 degree threaded elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the deck gun location or 3" flexible high pressure hose with stainless steel fittings.

A minimum of one (1) Victaulic coupling (or equal) shall be furnished in this assembly to allow for flex and serviceability.

A 3" Akron, #8800 series, full flow, stainless steel ball valve shall be provided for the deck gun discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The deck gun valve shall be controlled by a hand wheel.

The deck gun discharge shall be equipped with a Class 1 3.5" Flowminder, pressure/ GPM gauge/ display which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.

The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals. The color of the illuminated gauge shall be Red.

HORIZONTAL CROSSLAYS

Four (4) Crosslays shall be sized to accommodate 2" X 300' double jacket fire hose, double stacked, mounted over the pump panel, 2" stainless steel piping or high pressure flexible hose with 1.5" male thread discharge. The bidder shall provide a ten (10) foot 1.75" "cheater" hose (equivalent to fire attack hose) from the 1.5" chicksan swivel connection point for each crosslay. Both crosslay shall be equipped with Class 1 quarter turn ¾" manual bleeder valves. Crosslays shall have aluminum treadplate covers that are hinged to allow access for reloading hose. Maximum height of crosslays shall be 72" from ground level.

A 2" Akron #8800, full flow, stainless steel ball valve terminating to a 1.5" stainless steel chicksan swivel below the deck of each crosslay. Each crosslay shall be manually controlled.

SPEEDLAY HOSE RETENTION

Two (2) "seat-belt strap" style hose retention devices shall be provided. These devices shall be secured using looped bungees. The strap material shall be red in color.

PUMP PANEL

The pump enclosure side panels shall be completely removable and designed for easy access and servicing.

PUMP PANEL MATERIAL

The left side operator's panel, gauge panel, right side pump panel and right side access door shall be fabricated from 304L stainless steel with a #4 standard polished finish.

PUMP ENCLOSURE MATERIAL

The entire pump enclosure shall be fabricated from 304L stainless steel welded into a single framework to attach the pump panels, form the dunnage compartment and crosslays.

HINGED GAUGE PANEL

A full width, vertically hinged gauge access panel shall be provided at the operator's position. Positive locks shall be provided along with chain holders to prevent the front of the gauge panel from coming in contact with other panels when open.

HINGED PUMP ACCESS DOOR

A pump enclosure access door shall be provided above the officer's side pump panel. This door shall have a two-point latch mechanism and stay arms for ease of access.

VERTICALLY HINGED PUMP PANEL

The low section of the officer's side pump panel shall be vertically hinged to provide complete access to the pump and plumbing on the officer's side of the pump enclosure. The panel shall be equipped with a stainless steel hinge and secured with locks to hold the panel closed. The drains located on the officer's side panel shall be fastened to the lower panel.

PANEL FASTENERS

Stainless steel machine screws and lock washers shall be used to hold these panels in position. No plated fasteners. The panels shall be easily removable to provide complete access to the pump for major service.

LED TRACK MOUNTED PUMP OPERATOR'S PANEL LIGHTING

Each side pump panel will be equipped with the track mounted, light fixture on the forward, top and rear edge of panel. The track mounted light fixture will be mounted directly to the pump panel projecting light toward the operator's panel. The light fixtures are in 12" increments, each 12" increment will be equipped with twenty four (24) LED's. The lights will be protected by a full length polycarbonate lens.

One (1) section light under the operator's panel light shield shall be actuated when fire pump is engaged in addition to the pump engaged light.

PUMP PANEL TRIM PLATES

A stainless steel trim plate shall be provided around each discharge port and suction inlet opening to allow accessibility to the respective valve for service and repairs.

COLOR CODED IDENTIFICATION TAGS

Identification tags shall be provided for all gauges, controls, connections, switches, inlets and outlets.

PUMP OPERATOR'S PANEL

Particular attention is to be given to functional arrangement of all controls. Discharge gauges shall be mounted next to the associated discharge valve control. Discharge valve controls and gauges shall be arranged in a row or rows, and ordered in a logical sequence corresponding to the location of the discharge on the vehicle. *NOTE: Individual gauges are specified in addition to the indicators in the governor control head. This is a teaching apparatus, so both are desired as instructional aides, as well as redundancy, in case of failure, to keep the apparatus in service.*

The pump operator's panel shall accommodate the following:

- Hinged gauge panel
- Water tank fill valve
- Auxiliary suction valve controls
- All discharge valve controls
- Auxiliary engine cooler controls
- Water tank suction control valve
- Pump primer valve
- Master compound vacuum readout (**Class 1, backlit, -30-0-400, w/black face and white numbers/letters**)
- Master pressure readout (**Class 1, backlit, 0-400, w/white face and black numbers/ letters**)
- Individual discharge gauges (**Class 1, backlit 3.5" 0-400psi w/ white face and black numbers/ letters**)
- Pump shift engaged indicator light
- Water tank water level indicator
- Engine tachometer
- Engine oil pressure gauge with audible alarm
- Engine water temperature gauge with audible alarm
- Low voltage light and audible alarm
- Pump panel light switch
- **Speed counter (Underwriters)**
- Voltmeter
- Ammeter
- Hourmeter (Pump Hours)
- Class 1 "Total Pressure Governor Plus" control

The master pump intake pressure and vacuum, and the main pump discharge pressure shall be indicated on the pressure governor display.

PUMP TEST PORTS

The pump panel shall be equipped with Vacuum & Pressure test plugs to allow for test equipment to monitor pump pressure and vacuum levels. Chrome plugs and labels shall be provided for the test ports.

The pump panel shall be equipped with an RPM counter port to allow for test equipment to monitor pump RPM. Chrome cap and labels shall be provided for the test port.

PUMP OPERATOR PANEL AIR OUTLET

One quick connect air outlet, to supply pneumatic tools, shall be installed on the pump panel at a location approved by the NYS Academy of Fire Science. This shall be equipped with an inline quarter-turn shut off valve and quick connect coupling.

ENGINE COOLER

An auxiliary cooler or heat exchanger shall be installed in the engine compartment between the engine and the chassis radiator. The cooler shall permit the use of water from the pump for cooling system. The cooling shall be done without mixing engine and pump water.

TANK LEVEL GAUGE

An LED gauge that shows the actual volume of water in the tank shall be provided on the pump operator's panel. The LEDs shall be bright enough for sunlight readability and provide for 180 degree viewing. The gauge shall utilize a pressure sender to measure the liquid volume. The gauge shall be equipped with a self-calibration feature.

Necessary Features:

- Flashes warning when the volume is less than 25%.
- No fitting needed for poly tank.

WATER TANK

The water tank shall have a capacity of **500 gallons**. The tank shall be constructed from non-corrosive material. Manufacturers shall describe the tank construction and materials utilized. **Tanks made of steel or aluminum are not acceptable – No Exceptions.** While the specification calls for a POLY tank, the standard set is for minimum standards expected. The desire is to have a non-metallic constructed water tank to allow for an extended life. While very specific thicknesses and dimensions are stated, the NYS Academy of Fire Science should clarify that this is for a minimal expectation only, not to restrict alternate designs or tank construction methods in another material equal to the performance of "poly". Manufacturers shall clearly state their dimensions in place of those listed if bidding an alternate tank, for clarity to purchaser.

The water tank shall be of a specific configuration and is also designed to be completely independent of the body and compartments. All joints and seams shall be nitrogen welded and tested for maximum strength and integrity. The top of the booster tank is fitted with removable lifting eyes designed with a 3 to 1 safety factor to facilitate easy removability. The transverse swash partitions shall be manufactured of 3/8" polypropylene (natural in color) and extend from approximately 4" off the floor to just under the cover. The longitudinal swash partitions shall be constructed of 3/8" polypropylene (natural in color) and extend from the floor of the tank through the cover to allow for positive welding and maximum integrity.

All partitions shall be equipped with vent and air hoses to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All swash partitions interlock with one another and are welded to each other as well as to the walls of the tank.

TANK FILL TOWER

The tank shall have a combination vent and manual fill tower. The tower shall have a thick removable polypropylene screen and a polypropylene hinged type cover. The fill tower cover shall be marked as a water tank fill point.

OVERFLOW AND VENT PIPE

The fill tower shall be fitted with an integral 6" I.D. schedule 40 P.V.C. combination overflow/vent pipe running from the fill tower through the tank to a 6" coupling flush mounted into the bottom of the tank to allow water to overflow behind the chassis rear axle.

TANK SUMP

The tank sump shall be a minimum of 10" wide x 10" long x 3" deep. An anti-swirl plate shall be mounted inside the sump, approximately 1" above the bottom of the sump.

TANK CONNECTIONS

There shall be two (2) standard tank connections; one for tank-to-pump suction line which shall be a minimum of 4" coupling and one for a tank fill line which shall be a minimum of a 2" National Pipe Thread (N.P.T.) coupling. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank.

TANK MOUNTING

The tank shall be mounted in accordance with NFPA 1901 (Latest Edition) and the requirements of the tank manufacturer. The tank is designed on the free-floating suspension principle and shall not require the use of hold downs. The tank shall be completely removable without disturbing or dismantling the apparatus body structure. The hose bed cross braces shall act as water tank retainers.

APPARATUS BODY DESIGN CONSTRUCTION

The body side and compartment assemblies shall be designed and assembled to provide maximum strength and durability under all operating conditions.

Special attention shall be taken to minimize corrosion on all fabricated parts and structural members of the body. All bolt-on components shall be provided with a dissimilar metals isolation barrier to prevent electric corrosion acceptable to the NYS Academy of Fire Science. The body design shall also incorporate removable panels to access spring hangers, rear body mounts and fuel tank sending units.

The body assembly shall be an all-welded configuration. The body shall be completely isolated from the cab and pump module structure.

BODY AND COMPARTMENT FABRICATION – STAINLESS STEEL - NO EXCEPTIONS

All compartment panels and body side sheets shall be entirely 12 gauge 304 stainless steel. Each bidder shall clearly understand that these are the minimum expectations. The NYS Academy of Fire Science is not dictating the specific finite construction methods, but manufacturers shall adhere to the material standards set for stainless steel. Each bidder MUST outline in very finite detail, the exact methods in which they build the body assembly. The unit must be of sound construction and supported by a warranty.

STEPPING, STANDING, & WALKING SURFACES

All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards. Aluminum tread plate utilized for stepping, standing, and walking surfaces shall be Alcoa No Slip type. This material shall be certified to meet the Latest Edition NFPA 1901 standard. Upon request by the Purchaser, manufacturer shall supply proof of compliance with this requirement. (There shall be **No Exceptions** allowed for this paragraph).

COMPARTMENTATION AND DIMENSIONAL DATA

The following dimensional data and compartment configurations have been specified for intention and design purposes. These are in no way designed to be restrictive from a manufacturer standard. It is the desire to have a body compartment layout with an equal or more cubic foot volume of storage area and in the locations mentioned. It is the full intent of the NYS Academy of Fire Science to seek multiple options for consideration and to secure competitive bids. It is realized that all manufacturers build differently and that finite dimensional data may vary. It should be noted that bids of TOTAL EXCEPTION will not be accepted, as the overall design intent is outlined and considered to be a minimum standard. Each bidder will outline the dimensional data supplied in an engineering diagram SUBMITTED with bid, **NO EXCEPTIONS**. While the dimensional data is flexible, the desire to maintain full height and full depth compartments is not a flexible design parameter. **All tools, fittings, and equipment to be carried on the apparatus shall be mounted by the bidder. List of tools, fittings, and equipment that will be provided by the buyer is as follows:**

Provided by buyer:

- 2 – 6" female NH x 4" storz couplings
- 2 – 4" storz x 2.5" NH couplings
- 8 – various 2.5" and 1.5" couplings
- 2 – loose 2.5" nozzles
- 2 – loose 1.5" nozzles
- 1 – rubber mallet
- 1 – 2.5" gated wye
- Assorted hose gaskets (1.5", 2.5", 6")
- 4 – hose straps
- 1 – 20 pound dry chemical fire extinguisher
- 1 – hydrant bag
- 1 – portable pump
- 1 – fuel can
- 1 – 2.5" floating strainer
- 2 – halligan bars
- 2 – flat head axes
- 1 – pick head axe
- 2 – tarps
- 1 – 5 gallon foam bucket
- 1 – utility rope

All other tools, equipment, and fittings that are specified elsewhere to be provided by the bidder shall be mounted in brackets.

DRIVER'S SIDE COMPARTMENTATION (ROLL-UP DOORS)

One (1) split depth compartment forward of the rear wheels. Items to be stored in this compartment shall be mounted in a manner to be approved by the NYS Academy of Fire Science.

One (1) split depth compartment behind the rear wheels.

One (1) shallow depth compartment above the rear wheels.

OFFICER'S SIDE COMPARTMENTATION (ROLL-UP DOORS)

One (1) full height/ split depth side compartment forward of the rear wheels.

One (1) full height/ split depth compartment behind the rear wheels.

BEAVERTAILS

The rear body beavertail area shall be furnished with a squared off appearance to maximize the available compartment area, while providing added support to the rear step support structure. This assembly shall provide a vertical mounting surface for tail lights at the rear most portion of the body and additional storage space. The inside of the beavertails shall be furnished with polished aluminum tread plate overlays to prevent hose from damaging body areas.

COMPARTMENT TOPS

Compartment tops shall be covered with polished 3/16" aluminum tread plate on both sides. These shall be completely sealed after installation.

DRIP MOLDING

Compartment tops over all side compartments shall have a 45 degree flange formed out to provide protection against water run-off. A secondary extruded drip molding shall be provided between low compartments and auxiliary high side compartments, when auxiliary compartments are provided.

FASTENERS

All exterior fasteners used for holding panels or tread plate shall be stainless steel. In no case shall pop rivets or self-tapping screws be used.

COMPARTMENT LOUVERS

Machine stamped ventilating louvers shall be furnished in each compartment, and so located that water cannot normally enter the compartment. A perforated, polished, stainless steel grille shall be furnished between compartments for ventilation in the event that the compartment configuration does not allow louvers to ventilate to the atmosphere.

ACCESS PANELS

Removable access panels shall be provided in all lower compartments to access spring pins, fuel tank sender, electrical junction compartment and all body mounts. Panels shall be located in the rear compartments providing access to the lights and associated wiring. The covers shall also serve as protective covers to prevent inadvertent damage to lights or wiring from tools or equipment located in the compartment.

BODY PROTECTION PANELS

The front face of the side compartments, next to the left and right pump panels shall be overlaid with polished aluminum tread plate full height protection.

REAR BODY PANEL

The rear body panel shall be fabricated from a minimum of 3/16" polished aluminum tread plate and shall extend the full width between the beavertails. This panel shall be full height from the rear step to the hose bed floor. The panel shall be bolted on and removable, with no part of the rear panel attached to the booster tank.

REAR STANCHIONS

Two (2) stanchion brackets with wiring protectors, shall be provided at the rear of the body for upper rear warning light mounting, one (1) each side. These brackets shall be bolted to the sides of the body to minimize rear vehicle height.

BODY RUB RAILS

Sacrificial 3/16" polished aluminum tread plate rub rails shall be mounted at the base of the body. The rub rails shall extend the full length of the main body and blend into the rear step for a pleasing appearance. Rub rails shall be designed to bolt to the body from the bottom side of the compartment area, so as not to damage the body side panels on initial impact and to provide for ease of replacement.

RUNNING BOARD STEPS

The driver and officer running board steps shall be fabricated of 3/16" polished aluminum tread plate. The outside edge on each step shall be fabricated with a double break, return flange. The steps shall be rigidly reinforced with a heavy duty, stainless steel, support structure. The running boards shall not form any part of the compartment design, and shall be bolted into place with a minimum 1/2" clearance gap between any panel to facilitate water runoff.

REAR STEP

The rear step shall be twelve (12) inches deep, recessed between the rear portion of the rear side compartments. The step shall be fabricated from 3/16" polished aluminum tread plate, and shall be rigidly reinforced. The rear edge of the step shall be designed to accommodate the rear clearance lights, recessed for protection in the step reinforcement channel. This step shall be bolted into place with a minimum 1/2" clearance gap between it and the body panel for drainage.

INTERMEDIATE REAR STEP

An eight (8) inch bolt on intermediate rear step, fabricated from 3/16" aluminum tread plate, shall be installed. The step shall be a minimum of 8" deep x full width of the rear tailboard.

REAR STEP COMPARTMENT

One (1) rear step compartment shall be provided between the frame rails. This compartment shall be as tall, wide and deep as possible in the given area. The compartment shall have a horizontally hinged (bottom) door covered in 3/16" aluminum tread plate.

LADDER RACK- (Electrically/ Hydraulically Operated)

The bidder shall provide an electrically/ hydraulically operated ladder rack mounted on either side of the apparatus. The ladder rack shall provide secure storage for the specified extension ladder, roof ladder and attic ladder. The ladder rack should also store the hard suction hose if possible. The rack will store the ladders without interference with the operation and access to compartments or crosslays. The ladder rack, when operated, shall position the ladders for access by personnel at the side of the apparatus. When deployed, the rack shall not interfere with operation and access to the compartments or crosslays.

GRAB RAILS

All hand rails shall be 1-1/4" outer diameter, knurled bright anodized aluminum extrusion, designed to meet NFPA 1901 requirements. Molded gaskets shall be installed between the handrail stanchion castings and body surfaces to prevent electrolytic reaction between dissimilar metals and to protect paint.

GRAB RAIL LOCATIONS:

- Two (2) vertical rails shall be mounted on the rear edge of the beavertails, one (1) each side.
- One (1) horizontal, full width handrail shall be installed on the rear, below the level of the hose bed.
- Two (2) vertical handrails shall be mounted above each pump panel, (1) each side, to assist access from the running board steps to the top of the body.

FOLDING STEPS

Six (6) large folding steps, made of high strength die cast aluminum, with a textured chrome plate finish, minimum of 42 in² surface, conforming to NFPA-1901 requirements, shall be provided on the front face of the running board compartments, above running board steps, three (3) each side. The steps shall be mounted to accommodate access to the body hosebed area with a maximum of 18" height between each step.

SAFETY SIGN AT REAR STEP

Safety sign(s) shall be located on the vehicle at the rear step to warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.

REAR WHEEL WELL LINERS

Fully removable, bolt-in, stainless steel fender liners shall be provided. The wheel well liners shall extend from the outer wheel well body panel, into the truck frame. Removable vertical splash shields, inward of the wheels, shall be provided to give access to suspension components. The completely washable fender liners shall be designed to protect the front and rear compartments and main body supports from road salts, dirt accumulation and corrosion. Fender liners which are welded in place or are only partially removable shall not be considered.

REAR FENDERETTES

The rear fenders shall be equipped with easily replaceable, polished stainless steel fenderettes. The fenderettes shall be equipped with a rubber gasket molding between the body panel and the fenderette. Fenderettes that are integrally welded to the body side panels shall not be acceptable.

WHEEL CHOCK STORAGE COMPARTMENT

A total of two (2) storage compartments (8" high x 8" wide x 26" deep) shall be inserted into the body fender area on a 5 degree pitch. The compartments shall be located with two (2) on the driver side. The lower portion of the forward compartment shall be rubber lined to absorb shock and help secure the wheel chocks. The rearward compartment shall have a shelf to accommodate a total of three fire extinguishers. The storage compartments shall be equipped with a polished stainless steel door.

MUD FLAPS

Heavy duty mud flaps shall be provided behind the rear wheels.

REAR TOW EYES

Two (2) painted tow eyes shall be furnished on the rear of the vehicle, thru the rear of the body, bolted directly to the chassis frame rails with grade 8 bolts. The tow eyes shall be made from plate steel and shall be bolted directly to the chassis frame rails with grade 8 bolts and shall extend below the body. The tow eyes shall be smooth and free from sharp edges, and have a minimum eyelet hole of 2-1/2".

HOSE BED

The hose bed storage area and partitions shall be arranged to accommodate the following:

- 400' of 1.75" double jacket fire hose with TFT automatic nozzle with pistol grip
- 400' of 2.5" double jacket fire hose with TFT automatic nozzle with pistol grip
- 400' of 3" (2.5" couplings) double jacket fire hose
- 1500' of 5" LDH

The hose bed shall be located directly above the booster tank and shall be free from all sharp objects such as bolts, nuts, etc., to avoid damage to fire hose.

HOSE BED FLOORING

Flooring to be constructed from extruded aluminum and be properly spaced for ventilation. The flooring shall be smooth and free from sharp edges to avoid hose damage. The hose bed floor shall be removable to provide access to inner body framework.

HOSE BED PARTITIONS

Hosebed partitions shall be made of aluminum, and adjustable. Partitions shall be removable for access to the booster tank.

HOSE PARTITION CUTOUTS

The hose bed partitions shall have a vertical handhold cutout at **upper** rear edge of the partition.

HOSE BED COVER

A hose bed cover shall be provided and installed. The cover shall be made from at least 22 ounce heavy-duty vinyl coated polyester fabric (TXN 226 or equal). The cover shall be sewn with ultraviolet resistant thread and shall have 2" wide nylon webbing sewn around the perimeter to provide additional strength. The cover shall be secured to the front of the body just below the top flange with quarter-turn fasteners and Velcro and shall be secured to the top side body flanges with individual bungee loops. The rear flap shall be furnished with two (2) adjustable style restraining straps. The hosebed cover shall be red in color.

COMPARTMENT ACCESSORIES

ADJUSTABLE SHELVING

Compartment shelving shall be constructed of 3/16" brush finish aluminum with a 2" upward bend at front and rear, and side supports. Shelving shall be vertically adjustable with spring nuts in aluminum strut channel. Adjustable shelves shall be located as follows:

- One (1) in the driver front compartment
- One (1) in the officer front compartment
- One (1) in the driver rear compartment
- One (1) in the officer rear compartment

SLIDE OUT FLOOR MOUNT SHELVING

Slide out floor mount compartment shelving shall be constructed of 3/16 brush finish aluminum with a 2" upward bend at front and rear, and side supports attached to #250 rated slides. Slide out floor mount shelving shall have gas shocks to hold the tray in and out. Slide out floor mount shelving shall be provided as follows:

- One (1) in the driver front compartment
- One (1) in the officer front compartment
- One (1) in the driver rear compartment
- One (1) in the officer rear compartment
- One (1) in the rear center body compartment

VERTICAL PULL OUT TOOL BOARD

One (1) vertical pull out tool board shall be provided and mounted in the driver front compartment. The tool board shall be constructed of 3/16" smooth aluminum allowing mounting of equipment on both sides of the toolboard. The tool board shall be attached to #250 rated slides, one at the top and one at the bottom of the tool board. 3/16" aluminum angles shall attach the slides to tracking to allow horizontal adjustments. A gas shock shall be used to secure the toolboard in the stored and deployed position.

COMPARTMENT FLOOR COVERING

Turtle Tile brand floor material shall be installed on all compartment floors. The tile shall be custom installed to provide a full floor coverage.

Floor matting material shall be provided on all shelves and roll-out trays.

The compartment flooring color shall be red.

12 VOLT LIGHTING- Center Mount, Forward Facing/ Front Illumination

Two (2) Fire Research, EVOLUTION 12vdc LED "brow" lights shall be provided. The light shall be mounted on a special bracket on the front of the cab roof. Bracket shall be sized to fit the light. All wiring used shall be a minimum of 10 gauge wire in loom that is properly supported and protected from injury. The lights shall be controlled by a control at the driver side switch panel. These lights may be load managed when the parking brake is set.

12 VOLT LIGHTING- Mounted onto the rear of the cab on extend-a-pole mounts.

There shall be two (2) Fire Research, EVOLUTION 12vdc LED lights provided. The light shall be mounted one each side of the rear of the cab. The lights shall be controlled by a control at the driver side switch panel. All

wiring used shall be a minimum of 10 gauge wire in loom that is properly supported and protected from injury. These lights may be load managed when the parking brake is set.

LADDERS

The ground ladder compliment shall be aluminum and sized 24', 14', and 10':

- One (1) Alco-Lite model PEL-24; 24', aluminum, two (2) section extension ladder shall be provided.
- One (1) Alco-Lite model PRL-14; 14', aluminum, straight roof ladder with folding hooks shall be provided.
- One (1) Alco-Lite model FL-10 (or equal); 10', folding, aluminum, attic ladder shall be provided.

All ground ladders shall be from the same manufacturer.

PIKE POLES AND HOLDERS

Two (2) pike pole tubes shall be provided and mounted in a location approved by the NYS Academy of Fire Science. Each pike pole holder shall be labeled to indicate the pike pole length. Pike poles shall be provided by purchaser.

SUCTION HOSE STORAGE

Any suction hoses that do not fit on the ladder rack shall be located on individual racks and secured on the driver's side of the apparatus above the lower compartments.

Three (3) sections of six(6) inch X ten(10) foot PVC suction hose with lightweight hard coat couplings shall be furnished. Couplings shall include a long handle, female swivel on one end and a rocker lug male on the other end. All threads shall be six (6) inch N.S.T.

STRAINER- Kochek "Big Water" (or equal)

One (1) 6" NST, full flow, barrel strainer shall be provided by bidder to attach to the suction hose. A compartment mounting bracket shall also be provided and mounted to store the strainer when not in use. **The strainer shall be capable of flowing the capacity of the pump** and approved by the NYS Academy of Fire Science upon acceptance testing.

ADDITIONAL ITEMS SUPPLIED WITH THE VEHICLE

- 1- Pint of touch up paint for each color
- 1- Bag of assorted stainless steel nuts and bolts

ADDITIONAL ITEMS TO BE SUPPLIED BY THE NYS ACADEMY OF FIRE SCIENCE AND MOUNTED BY BIDDER IN A LOCATION TO BE DETERMINED

- 2- Kochek K46-2- or equal (two [2] spanner wrenches and double holder) in Silver/Black
- 1- Kochek K45-3- or equal (one [1] adj. hydrant wrench and two [2] spanner wrenches with triple holder) in Silver/ Black.
- 1- Kochek KS34- or equal (four [4] Storz spanner wrenches and holder) in Silver/ Black.
- 1 Large diameter manifold (5" storz inlet, 5" storz gated outlet, 4- 2.5" NST gated outlets) with pressure relief valve.
- Two (2) Zico (or equal) folding wheel chocks shall be stored in the specified compartment on the driver's side.

PAINT

PPG Delta, Low V.O.C., polyurethane finishing system, or equal, shall be utilized. A "Clear Coat" paint finish shall be supplied to provide greater protection to the quality of the exterior paint finish.

All removable items, such as brackets, compartment doors, etc. shall be painted separately to insure finish paint behind mounted items. All compartment unwelded seams exposed to high moisture environments shall be sealed using permanent pliable caulking prior to finish paint.

The inside and underside of the complete body assembly shall be painted job color prior to installation of the body on the chassis.

The interior of the compartments shall be brushed finished aluminum for ease of maintenance.

The pump enclosure and pump/plumbing within the pump enclosure shall be painted job color to match the primary color of the body.

CAB FINISH PAINT

The cab exterior shall be painted with PPG Delta system (or equal) to match purchaser's furnished paint codes.

CAB INTERIOR PAINT

The interior metal surfaces of the cab shall be finish painted with a textured gray paint.

WHEEL PAINT

The chassis wheels, shall be painted job color on all sides, no factory white or gray paint shall be acceptable.

EXTERIOR PAINT

The paint shall be red and approved by the NYS Academy of Fire Science.

TOUCH-UP PAINT

One (1) pint of exterior color paint for touch-up purposes shall be supplied when the apparatus is delivered to the end user.

RUST PROOFING

The entire unit shall be thoroughly rust proofed utilizing rustproof and sound deadening materials applied in manufacturer recommended application procedures. Rust proofing shall be applied during the assembly process and upon completion to insure proper coverage in all critical areas.

LETTERING AND STRIPING

The lettering and striping shall be custom designed utilizing state of the art computer software and computerized cutting machines.

FRONT CAB DOOR LETTERING- Layout to be approved by the NYS Academy of Fire Science:

“New York State Fire Academy”
OFPC Decal goes between lines
“Engine 3”

Lettering provided on the crew cab doors shall be 3" high.

LETTERING ABOVE WINDSHIELD

“New York State Fire Academy”

Lettering provided above the windshield shall be 3" high.

LETTERING FONT

The lettering shall be designed and cut with a font to match existing Academy apparatus.

NFPA REQUIRED REFLECTIVE STRIPING

A four (4) inch high "Scotch-Lite" (or equal); stripe shall be provided. The stripe shall be applied on each side of the apparatus. The reflective stripe shall be **white** in color.

REFLECTIVE CHEVRON STRIPING

The rear panel of the truck as well as the face of the front bumper shall be covered with alternating strips of reflective striping in the form of a chevron. The striping shall be **red** and **yellow** in color.

BASIC MINIMUM WARRANTY PROVISIONS

The manufacturer shall warrant the entire apparatus proposed, manufactured and/or assembled by them, to be free against defects in material and workmanship provided the apparatus is used in a normal and reasonable manner. The warranty shall be to the State of New York for a period of two (2) years from the date of receipt of the apparatus by the State. The warranty shall cover the cost of parts and labor for this period of time. Parts replaced or repaired under warranty shall be warranted an additional two (2) years. The bidder shall submit with proposal a complete description of the warranty(s) to be furnished.

The stainless steel body shall be warranted from structural defects including but not limited to rust, corrosion and evidence of stress or cracks resulting from stress for a period of twenty (20) years from the date of manufacturer, as designated on the manufacturer's certification plate attached thereto.

The booster tank shall be warranted for the entire time that the apparatus is owned by the State of New York.

Within seventy two hours after the receipt of a verbal or written notification by the State of New York designee that warranty service is required, the successful bidder shall respond verbally, and immediately follow up by letter to the State of New York with a statement of intent to show where and when the warranty service shall be accomplished. In the event that there is no response or if the response exceed 72 hours, or if the response that is received is in time but is not acceptable, to the State of New York will provide for the required warranty service, and the total costs of all labor, parts, components materials, and freight shall be reimbursed to the State of New York by the successful bidder within forty five (45) calendar days after the bill has been mailed to the bidder. The warranty portion of the Performance Bond shall also be guaranteed by the surety company, which shall be responsible to fully reimburse the State of New York within forty-five (45) calendar days in the event the successful Bidder defaults under the terms of this warranty.

The manufacturer will be responsible for the safe transportation of the apparatus if the closest service facility is located more than 100 road miles from the NYS Fire Academy in Montour Falls, NY.

SUPPLEMENTAL EXTENDED WARRANTIES

The exterior paint and finish on the complete unit shall be warranted against blistering, peeling, cracking or bubbling due to defects in manufacturing or improper preparation for a period of ten (10) years.

The frame of the apparatus shall be warranted for the entire time that the apparatus is owned by the State of New York.

SINGLE SOURCE WARRANTY COORDINATION

In order to protect the State of New York from divided warranty responsibilities, proposals will only be accepted from manufacturers who warrant the apparatus bumper to bumper. While all fire apparatus have individual component warranties, the Manufacturer shall act as the sole source warranty coordinator on the entire vehicle, including, for example, the cab shell, chassis assembly, engine, pump, tank and complete body structure. **There are no exceptions to this requirement.**

PRODUCT LIABILITY INSURANCE

Manufacturer shall defend any and all lawsuits resulting from use of the apparatus.

BID BONDS

All bidders shall provide a bid bond as security for the bid in the form of a 10% bid bond, to accompany their bid made payable to **NYS Division of Homeland Security and Emergency Services, Office of Fire Prevention & Control, 1220 Washington Avenue, State Campus Bldg 7A, Albany, New York 12242**. This bid bond shall be issued by a Surety Company who is listed on the U.S. Treasury Department's list of acceptable sureties as published in Department Circular 570. The bid bond shall be issued by an authorized representative of the Surety Company and shall be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond shall include language which assures that the bidder/principal shall give a bond or bonds, as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract.

PERFORMANCE AND PAYMENT BONDS

The successful bidder shall provide, within 30 days of award of the contract, and along with a signed copy of the contract, a performance bond payable to **NYS Division of Homeland Security and Emergency Services, Office of Fire Prevention & Control, 1220 Washington Avenue, State Campus Bldg 7A, Albany, New York 12242**, which guarantees performance of all terms and conditions of the contract and warranty agreement. The performance bond will specifically cover the performance of the contract according to its terms and conditions, as well as payment of all related bills and encumbrances. This performance bond shall be issued by a surety company who is listed by the U.S. Treasury Department's list of approved sureties, as published in Circular 570, as of the bid date. The performance bond shall be issued in an amount equal to 100% of the contract amount and shall be dated concurrent to, or subsequent to, the date of the contract.

4.2 Delivery Location

Upon receipt of an approved purchase order, the contractor shall coordinate delivery with designated representative at the Division of Homeland Security and Emergency Services. DHSES shall provide contractor with a contact person and phone number to facilitate delivery. Delivery is expressed on bid form in number of calendar days required to make delivery after receipt of a purchase order.

Price includes all customs, duties and charges and is net, F.O.B. destination and includes all costs necessary to produce the product as specified, including delivery to:

NYS Division of Homeland Security
NYS Academy of Fire Science
600 College Avenue
Montour Falls, NY 14865

24-Hour advance notice is required to coordinate delivery.

4.3 Security Procedures

Please note that location may have security policies which must be followed. The Contractor will work with DHSES to obtain necessary clearances. Contractor may be required to provide information such as, but not limited to, the company name, the employee's name (as it appears on ID), valid driver license number, vehicle make, model and license plate, etc.

4.4 Anti-Freeze Protection

Regardless of delivery date, all liquid-cooled engines shall be protected with permanent type anti-freeze.

4.5 Motor Vehicle Regulations

Each vehicle delivered shall comply with all applicable laws and regulations of the State of New York and the Federal Government in effect on the date of manufacture.

4.6 Emissions Controls

Vehicles and engines shall comply with all applicable Federal, State and Local laws and regulations in effect on the date of manufacture.

4.7 Rejected Product

If product is rejected, it must be removed by the Contractor from the premises of DHSES within ten calendar days of notification of rejection by DHSES. Upon notification of rejection, risk of loss of rejected or non-conforming product shall remain with Contractor. Rejected items not removed by the Contractor within ten calendar days of notification shall be regarded as abandoned by the Contractor, and DHSES shall have the right to dispose of product as its own property. The Contractor shall promptly reimburse DHSES for any and all costs and expenses incurred in storage or effecting removal or disposition after the ten-calendar day period.

4.8 Warranty

Contractor hereby warrants and represents that deliverable specified and furnished by or through Contractor shall individually be guaranteed against parts failure or malfunction due to design, construction or installation errors, defective workmanship, and missing or incorrect parts for the warranty period. During the warranty period, defects in the materials or workmanship of deliverable specified and furnished by or through Contractor shall be repaired or replaced by Contractor at no cost or expense to DHSES. Detailed warranty requirements are outlined in the specification section.

The warranty period for all coverage shall begin on the date unit is accepted or put in service, whichever occurs later. Where unit develops chronic failures during the warranty period, the Contractor shall extend the warranty period for an equal period of time following correction of such failures, as indicated in the original warranty.

5. Contract Clauses and Requirements

5.1 Appendix A / Order of Precedence

Appendix A — Standard Clauses for New York State Contracts, dated January 2014, attached hereto, is hereby expressly made a part of this solicitation document as fully as if set forth at length herein. Appendix A is a separate document to this IFB and shall be retained for reference by the bidder.

The agreement resulting from a successful award will include the following documents. Conflicts between these documents will be resolved in the following descending order of precedence:

1. Appendix- A
2. Invitation for Bid IFB-0037 (this document) with any addenda
3. Selected Contractor's Bid

5.2 Procurement Lobbying Requirement

Pursuant to State Finance Law §§139-j and 139-k, this solicitation includes and imposes certain restrictions on communications between the State and an Offerer/Bidder during the procurement process. An Offerer/Bidder is restricted from making contacts from the earliest notice of intent to solicit offers/bids through final award and approval of the contract by the State and, if applicable, the Office of the State Comptroller ("restricted period") to other than designated staff unless it is a contact that is included among certain statutory exceptions set forth in State Finance Law §139-j (3) (a). Designated staff, as of the date hereof, is identified on the first page of this

solicitation. OGS employees are also required to obtain certain information when contacted during the restricted period and make a determination of the responsibility of the Offerer/Bidder pursuant to these two statutes. Certain findings of non-responsibility can result in rejection for contract award and in the event of two findings within a four-year period; the Offerer/Bidder is debarred from obtaining governmental Procurement Contracts. Further information about these requirements can be found on the OGS website:

<http://www.ogs.ny.gov/aboutOgs/regulations/defaultAdvisoryCouncil.html>

5.3 Contractor Insurance Requirements

Prior to the commencement of the work to be performed by the Contractor hereunder, the Contractor shall file with The People of the State of New York, Office of General Services (hereinafter referred to as "OGS"), Certificates of Liability Insurance (hereinafter referred to as "Certificates"), evidencing compliance with all requirements contained in this Section. Such Certificates shall be of a form and substance acceptable to OGS. Workers Compensation and Disability Insurance documents should be submitted with bid proposal.

Certificate acceptance and/or approval by OGS does not and shall not be construed to relieve Contractor of any obligations, responsibilities or liabilities under the Contract.

All insurance required by the Contract shall be obtained at the sole cost and expense of the Contractor; shall be maintained with insurance carriers licensed to do business in New York State and acceptable to OGS; shall be primary and non-contributing to any insurance or self-insurance maintained by OGS; shall be endorsed to provide written notice be given to OGS, at least thirty (30) days prior to the cancellation, non-renewal, or material alteration of such policies, which notice, evidenced by return receipt of United States Certified Mail; shall be sent to Office of General Services, Business Services Center, Purchasing Unit, 50 Wolf Road, Albany, New York 12232 and shall name ***The People of the State of New York, OGS officers, agents, and employees as additional insureds there under*** (General Liability Additional Insured Endorsement shall be on Insurance Service Office's (ISO) form number **CG 20 10 11 85**). The additional insured requirement does not apply to Workers Compensation, Disability or Professional Liability coverage.

The Contractor shall be solely responsible for the payment of all deductibles and self-insured retentions to which such policies are subject. Deductibles and self-insured retentions must be approved by OGS. Such approval shall not be unreasonably withheld.

The Contractor shall require that any subcontractors hired, carry insurance with the same limits and provisions provided herein.

Each insurance carrier must be rated at least "A-" Class "VII" in the most recently published Best's Insurance Report. If, during the term of the policy, a carrier's rating falls below "A-" Class "VII", the insurance must be replaced no later than the renewal date of the policy with an insurer acceptable to OGS and rated at least "A-" Class "VII" in the most recently published Best's Insurance Report.

The Contractor shall cause all insurance to be in full force and effect as of the commencement date of this Contract and to remain in full force and effect throughout the term of this Contract and as further required by this Contract. The Contractor shall not take any action, or omit to take any action that would suspend or invalidate any of the required coverages during the period of time such coverages are required to be in effect.

Not less than thirty (30) days prior to the expiration date or renewal date, the Contractor shall supply to OGS updated replacement Certificates of Insurance, and amendatory endorsements.

The Contractor, throughout the term of this Contract, or as otherwise required by this Contract, shall obtain and maintain in full force and effect, the following insurance with limits not less than those described below and as required by the terms of this Contract, or as required by law, whichever is greater (limits may be provided through a combination of primary and umbrella/excess policies):

- a) Commercial General Liability Insurance with a limit of not less than \$2,000,000 each occurrence. Such liability shall be written on the ISO occurrence form CG 00 01, or a substitute form providing equivalent coverages and shall cover liability arising from premises operations, independent contractors, products-completed operations, broad form property damage, personal & advertising injury, cross liability

coverage, liability assumed in a contract (including the tort liability of another assumed in a contract) and explosion, collapse & underground coverage.

1. If such insurance contains an aggregate limit, it shall apply separately on a per job or per project basis.
- b) Comprehensive Business Automobile Liability Insurance with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any automobile including owned, leased, hired and non-owned automobiles.
- c) Waiver of Subrogation. Contractor shall cause to be included in each of OGS policies insuring against loss, damage or destruction by fire or other insured casualty a waiver of the insurer's right of subrogation against DHSES, or, if such waiver is unobtainable (i) an express agreement that such policy shall not be invalidated if Contractor waives or has waived before the casualty, the right of recovery against DHSES (ii) any other form of permission for the release of DHSES.
- d) **WORKERS' COMPENSATION / DISABILITY INSURANCE:**
Workers' Compensation, Employer's Liability, and Disability Benefits meeting all New York State statutory requirements are required. If coverage is obtained from an insurance company through an insurance policy, the policy shall provide coverage for all states of operation that apply to the performance of the contract. In addition, if employees will be working on, near or over navigable waters, coverage provided under the US Longshore and Harbor Workers' Compensation Act must be included. Also, if the contract is for temporary services, or involves renting equipment with operators, the Alternate Employer Endorsement, WC 00 03 01A, must be included on the policy naming the People of the State of New York as the alternate employer.

Manufacturer shall defend any and all lawsuits resulting from use of the apparatus.

PROOF of COMPLIANCE WITH WORKERS' COMPENSATION COVERAGE REQUIREMENTS:

ACORD forms are **NOT** acceptable proof of workers' compensation coverage.

In order to provide proof of compliance with the requirements of the Workers' Compensation Law pertaining to workers' compensation coverage, contractors shall:

A) Be legally exempt from obtaining workers' compensation insurance coverage;

Or

B) Obtain such coverage from insurance carriers;

Or

C) Be a Board-approved self-insured employer or participate in an authorized self-insurance plan.

Contractors seeking to enter into contracts with the State of New York **shall provide one of the following forms to the Office of General Services** at the time of bid submission or shortly after the opening of bids:

- A) **Form CE-200, Certificate of Attestation for New York Entities With No Employees and Certain Out of State Entities, That New York State Workers' Compensation and/or Disability Benefits Insurance Coverage is Not Required** which is available on the Workers' Compensation Board's website: www.wcb.ny.gov ;

Or

- B) *Certificate of Workers' Compensation Insurance:*

- 1) **Form C-105.2 (9/07)** if coverage is provided by the contractor's insurance carrier, **contractor must request its carrier** to send this form to the New York State Office of General Services;

Or

- 2) **Form U-26.3** if coverage is provided by the State Insurance Fund, contractor must request that the State Insurance Fund send this form to the New York State Office of General Services;

Or

- C) *Certificate of Workers' Compensation Self-Insurance - Form SI-12*, available from the New York State Workers' Compensation Board's Self-Insurance Office;

Or

- D) *Certificate of Participation in Workers' Compensation Group Self-Insurance Form GSI-105.2*, available from the contractor's Group Self-Insurance Administrator.

PROOF of COMPLIANCE WITH DISABILITY BENEFITS COVERAGE REQUIREMENTS:

In order to provide proof of compliance with the requirements of the Workers' Compensation Law pertaining to disability benefits, contractors shall:

- A) Be legally exempt from obtaining disability benefits coverage;

Or

- B) Obtain such coverage from insurance carriers;

Or

- C) Be a Board-approved self-insured employer.

Contractors seeking to enter into contracts with the State of New York **shall provide one of the following forms to the Office of General Services** at the time of bid submission or shortly after the opening of bids:

- A) **Form CE-200**, *Certificate of Attestation for New York Entities With No Employees and Certain Out of State Entities, That New York State Workers' Compensation and/or Disability Benefits Insurance Coverage is Not Required* which is available on the Workers' Compensation Board's website www.wcb.ny.gov ;

Or

- B) **Form DB-120.1**, *Certificate of Disability Benefits Insurance*. Contractor must request its business insurance carrier to send this form to the New York State Office of General Services;

Or

- C) **Form DB-155**, *Certificate of Disability Benefits Self-Insurance*. The Contractor must call the Board's Self-Insurance Office at 518-402-0247 to obtain this form.

All forms should name the NYS Division of Homeland Security and Emergency Services, 1220 Washington Avenue, State Campus Bldg 7A, Suite 710, Albany, New York 12242, as the Entity Requesting Proof of Coverage (Entity being listed as the Certificate Holder).

Contractor acknowledges that failure to obtain and/or keep in effect any or all required insurance on behalf of DHSES constitutes a material breach of contract and subjects it to liability for damages, indemnification and all other legal remedies available to DHSES. Contractor's failure to obtain and/or keep in effect any or all required insurance shall also provide the basis for DHSES' immediate termination of any contract resulting from this IFB, subject only to a five (5) business day cure period. Any termination by DHSES under this section shall in no event constitute or be deemed a breach of any contract resulting from this solicitation and no liability shall be incurred by or arise against DHSES, its agents and employees therefore for lost profits or any other damages.

5.4 Tax and Finance Requirements

TAX LAW § 5-A:

Section 5-a of the Tax Law, as amended, effective April 26, 2006, requires certain contractors awarded state contracts for commodities, services and technology valued at more than \$100,000 to certify to the Department of Taxation and Finance (DTF) that they are registered to collect New York State and local sales and compensating use taxes. The law applies to contracts where the total amount of such contractors' sales delivered into New York State are in excess of \$300,000 for the four quarterly periods immediately preceding the quarterly period in which the certification is made, and with respect to any affiliates and subcontractors whose sales delivered into New York State exceeded \$300,000 for the four quarterly periods immediately preceding the quarterly period in which the certification is made.

This law imposes upon certain contractors the obligation to certify whether or not the contractor, its affiliates, and its subcontractors are required to register to collect state sales and compensating use tax and contractors must certify to DTF that each affiliate and subcontractor exceeding such sales threshold is registered with DTF to collect New York State and local sales and compensating use taxes. The law prohibits the State Comptroller, or other approving agency, from approving a contract awarded to a contractor meeting the registration requirements but who is not so registered in accordance with the law.

Contractor certification forms and instructions for completing the forms are attached to this IFB. Form ST-220-TD should be filed with and returned directly to DTF. Unless the information upon which the ST-220-TD is based changes, this form only needs to be filed once with DTF. If the information changes for the contractor, its affiliate(s), or its subcontractor(s) a new Form ST-220-TD must be filed with DTF.

Form ST-220-CA should be filed with the bid and submitted to the procuring covered agency certifying that the contractor filed the ST-220-TD with DTF. Proposed contractors should complete and return the certification forms within two business days of request (if the forms are not completed and returned with bid submission). Failure to make either of these filings may render a Bidder non-responsive and non-responsible. Bidders shall take the necessary steps to provide properly certified forms within a timely manner to ensure compliance with the law.

Vendors may call DTF at **1-800-698--2909** for any and all questions relating to Section 5-(a) of the Tax Law and relating to a company's registration status with the DTF. For additional information and frequently asked questions, please refer to the DTF web site: <http://www.nystax.gov>

5.5 Opportunities for New York State Certified Minority and Women-Owned Business Enterprises

CONTRACTOR REQUIREMENTS AND PROCEDURES FOR BUSINESS PARTICIPATION OPPORTUNITIES FOR MINORITY GROUP MEMBERS AND NEW YORK STATE CERTIFIED MINORITY- AND WOMEN-OWNED BUSINESS ENTERPRISES

NEW YORK STATE LAW

The New York State Office of General Services (OGS), as part of its responsibility, recognizes the need to promote the employment of minority group members and women and to ensure that certified minority- and

women-owned business enterprises have opportunities for maximum feasible participation in the performance of OGS contracts. In 2006, the State of New York commissioned a disparity study to evaluate whether minority- and women-owned business enterprises had a full and fair opportunity to participate in State contracting. The findings of the study were published on April 29, 2010, under the title "The State of Minority- and Women-Owned Business Enterprises: Evidence from New York" (the "Disparity Study"). The report found evidence of statistically significant disparities between the level of participation of minority- and women-owned business enterprises in State procurement contracting versus the number of minority- and women-owned business enterprises that were ready, willing and able to participate in State procurements. As a result of these findings, the Disparity Study made recommendations concerning the implementation and operation of the statewide certified minority- and women-owned business enterprises program. The recommendations from the Disparity Study culminated in the enactment and the implementation of New York State Executive Law Article 15-A, which requires, among other things, that OGS establish goals for maximum feasible participation of New York State certified minority- and women-owned business enterprises ("MWBEs") and the employment of minority groups members and women in the performance of New York State contracts.

EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

By submission of a bid or proposal in response to this solicitation, the Bidder/Contractor agrees with all of the terms and conditions of Appendix A including Clause 12 - Equal Employment Opportunities for Minorities and Women. The Contractor is required to ensure that it and any subcontractors awarded a subcontract over \$25,000 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, shall undertake or continue programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status. For these purposes, equal opportunity shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, termination, and rates of pay or other forms of compensation. This requirement does not apply to: (i) work, goods, or services unrelated to the Contract; or (ii) employment outside New York State.

The Bidder further agrees to submit with the bid a staffing plan on Form EEO 100 identifying the anticipated work force to be utilized on the Contract and if awarded a Contract, will, upon request, submit to OGS, a workforce utilization report on Form EEO 101, identifying the workforce actually utilized on the Contract if known.

Further, pursuant to 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 and sub-contractors will not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex (including gender expression), national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

BUSINESS PARTICIPATION OPPORTUNITIES FOR NEW YORK STATE CERTIFIED MINORITY- AND WOMEN-OWNED BUSINESS ENTERPRISES (MWBEs)

- A. For purposes of this procurement, OGS has conducted a comprehensive search and has determined that the Contract does not offer sufficient opportunities to set goals for participation by MWBEs as subcontractors, service providers and suppliers to the awarded Contractors. Contractors are, however, encouraged to make every good faith effort to promote and assist the participation of MWBEs who perform commercially useful functions on this Contract for the provision of services and materials. To locate MWBEs, the Directory of Certified Businesses can be viewed at: <https://ny.newnycontracts.com/frontend/diversityusers.asp>. Additionally, Contractor is encouraged to contact the Division of Minority and Women's Business Development ((518) 292-5250; (212) 803-2414; or (716) 846-8200) to discuss additional methods of maximizing participation by MWBEs on the Contract.

B. Commercially Useful Function

Pursuant to 5 NYCRR § 140.1(f), a MWBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, a MWBE must, where applicable and in accordance with any State Agency specifications, also be responsible, with respect to materials and supplies used on the contract, for ordering and negotiating price, determining quality and quantity and installing. A MWBE does not perform a commercially useful function if its role adds no substantive value and is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of participation. OGS will assess whether a MWBE is performing a commercially useful function by considering the following:

- (1) the amount of work subcontracted;
- (2) industry practices;
- (3) whether the amount the MWBE is to be paid under the contract is commensurate with the work it is to perform;
- (4) the credit claimed towards MWBE utilization goals for the performance of the work by the MWBE; and;
- (5) any other relevant factors.

C. Good Faith Efforts

Pursuant to 5 NYCRR § 142.8, evidence of good faith efforts shall include the following:

- (1) A list of the general circulation, trade and MWBE-oriented publications and dates of publications soliciting for certified MWBE participation as a subcontractor/supplier and copies of such solicitation.
- (2) A list of the certified MWBEs appearing in the Empire State Development MWBE directory that were solicited for this Contract. Provide proof of dates or copies of the solicitations and copies of the responses made by the certified MWBEs. Describe specific reasons that responding certified MWBEs were not selected.
- (3) Descriptions of the Contract documents/plans/specifications made available to certified MWBEs by the Contractor when soliciting their participation and steps taken to structure the scope of work for the purpose of subcontracting with or obtaining supplies from certified MWBEs.
- (4) A description of the negotiations between the Contractor and certified MWBEs for the purposes of complying with the MWBE goals of this Contract.
- (5) Dates of any pre-bid, pre-award or other meetings attended by Contractor, if any, scheduled by OGS with certified MWBEs whom OGS determined were capable of fulfilling the MWBE goals set in the Contract.
- (6) Other information deemed relevant to the request.

Please Note: Failure to comply with the foregoing requirements may result in a finding of non-responsiveness, non-responsibility and/or a breach of the Contract, leading to the withholding of funds, suspension or termination of the Contract or such other actions or enforcement proceedings as allowed by the Contract.

ALL FORMS ARE AVAILABLE AT: <http://www.ogs.ny.gov/MWBE/Forms.asp>

5.6 Freedom of Information Law / Trade Secrets

During the evaluation process, the content of each bid will be held in confidence and details of any bid will not be revealed (except as may be required under the Freedom of Information Law or other State law). The Freedom of Information Law provides for an exemption from disclosure for trade secrets or information the disclosure of which would cause injury to the competitive position of commercial enterprises. This exemption would be effective both during and after the evaluation process.

Should you feel your firm's bid contains any such trade secrets or other confidential or proprietary information, you must submit a request to exempt such information from disclosure. Such request must be in writing, must state the reasons why the information should be exempt from disclosure and must be provided at the time of submission of the subject information.

Requests for exemption of the entire contents of a bid from disclosure have generally not been found to be meritorious and are discouraged. Kindly limit any requests for exemption of information from disclosure to bona fide trade secrets or specific information, the disclosure of which would cause a substantial injury to the competitive position of your firm.

5.7 General Requirements

- The Bidder agrees to adhere to all State and Federal laws and regulations in connection with the contract.
- The Bidder agrees to notify the DHSES of any changes in the legal status or principal ownership of the firm, forty five (45) days in advance of said change.
- The Bidder agrees that any contract resulting from this IFB may not be assigned, transferred, conveyed or the work subcontracted without the prior written consent of DHSES.
- For purposes of any contract resulting from this IFB, the State will not be liable for any expense incurred by the Contractor for any parking fees or as a consequence of any traffic infraction or parking violations attributable to employees of the Contractor.
- The Commissioner's interpretation of specifications shall be final and binding upon the Contractor.
- The Commissioner of DHSES will make no allowance or concession to the Bidder for any alleged misunderstanding because of quantity, quality, character, location or other conditions.
- DHSES reserves the right to reject and bar from the facility any employee hired by the Contractor.

5.8 Contract Terms

All provisions and requirements of, Appendix-A Standard Clauses for New York State Contracts, which is attached hereto and forms a part hereof, will be incorporated into any contract resulting from this IFB, and will be binding upon the parties to such contract.

It is stipulated and agreed by the parties that the law of the State of New York shall solely and in all respects govern with relation to any dispute, litigation, or interpretation arising out of or connected with any contract resulting from this IFB.

Any contract resulting from this IFB shall not be deemed executed, valid or binding unless and until approved by the Comptroller of the State of New York.

5.9 Procurement Rights

The State of New York reserves the right to:

1. Reject any and all proposals received in response to this Solicitation.
2. Disqualify a Proposer from receiving the award if the Proposer, or anyone in the Proposer's employ, has previously failed to perform satisfactorily in connection with public bidding or contracts.

3. Correct Proposers' mathematical errors and waive or modify other minor irregularities in proposals received, after prior notification to the Proposer.
4. Utilize any and all ideas submitted in the proposals received.
5. Negotiate with Proposers responding to this Solicitation within the Solicitation requirements to serve the best interests of the State.
6. Begin contract negotiations with another bidding Contractor(s) in order to serve the best interests of the State of New York should the State of New York be unsuccessful in negotiating a contract with the selected Contractor within 21 days of selection notification.
7. Waive any non-material requirement not met by all Proposers.
8. Not make an award from this Solicitation.
9. Make an award under this Solicitation in whole or in part.
10. Make multiple contract awards pursuant to the Solicitation.
11. Have any service completed via separate competitive bid or other means, as determined to be in the best interest of the State.
12. Seek clarifications of proposals.
13. If two or more offers are found to be substantially equivalent, the Commissioner of DHSES/OGS, at his sole discretion, will determine award.
14. Accept late bids if no other bids are received.

Please Note: The State is not liable for any cost incurred by a Proposer in the preparation and production of a proposal or for any work performed prior to the issuance of a contract.

5.10 Debriefings

Bidders will be accorded fair and equal treatment with respect to their opportunity for debriefing. Prior to contract award, OGS shall, upon request, provide a debriefing which would be limited to review of that bidder's bid. After contract award, OGS shall, upon request, provide a debriefing to any bidder that responded to the IFB, regarding the reason that the bid or bid submitted by the unsuccessful bidder was not selected for a contract award. The post award debriefing should be requested by the bidder within thirty days of contract approval as posted on the OSC website (web address below).

<http://www1.osc.state.ny.us/transparency/contracts/contractsearch.cfm>

5.11 Termination

A. Termination

The Division of Homeland Security and Emergency Services (DHSES) may, upon thirty (30) days' notice, terminate the contract resulting from this IFB in the event of the awarded Bidder's failure to comply with any of the proposal's requirements unless the awarded Bidder obtained a waiver of the requirement. In addition, DHSES may also terminate any contract resulting from this IFB upon ten (10) days written notice if the Contractor makes any arrangement or assignment for the benefit of the creditors.

B. Procurement Lobbying Termination

The State reserves the right to terminate this Agreement in the event it is found that the certification filed by the Contractor in accordance with New York State Finance Law §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 this Agreement.

5.12 New York State Vendor File Registration

Prior to being awarded a contract pursuant to this Solicitation, the Bidder(s) and any designated authorized resellers who accept payment directly from the State, must be registered in the New York State Vendor File (Vendor File) administered by the Office of the State Comptroller (OSC). This is a central registry for all vendors who do business with New York State Agencies and the registration must be initiated by a State Agency. Following the initial registration, unique New York State ten-digit vendor identification numbers will be assigned to your company and to each of your authorized resellers (if any) for usage on all future transactions with New York State. Additionally, the Vendor File enables vendors to use the Vendor Self-Service application to manage all vendor information in one central location for all transactions related to the State of New York. If Bidder is already registered in the New York State Vendor File, list the ten-digit vendor ID number on the Bid Proposal Form (Attachment 1). Authorized resellers already registered should list the ten-digit vendor ID number along with the authorized reseller information.

If the Bidder is not currently registered in the Vendor File and is recommended for award, BSC shall request completion of OSC Substitute W-9 Form. A fillable form with instructions can be found at the link below. In addition, if authorized resellers are to be used, an OSC Substitute W-9 form should be completed by each of the designated authorized resellers and submitted to the Office of General Services Business Services Center. The Office of General Services Business Services Center will initiate the vendor registration process for all Bidders recommended for Contract Award and their authorized resellers. Once the process is initiated, registrants will receive an email from OSC that includes the unique ten-digit vendor identification number assigned to the company and instructions on how to enroll in the online Vendor Self-Service application. For more information on the vendor file please visit the following website: http://www.osc.state.ny.us/vendor_management
Form to be completed: http://www.osc.state.ny.us/vendors/forms/ac3237_fe.pdf

5.13 New York State Vendor Responsibility

Questionnaire

OGS conducts a review of prospective contractors ("Bidders") to provide reasonable assurances that the Bidder is responsive and responsible. A Questionnaire is used for non-construction contracts and is designed to provide information to assess a Bidder's responsibility to conduct business in New York based upon financial and organizational capacity, legal authority, business integrity, and past performance history. By submitting a bid, Bidder agrees to fully and accurately complete the "Questionnaire." The Bidder acknowledges that the State's execution of the Contract will be contingent upon the State's determination that the Bidder is responsible, and that the State will be relying upon the Bidder's responses to the Questionnaire when making its responsibility determination.

OGS recommends each Bidder file the required Questionnaire online via the New York State VendRep System. To enroll in and use the VendRep System, please refer to the VendRep System Instructions and User Support for Vendors available at the Office of the State Comptroller's (OSC) website, http://www.osc.state.ny.us/vendrep/vendor_index.htm or to enroll, go directly to the VendRep System online at <https://portal.osc.state.ny.us>.

OSC provides direct support for the VendRep System through user assistance, documents, online help, and a help desk. The OSC Help Desk contact information is located at <http://www.osc.state.ny.us/portal/contactbuss.htm>. Bidders opting to complete the paper questionnaire can access this form and associated definitions via the OSC website at: http://www.osc.state.ny.us/vendrep/forms_vendor.htm

In order to assist the State in determining the responsibility of the Bidder, the Bidder should complete and certify (or recertify) the Questionnaire no more than six (6) months prior to the bid due date. A Bidder's Questionnaire cannot be viewed by OGS until the Bidder has certified the Questionnaire. It is recommended that all Bidders become familiar with all of the requirements of the Questionnaire in advance of the bid opening to provide sufficient time to complete the Questionnaire.

The Bidder agrees that if it is found by the State that the Bidder's responses to the Questionnaire were intentionally false or intentionally incomplete, on such finding, DHSES may terminate the Contract.

The Bidder agrees that if it is awarded a Contract the following shall apply:

General

The Contractor shall at all times during the Contract term remain responsible. The Contractor agrees, if requested by the Commissioner of OGS 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.

Suspension of Work (for Non-Responsibility)

The Commissioner of OGS or his designee, in his sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when he or she discovers information that calls into question the responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as the Commissioner of OGS or his designee issues a written notice authorizing a resumption of performance under the Contract.

Termination (for Non-Responsibility)

Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate OGS officials or staff, the Contract may be terminated by the Commissioner of OGS or his designee at the Contractor's expense where the Contractor is determined by the Commissioner of OGS or his designee to be non-responsible. In such event, the Commissioner of OGS or his designee may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.

In no case shall such termination of the Contract by the State be deemed a breach thereof, nor shall the State be liable for any damages for lost profits or otherwise, which may be sustained by the Contractor as a result of such termination.

5.14 Ethics Compliance

All bidders/contractors and their employees must comply with the requirements of §§73 and 74 of the Public Officers Law, other state codes, rules, regulations, and executive orders establishing ethical standards for the conduct of business with New York State. In signing the Contract, the Contractor certifies full compliance with those provisions for any present or future dealings, transactions, sales, contracts, services, offers, relations, etc., involving New York State and/or its employees. Failure to comply with those provisions may result in disqualification from the bidding process, termination of contract, and/or other civil or criminal proceedings as required by law.

5.15 Indemnification

The Contractor shall assume all risks of liability for its performance, or that of any of its officers, employees, subcontractors or agents, of any contract resulting from this solicitation and shall be solely responsible and liable for all liabilities, losses, damages, costs or expenses, including attorney's fees, arising from any claim, action or proceeding relating to or in any way connected with the performance of this Agreement and covenants and agrees to indemnify and hold harmless the State of New York, its agents, officers and employees, from any and all claims, suits, causes of action and losses of whatever kind and nature, arising out of or in connection with its performance of any contract resulting from this solicitation, including negligence, active or passive or improper conduct of the Contractor, its officers, agents, subcontractors or employees, or the failure by the Contractor, its officers, agents, subcontractors or employees to perform any obligations or commitments to the

State or third parties arising out of or resulting from any contract resulting from this solicitation. Such indemnity shall not be limited to the insurance coverage herein prescribed.

5.16 Force Majeure

Neither party hereto will be liable for losses, defaults, or damages under any contract resulting from this solicitation which result from delays in performing, or inability to perform, all or any of the obligations or responsibilities imposed upon it pursuant to the terms and conditions of this solicitation, due to or because of acts of God, the public enemy, acts of government, earthquakes, floods, strikes, civil strife, fire or any other cause beyond the reasonable control of the party that was so delayed in performing or so unable to perform provided that such party was not negligent and shall have used reasonable efforts to avoid and overcome such cause. Such party will resume full performance of such obligations and responsibilities promptly upon removal of any such cause.

5.17 Appendices, Exhibits and Attachments

The Proposer's attention is directed to the appendices and exhibit documents attached hereto and hereby incorporated by reference and made part hereto as fully as if it were set forth at length herein. They are part of this solicitation and will be part of the subsequent contract. The proposer is responsible for adhering to all requirements of the appendices and exhibits.

5.18 Mercury Added Consumer Products

Offerers are advised that effective January 1, 2005, Article 27, Title 21 of the Environmental Conservation Law bans the sale or distribution free of charge of fever thermometers containing mercury except by prescription written by a physician and bans the sale or distribution free of charge of elemental mercury other than for medical pre-encapsulated dental amalgam, research, or manufacturing purposes due to the hazardous waste concerns of mercury. The law further states that effective July 12, 2005, manufacturers are required to label mercury-added consumer products that are sold or offered for sale in New York State by a distributor or retailer. The label is intended to inform consumers of the presence of mercury in such products and of the proper disposal or recycling of mercury-added consumer products. Offerers are encouraged to contact the Department of Environmental Conservation, Bureau of Solid Waste, Reduction & Recycling at (518) 402-8705 or the Bureau of Hazardous Waste Regulation at 1-800-462-6553 for questions relating to the law. Offerers may also visit the Department's web site for additional information: <http://www.dec.ny.gov/chemical/8512.html>.

ATTACHMENT 1

- **BID PROPOSAL FORM (s)**

BID PROPOSAL

Company _____ Date _____

Fire Apparatus – Custom Pumper

The above Bidder agrees to supply one (1) custom-built fire truck in accordance with the terms, conditions and specifications of this solicitation. Bid price includes any and all costs associated with providing and delivering the product F.O.B. Destination to Montour Falls, New York:

<u>Item</u>	<u>Quantity</u>	<u>UOM</u>	<u>Unit Price</u>	<u>Total Bid Price</u>
Fire Apparatus Custom Pumper	1	Each	_____	_____

INSTRUCTIONS FOR COMPLETING BID:

Bidder answers “YES” (Y) or “NO” (N) to each specification line item to indicate compliance. Fill in the blank spaces where asked to state specific data. Failure to answer correctly, or failure to respond, may deem your bid as non-responsive.

All line items with a “NO” (N) response, shall be explained next to line item or on a separate sheet. If using a separate sheet, reference the line item heading and page number and state exceptions/deviations in your product offering.

Manufacturer: _____

Production Address: _____

Model Name/Number: _____

Location for Post-Delivery Service _____

Guaranteed Delivery _____ Calendar Days A/R/O

FIRE APPARATUS DOCUMENTATION

The chassis shall be certified by the apparatus manufacturer as conforming to all applicable federal motor vehicle safety standards in effect at the date of contract. This shall be attested to by the attachment of a FMVSS certification label on the vehicle by the contractor who shall be recognized as the responsible final manufacturer.

Y__N__

BID PROPOSAL

Company _____

VEHICLE RECORDS

The successful bidder, and any successors, shall be responsible for preparing and maintaining a record file of parts and assemblies used to manufacture the apparatus. These records shall be maintained in the factory of the bidder for a minimum of twenty (20) years. File shall contain copies of any and all reported deficiencies, all replacement parts required to maintain the apparatus, and original purchase documents including specifications, contract, invoices, incomplete chassis certificates, quality control reports and final delivery acceptance documents, the purchaser shall have access to any and all documents contained in this file upon request.

Y__N__

CHASSIS

Bidders shall propose a Four Door Medium Size Custom Chassis with seating for 6.

Y__N__

GENERAL CONSTRUCTION

The complete apparatus, assemblies, subassemblies, component parts, etc., shall be designed and constructed with the due consideration to the nature and distribution of the load to be sustained and to the general character of the service to which the apparatus is subjected when placed in service. All parts of the apparatus shall be designed with a factor of safety, which is equal to or greater than that which is considered standard and acceptable for this class of equipment in firefighting service. All parts of the apparatus shall be strong enough to withstand general service under full load. The apparatus shall be so designed that the various parts and readily accessible for lubrication, inspection, adjustment and repair.

Y__N__

Bidder's specifications must meet minimum requirements of NFPA 1901, 1911; Underwriters Laboratories, Inc.; and all State and Federal Department of Transportation vehicle regulations at time of sale of unit.

Y__N__

The apparatus shall be designed and constructed, and the equipment so mounted, with due consideration to distribution of the load between front and rear axles that all specified equipment, including a full complement of specified ground ladders, full water tank, loose equipment, and firefighters shall be carried without overloading or injuring the apparatus.

Y__N__

MANUFACTURER RESPONSIBILITY

At least fifteen similar units must have been sold and delivered of the type described herein. The entire apparatus (to include cab, chassis, body, pump, and water tank) **MUST** be manufactured in the United States.

Y__N__

SERVICE CENTER AND PARTS DEPOT

The successful bidder shall have an authorized service center, with a staff of factory-trained mechanics, well versed in all aspects of service for all major components, of the apparatus within a 100-mile radius of the NYS Academy of Fire Science designed and equipped to service and store apparatus indoors. In addition, the bidder shall maintain a separate service facility at the manufacturing site, in order to satisfy the need for possible major emergency service work.

Y__N__

BID PROPOSAL

Company _____

SERVICE CENTER INFORMATION

The center must provide a full time staff of experienced technicians with all of the required equipment to provide modern, accurate and efficient service. Bidders shall state the size of their shop and office area in square feet. They shall state the location of the facility and provide photos of both the exterior and interior of the center. Accuracy of the description of the service center is of great importance.

Y__N__

TECHNICAL INFORMATION

Bidder shall furnish free of charge, upon request, technical information, graphs, charts, photographs, engineering diagrams, steering geometry, drive train certifications, instruction guides, or other documentation as requested to show that the equipment offered fully complies with these specifications.

Y__N__

DELIVERY TIME

Each bidder shall state the completed apparatus delivery time on based on the number of calendar days, starting from the date the purchase order is received by the vendor (1st page of bid proposal).

Y__N__

IMPORTANT! All bidders shall clearly state their commitment to a delivery schedule that is firm. After submission of bid, there will be no negotiations of delivery period. The dates and delivery times shall be adhered to. If the delivery of the completed unit extends beyond the stated delivery per contract, there will be a late delivery penalty imposed of \$500 per day that the unit is not delivered. It is understood that the purchaser is responsible for timely information return and also any extensive changes of the unit once ordered. If any changes are to extend the delivery quoted, the manufacturer shall be given 10 days to request an extension based on any customer changes. If not, the delivery shall remain firm. In the case where the manufacturer delivers late, the penalty amount shall be deducted from the balance due at time of the actual delivery, **NO EXCEPTIONS!**

Y__N__

USER'S LIST

The bidder shall include a current "User's List" with a minimum of ten (10) units that are within 250 miles of the NYS Academy of Fire Science, 600 College Avenue, Montour Falls, NY. This list shall include customer name, person to contact, address and telephone number.

Y__N__

MATERIAL AND WORKMANSHIP

All equipment furnished shall be guaranteed to be new and of current manufacture, to meet all requirements of these specifications.

Y__N__

All workmanship shall be of high quality and accomplished in a professional manner so as to insure a functional apparatus with a pleasing, aesthetic appearance.

Y__N__

BID PROPOSAL

Company _____

SALES ENGINEER

The successful bidder shall designate a competent individual to perform the contractor's sales engineer functions. The sales engineer shall provide a single point interface between the purchaser and the contractor on all matters concerning the contract.

Y__N__

APPROVAL DRAWINGS

Detailed blue prints should be provided to the purchaser indicating a general layout of the unit. The purchaser, manufacturer's representative and the apparatus manufacturer shall each have a copy of this blue print. Upon purchaser's approval, this print shall become a part of the total contract.

Y__N__

Drawing shall show, but is not limited to, such items as the chassis being utilized, lights, sirens, all compartment locations and dimensions, special suction, discharges, etc. The blue print shall be a visual interpretation of the unit as it is to be supplied and must show top, rear, front, road side, curb side and a pump panel layout.

Y__N__

INSPECTION VISITS

The successful bidder shall provide three (3) factory inspection trips to the apparatus manufacturer's facility. Transportation, meals, lodging, and other requisite expenses shall be the bidder's responsibility.

Accommodations shall be for four (4) Agency representatives per trip.

The factory visits shall occur at the following stages of production of the apparatus:

- Pre-construction meeting.
- Pre-painting of complete apparatus.
- UL Pump test and Final inspection upon completion

Travel arrangements less than 200 miles from the manufacturing facility shall be via ground transportation. Beyond the 200 mile radius, the trip shall be via a mutually agreed upon airline.

The New York State Office of Fire Prevention and Control maintains the right to inspect the apparatus, within normal business hours, at any other point during construction. Expenses incurred during non-specified inspection visits shall be the responsibility of the New York State Office of Fire Prevention and Control.

During inspection visits, the New York State Office of Fire Prevention and Control reserves the right to perform actual performance tests to evaluate completed portions of the unit. Testing shall be accomplished with the assistance and resources of the contractor.

Y__N__

DELIVERY, DELIVERY ENGINEER, AND TESTING

Delivery of the apparatus to the New York State Academy of Fire Science shall be FOB Destination and all associated costs shall remain the contractor's responsibility.

Y__N__

BID PROPOSAL

Company _____

On initial delivery of the fire apparatus, a qualified and responsible delivery engineer of the contractor shall demonstrate the apparatus and provide initial instruction to representatives of the New York State Office of Fire Prevention and Control representatives regarding the operation, care, and maintenance of the apparatus and equipment supplied.

Y__N__

Road performance requirements and test

13.5% max grade to climb. Maximum grade that the vehicle will be able to climb:

_____ %

68 mph top speed. Maximum road speed of the vehicle you are offering:

_____ MPH

At the time of delivery, a road test shall be conducted by representatives of the NYS Academy of Fire Science and the manufacturer’s representative. With the apparatus fully loaded, during which a continuous run of ten miles or more shall be made under all driving conditions, the apparatus shall show no loss of power or evidence of overheating. The engine, transmission, drive shaft or shafts, rear axles, and tires shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. The vehicle shall negotiate curves and corners at reasonable speeds without undue sway and without loss of control. The vehicle shall meet the following requirements:

A) The apparatus, with a full water tank, shall comply with the gross axle weight ratings, the overall gross vehicle weight rating, and the chassis manufacturer’s load balance guidelines, with sufficient margin to accommodate anticipated personnel, hose, tool and equipment loading. Documentation from a certified scale, confirming this requirement, shall be provided by the seller.

Y__N__

B) The apparatus, fully loaded and starting from a full stop shall be capable of accelerating to 35 MPH from a standing start within 25 seconds on a level, paved highway without exceeding the manufacturer’s governed RPM for the engine.

Y__N__

C) The service brakes shall be capable of stopping a fully loaded vehicle in 35 feet at 20 MPH on a level, paved highway, without pulling to either side, or pulsating, or otherwise compromising the safe handling of the vehicle.

Y__N__

D) The apparatus, fully loaded shall be capable of obtaining a speed of 63-68 MPH on a level, paved highway, and with the engine not exceeding its full load governed RPM.

Y__N__

E) The apparatus fully loaded and starting from a full stop, shall be capable of accelerating to a speed of **25 MPH on a 7% grade, dry, paved highway, within 60 seconds**, with the engine not to exceed its full load governed RPM at any point during the test. *(Test exceeds NFPA 1901 specification.)*

Y__N__

Pre-delivery testing and acceptance

Pump tests shall consist of those specified in NFPA 1901 Chapter 16. The pump certification tests of this chapter shall be conducted at the apparatus manufacturer’s approved facility, witnessed by representatives of the NYS Office of Fire Prevention and Control, and certified by Underwriter’s Laboratory. The information stamped on the test plate, mounted at the pump operator’s panel, shall agree with these test results.

Y__N__

BID PROPOSAL

Company _____

The manufacturer shall perform the "Manufacturer's Pre-delivery Test" (pump and piping hydrostatic test). This test need not be witnessed by representatives of the New York State Office of Fire Prevention and Control.

Y__N__

A delivery engineer shall be furnished for up to two (2) eight-hour days for training sessions, including weekends and/or evenings, to instruct operators in the proper operation and maintenance of the apparatus. Training will occur at the delivery location, at a time to be determined by the New York State Office of Fire Prevention and Control.

Y__N__

ACCEPTANCE

Road performance testing, as specified in this document, shall be performed at the time of delivery, prior to payment. All other acceptance testing shall be performed at the manufacturing facility, documented and witnessed as specified herein. Prior to payment, all documentation shall be reviewed, and determined to be in compliance with this specification.

Y__N__

INSTRUCTION MANUALS/DRAWINGS, SCHEMATIC

In accordance with standard commercial practices and as required by NFPA 1901 Section 4.20.2., applicable to each vehicle (including body and special equipment) furnished under the contract, the following listed manuals and schematics, in the quantity specified, shall be provided at time of delivery of the vehicle.

The contractor shall supply at time of delivery, two (2) copies of a complete operation and service manual covering the complete apparatus as delivered and accepted.

Y__N__

"AS BUILT" WIRING SCHEMATICS

In accordance with standard commercial practices and in accordance with NFPA 1901 Section 4.20.2.3, the manufacturer shall supply two (2) copies of "AS BUILT" wiring schematics/diagrams for the entire vehicle at the time of delivery.

Y__N__

BIDDER TO SUPPLY ALL PROPOSED DIMENSIONS.

Minimum axle weight ratings (20,000 pounds front, 31,000 pounds rear, 50,000 pounds vehicle total). The axle and total weight ratings of the completed apparatus shall not be less than the specified minimum acceptable weight ratings:

FRONT G.A.W.R.:	_____	pounds
REAR G.A.W.R.:	_____	pounds
TOTAL G.V.W.R.:	_____	pounds

The bidder shall include the principle dimensions, front G.A.W.R., rear G.A.W.R., and total G.V.W.R. of the proposed apparatus. Additionally, the bidder shall provide a weight distribution of the fully loaded, completed vehicle; this shall include a filled water tank, specified hose load, miscellaneous equipment allowance in accordance with NFPA-1901 requirements, and an equivalent personnel load of 250 lbs. per seating position.

Y__N__

BID PROPOSAL

Company _____

The axle ratings are recognized as MINIMUMS. The individual manufacturers' weight analysis shall determine the finished axles supplied. The manufacturer shall be responsible to submit the weight analysis with the bid and offer the appropriate axles at time of bid, not after the fact. The finished apparatus must allow for 2000# of loose equipment, not inclusive of hose, ladders or suction.

Y__N__

This is purely "loose tool" allocation. For example, while the New York State Office of Fire Prevention and Control spec states a "minimum" 20,000 pound front axle and weight analysis determines it to be too marginal with the intended load in a distributed fashion, the manufacturer shall default and include the next largest axle to accommodate the load intended. The New York State Office of Fire Prevention and Control will not pay additional monies for larger axles later in the contract.

Y__N__

REQUIRED PROPOSAL BLUEPRINT

A scale drawing of the specific apparatus being proposed shall be submitted WITH THE BID. **Drawings of similar units or demo units shall not be permitted!** Bidders should be clear that this provision is requiring a SCALE drawing of the truck which is actually being bid. The drawing shall be done at the manufacturer's facility by the manufacturer's engineering department in order to guarantee the accuracy of the drawing. Failure to comply with this requirement shall be grounds for rejection of the bid! Drawings shall include top, front, rear, road side, curb side and a pump panel layout.

Y__N__

FAMA COMPLIANCE

The apparatus manufacturer must be a current member of the Fire Apparatus Manufacturer's Association (FAMA) to be abreast of all safety standards, industry recalls and latest requirements of the technical committee recommendations.

Y__N__

STEPPING, STANDING AND WALKING SURFACES

All stepping, standing, and walking surfaces on the body shall meet NFPA 1901 anti-slip standards. Upon request by the purchaser, the manufacturer shall supply proof of compliance with this requirement.

Y__N__

UNDERWRITERS LABORATORIES INC. (UL) EXAMINATION AND TEST

Where a third party is required for testing purposes, that party shall be Underwriters Laboratories, Inc. (U.L.) or equal. **NO EXCEPTIONS!**

Y__N__

CERTIFICATION

When the unit successfully meets all the requirements outlined in NFPA 1901, current edition, UL shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance with NFPA 1901.

Y__N__

BID PROPOSAL

Company _____

LINE VOLTAGE ELECTRICAL SYSTEM CERTIFICATION

When the unit successfully meets all the requirements outlined in NFPA 1901, current Edition, UL shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance.

Y__N__

GENERAL APPARATUS DESCRIPTION "PUMPER FIRE APPARATUS"

The unit shall be designed to conform fully to the "**Pumper Fire Apparatus**" requirements as stated in the **NFPA 1901 Standard (Latest Edition)**, which shall include the following required chapters as stated in this revision:

Y__N__

- | | |
|--------------|----------------------------------------------------|
| • Chapter 1 | Administration |
| • Chapter 2 | Referenced Publications |
| • Chapter 3 | Definitions |
| • Chapter 4 | General Requirements |
| • Chapter 5 | Pumper Fire Apparatus |
| • Chapter 12 | Chassis and Vehicle Components |
| • Chapter 13 | Low Voltage Electrical Systems and Warning Systems |
| • Chapter 14 | Driving and Crew Areas |
| • Chapter 15 | Body, Compartments and Equipment Mounting |
| • Chapter 16 | Fire Pumps and Associated Equipment |
| • Chapter 18 | Water Tanks |

CAB SAFETY SIGNS

The following safety signs shall be provided in the cab:

Y__N__

- A label displaying the maximum number of personnel the vehicle is designed to carry shall be visible to the driver.
- "Occupants must be seated and belted when apparatus is in motion" signs shall be visible from each seat.
- "Do Not Move Apparatus When Light Is On" sign adjacent to the warning light indicating a hazard if the apparatus is moved (as described in subsequent section).
- A label displaying the height, length, width, and GVWR of the vehicle shall be visible to driver. This label shall indicate that the NYS Academy of Fire Science must revise the dimension if vehicle height changes while vehicle is in service.

CHASSIS DATA LABELS

Labels affixed to the vehicle shall be in accordance with NFPA 1901 Sections 12.1.4 and 12.2.3.3:

Y__N__

Chassis Data

- Chassis Manufacturer
- Production Number
- Year Built
- Month Manufactured
- Vehicle Identification Number

BID PROPOSAL

Company _____

CAB AND CHASSIS

- Cab and Chassis shall be manufactured of **aluminum or stainless steel**. _____Aluminum _____S. Steel
- The cab shall be a custom tilt style, built for fire service. The cab shall be a cab over engine design with integral tilt mechanism. Y__N__
- Cab shall be designed, fabricated, assembled in its entirety, and installed on the frame rails in the factory of the bidder. This requirement shall eliminate any split responsibility in warranty and service. If a manufacturer opts to utilize a sourced cab and chassis, they shall accept full responsibility of warranty and coverage of the unit under that warranty for the entire life of the warranty. This will be a third party assumed warranty to eliminate the purchaser from being responsible for warranty disputes. Y__N__
- The apparatus frame shall have a lifetime warranty, and only the company providing the warranty may cut or notch the frame. Cutting or notching of the frame must be done with prior approval of the NYS Fire Academy. Each main frame rail shall be fabricated from 110,000 PSI minimum yield strength steel. Y__N__
- The chassis shall incorporate leaf springs for the suspension on the front and rear axles. Y__N__

CAB ROOF

The cab roof shall be raised above the crew seating area between 8 inches and 12 inches. Y__N__

CRASH TESTING CERTIFICATION

To ensure the safety of the cab occupants and cab integrity, proof of third party testing shall be provided. The cab shall be certified for SAEJ2422 side impact, SAEJ2420 with ECER29 cab front impact, and ECER29 cab roof strength. NO EXCEPTIONS! Y__N__

CAB DOORS

There shall be a heavy duty piano type stainless steel hinge on each door. Dimensions of the pins used shall be at least 3/8” diameter. Hinges shall be slotted for ease of horizontal and vertical adjustment. There shall be a cab door seal and the doors shall close flush with the side of the cab. A heavy duty belting material shall be used to prevent the cab doors from opening more than 90 degrees. Door latches shall be stainless steel. Y__N__

ENTRY STEP AREA

The steps used to enter the cab shall be an integral part of the cab, and shall be constructed of non-corrosive material. The steps shall be tread-plate material or grip-strut. The steps shall be at least 8” deep. The floor shall be recessed at least 3” at the steps to avoid interference while climbing up or down the steps. Y__N__

DOOR WARNING CHEVRON

Each cab door shall have a reflective chevron on the inside of the door covering at least 96 square inches of the bottom portion of the door. Y__N__

BID PROPOSAL

Company _____

EXTERIOR CAB OVERLAY

A bright finish aluminum tread plate overlay shall be affixed to the exterior rear cab wall to prevent scratches to the cab. The overlay shall be sealed with caulking around the edges to prevent moisture and dirt from getting between the cab and overlay.

Y__N__

WINDSHIELD WIPERS

Windshield wipers shall be electrically operated, with one motor for each wiper. Wipers shall have hi/low/intermittent settings, and shall be self-parking.

Y__N__

EXTERIOR GRAB HANDLES

A knurled or serrated handrail shall be provided at each cab door entrance. Grab rails shall be offset to prevent fingers from being pinched when opening or closing doors. Stanchions shall be chrome plated and have a rubber gasket between stanchion and cab.

Y__N__

INTERIOR GRAB HANDLES

A vertically mounted handrail shall be installed at each cab door entrance. Additionally, each door shall have a horizontal handrail installed on the door.

Y__N__

MIRRORS

Rear view mirrors shall be remote controlled.

Y__N__

FENDERETTES

Wheel well openings shall be trimmed with replaceable, bolt on, polished stainless steel fenderettes. The fenderettes shall have a gasket material to protect the cab.

Y__N__

CAB SEATING & ACCESSORIES

DRIVER'S SEAT

The driver's seat shall be a high-back bucket seat. The seat shall have a tapered and padded seat cushion with lumbar support. The seat shall have fore and aft adjustment, height adjustment, front of seat tilt, rear of seat tilt and a reclining seat back. All seat movements shall be electrically controlled.

The seat shall be equipped with a red integrated 3-point shoulder harness with lap belt and an automatic retractor built into the seat assembly.

Y__N__

OFFICER'S SEAT

The officer's seat shall be a fixed base high-back bucket seat. The seat shall include a SCBA storage area with integral headrest. The seat shall include a Zico Quick-Loc SCBA mounting bracket (QLM-U-OPR). The seat shall include padded inserts for use when SCBA is not present. The seat shall be equipped with an IMMI ReadyReach seatbelt, red in color.

Y__N__

BID PROPOSAL

Company _____

CREW SEATS

In addition to the driver and officer seating positions, there shall be at least four more crew seats. The crew seats shall be a flip-up style wherever it will provide a space and access advantage. Each seat shall include an SCBA storage area with integral headrest. The seat shall include padded inserts for use when SCBA is not present. Each seat shall be equipped with an IMMI ReadyReach seatbelt, red in color. The crew seats shall include Zico Quick-Loc SCBA mounting brackets (QLM-U-OPR) for mounting SCBA.

Y__N__

SEAT UPHOLSTERY MATERIAL

The seats shall be upholstered with heavy duty material as provided by the seat manufacturer.

Y__N__

DASH & CONSOLE LAYOUT

Each bidder must submit a dash and switch panel layout with their proposal to be approved by the NYS Academy of Fire Science at the pre-construction meeting. The gauges that must be included in the dash are:

Y__N__

- 12) Speedometer
- 13) Engine tachometer with hour meter
- 14) Engine oil pressure
- 15) Engine coolant temperature
- 16) Transmission oil temperature
- 17) Battery voltage
- 18) Ammeter
- 19) Front air pressure
- 20) Rear air pressure
- 21) Fuel level
- 22) Air cleaner restriction

AUXILLARY MANUAL CAB TILT

In addition to the powered cab tilt system, a backup manual tilt system shall be installed.

Y__N__

ANTENNA INSTALLATION

Two (2) antenna mounting bases (with coaxial cable) shall be provided and installed on the cab roof, behind the light bar, one each side. The attached antenna cable shall be run down the interior cab for radio installation in custom center console.

Y__N__

PUMP SHIFT CONTROL

The pump shift control and pump engaged indicator lights shall be mounted in the custom center console in a position within easy reach of the driver, to be approved by the New York State Office of Fire Prevention and Control. This control shall be equipped with a mechanical type device to prevent inadvertent activation or de-activation. The lever positions and indicator light shall be clearly marked.

Y__N__

BID PROPOSAL

Company _____

CAB SUPPLEMENTAL DEFROSTER FANS- Maradyne (or equal)

Two (2), 12v, individually switched, two (2) speed, supplemental defroster fans shall be mounted in inboard positions of the windshield.

Y__N__

If not Maradyne: _____ Make

CAB HEAT AND AIR CONDITIONING

Both the front and the rear of the cab shall have heat and air-conditioning.

Y__N__

FRONT BUMPER, EXTENSION & ACCESSORIES

FRONT BUMPER

The front bumper shall consist of a one (1) piece, minimum 0.25” thick steel channel, a minimum of 12.00” high and shall be attached to the front of the chassis frame. The outer corners shall be angled back slightly.

Y__N__

The bumper shall be painted same color as truck body.

Y__N__

There shall be a “lollipop” style post and marker light at each corner of the front bumper, which shall allow the driver to determine the location of the bumper when parking or maneuvering in tight spaces. (This marker also serves to discourage firefighters from sitting on the bumper and scratching the paint on the cab corners with SCBA.)

Y__N__

TOW HOOKS

Two (2) front forged steel tow hooks shall be fastened directly to the frame web, installed to the top of the bumper for easy access. The tow hooks shall be fastened with grade 8 bolts and nuts.

Y__N__

AIR & BRAKE SYSTEM

BRAKE SYSTEM

A dual circuit, air operated braking system, meeting the design and performance requirements of FMVSS-121 and the operating test requirements of NFPA 1901, latest edition, shall be installed. It shall be direct air type with dual air treadle in the cab. The system shall be powered by an engine mounted, gear driven air compressor protected by a heated air dryer and heated automatic moisture ejectors.

Y__N__

ABS SYSTEM- Meritor Wabco (or equal)

An Anti-Skid Braking System (ABS) shall be provided to improve braking control and reduce stopping distance. This braking system shall be fitted to the axles and all electrical connections shall be environmentally sealed, water/weatherproof, and vibration resistant.

Y__N__

If not Meritor Wabco _____ Make

This system shall have a three (3) year or 300,000 mile parts and labor warranty as provided by the manufacturer.

Y__N__

BID PROPOSAL

Company _____

AUTOMATIC TRACTION CONTROL (ATC) - Meritor Wabco (or equal)

To further improve vehicle drive characteristics, the unit shall be fitted with automatic traction control (ATC). This system shall control drive wheel slip during acceleration from a resting point. An extra solenoid valve shall be added to the ABS system. The system shall control the engine and brakes to ensure efficient acceleration.

Y__N__

If not Meritor Wabco _____ Make

The system shall be equipped with a dash-mounted light that shall come on when ATC is controlling drive wheel slip. The system shall also include an "off road traction" dash mounted switch that will allow the operator to momentarily allow for more wheel slip when the unit is in deep mud or snow.

Y__N__

This system shall have a three (3) year or 300,000 mile parts and labor warranty as provided by the manufacturer.

Y__N__

A mud & snow switch shall be provided on the dash that is integrated into the ABS and ATC systems.

Y__N__

BRAKE AIR RESERVOIRS

There shall be a minimum of three (3) air reservoirs installed in conformance with best automotive practices. Reservoir capacity total shall be a minimum of 800 cubic inches.

Y__N__

For ease of maintenance, each air system reservoir shall be equipped with a **heated automatic moisture ejector**.

Y__N__

A **heated air dryer** shall be furnished.

Y__N__

AIR LINES

The entire chassis air system shall be plumbed utilizing reinforced, Synflex air lines. All of the airlines shall be color coded to correspond with an air system schematic and shall be adequately protected from heat and chafing.

Y__N__

AIR COMPRESSOR

Air compressor shall be a minimum of 18 cu. ft. per minute capacity. Air brake system shall be the quick build up type. The air compressor discharge line shall be stainless steel braid reinforced Teflon hose.

Y__N__

A pressure protection valve shall be installed to prevent the use of air horns or other air operated devices should the air system pressure drop below 80 psi (552 kPa).

Y__N__

The chassis air system shall meet NFPA 1901, latest edition for rapid air pressure build-up.

Y__N__

BID PROPOSAL

Company _____

PARKING BRAKE

Parking brake shall be of the spring-actuated type, mounted on the rear axle brake chambers. The parking brake control shall be mounted on the cab center instrument panel, offset toward the driver. A red indicator light shall be provided in the driver dash panel that shall illuminate when the parking brake is applied.

Y__N__

In addition to the rear maxi brakes, front service brakes shall be equipped with a "parking" feature that shall automatically be applied with the parking brake, providing a full all-wheel "braking" system.

Y__N__

FRONT WHEELS & TIRES

The front wheels shall be ten stud, hub piloted steel disc type, painted job color.

Y__N__

The front tires shall be a tubeless radial highway tread. Manufacturers to state brand and rating of tires to be supplied by them.

Y__N__

REAR WHEELS & TIRES

The rear wheels shall be ten stud, hub piloted steel disc type, painted job color.

Y__N__

The rear tires shall be a tubeless radial with traction tread. Manufacturers to state brand and rating of tires to be supplied by them.

Y__N__

ENGINE, TRANSMISSION & ACCESSORIES

ENGINE

Engine shall be a diesel (turbo-charged), electronically controlled per the following specifications:

Engine Horsepower 400 BHP minimum Horsepower: _____ bhp

Peak Torque As necessary to meet performance specifications Y__N__

Drive line 1810 Series Minimum Y__N__

Engine oil filters shall be engine manufacturers branded or approved equal. Engine oil filters shall be accessible for ease of service and replacement.

Y__N__

Engine shall be installed in accordance with engine manufacturer's instructions, and the chassis manufacturer shall furnish proof of engine manufacturer's approval of engine installation.

Y__N__

COOLING/RADIATOR

Radiator shall be brass with bolted steel top and bottom tanks. There shall be a sight glass in the radiator to check the coolant level without removing the radiator cap. The sight glass shall be readily accessible and easily viewed, thru an access door or panel in the cab.

Y__N__

Engine coolant shall be treated with supplementary coolant additives (SCA's) required by the engine manufacturer. Engine coolant shall provide anti-freeze protection to -30° F. The mixture shall be per the engine manufacturer's specifications.

Y__N__

BID PROPOSAL

Company _____

A transmission oil to liquid cooler shall be furnished. Y__N__

RADIATOR SKID PLATE

The chassis shall be designed with a removable heavy-duty radiator skid plate to protect the radiator from debris or obstructions under the chassis. The skid plate shall be constructed from steel, which shall enclose the lower section of the radiator and cooling system components mounted on the lower section of the radiator. The skid plate shall be designed so the angle of approach is not affected. Y__N__

CHARGE AIR COOLER

The charge air cooler shall be constructed of aluminum with cast aluminum side tanks. Y__N__

The charge air cooler shall be mounted directly ahead of the radiator and to the radiator headers. Rubber isolators shall be used at the mounting points to reduce transmission of vibrations. Y__N__

The piping between the charge air cooler and engine shall use heavy duty hoses with stainless steel bands. Bands are used to maintain the shape of the hose during changing turbo boost pressures. The hoses shall be attached with stainless steel constant torque hose clamps. Y__N__

COOLING SYSTEM FAN

The engine cooling system shall incorporate a heavy duty fan, installed on the engine and include a shroud. Y__N__

The fan shall be equipped with an air operated clutch fan, which shall activate at a pre-determined temperature range. Y__N__

The cooling fan shall be automatically and continuously engaged when the pump is engaged. Y__N__

Re-circulation shields shall be installed to ensure that air which has passed through the radiator is not drawn through it again. Y__N__

Heavy duty silicone heater hoses shall be furnished for the heater system. All coolant hoses shall be equipped with constant torque type hose clamps. All integral hoses supplied with the engine shall be as supplied by the engine manufacturer. Y__N__

The engine manufacturer's required spin on water filter shall be furnished as provided by the engine manufacturer. Manual shut off valves at the filter shall also be furnished. Y__N__

LOW COOLANT INDICATOR LIGHT AND ALARM

A low engine coolant indicator light located in the dash instrument panel shall be provided. An audible alarm shall be provided to warn of the low coolant condition. Y__N__

BID PROPOSAL

Company _____

ENGINE BRAKE

A Jacobs Engine brake (or equal) shall be furnished for increased braking capabilities. Controls shall be as provided by the engine manufacturer and shall be activated by the driver with a three position switch for HI-OFF-LOW.

Y__N__

If not Jacobs: _____ Make

The engine brake shall illuminate the chassis brake lights when the engine brake is engaged and operating.

Y__N__

The engine brake shall be interlocked with the pump shift and shall automatically disengage any time the apparatus is shifted from road gear to pump gear.

Y__N__

ENGINE FAST IDLE

A fast idle control for the engine shall be provided. The fast idle shall be controlled by an ON/OFF switch on the dash.

Y__N__

An electronic interlock system shall prevent the fast idle from operating unless the transmission is in "Neutral" and the parking brake is fully engaged. If the fast idle control is used in conjunction with a specified engine/transmission driven component or accessory, the fast idle control shall be properly interlocked with the engagement of the specified component or accessory.

Y__N__

AIR CLEANER

An engine air cleaner shall be provided. Air cleaner shall include a dry type element. Air cleaner shall be installed in accordance with the engine manufacturer's recommendations. The air cleaner shall be easily accessible when the hood is tilted.

Y__N__

SPARK ARRESTOR

A spark arrestor shall be installed in the chassis air intake system. This arrestor shall be mounted behind the intake grille to filter out airborne embers. The spark arrestor housing must be easily accessible when the cab is tilted.

Y__N__

ACCELERATOR CONTROL

The accelerator pedal shall be positioned for comfort with ample space for fire boots and adequate clearance from the brake pedal control. The accelerator pedal shall become non-functional when apparatus is placed in pump mode.

Y__N__

TRANSMISSION

Transmission installation shall be in accordance with the transmission manufacturer's specification.

Y__N__

An illuminated push button control shall be mounted in the cab, convenient to the driver. Shift control shall be approved by the transmission manufacturer.

Y__N__

BID PROPOSAL

Company _____

TRANSMISSION OIL LEVEL SENSOR

The transmission shall be equipped with the oil level sensor (OLS); this sensor shall allow the operator to obtain an indication of the fluid level from the shift selector. The sensor display shall provide the following checks: correct fluid level, low fluid level and high fluid level.

Y__N__

DRIVE LINE DROP GUARDS

Drive lines shall be equipped with loop type drive shaft drop guards as necessary to prevent damage to the apparatus if a failure of a universal joint or drive shaft should occur. Final approval of number and location shall be by the New York State Office of Fire Prevention and Control.

Y__N__

EXHAUST SYSTEM

The exhaust system shall be installed in accordance with the engine manufacturer's requirements and meet all Environmental Protection Agency and State noise level requirements. Exhaust system components shall be securely mounted and easily removable.

Y__N__

The diesel particulate filter/muffler shall be fabricated from stainless steel and of a size compatible with the engine exhaust discharge.

Y__N__

Exhaust tubing shall be a minimum of 16 gauge stainless steel from the turbocharger on the engine to the inlet of the diesel particulate filter. Any flexible exhaust tubing shall be HDT stainless steel type. To minimize heat build-up, exhaust tubing within the engine compartment shall be wrapped with an insulating material. Exhaust shall be wrapped from the turbocharger to the entrance of the muffler. Material shall be held in place with worm gear type clamps.

Y__N__

The exhaust shall extend from the mufflers Diesel Particulate Filter (DPF) to the side of the vehicle and shall be constructed from minimum of 16-gauge aluminized steel tubing. The exhaust discharge shall be routed vertically to terminate above the highest point of the apparatus.

Y__N__

A straight, chrome plated, exhaust deflector shall be installed on the exhaust outlet.

Y__N__

FUEL SYSTEM

FUEL TANK

Fuel tank shall be a minimum of fifty (50) gallons. Fuel tank capacity:

_____ gallons

The fuel tank shall be held in place by stainless steel straps and fasteners.

Y__N__

The fuel lines shall be wire braid reinforced fuel hose. The lines shall be carefully routed and secured.

Y__N__

The fuel fill shall be located on the officer's side.

Y__N__

BID PROPOSAL

Company _____

FUEL COOLING SYSTEM

A fuel cooling system shall be provided. The heat exchanger shall be a tube and fin type and shall be a separate unit. The cooler shall be mounted forward of the radiator and plumbed to the fuel return line.

Y__N__

FUEL FILTER/WATER SEPARATOR

A heated fuel/water separator shall be furnished with indicator light and audible alarm on the dash.

Y__N__

STEERING & HANDLING

The steering wheel shall be vinyl padded. There shall be a self-canceling, directional signal lever and a traffic hazard switch on the steering column. The high beam activator shall be controlled by pulling the directional signal lever toward the driver.

Y__N__

The steering column shall have a separate lever control for tilting and telescoping capability.

Y__N__

The apparatus shall be able to turn 180 degrees (clockwise or counter-clockwise) in a street that is 55' wide between curbs, without backing.

Y__N__

Steering cramp angle 42 degrees or better. The apparatus shall have a steering cramp angle of:

_____ degrees

Approach & departure angle at least 10 degrees. The apparatus shall have an angle of approach/ departure of:

_____ degrees

A dual power steering system shall be provided. Systems with one gear and a right side linkage are not acceptable.

Y__N__

ROAD SAFETY KIT

A DOT required road safety kit shall be furnished with the following equipment:

Y__N__

- 2 1/2 lb. B-C fire extinguisher
- Triangle safety reflectors
- Wheel lug wrench

CHASSIS/BODY ELECTRICAL & ACCESSORIES

CHASSIS ELECTRICAL SYSTEM

All electrical wiring in the chassis shall be SXL cross link insulated type. Wiring is to be color coded and include function codes on both sides. Wiring harnesses shall be routed in protective, heat resistant loom, securely and neatly installed.

Y__N__

All external harness interfaces shall be of a triple seal type connection to ensure a proper connection. The cab/chassis and the chassis/body connection points shall be mounted in accessible locations. Complete chassis wiring schematics shall be supplied with the apparatus.

Y__N__

WIRING HARNESS DESCRIPTION

The wiring harness contained on the chassis shall be designed to utilize wires of stranded copper or copper alloy of a gauge rated to carry 125% of maximum current for which the circuit is protected

BID PROPOSAL

Company _____

without exceeding 10% voltage drop across the circuit. Wiring must be uniquely identified by color code or circuit function code. The identification of the wiring shall be referenced on a wiring diagram. All wires shall conform to SAEJ1127 (Battery Cable), SAEJ1128 (Low Tension Primary Cable), SAEJ1560 (Low Tension Thin Wall Primary Cable).

Y__N__

The covering of harnesses shall be moisture resistant loom with a minimum rating of 194 Degrees Fahrenheit and a flammability rating of VW-1 as defined in UL62. The covering of jacketed cable shall have a minimum rating of 194 degree Fahrenheit.

Y__N__

All harnesses must be securely installed in areas protected against heat, liquid contaminants and damage. The harness connections and terminations shall use a method that provides a positive mechanical and electrical connection and are in accordance with the device manufacturer's instructions. No connections within the harness may utilize wire nuts, insulation displacement, or insulation piercing components.

Y__N__

All circuits shall conform to SAEJ1292 per NFPA recommendations. All circuits must be provided with low voltage over current protective devices. These devices shall be readily accessible and protected against heat in excess of component rating, mechanical damage, and water spray. Star washers are not to be used for ground connections.

Y__N__

DIRECT GROUNDING STRAPS

Direct grounding straps shall be mounted to the following areas; frame to cab, frame to body and frame to pump enclosure.

Y__N__

All exposed electrical connections shall be coated with anti-corrosion compound to prevent corrosion.

Y__N__

EMI/RFI PROTECTION

The apparatus shall incorporate the latest designs in the electrical system with state of the art components to insure that radiated and conducted electromagnetic interference (EMI) and radio frequency interference (RFI) emissions are suppressed at the source.

Y__N__

The apparatus proposed shall have the ability to operate in the environment typically found in fire ground operations with no adverse effects from EMI/RFI.

Y__N__

EMI/RFI susceptibility is controlled by utilizing components that are fully protected and wiring that utilizes shielding and loop back grounds where required. The apparatus shall be bonded through wire braided ground straps. Relays and solenoids that are suspect to generating spurious electromagnetic radiation are diode protected to prevent transient voltage spikes.

Y__N__

12 VOLT ELECTRICAL SYSTEM TESTING

The apparatus low voltage electrical system shall be tested and certified by the apparatus manufacturer. The certification shall be provided with the apparatus. The tests shall be performed in accordance with NFPA 1901 Section 13.14.

Y__N__

BID PROPOSAL

Company _____

BATTERY CABLE INSTALLATION

All 12-volt battery cables and battery cable harnessing installed by the apparatus manufacturer shall conform to the following requirements:

Y__N__

- SAE J1127 - Battery Cable
- SAE J561 - Electrical terminals, eyelets and spade type
- SAE J562 - Nonmetallic loom
- SAE J836A - Automotive metallurgical joining
- SAE J1292 - Automotive truck, truck-tractor, trailer and motor coach wiring
- NFPA 1901 - Standard for automotive fire apparatus

Battery cables and battery cable harnessing shall be installed utilizing the following guidelines:

Y__N__

- Splices shall not be allowed on battery cables or battery cable harnesses.
- For ease of identification and simplified use, battery cables shall be color coded. All positive battery cables shall be marked red in color. All negative battery cables shall be black in color.
- For ease of identification, all positive battery cable isolated studs throughout the cab and chassis shall be red in color.
- For increased reliability and reduced maintenance, all electrical buss bars located on the exterior of the apparatus shall be coated to prevent corrosion.
- An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

ALTERNATOR(S)

The alternator(s) provided shall meet the requirements of NFPA 1901 (2009 Edition) Section 13. The installation shall include brushless design with an integral self-diagnostic regulator and rectifier for compact installation. Manufacturers shall clearly state the brand alternator(s) being proposed and indicate the availability for replacement on a local basis.

Y__N__

BATTERY SYSTEM

Maintenance free batteries shall be provided. Manufacturers shall clearly state the brand of battery being proposed, cold cranking amperage and reserve capacity. Wiring for the batteries shall be 4/0 welding type dual path starting cables for SAEJ541.

Y__N__

BATTERY STORAGE

Batteries shall be securely mounted in fixed stainless steel trays located on each side of the chassis frame. Complete access shall be provided when the cab is fully tilted. Batteries shall be mounted on non-corrosive matting material. Bidders shall clearly outline the details of their mounting in the bid proposal and also compliance to non-corrosive mountings.

Y__N__

BATTERY BOX COVER

The battery box shall be overlaid with a cover. This cover shall protect the batteries from road spray, snow and road debris. The cover of this box shall be easily removable for inspection, testing and maintenance of the batteries. Bidders should outline the installation and confirm that batteries are enclosed style.

Y__N__

BID PROPOSAL

Company _____

BATTERY DISCONNECT SWITCH

The chassis batteries shall be wired in parallel to a single 12 volt electrical system, controlled through a heavy duty master disconnect switch. The master disconnect switch shall be located within easy access of the driver upon entering or exiting the cab. All electrical circuits shall be disconnected when the switch is in the "OFF" position.

Y__N__

BATTERY JUMPER STUDS

A set of battery jumper studs, (red) and (black) shall be provided to allow the battery system to be jump started or charged from an external source. The studs shall be located on the driver's side of the chassis and shall be equipped with rubber protector caps.

Y__N__

Bidders to state brand of materials utilized: _____

120 VOLT SHORELINE CONNECTION - "SUPER" AUTO EJECT

One (1) Kussmaul "Super" Auto Eject model 091-55-30-120 (or equal), automatic, 120 volt, 30 amp shoreline disconnect shall be provided for the on board, 120 volt battery charging systems. The disconnect shall be equipped with a male receptacle, which shall automatically eject the shoreline when the vehicle starter is energized. A label shall be provided indicating voltage and amperage ratings.

Y__N__

If not Kussmaul: _____ Make

SHORELINE POWER INLET PLATE

A shoreline power receptacle information plate shall be permanently affixed at or near the power inlet. The plate shall indicate the following:

Y__N__

- Type of Line Voltage
- Current Rating in Amps Power Inlet Type (DC or AC)
- The auto-eject connection shall be equipped with a weatherproof cover.
- The shoreline receptacle shall be located in the area directly adjacent to the driver's side cab door.

BATTERY CHARGER / AIR COMPRESSOR SYSTEM

A Kussmaul model #091-9-1200, "Pump Plus 1200" (or equal) air compressor/high output battery charger shall be provided for maintaining the vehicle's air / battery system. Output current shall be 40 amperes @ 12 volt DC.

Y__N__

If not Kussmaul: _____ Make

The air compressor shall maintain the air pressure in the chassis air brake system while the vehicle is not in use. The air compressor shall have a rated input at 12 volt DC @ 12 amps and an output of 0.30 SCFM @ 80 psi.

Y__N__

An LED bar graph display shall be located near the shoreline connection to monitor the battery status.

Y__N__

BID PROPOSAL

Company _____

SHORELINE RECEPTACLE

Two (2) 120 volt 5-15R household type receptacles shall be located in the specified body compartment as directed by the New York State Office of Fire Prevention and Control. The receptacles shall be wired into the shoreline receptacle to provide a 120 volt power source for equipment.

Y__N__

LIGHTING - CAB INTERIOR

Two (2) combination red/white LED dome lights shall be furnished in the cab. The lights shall be Weldon brand Model #8080 (or equal). Each dome light shall have an integral selector switch. Each dome light shall also activate when the respective, adjacent cab door is opened.

Y__N__

If not Weldon: _____ Make

"DO NOT MOVE APPARATUS" WARNING LIGHT WITH AUDIBLE ALARM

A red flashing warning light with an integral audible alarm, shall be functionally located in the cab to signal when an unsafe condition is present such as an open cab door or body compartment door, an extended ladder rack, a deployed stabilizer, an extended light tower or any other device which is opened, extended or deployed which may cause damage to the apparatus if it is moved.

Y__N__

The audible alarm shall have some method to silence the alarm in the case of a malfunction of the alarm or system. The silence shall automatically "reset" and shall sound when the apparatus is shut down and restarted.

Y__N__

This light shall be activated through the parking brake switch to signal when the parking brake is released. This light shall be labeled "DO NOT MOVE APPARATUS WHEN LIGHT IS ON".

Y__N__

ACCESSORY POWER OUTLETS

Two (2) 12 volt "cigar lighter" style accessory outlets shall be installed in the cab of the truck for the agency's accessory devices. The outlets shall be located as directed in the custom center console for devices such as cellular phone chargers.

Y__N__

12 VOLT ACCESSORY CIRCUITS AND CAB MOUNTED ITEMS

Dedicated 12 volt power and ground circuits shall be provided in the center console as required for the purpose of powering the following equipment:

Y__N__

- Four (4) Streamlight Fire Vulcan LED Model #44451 hand lights with 12 volt DC direct wire chargers (**to be provided by the bidder and mounted in a location to be approved by the NYS Academy of Fire Science**).
- One (1) circuit for a future mobile radio.

CAMERA SYSTEM

A camera system shall be provided to allow the driver to see the rear and both sides of the apparatus while seated in the driver seat. The system shall include a flat panel LCD color monitor mounted adjacent to the driver. The system shall include a color camera that shall be mounted at the rear of the vehicle as well as a camera on each side of the vehicle.

Y__N__

BID PROPOSAL

Company _____

The camera system shall be wired to automatically activate when the chassis transmission is placed in reverse and when manually activated by switch located near the driver. Y__N__

The monitor for the camera system shall be mounted in easy view of the driver and approved by the New York State Office of Fire Prevention and Control. Y__N__

DAYTIME RUNNING LIGHTS

The chassis head lights shall have integrated circuitry to actuate the low beam headlights at a maximum of 80 percent of capacity whenever the chassis engine is running and the transmission is engaged into drive or reverse. Y__N__

CORNERING LIGHTS

The apparatus shall be provided with two (2) Whelen (or equal) cornering lights. Said lights shall be clear with Halogen bulbs and activate/ cancel with turning signals and located on the sides of the front bumper. Y__N__

If not Whelen: _____Make

DOT MARKER LIGHTS AND REFLECTORS

Truck-Lite #60115Y (or equal) yellow LED side marker and turn lights shall be provided on the apparatus lower side, forward of rear axle, one (1) each side. Y__N__

Truck-Lite Model #19 (or equal) red LED clearance lights shall be provided on the apparatus rear upper, one (1) each side at the outermost practical location. Y__N__

Truck-Lite Model #33740R (or equal) LED 3-lamp identification bar will be provided on the apparatus rear center. The lights shall be red in color. Y__N__

Truck-Lite #98034Y (or equal) yellow reflectors shall be provided on the apparatus body lower side, as far forward and low as practical, one (1) each side if the apparatus is 30' long or longer. Y__N__

Truck-Lite #98034R (or equal) red reflectors shall be provided on the apparatus rear, one (1) each side at the outermost practical location. Y__N__

Two license plate brackets with stainless steel hardware shall be provided. The rear license plate shall be illuminated. Y__N__

If not Truck-Lite _____Make

TAIL, STOP, TURN AND BACK-UP LIGHTS

Two (2) LED red combination tail and stop lights, shall be mounted one each side at the rear of the body. Y__N__

Two (2) LED amber arrow turn signal lights, shall be mounted one each side, on a vertical plane with the tail/stop lights. Y__N__

BID PROPOSAL

Company _____

Two (2) white halogen back-up lights, shall be mounted one each side on a vertical plane with the turn/tail/stop signals. These lights shall activate when the transmission is placed in reverse gear.

Y__N__

STEP LIGHTS

Chrome plated, shielded chassis and body step lights shall be provided and controlled with marker light actuation. Step lights shall be located to properly illuminate all body and chassis access steps and walkway areas.

Y__N__

RUNNING BOARD STEP LIGHTS

Two (2) recessed step lights shall be provided in the lower front face of the body near each side running board step, one (1) each side. The lights shall be located a minimum of 6" from the running board step and shall be activated by a control switch located on the pump operator's panel.

Y__N__

DUNNAGE AREA LIGHTING

Two (2) step lights shall be provided in the dunnage area to provide adequate illumination of this area.

Y__N__

DECK LIGHTS/ WORK LIGHTS

Two Collins FX12 deck lights shall be provided and installed on the rear stanchions. These lights shall be controlled by a switch on each light, as well as by a single master switch in the master switch console.

Y__N__

If not Collins: _____Make

REAR BODY SCENE LIGHTS

Two (2) Whelen (13-degree angle) Opti-scene lights (or equal) with a CLEAR prismatic inner lens shall be installed. The scene lights shall be equipped with replaceable halogen bulbs and an chrome flange. The lights shall be switched from the cab dash and with automatic back-up light circuit.

Y__N__

If not Whelen: _____Make

GROUND LIGHTS – CAB

One (1) Truck-Lite (or equal) rubber mounted white LED ground light shall be provided under each side cab door entrance step, four (4) total. The ground lights shall turn on automatically with each respective door jamb switch and also by a master ground light switch in the warning light switch console.

Y__N__

Each light shall illuminate an area at a minimum 30" outward from the edge of the vehicle. The rear crew door ground lights shall be positioned at an angle rearward to provide illumination at the pump panel and the front of the body work areas.

Y__N__

GROUND LIGHTS - FRONT BUMPER

One (1) Truck-Lite (or equal) rubber mounted white LED ground lights shall be provided under each side of the front bumper facing forward, two (2) total. The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.

Y__N__

BID PROPOSAL

Company _____

GROUND LIGHTS - PUMP PANEL

One (1) Truck-Lite (or equal) rubber mounted white LED ground light shall be provided under each side pump panel running board, two (2). The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.

Y__N__

GROUND LIGHTS - REAR

One (1) Truck-Lite (or equal) rubber mounted white LED ground light shall be provided under each rear body corner, two (2) total. The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.

Y__N__

For all Ground Lights, if not Truck-Lite: _____ Make

BODY ELECTRICAL SYSTEM

PUMP ENCLOSURE WORK LIGHTS

Work lighting shall be provided inside the pump enclosure providing a minimum of 20 candlepower illumination.

Y__N__

ENGINE COMPARTMENT WORK LIGHTS

Work lighting shall be provided inside the engine enclosure that will provide a minimum of 20 candlepower illumination.

Y__N__

COMPARTMENT LIGHTS

Each individual, equipment storage compartment will be equipped with LED track style lighting around the perimeter of each compartment opening. These shall have easily replaceable segments that make up the total "run" of lights, per compartment. All lights shall be activated by door switches.

Y__N__

NFPA LIGHTING PACKAGE

The following warning light package shall include all of the minimum warning light and actuation requirements for the current revision of the NFPA 1901 Fire Apparatus Standard, latest Edition. The lighting as specified shall meet the requirements for both "Clearing Right of Way" and "Blocking Right of Way" as noted.

Y__N__

LIGHT PACKAGE ACTUATION CONTROLS

The entire warning light package shall be actuated with a single warning light switch located on the cab switch panel. The wiring for the warning light package shall engage all of the lights required for "Clearing Right of Way" mode when the vehicle parking brake is not engaged. An automatic control system shall be provided to switch the warning lights to the "Blocking Right of Way" mode when the vehicle parking brake is engaged.

Y__N__

BID PROPOSAL

Company _____

A minimum 72" cab roof warning lightbar (Whelen #FN72VLED (or equal)) shall be furnished and rigidly mounted on top of the cab roof. The lightbar shall be equipped with the following minimums and manufacturers shall outline the model and lights provided:

Y__N__

- Two Front Corner Red Linear LED's
- Two Red Forward Facing Linear LED's
- Two White Forward Facing Linear LED's
- Two Rear Corner Red Linear LED's

If not Whelen: _____Make

NFPA ZONE A, UPPER

The forward facing white LED flashers shall be disabled automatically for the "Blocking Right of Way" mode.

Y__N__

NFPA ZONE C, UPPER

Two (2) Whelen #B6MMRAP (or equal) shall be installed at the upper rear of the truck body in a location approved by the New York State Office of Fire Prevention and Control and in accordance with NFPA 1901, latest edition. LED beacon shall be **red (with clear lens)** with lower **amber (with clear lens)** rear directional.

Y__N__

If not Whelen: _____Make

NFPA ZONES B & D REAR, UPPER

The lighting requirement for this area is covered by the lights noted in Zone "C" - Upper.

Y__N__

NFPA ZONES B & D FRONT, UPPER

The lighting requirement for this area is covered by the lights noted in Zone "A" - Upper.

Y__N__

NFPA ZONE A, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

Y__N__

The lower zone A warning lights shall be mounted in the chassis grill.

Y__N__

NFPA ZONE C, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side directly below the DOT stop, tail, turn and backup lights. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

Y__N__

NFPA ZONES B & D FRONT, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

Y__N__

The lower zone B & D warning lights shall be mounted on the sides of the front bumper.

Y__N__

NFPA ZONES B & D MIDSHIP, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

Y__N__

BID PROPOSAL

Company _____

NFPA ZONES B & D REAR, LOWER

Two (2) red LED light heads shall be provided and installed one (1) each side. The lights shall be equipped with clear lenses and a chrome plated mounting flange.

Y__N__

WARNING LIGHT SYSTEM CERTIFICATION

The warning light system(s) shall be certified by the light system manufacturer(s), to meet all of the requirements in the latest Edition of the NFPA 1901 Fire Apparatus Standard as noted in the General Requirements section of these specifications. The NFPA required "Certificate of Compliance" shall be provided with the completed apparatus.

Y__N__

ELECTRIC HORN

A single electric horn activated by the steering wheel horn button shall be furnished.

Y__N__

BACK-UP ALARM

A solid state back-up alarm shall be provided and installed at the rear of the apparatus under the tailboard. The back-up alarm shall activate automatically when the transmission is placed in reverse gear and the ignition is "on".

Y__N__

AIR HORNS

Two (2) Grover (or equal) "stutter tone" type air horns shall be at the front of the vehicle. The air horns shall be mounted in full compliance with NFPA 1901. A 3/8" minimum airline "teed" with equal distance from each horn shall be installed.

Y__N__

If not Grover: _____Make

Both air horns shall be recessed in the front bumper.

Y__N__

The air horns shall be controlled by dual lanyards hanging within easy reach of the driver and the officer. There shall also be a momentary push button (clearly labeled) on the pump panel to activate the air horns.

Y__N__

ELECTRONIC SIREN- WHELEN (or equal)

One (1) electronic siren, capable of firing two (2) 100 watt speakers, shall be provided featuring: bottom mount control head in cab. Manufacturer shall clearly state the model furnished.

Y__N__

The electronic siren and speakers shall meet the NFPA required SAE (Society of Automotive Engineers) certification to ensure compatibility between the siren and speakers.

Y__N__

Two (2) 100 watt siren speakers shall be provided, recessed in the front bumper and wired to the electronic siren.

Y__N__

If not Whelen: _____Make

BID PROPOSAL

Company _____

WEATHER BAND AM/FM/CD RADIO

A Weather Band/AM/FM radio shall be installed in the cab accessible to the driver. An appropriate antenna shall be supplied and mounted on the roof of the apparatus. The speakers shall be located as follows:

- (2) Located in the Front of the cab
- (2) Located in the Rear of the cab

Y__N__

PUMP AND PLUMBING

PUMP; Mid-ship mounted and conform to following:

Y__N__

- Hale or Waterous single-stage
- 1500 G.P.M.
- Pump panel shall be approximately 54” wide

The pump shall meet the requirements of NFPA 1901, 2009 edition, Chapter 16.

Y__N__

PUMP ASSEMBLY

The pump shall be of a size and design to mount on the chassis rails of truck chassis, and have the capacity of **1500 gallons** per minute (U.S. GPM), NFPA 1901 rated performance.

Y__N__

The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.

Y__N__

The manufacturer shall supply at time of delivery copies of the pump manufacturer's certification of hydrostatic testing, the engine manufacturer's current certified brake horsepower curve.

Y__N__

PUMP SHIFT CONTROL

The drive unit shall be equipped with a power shift. The shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder with stainless steel shaft. An air operated in-cab control for rapid shift shall be provided that locks in road/pump with a neutral position for use when manual override is required.

Y__N__

PUMP SHIFT INDICATOR LIGHTS

Three (3) green warning lights shall be provided to indicate to the operator(s) when the pump has completed the shift for Road to Pump position. Two (2) green lights to be located in the truck driving compartment and one (1) green light on pump operator's panel adjacent to the throttle control. All lights to have appropriate identification/instruction plates.

Y__N__

TRANSMISSION LOCK

The automatic transmission furnished in the chassis shall have a lock-up assembly which brings the transmission to direct drive and prevents the transmission from shifting gears while in the pumping mode.

Y__N__

BID PROPOSAL

Company _____

BRAKING SYSTEM

A positive braking system shall be provided to prevent vehicle movement during pumping operations. The air brakes furnished must satisfy this requirement.

Y__N__

PUMP MOUNTS

Extra heavy duty pump mounting brackets shall be furnished. These shall be bolted to the frame rails in such a position to perfectly align the pump so that the angular velocity of the drive line joints shall be the same on each end of the drive shaft. This shall assure full capacity performance with a minimum of vibration. Mounting hardware shall utilize Grade 8 bolts. Under no circumstance shall the pump function as a frame cross member.

Y__N__

PRESSURE CONTROL & ACCESSORIES

PRESSURE GOVERNOR AND MONITORING DISPLAY

A Class1 Total Pressure Governor Plus will be provided. The pressure governor will be designed to maintain a desired engine speed or pump pressure along with displaying diagnostic information. The pressure governor will have a preset for selecting predetermined pressures or RPM, and an emergency return to idle.

Inputs to the control panel from the pump discharge and intake pressure sensors shall be electrical.

The discharge pressure display shall show pressures from 0 to 400 psi. The intake pressure display shall show pressures from -30 in. Hg to 400 psi.

There shall be two control modes, PRESSURE and RPM. No discharge pressure or engine RPM variation shall occur when switching between pressure and RPM modes. When the pump engaged interlock signal is recognized, an "OK TO PUMP" LED shall light to indicate throttle ready. At this point the governor shall be in pressure mode with the engine RPM set to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase.

The program features shall be accessed via push buttons located on the front of the control panel. The program shall support manual control of pump discharge pressure and RPM settings, field programmable presets, and diagnostic capabilities. Safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor, monitoring and master pressure display shall be programmed to interface with the specified engine.

Y__N__

BID PROPOSAL

Company _____

INTAKE RELIEF VALVE

An intake relief valve system shall be plumbed on the suction side of the pump to comply fully with NFPA 1901 (Latest Edition) requirements. Excess pressures shall be plumbed to discharge water under the pump enclosure away from the pump operator.

Y__N__

INTAKE RELIEF VALVE HOSE CONNECTION

The intake relief valve shall be provided with a 2.5" National Standard Thread (NST) adapter for hose connection, piped to discharge below the curb side pump running board.

Y__N__

PUMP PRIMER-

The pump primer shall be a Trident Air primer. Primer shall be plumbed outboard of MIV valve. The priming system shall be plumbed to allow one suction to be primed and placed into operation, and the opposite suction to be primed while the first suction is being used to draft. Further, when operating from a pressurized source on one intake, the cap on the opposite intake shall not be pressurized.

Y__N__

MASTER DRAIN VALVE

A rotary type, 12 port master drain valve shall be provided and controlled at the lower portion of the side pump panel. The valve shall be located in pump compartment lower than the main body and connected in such a manner as to allow complete water drainage of the pump body and all required accessories. Water shall be drained below the apparatus body and away from the pump operator.

A quick connect air chuck connection shall be provided at the pump operators panel and shall be connected to the pump to use compressed air to eliminate any remaining un-drained water or moisture from the pump assembly. (Apparatus may be stored in an unheated facility during winter).

Y__N__

INDIVIDUAL BLEEDERS AND DRAINS- Class 1 quarter turn ball valves

All low point lines shall drain through the master drain valve easily accessible and labeled.

One (1) 3/4" individual quarter turn drain valve shall be furnished for each 1.5" or larger discharge and each 2.5" gated auxiliary suction. **Drain piping shall be 3/4" and shall not be reduced.** Push pull style drains will not be acceptable.

Drain/bleeder valves shall be located at the bottom of the side pump module panels.

All drains and bleeders shall discharge below the running boards.

Y__N__

STAINLESS STEEL PUMP PLUMBING

ANODE BLOCKS

Two (2) anode blocks shall be provided in the pump manifold to protect the pump from corrosion. A bolt in anode block shall be provided in the suction and discharge side of the pump manifold. The Anodes shall be painted Safety Yellow for identification purposes.

Y__N__

BID PROPOSAL

Company _____

THERMAL RELIEF VALVE

A Thermal Relief Valve shall be provided on the pump. If water temperature in the pump exceeds 120 degrees Fahrenheit, the thermal relief valve shall automatically open and discharge pump water to the atmosphere, through a 3/8" discharge line, routed below the pump module. The thermal relief valve shall automatically close when the water temperature is lowered.

Y__N__

An indicator light shall be provided on the operator's panel to illuminate when the thermal relief valve is activated.

Y__N__

PUMP MODULE

The pump module shall be a self-supported structure mounted independently from the body and chassis cab. The design must allow normal frame deflection without imposing stress on the pump module structure or side running boards. The pump module shall be securely mounted to the chassis frame rails.

Y__N__

The pump module shall be a welded frame work utilizing structural components properly braced to withstand the rigors of chassis frame flex. Pump enclosures manufactured of steel will not be acceptable.

Y__N__

DUNNAGE AREA

A dunnage area shall be provided above the pump enclosure for equipment mounting and storage. This area shall be furnished with a removable 3/16" aluminum tread plate floor and side panels.

Y__N__

PUMP SUCTIONS & AUXILIARY INLETS

SUCTION INLETS

Two (2) 6" N.S.T. suction inlets shall be provided, one on the left pump panel and one on the right pump panel. A removable strainer shall be installed on each inlet.

Y__N__

MASTER INTAKE BUTTERFLY VALVES - ELECTRIC OPERATED

The fire pump shall be fitted with two (2) Master Intake Valves on the main suction inlets. Each valve shall be mounted between the suction tube extension and the suction tube, and shall be recessed behind the pump panel. Each valve shall incorporate a pressure relief valve, set at the pump manufacturers' facility to a rating of 125 PSI. The pressure relief valve shall provide protection for the suction hose even with the valve in the closed position.

Y__N__

The valves shall incorporate NFPA 1901 (Latest Edition) compliance large diameter 3/4" hose air bleed valves, controlled at the operator's panel.

Y__N__

Each valve shall be operated by a twelve (12) volt DC motor, as standard. The electric control shall be mounted on operator's panel. They shall also incorporate an externally accessible hand wheel control manual override, mounted at the suction inlet. The electric controls shall incorporate a placard with status lights to indicate whether the valves are in the closed, open or throttled position. The valves shall not be able to move from fully open to fully closed in under three (3) seconds, in compliance with NFPA 1901 (Latest Edition).

Y__N__

BID PROPOSAL

Company _____

There shall be check valves installed to prevent pressurization of intake plumbing through primer plumbing when operating from a pressurized source.

Y__N__

PUMP SUCTION ENDS

The main pump suction inlets shall be furnished with a standard suction end, terminating with the suction threads protruding through the side panel. Adequate space shall be provided around the suction inlet to allow easy installation and removal of appliances, including those with long handles.

Y__N__

The two (2) suction caps provided as standard equipment shall be supplied

Y__N__

One (1) Kochek 6" NSTF x 5" Storz 30° degree adapter and cap shall be provided for the left side main suction inlet.

Y__N__

AUXILIARY SIDE SUCTIONS

A total of two (2) 2.5" auxiliary suctions shall be provided, 1 at the **driver's side pump panel and 1 on the officer's side pump panel**. The 2.5" auxiliary suctions shall terminate with a removable strainer, Kochek 2.5" NST female swivel with a Kochek plug and retaining cable.

Y__N__

A 2.5" Akron #8800 series full flow, stainless steel ball valve shall be provided for the side auxiliary suctions.

Y__N__

This valve shall be manually operated.

Y__N__

All side gated inlet valves shall be recess mounted behind the side pump panels or body panels. **(No Exceptions)**

Y__N__

TANK TO PUMP

One (1) 3" tank to pump line shall be, piped through the front bulkhead of the tank with a 90 degree elbow down into the tank sump. This line shall be plumbed directly into the rear of the pump suction manifold for maximum efficiency and tank to pump GPM capability, per NFPA 1901.

Y__N__

A check valve shall be provided to prevent accidental pressurization of the water tank through the pump connection. Connection from the valve to the tank shall be made using a rubber "hump" hose.

Y__N__

A 3" Akron full flow, stainless steel ball valve shall be provided between the pump suction manifold and the water tank.

Y__N__

This valve shall be manually operated.

Y__N__

TANK FILL

One (1) 2" gated full flow pump to tank refill line controlled at the pump panel shall be provided. A deflector shield inside the tank shall be furnished. Tank fill plumbing shall utilize 2" high pressure hose for tank connection to accommodate flexing between components.

Y__N__

BID PROPOSAL

Company _____

A 2" Akron, #8800 series (or equal), full flow, stainless steel ball valve shall be provided between the pump discharge manifold and the water tank.

Y__N__

This valve shall be manually operated.

Y__N__

DISCHARGES & ACCESSORIES -SIDE MOUNT

All Kocheck adapters used shall be hard-coat finish.

Y__N__

DRIVER'S SIDE MAIN DISCHARGE #1 & #2

Two (2) discharges shall be provided and located at the driver's side pump panel. The driver's side discharges #1 & #2 shall terminate with NST threads, through the left panel, one each side, above the main pump intake. Discharges shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

Y__N__

A 2.5" Akron, #8800 series, full flow, stainless steel ball valve shall be provided for the driver's side #1 & #2 discharges. The valves shall be equipped with the Akron "Tork-Lok", feature.

Y__N__

The discharge valves shall be equipped with integral Kocheck 2.5" NST, 30 degree elbows.

Y__N__

A 2.5" F x 1-1/2" M and 1.5" NST Kocheck cap shall be installed on driver's side #1 & #2 discharges.

Y__N__

The driver's side #1 & #2 discharge valves shall be each be manually operated.

Y__N__

The driver's side #1 & #2 discharges shall each be equipped with a Class 1 3.5", 0-400 PSI, pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.

Y__N__

The pressure gauges shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals. The color of the illuminated gauge shall be Red.

Y__N__

OFFICER'S SIDE MAIN DISCHARGE #3

One (1) discharge shall be provided and located at the officer's side pump panel. The officer's side discharge shall terminate with NST threads, through the officer's side panel above the main pump intake. Discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

Y__N__

A 2.5" Akron, #8800 series, full flow, stainless steel ball valve shall be provided for the officer's side #1 discharge.

Y__N__

The #3 discharge valve shall be equipped with integral Kocheck 2.5" NST, 30 degree elbow.

Y__N__

A 2.5" F x 1-1/2" M and 1.5" NST Kocheck cap shall be installed on officer's side #3 discharge.

Y__N__

The officer's side #3 discharge valve shall be manually controlled.

Y__N__

BID PROPOSAL

Company _____

The officer's side #3 discharge shall be equipped with a Class 1 (or equal) 3.5", 0-400 PSI, pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.

Y__N__

The pressure gauges shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals. The color of the illuminated gauge shall be red.

Y__N__

OFFICER'S SIDE LARGE DIAMETER DISCHARGE

One (1) 4" discharge, with 4" valve and piping, shall be located on the right side of the vehicle, to supply a four (4) inch hose line. This discharge shall have an electrical operating mechanism that will not permit changing the position of the flow regulating element of the valve from full close to full open, or vice versa, in less than 3 sec. and be controlled at the pump operator's panel marked "LDH DISCHARGE". A 3/4" drain valve will be conveniently located. **A Class 1, 3.5" flowminder (pressure & GPM) is to be installed per manufacturer's instructions and positioned directly above the control.** Installation of the flowminder shall provide for accurate readings +/- 10% of any actual flow greater than 200 GPM with discharge gate fully opened. These valves and piping assembly shall be supported to accept the strain and forces expected with the use of 4" large diameter hose. 4" discharge to be provided with a 30 degree downward sweep elbow, 4" Storz connection and a Kochek 4" Storz X 2.5" NST male adaptor with a Kochek 2.5" NST cabled cap.

Y__N__

REAR DISCHARGES #5 & #6

Two (2) 2.5" NST rear discharges shall be provided at the rear of the vehicle, one each side, plumbed from the pump.

Y__N__

The #5 rear discharge shall terminate at the rear of the apparatus below the hosebed on the left within easy reach from a standing position on the ground and allow for use of spanner wrenches and adapters.

Y__N__

The #6 rear discharge shall terminate at the rear of the apparatus below the hosebed on the right within easy reach from a standing position on the ground and allow for use of spanner wrenches and adapters.

Y__N__

Both rear discharges shall be equipped with Kochek 2.5" NST, 30 degree elbow with 2.5" F NST x 1.5" NST M with 1.5" NST cable retained cap.

Y__N__

The rear discharges shall be plumbed utilizing 3" schedule 10, stainless steel piping, 45 degree threaded elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the rear of the vehicle.

Y__N__

A minimum of one (1) Victaulic coupling shall be furnished in each assembly to allow for flex and serviceability.

Y__N__

A 3" Akron, #8800 series, full flow, stainless steel, ball valve shall be provided for each rear discharge. The valve shall be equipped with the Akron "Tork-Lok" feature.

Y__N__

BID PROPOSAL

Company _____

The rear discharge valves shall be electrically controlled via Akron actuator and a controller located on the operator's panel.

Y__N__

The rear discharges shall be equipped with Class 1 3.5", 0-400 PSI, pressure gauges. Each shall be supplied with a bright metal bezel for resistance to corrosion and to protect the lens and case from damage.

Y__N__

The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals. The color of the illuminated gauge shall be Red.

Y__N__

DECK GUN DISCHARGE

A deck gun discharge shall be plumbed from the pump to an area on top of the vehicle. The deck gun piping shall be firmly supported and braced.

Y__N__

The deck gun discharge shall be located in the center of the dunnage area above the pump module. A support assembly shall be provided to stabilize deck gun plumbing below deck gun mount flange. The assembly shall not allow movement of the gun as it is charged. Design to be approved by the New York State Office of Fire Prevention and Control.

Y__N__

To improve the operation range of the deck gun, the discharge pipe shall be outfitted with a TFT (18") Extend-A-Gun, remote controlled via switch on the pump operator's panel. The extension shall be wired to the hazard light on the cab dash.

Y__N__

The deck gun piping shall be design so the overall height of the deck gun in the mounted/stowed position does not exceed the cab roof height.

Y__N__

The deck gun discharge shall be plumbed utilizing 3" schedule 10, stainless steel piping, 45 degree threaded elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the deck gun location or 3" flexible high pressure hose with stainless steel fittings.

Y__N__

A minimum of one (1) Victaulic coupling (or equal) shall be furnished in this assembly to allow for flex and serviceability.

Y__N__

A 3" Akron, #8800 series, full flow, stainless steel ball valve shall be provided for the deck gun discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The deck gun valve shall be controlled by a hand wheel.

Y__N__

The deck gun discharge shall be equipped with a Class 1 3.5" Flowminder, pressure/ GPM gauge/ display which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.

Y__N__

The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals. The color of the illuminated gauge shall be Red.

Y__N__

BID PROPOSAL

Company _____

HORIZONTAL CROSSLAYS

Four (4) Crosslays shall be sized to accommodate 2" X 300' double jacket fire hose, double stacked, mounted over the pump panel, 2" stainless steel piping or high pressure flexible hose with 1.5" male thread discharge. The bidder shall provide a ten (10) foot 1.75" "cheater" hose (equivalent to fire attack hose) from the 1.5" chicksan swivel connection point for each crosslay. Both crosslay shall be equipped with Class 1 quarter turn 3/4" manual bleeder valves. Crosslays shall have aluminum treadplate covers that are hinged to allow access for reloading hose. Maximum height of crosslays shall be 72" from ground level.

Y__N__

A 2" Akron #8800, full flow, stainless steel ball valve terminating to a 1.5" stainless steel chicksan swivel below the deck of each crosslay. Each crosslay shall be manually controlled.

Y__N__

SPEEDLAY HOSE RETENTION

Two (2) "seat-belt strap" style hose retention devices shall be provided. These devices shall be secured using looped bungees. The strap material shall be red in color.

Y__N__

PUMP PANEL

The pump enclosure side panels shall be completely removable and designed for easy access and servicing.

Y__N__

PUMP PANEL MATERIAL

The left side operator's panel, gauge panel, right side pump panel and right side access door shall be fabricated from 304L stainless steel with a #4 standard polished finish.

Y__N__

PUMP ENCLOSURE MATERIAL

The entire pump enclosure shall be fabricated from 304L stainless steel welded into a single framework to attach the pump panels, form the dunnage compartment and crosslays.

Y__N__

HINGED GAUGE PANEL

A full width, vertically hinged gauge access panel shall be provided at the operator's position. Positive locks shall be provided along with chain holders to prevent the front of the gauge panel from coming in contact with other panels when open.

Y__N__

HINGED PUMP ACCESS DOOR

A pump enclosure access door shall be provided above the officer's side pump panel. This door shall have a two-point latch mechanism and stay arms for ease of access.

Y__N__

VERTICALLY HINGED PUMP PANEL

The low section of the officer's side pump panel shall be vertically hinged to provide complete access to the pump and plumbing on the officer's side of the pump enclosure. The panel shall be equipped with a stainless steel hinge and secured with locks to hold the panel closed. The drains located on the officer's side panel shall be fastened to the lower panel.

Y__N__

BID PROPOSAL

Company _____

PANEL FASTENERS

Stainless steel machine screws and lock washers shall be used to hold these panels in position. No plated fasteners. The panels shall be easily removable to provide complete access to the pump for major service.

Y__N__

LED TRACK MOUNTED PUMP OPERATOR'S PANEL LIGHTING

Each side pump panel will be equipped with the track mounted, light fixture on the forward, top and rear edge of panel. The track mounted light fixture will be mounted directly to the pump panel projecting light toward the operator's panel. The light fixtures are in 12" increments, each 12" increment will be equipped with twenty four (24) LED's. The lights will be protected by a full length polycarbonate lens.

Y__N__

One (1) section light under the operator's panel light shield shall be actuated when fire pump is engaged in addition to the pump engaged light.

Y__N__

PUMP PANEL TRIM PLATES

A stainless steel trim plate shall be provided around each discharge port and suction inlet opening to allow accessibility to the respective valve for service and repairs.

Y__N__

COLOR CODED IDENTIFICATION TAGS

Identification tags shall be provided for all gauges, controls, connections, switches, inlets and outlets.

Y__N__

PUMP OPERATOR'S PANEL

Particular attention is to be given to functional arrangement of all controls. Discharge gauges shall be mounted next to the associated discharge valve control. Discharge valve controls and gauges shall be arranged in a row or rows, and ordered in a logical sequence corresponding to the location of the discharge on the vehicle. *NOTE: Individual gauges are specified in addition to the indicators in the governor control head. This is a teaching apparatus, so both are desired as instructional aides, as well as redundancy, in case of failure, to keep the apparatus in service.*

Y__N__

The pump operator's panel shall accommodate the following:

Y__N__

- Hinged gauge panel
- Water tank fill valve
- Auxiliary suction valve controls
- All discharge valve controls
- Auxiliary engine cooler controls
- Water tank suction control valve
- Pump primer valve
- Master compound vacuum readout (**Class 1, backlit, -30-0-400, w/black face and white numbers/letters**)
- Master pressure readout (**Class 1, backlit, 0-400, w/white face and black numbers/ letters**)
- Individual discharge gauges (**Class 1, backlit 3.5" 0-400psi w/ white face and black numbers/ letters**)

BID PROPOSAL

Company _____

- Pump shift engaged indicator light
- Water tank water level indicator
- Engine tachometer
- Engine oil pressure gauge with audible alarm
- Engine water temperature gauge with audible alarm
- Low voltage light and audible alarm
- Pump panel light switch
- **Speed counter (Underwriters)**
- Voltmeter
- Ammeter
- Hourmeter (Pump Hours)
- Class 1 “Total Pressure Governor Plus” control

The master pump intake pressure and vacuum, and the main pump discharge pressure shall be indicated on the pressure governor display. Y__N__

PUMP TEST PORTS

The pump panel shall be equipped with Vacuum & Pressure test plugs to allow for test equipment to monitor pump pressure and vacuum levels. Chrome plugs and labels shall be provided for the test ports. Y__N__

The pump panel shall be equipped with an RPM counter port to allow for test equipment to monitor pump RPM. Chrome cap and labels shall be provided for the test port. Y__N__

PUMP OPERATOR PANEL AIR OUTLET

One quick connect air outlet, to supply pneumatic tools, shall be installed on the pump panel at a location approved by the New York State Office of Fire Prevention and Control. This shall be equipped with an inline quarter-turn shut off valve and quick connect coupling. Y__N__

ENGINE COOLER

An auxiliary cooler or heat exchanger shall be installed in the engine compartment between the engine and the chassis radiator. The cooler shall permit the use of water from the pump for cooling system. The cooling shall be done without mixing engine and pump water. Y__N__

TANK LEVEL GAUGE

An LED gauge that shows the actual volume of water in the tank shall be provided on the pump operator's panel. The LEDs shall be bright enough for sunlight readability and provide for 180 degree viewing. The gauge shall utilize a pressure sender to measure the liquid volume. The gauge shall be equipped with a self-calibration feature. Y__N__

BID PROPOSAL

Company _____

Necessary Features:

- Flashes warning when the volume is less than 25%.
- No fitting needed for poly tank.

Y__N__

WATER TANK

The water tank shall have a capacity of **500 gallons**. The tank shall be constructed from non-corrosive material. Manufacturers shall describe the tank construction and materials utilized. **Tanks made of steel or aluminum are not acceptable – No Exceptions.** While the specification calls for a POLY tank, the standard set is for minimum standards expected. The desire is to have a non-metallic constructed water tank to allow for an extended life. While very specific thicknesses and dimensions are stated, the New York State Office of Fire Prevention and Control should clarify that this is for a minimal expectation only, not to restrict alternate designs or tank construction methods in another material equal to the performance of “poly”. Manufacturers shall clearly state their dimensions in place of those listed if bidding an alternate tank, for clarity to purchaser.

Y__N__

The water tank shall be of a specific configuration and is also designed to be completely independent of the body and compartments. All joints and seams shall be nitrogen welded and tested for maximum strength and integrity. The top of the booster tank is fitted with removable lifting eyes designed with a 3 to 1 safety factor to facilitate easy removability. The transverse swash partitions shall be manufactured of 3/8" polypropylene (natural in color) and extend from approximately 4" off the floor to just under the cover. The longitudinal swash partitions shall be constructed of 3/8" polypropylene (natural in color) and extend from the floor of the tank through the cover to allow for positive welding and maximum integrity.

Y__N__

All partitions shall be equipped with vent and air hoses to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All swash partitions interlock with one another and are welded to each other as well as to the walls of the tank.

Y__N__

TANK FILL TOWER

The tank shall have a combination vent and manual fill tower. The tower shall have a thick removable polypropylene screen and a polypropylene hinged type cover. The fill tower cover shall be marked as a water tank fill point.

Y__N__

OVERFLOW AND VENT PIPE

The fill tower shall be fitted with an integral 6" I.D. schedule 40 P.V.C. combination overflow/vent pipe running from the fill tower through the tank to a 6" coupling flush mounted into the bottom of the tank to allow water to overflow behind the chassis rear axle.

Y__N__

TANK SUMP

The tank sump shall be a minimum of 10" wide x 10" long x 3" deep. An anti-swirl plate shall be mounted inside the sump, approximately 1" above the bottom of the sump.

Y__N__

BID PROPOSAL

Company _____

TANK CONNECTIONS

There shall be two (2) standard tank connections; one for tank-to-pump suction line which shall be a minimum of 4" coupling and one for a tank fill line which shall be a minimum of a 2" National Pipe Thread (N.P.T.) coupling. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank.

Y__N__

TANK MOUNTING

The tank shall be mounted in accordance with NFPA 1901 (Latest Edition) and the requirements of the tank manufacturer. The tank is designed on the free-floating suspension principle and shall not require the use of hold downs. The tank shall be completely removable without disturbing or dismantling the apparatus body structure. The hose bed cross braces shall act as water tank retainers.

Y__N__

APPARATUS BODY DESIGN CONSTRUCTION

The body side and compartment assemblies shall be designed and assembled to provide maximum strength and durability under all operating conditions.

Special attention shall be taken to minimize corrosion on all fabricated parts and structural members of the body. All bolt-on components shall be provided with a dissimilar metals isolation barrier to prevent electric corrosion acceptable to the New York State Office of Fire Prevention and Control. The body design shall also incorporate removable panels to access spring hangers, rear body mounts and fuel tank sending units.

The body assembly shall be an all-welded configuration. The body shall be completely isolated from the cab and pump module structure.

Y__N__

BODY AND COMPARTMENT FABRICATION – STAINLESS STEEL - NO EXCEPTIONS

All compartment panels and body side sheets shall be entirely 12 gauge 304 stainless steel. Each bidder shall clearly understand that these are the minimum expectations. The New York State Office of Fire Prevention and Control is not dictating the specific finite construction methods, but manufacturers shall adhere to the material standards set for stainless steel. Each bidder MUST outline in very finite detail, the exact methods in which they build the body assembly. The unit must be of sound construction and supported by a warranty.

Y__N__

STEPPING, STANDING, & WALKING SURFACES

All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards. Aluminum tread plate utilized for stepping, standing, and walking surfaces shall be Alcoa No Slip type. This material shall be certified to meet the Latest Edition NFPA 1901 standard. Upon request by the Purchaser, manufacturer shall supply proof of compliance with this requirement. (There shall be **No Exceptions** allowed for this paragraph).

Y__N__

COMPARTMENTATION AND DIMENSIONAL DATA

The following dimensional data and compartment configurations have been specified for intention and design purposes. These are in no way designed to be restrictive from a manufacturer standard. It is the desire to have a body compartment layout with an equal or more cubic foot volume of storage area and in the locations mentioned. It is the full intent of the New York State Office of Fire Prevention and Control to seek multiple options for consideration and to secure competitive bids. It is realized that all manufacturers build differently and that finite dimensional data may vary. It

BID PROPOSAL

Company _____

should be noted that bids of TOTAL EXCEPTION will not be accepted, as the overall design intent is outlined and considered to be a minimum standard. Each bidder will outline the dimensional data supplied in an engineering diagram SUBMITTED with bid, **NO EXCEPTIONS**. While the dimensional data is flexible, the desire to maintain full height and full depth compartments is not a flexible design parameter. **All tools, fittings, and equipment to be carried on the apparatus shall be mounted by the bidder.**

Y__N__

List of tools, fittings, and equipment that will be provided by the buyer is as follows:

Y__N__

Provided by buyer:

- 2 – 6” female NH x 4” storz couplings
- 2 – 4” storz x 2.5” NH couplings
- 8 – various 2.5” and 1.5” couplings
- 2 – loose 2.5” nozzles
- 2 – loose 1.5” nozzles
- 1 – rubber mallet
- 1 – 2.5” gated wye
- Assorted hose gaskets (1.5”, 2.5”, 6”)
- 4 – hose straps
- 1 – 20 pound dry chemical fire extinguisher
- 1 – hydrant bag
- 1 – portable pump
- 1 – fuel can
- 1 – 2.5” floating strainer
- 2 – halligan bars
- 2 – flat head axes
- 1 – pick head axe
- 2 – tarps
- 1 – 5 gallon foam bucket
- 1 – utility rope

All other tools, equipment, and fittings that are specified elsewhere to be provided by the bidder shall be mounted in brackets.

Y__N__

DRIVER'S SIDE COMPARTMENTATION (ROLL-UP DOORS)

One (1) split depth compartment forward of the rear wheels. Items to be stored in this compartment shall be mounted in a manner to be approved by the New York State Office of Fire Prevention and Control.

Y__N__

One (1) split depth compartment behind the rear wheels.

Y__N__

One (1) shallow depth compartment above the rear wheels.

Y__N__

BID PROPOSAL

Company _____

OFFICER'S SIDE COMPARTMENTATION (ROLL-UP DOORS)

One (1) full height/ split depth side compartment forward of the rear wheels. Y__N__

One (1) full height/ split depth compartment behind the rear wheels. Y__N__

BEAVERTAILS

The rear body beavertail area shall be furnished with a squared off appearance to maximize the available compartment area, while providing added support to the rear step support structure. This assembly shall provide a vertical mounting surface for tail lights at the rear most portion of the body and additional storage space. The inside of the beavertails shall be furnished with polished aluminum tread plate overlays to prevent hose from damaging body areas. Y__N__

COMPARTMENT TOPS

Compartment tops shall be covered with polished 3/16” aluminum tread plate on both sides. These shall be completely sealed after installation. Y__N__

DRIP MOLDING

Compartment tops over all side compartments shall have a 45 degree flange formed out to provide protection against water run-off. A secondary extruded drip molding shall be provided between low compartments and auxiliary high side compartments, when auxiliary compartments are provided. Y__N__

FASTENERS

All exterior fasteners used for holding panels or tread plate shall be stainless steel. In no case shall pop rivets or self-tapping screws be used. Y__N__

COMPARTMENT LOUVERS

Machine stamped ventilating louvers shall be furnished in each compartment, and so located that water cannot normally enter the compartment. A perforated, polished, stainless steel grille shall be furnished between compartments for ventilation in the event that the compartment configuration does not allow louvers to ventilate to the atmosphere. Y__N__

ACCESS PANELS

Removable access panels shall be provided in all lower compartments to access spring pins, fuel tank sender, electrical junction compartment and all body mounts. Panels shall be located in the rear compartments providing access to the lights and associated wiring. The covers shall also serve as protective covers to prevent inadvertent damage to lights or wiring from tools or equipment located in the compartment. Y__N__

BODY PROTECTION PANELS

The front face of the side compartments, next to the left and right pump panels shall be overlaid with polished aluminum tread plate full height protection. Y__N__

BID PROPOSAL

Company _____

REAR BODY PANEL

The rear body panel shall be fabricated from a minimum of 3/16" polished aluminum tread plate and shall extend the full width between the beavertails. This panel shall be full height from the rear step to the hose bed floor. The panel shall be bolted on and removable, with no part of the rear panel attached to the booster tank.

Y__N__

REAR STANCHIONS

Two (2) stanchion brackets with wiring protectors, shall be provided at the rear of the body for upper rear warning light mounting, one (1) each side. These brackets shall be bolted to the sides of the body to minimize rear vehicle height.

Y__N__

BODY RUB RAILS

Sacrificial 3/16" polished aluminum tread plate rub rails shall be mounted at the base of the body. The rub rails shall extend the full length of the main body and blend into the rear step for a pleasing appearance. Rub rails shall be designed to bolt to the body from the bottom side of the compartment area, so as not to damage the body side panels on initial impact and to provide for ease of replacement.

Y__N__

RUNNING BOARD STEPS

The driver and officer running board steps shall be fabricated of 3/16" polished aluminum tread plate. The outside edge on each step shall be fabricated with a double break, return flange. The steps shall be rigidly reinforced with a heavy duty, stainless steel, support structure. The running boards shall not form any part of the compartment design, and shall be bolted into place with a minimum 1/2" clearance gap between any panel to facilitate water runoff.

Y__N__

REAR STEP

The rear step shall be twelve (12) inches deep, recessed between the rear portion of the rear side compartments. The step shall be fabricated from 3/16" polished aluminum tread plate, and shall be rigidly reinforced. The rear edge of the step shall be designed to accommodate the rear clearance lights, recessed for protection in the step reinforcement channel. This step shall be bolted into place with a minimum 1/2" clearance gap between it and the body panel for drainage.

Y__N__

INTERMEDIATE REAR STEP

An eight (8) inch bolt on intermediate rear step, fabricated from 3/16" aluminum tread plate, shall be installed. The step shall be a minimum of 8" deep x full width of the rear tailboard.

Y__N__

REAR STEP COMPARTMENT

One (1) rear step compartment shall be provided between the frame rails. This compartment shall be as tall, wide and deep as possible in the given area. The compartment shall have a horizontally hinged (bottom) door covered in 3/16" aluminum tread plate.

Y__N__

BID PROPOSAL

Company _____

LADDER RACK- (Electrically/ Hydraulically Operated)

The bidder shall provide an electrically/ hydraulically operated ladder rack mounted on either side of the apparatus. The ladder rack shall provide secure storage for the specified extension ladder, roof ladder and attic ladder. The ladder rack should also store the hard suction hose if possible. The rack will store the ladders without interference with the operation and access to compartments or crosslays. The ladder rack, when operated, shall position the ladders for access by personnel at the side of the apparatus. When deployed, the rack shall not interfere with operation and access to the compartments or crosslays.

Y__N__

GRAB RAILS

All hand rails shall be 1-1/4" outer diameter, knurled bright anodized aluminum extrusion, designed to meet NFPA 1901 requirements. Molded gaskets shall be installed between the handrail stanchion castings and body surfaces to prevent electrolytic reaction between dissimilar metals and to protect paint.

Y__N__

GRAB RAIL LOCATIONS:

- Two (2) vertical rails shall be mounted on the rear edge of the beavertails, one (1) each side.
- One (1) horizontal, full width handrail shall be installed on the rear, below the level of the hose bed.
- Two (2) vertical handrails shall be mounted above each pump panel, (1) each side, to assist access from the running board steps to the top of the body.

Y__N__

Y__N__

Y__N__

FOLDING STEPS

Six (6) large folding steps, made of high strength die cast aluminum, with a textured chrome plate finish, minimum of 42 in² surface, conforming to NFPA-1901 requirements, shall be provided on the front face of the running board compartments, above running board steps, three (3) each side. The steps shall be mounted to accommodate access to the body hosebed area with a maximum of 18" height between each step.

Y__N__

SAFETY SIGN AT REAR STEP

Safety sign(s) shall be located on the vehicle at the rear step to warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.

Y__N__

REAR WHEEL WELL LINERS

Fully removable, bolt-in, stainless steel fender liners shall be provided. The wheel well liners shall extend from the outer wheel well body panel, into the truck frame. Removable vertical splash shields, inward of the wheels, shall be provided to give access to suspension components. The completely washable fender liners shall be designed to protect the front and rear compartments and main body supports from road salts, dirt accumulation and corrosion. Fender liners which are welded in place or are only partially removable shall not be considered.

Y__N__

BID PROPOSAL

Company _____

REAR FENDERETTES

The rear fenders shall be equipped with easily replaceable, polished stainless steel fenderettes. The fenderettes shall be equipped with a rubber gasket molding between the body panel and the fenderette. Fenderettes that are integrally welded to the body side panels shall not be acceptable.

Y__N__

WHEEL CHOCK STORAGE COMPARTMENT

A total of two (2) storage compartments (8" high x 8" wide x 26" deep) shall be inserted into the body fender area on a 5 degree pitch. The compartments shall be located with two (2) on the driver side. The lower portion of the forward compartment shall be rubber lined to absorb shock and help secure the wheel chocks. The rearward compartment shall have a shelf to accommodate a total of three fire extinguishers. The storage compartments shall be equipped with a polished stainless steel door.

Y__N__

MUD FLAPS

Heavy duty mud flaps shall be provided behind the rear wheels.

Y__N__

REAR TOW EYES

Two (2) painted tow eyes shall be furnished on the rear of the vehicle, thru the rear of the body, bolted directly to the chassis frame rails with grade 8 bolts. The tow eyes shall be made from plate steel and shall be bolted directly to the chassis frame rails with grade 8 bolts and shall extend below the body. The tow eyes shall be smooth and free from sharp edges, and have a minimum eyelet hole of 2-1/2".

Y__N__

HOSE BED

The hose bed storage area and partitions shall be arranged to accommodate the following:

Y__N__

- 400' of 1.75" double jacket fire hose with TFT automatic nozzle with pistol grip
- 400' of 2.5" double jacket fire hose with TFT automatic nozzle with pistol grip
- 400' of 3" (2.5" couplings) double jacket fire hose
- 1500' of 5" LDH

The hose bed shall be located directly above the booster tank and shall be free from all sharp objects such as bolts, nuts, etc., to avoid damage to fire hose.

Y__N__

HOSE BED FLOORING

Flooring to be constructed from extruded aluminum and be properly spaced for ventilation. The flooring shall be smooth and free from sharp edges to avoid hose damage. The hose bed floor shall be removable to provide access to inner body framework.

Y__N__

HOSE BED PARTITIONS

Hosebed partitions shall be made of aluminum, and adjustable. Partitions shall be removable for access to the booster tank.

Y__N__

BID PROPOSAL

Company _____

HOSE PARTITION CUTOUTS

The hose bed partitions shall have a vertical handhold cutout at **upper** rear edge of the partition.

Y__N__

HOSE BED COVER

A hose bed cover shall be provided and installed. The cover shall be made from at least 22 ounce heavy-duty vinyl coated polyester fabric (TXN 226 or equal). The cover shall be sewn with ultraviolet resistant thread and shall have 2" wide nylon webbing sewn around the perimeter to provide additional strength. The cover shall be secured to the front of the body just below the top flange with quarter-turn fasteners and Velcro and shall be secured to the top side body flanges with individual bungee loops. The rear flap shall be furnished with two (2) adjustable style restraining straps. The hosebed cover shall be red in color.

Y__N__

COMPARTMENT ACCESSORIES

ADJUSTABLE SHELVING

Compartment shelving shall be constructed of 3/16" brush finish aluminum with a 2" upward bend at front and rear, and side supports. Shelving shall be vertically adjustable with spring nuts in aluminum strut channel. Adjustable shelves shall be located as follows:

Y__N__

- One (1) in the driver front compartment
- One (1) in the officer front compartment
- One (1) in the driver rear compartment
- One (1) in the officer rear compartment

SLIDE OUT FLOOR MOUNT SHELVING

Slide out floor mount compartment shelving shall be constructed of 3/16 brush finish aluminum with a 2" upward bend at front and rear, and side supports attached to #250 rated slides. Slide out floor mount shelving shall have gas shocks to hold the tray in and out. Slide out floor mount shelving shall be provided as follows:

Y__N__

- One (1) in the driver front compartment
- One (1) in the officer front compartment
- One (1) in the driver rear compartment
- One (1) in the officer rear compartment
- One (1) in the rear center body compartment

VERTICAL PULL OUT TOOL BOARD

One (1) vertical pull out tool board shall be provided and mounted in the driver front compartment. The tool board shall be constructed of 3/16" smooth aluminum allowing mounting of equipment on both sides of the toolboard.

BID PROPOSAL

Company _____

The tool board shall be attached to #250 rated slides, one at the top and one at the bottom of the tool board. 3/16" aluminum angles shall attach the slides to tracking to allow horizontal adjustments. A gas shock shall be used to secure the toolboard in the stored and deployed position.

Y__N__

COMPARTMENT FLOOR COVERING

Turtle Tile brand floor material shall be installed on all compartment floors. The tile shall be custom installed to provide a full floor coverage.

Y__N__

Floor matting material shall be provided on all shelves and roll-out trays.

Y__N__

The compartment flooring color shall be red.

Y__N__

12 VOLT LIGHTING- Center Mount, Forward Facing/ Front Illumination

Two (2) Fire Research, EVOLUTION 12vdc LED "brow" lights shall be provided. The light shall be mounted on a special bracket on the front of the cab roof. Bracket shall be sized to fit the light. All wiring used shall be a minimum of 10 gauge wire in loom that is properly supported and protected from injury. The lights shall be controlled by a control at the driver side switch panel. These lights may be load managed when the parking brake is set.

Y__N__

12 VOLT LIGHTING- Mounted onto the rear of the cab on extend-a-pole mounts.

There shall be two (2) Fire Research, EVOLUTION 12vdc LED lights provided. The light shall be mounted one each side of the rear of the cab. The lights shall be controlled by a control at the driver side switch panel. All wiring used shall be a minimum of 10 gauge wire in loom that is properly supported and protected from injury. These lights may be load managed when the parking brake is set.

Y__N__

LADDERS

The ground ladder compliment shall be aluminum and sized 24', 14', and 10':

- One (1) Alco-Lite model PEL-24 (or equal); 24', aluminum, two (2) section extension ladder shall be provided.
- One (1) Alco-Lite model PRL-14 (or equal); 14', aluminum, straight roof ladder with folding hooks shall be provided.
- One (1) Alco-Lite model FL-10 (or equal); 10', folding, aluminum, attic ladder shall be provided.

Y__N__

Y__N__

Y__N__

All ground ladders shall be from the same manufacturer.

Y__N__

If not Alco-Lite: _____ Make

PIKE POLES AND HOLDERS

Two (2) pike pole tubes shall be provided and mounted in a location approved by the New York State Office of Fire Prevention and Control. Each pike pole holder shall be labeled to indicate the pike pole length. Pike poles shall be provided by purchaser.

Y__N__

BID PROPOSAL

Company _____

SUCTION HOSE STORAGE

Any suction hoses that do not fit on the ladder rack shall be located on individual racks and secured on the driver’s side of the apparatus above the lower compartments.

Y__N__

Three (3) sections of six(6) inch X ten(10) foot PVC suction hose with lightweight hard coat couplings shall be furnished. Couplings shall include a long handle, female swivel on one end and a rocker lug male on the other end. All threads shall be six (6) inch N.S.T.

Y__N__

STRAINER- Kocheck “Big Water” (or equal)

One (1) 6" NST, full flow, barrel strainer shall be provided by bidder to attach to the suction hose. A compartment mounting bracket shall also be provided and mounted to store the strainer when not in use. **The strainer shall be capable of flowing the capacity of the pump** and approved by the NYS Academy of Fire Science upon acceptance testing.

Y__N__

If not Kocheck: _____ Make

ADDITIONAL ITEMS SUPPLIED WITH THE VEHICLE

- 1- Pint of touch up paint for each color
- 1- Bag of assorted stainless steel nuts and bolts

Y__N__

Y__N__

ADDITIONAL ITEMS TO BE SUPPLIED BY THE NYS ACADEMY OF FIRE SCIENCE AND MOUNTED BY BIDDER IN A LOCATION TO BE DETERMINED:

Y__N__

- 2- Kocheck K46-2- or equal (two [2] spanner wrenches and double holder) in Silver/Black
- 1- Kocheck K45-3- or equal (one [1] adj. hydrant wrench and two [2] spanner wrenches with triple holder) in Silver/ Black.
- 1- Kocheck KS34- or equal (four [4] Storz spanner wrenches and holder) in Silver/ Black.
- 1 Large diameter manifold (5” storz inlet, 5”storz gated outlet, 4- 2.5” NST gated outlets) with pressure relief valve.
- Two (2) Zico (or equal) folding wheel chocks shall be stored in the specified compartment on the driver’s side.

PAINT

PPG Delta, Low V.O.C., polyurethane finishing system, or equal, shall be utilized. A "Clear Coat" paint finish shall be supplied to provide greater protection to the quality of the exterior paint finish.

Y__N__

All removable items, such as brackets, compartment doors, etc. shall be painted separately to insure finish paint behind mounted items. All compartment unwelded seams exposed to high moisture environments shall be sealed using permanent pliable caulking prior to finish paint.

Y__N__

The inside and underside of the complete body assembly shall be painted job color prior to installation of the body on the chassis.

Y__N__

The interior of the compartments shall be brushed finished aluminum for ease of maintenance.

Y__N__

The pump enclosure and pump/plumbing within the pump enclosure shall be painted job color to match the primary color of the body.

Y__N__

BID PROPOSAL

Company _____

CAB FINISH PAINT

The cab exterior shall be painted with PPG Delta system (or equal) to match purchaser's furnished paint codes.

Y__N__

CAB INTERIOR PAINT

The interior metal surfaces of the cab shall be finish painted with a textured gray paint.

Y__N__

WHEEL PAINT

The chassis wheels, shall be painted job color on all sides, no factory white or gray paint shall be acceptable.

Y__N__

EXTERIOR PAINT

The paint shall be red and approved by the NYS Academy of Fire Science.

Y__N__

TOUCH-UP PAINT

One (1) pint of exterior color paint for touch-up purposes shall be supplied when the apparatus is delivered to the end user.

Y__N__

RUST PROOFING

The entire unit shall be thoroughly rust proofed utilizing rustproof and sound deadening materials applied in manufacturer recommended application procedures. Rust proofing shall be applied during the assembly process and upon completion to insure proper coverage in all critical areas.

Y__N__

LETTERING AND STRIPING

The lettering and striping shall be custom designed utilizing state of the art computer software and computerized cutting machines.

Y__N__

FRONT CAB DOOR LETTERING- Layout to be approved by the NYS Academy of Fire Science:

“New York State Fire Academy”

OFPC Decal goes between lines

“Engine 3”

Lettering provided on the crew cab doors shall be 3" high.

Y__N__

LETTERING ABOVE WINDSHIELD

“New York State Fire Academy”

Lettering provided above the windshield shall be 3" high.

Y__N__

LETTERING FONT

The lettering shall be designed and cut with a font to match existing Academy apparatus.

Y__N__

BID PROPOSAL

Company _____

NFPA REQUIRED REFLECTIVE STRIPING

A four (4) inch high "Scotch-Lite" (or equal); stripe shall be provided. The stripe shall be applied on each side of the apparatus. The reflective stripe shall be **white** in color.

Y__N__

If not Scotch-Lite: _____ Make

REFLECTIVE CHEVRON STRIPING

The rear panel of the truck as well as the face of the front bumper shall be covered with alternating strips of reflective striping in the form of a chevron. The striping shall be **red** and **yellow** in color.

Y__N__

BASIC MINIMUM WARRANTY PROVISIONS

The manufacturer shall warrant the entire apparatus proposed, manufactured and/or assembled by them, to be free against defects in material and workmanship provided the apparatus is used in a normal and reasonable manner. The warranty shall be to the State of New York for a period of two (2) years from the date of receipt of the apparatus by the State. The warranty shall cover the cost of parts and labor for this period of time. Parts replaced or repaired under warranty shall be warranted an additional two (2) years. The bidder shall submit with proposal a complete description of the warranty(s) to be furnished.

Y__N__

The stainless steel body shall be warranted from structural defects including but not limited to rust, corrosion and evidence of stress or cracks resulting from stress for a period of twenty (20) years from the date of manufacturer, as designated on the manufacturer's certification plate attached thereto.

Y__N__

The booster tank shall be warranted for the entire time that the apparatus is owned by the State of New York.

Y__N__

Within seventy two hours after the receipt of a verbal or written notification by the State of New York designee that warranty service is required, the successful bidder shall respond verbally, and immediately follow up by letter to the State of New York with a statement of intent to show where and when the warranty service shall be accomplished. In the event that there is no response or if the response exceed 72 hours, or if the response that is received is in time but is not acceptable, the State of New York will provide for the required warranty service, and the total costs of all labor, parts, components materials, and freight shall be reimbursed to the State of New York by the successful bidder within forty five (45) calendar days after the bill has been mailed to the bidder. The warranty portion of the Performance Bond shall also be guaranteed by the surety company, which shall be responsible to fully reimburse the State of New York within forty-five (45) calendar days in the event the successful Bidder defaults under the terms of this warranty.

Y__N__

The manufacturer will be responsible for the safe transportation of the apparatus if the closest service facility is located more than 100 road miles from the NYS Fire Academy in Montour Falls, NY.

Y__N__

BID PROPOSAL

Company _____

SUPPLEMENTAL EXTENDED WARRANTIES

The exterior paint and finish on the complete unit shall be warranted against blistering, peeling, cracking or bubbling due to defects in manufacturing or improper preparation for a period of ten (10) years.

Y__N__

The frame of the apparatus shall be warranted for the entire time that the apparatus is owned by the State of New York.

Y__N__

SINGLE SOURCE WARRANTY COORDINATION

In order to protect the State of New York from divided warranty responsibilities, proposals will only be accepted from manufacturers who warrant the apparatus bumper to bumper. While all fire apparatus have individual component warranties, the Manufacturer shall act as the sole source warranty coordinator on the entire vehicle, including, for example, the cab shell, chassis assembly, engine, pump, tank and complete body structure. **There are no exceptions to this requirement!**

Y__N__

PRODUCT LIABILITY INSURANCE

Manufacturer shall defend any and all lawsuits resulting from use of the apparatus.

Y__N__

BID BONDS

All bidders shall provide a bid bond as security for the bid in the form of a 10% bid bond, to accompany their bid made payable to **NYS Division of Homeland Security and Emergency Services, Office of Fire Prevention & Control, 1220 Washington Avenue, State Campus Bldg 7A, Albany, New York 12242**. This bid bond shall be issued by a Surety Company who is listed on the U.S. Treasury Department’s list of acceptable sureties as published in Department Circular 570. The bid bond shall be issued by an authorized representative of the Surety Company and shall be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond shall include language which assures that the bidder/principal shall give a bond or bonds, as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract.

Y__N__

PERFORMANCE AND PAYMENT BONDS

The successful bidder shall provide, within 30 days of award of the contract, and along with a signed copy of the contract, a performance bond payable to **NYS Division of Homeland Security and Emergency Services, Office of Fire Prevention & Control, 1220 Washington Avenue, State Campus Bldg 7A, Albany, New York 12242**, which guarantees performance of all terms and conditions of the contract and warranty agreement. The performance bond will specifically cover the performance of the contract according to its terms and conditions, as well as payment of all related bills and encumbrances. This performance bond shall be issued by a surety company who is listed by the U.S. Treasury Department’s list of approved sureties, as published in Circular 570, as of the bid date. The performance bond shall be issued in an amount equal to 100% of the contract amount and shall be dated concurrent to, or subsequent to, the date of the contract.

Y__N__

BID PROPOSAL

Company _____

BIDDER CHECKLIST:

- | | |
|-------------------------------------------------------------------------------------------------------------|--------------|
| 1. The apparatus offered is manufactured in The United States: | YES___ NO___ |
| 2. The apparatus proposed is not a prototype: | YES___ NO___ |
| 3. The performance tests shall be performed in compliance with the specifications: | YES___ NO___ |
| 4. All pages of the General Instructions, Requirements, and specifications have been received and reviewed: | YES___ NO___ |
| 5. All questionnaires and blanks have been completed and filled in: | YES___ NO___ |
| 6. Bidder complies with Specifications without Exception: | YES___ NO___ |
| 7. Bidder complies with Design Criteria: | YES___ NO___ |
| 8. Is a separate sheet of exceptions/deviations attached: | YES___ NO___ |
| 9. Bidder has included Apparatus Drawings per Specifications: | YES___ NO___ |
| 10. Apparatus proposed complies with dimensional requirements: | YES___ NO___ |
| 11. Does the Manufacturer provide a program for the training of OFPC staff: | YES___ NO___ |
| 12. Does the manufacturer meet the product liability insurance requirement: | YES___ NO___ |
| 13. Are all specified warranties included: | YES___ NO___ |
| 14. Are all proposed warranties in compliance with specifications: | YES___ NO___ |
| 15. Paint covered by a _____ year warranty: | YES___ NO___ |
| 16. Body and sub frame covered by a _____ year structural warranty: | YES___ NO___ |
| 17. Cab covered by a _____ year structural warranty: | YES___ NO___ |
| 18. Chassis frame rails covered by a _____ year warranty: | YES___ NO___ |
| 19. Are the proposed apparatus and equipment new in all respects: | YES___ NO___ |
| 20. Is a complete copy of the bidders' detailed proposal included: | YES___ NO___ |
| 21. Authorized Service Center located within 100 miles of Montour Falls, NY: | YES___ NO___ |
| 22. Dimensions of the proposed apparatus are stated below: | YES___ NO___ |
| • Overall Height: _____ | |
| • Overall Length: _____ | |
| • Overall Width: _____ | |
| 23. Bid Bond is enclosed | YES___ NO___ |
| 24. Is manufacturer a sole source manufacturer, including entire chassis, cab, body: | YES___ NO___ |
| 25. Guaranteed delivery timeframe is included on 1 st page of Bid Proposal Form: | YES___ NO___ |

BID PROPOSAL

All Bids must be signed by a person authorized to commit the Bidder to the terms of the Bid Documents and the content of the Bid (offer). Electronically-signed documents are not acceptable.

By signing you certify your full knowledge and acceptance of this INVITATION FOR BIDS, Appendix A (Standard Clauses For New York State Contracts), and State Finance Law §139-d, §139-j and §139-k (Procurement Lobbying), and that all information provided is complete, true and accurate.

Legal Business Name of Company Bidding:	
D/B/A - Doing Business As (if applicable):	
Street	City State Zip County
NYS Vendor Identification Number (see NYS vendor file registration clause): _____	
Federal Tax Identification Number (do not use social security number): _____	
If applicable, place an "x" next to each that apply: _____ Small Business _____ Minority-owned Business Enterprise (MBE) _____ Woman-owned Business Enterprise (WBE)	Vendor Responsibility Questionnaire Filed Online: _____ Yes _____ No Product manufactured in New York State _____ Yes _____ No
Phone # :	Email Address:
Fax #:	Email Address receiving Purchase Order:
Company Web Site Address:	
Bidder's Signature:	Printed or Typed Name:
Date:	Title:

ATTACHMENT 2

REQUIRED FORMS / CERTIFICATIONS

(Blank forms are enclosed unless otherwise noted)

(Please submit all documents with your bid)

- MANUFACTURERS CERTIFICATE**
- LOBBY LAW DISCLOSURE / CERTIFICATION**
- ST-220-CA TAX DEPT-- AGENCY CERTIFICATION ****
(ST-220-TD form can be mailed directly to Tax Dept.)
- NEW YORK STATE REQUIRED CERTIFICATIONS**
(MacBride Fair Principles, Non-Collusive Bidding, Diesel Emissions)
- NEW YORK STATE BUSINESS USE FORM**
- INSURANCE DOCUMENTS ****
(Liability, Workers Comp, and Disability Insurance Proof)
(see clause 5.3 for acceptable form numbers)
- EQUAL EMPLOYMENT OPPORTUNITY STAFFING PLAN (5.5)**
<http://www.ogs.ny.gov/MWBE/Forms.asp> (Form-EEO-100)
- VENDOR RESPONSIBILITY QUESTIONNAIRE (clause 5.13)**
<https://portal.osc.state.ny.us> --- Online Version--Vendrep System

**** NOTE: Entity listed on insurance forms and tax forms:**

NYS Div of Homeland Security & Emergency Services
1220 Washington Ave
State Campus Bldg 7A
Albany, NY 12242

ATTACHMENT 3

ADDITIONAL DOCUMENTS / INFO REQUIRED

(Please submit all with your bid)

- Bidder shall state the size of their Service Center shop and office area in square feet. State the location of the facility and provide photos of both the exterior and interior of the center (page 12).
- Bidder shall clearly state their commitment to a delivery schedule that is firm. (page 12)
- Current "User's List" with a minimum of ten (10) units that are within 250 miles of the NYS Academy of Fire Science (page 12)
- A weight distribution of the fully loaded, completed vehicle (page 15)
- The manufacturer submit the weight analysis and offer the appropriate axles (page 15)
- A scale drawing of the actual apparatus being proposed (page 15)
- A dash and switch panel layout (page 18)
- Outline in very finite detail, the exact methods in which they build the body assembly (page 40).
- Compartment and Dimensional Data: Outline the dimensional data supplied in an engineering diagram (page 40)
- Complete description of the warranties to be furnished (page 48)
- Bid Bond (page 49)

MANUFACTURER'S CERTIFICATE

NOTE TO BIDDERS:

This "Manufacturer's Certificate" is to be removed, and forwarded to the manufacturer by the bidder, completed and returned to the bidder by the manufacturer, and submitted with the bidder's offer.

BIDDER'S COMPANY NAME: _____

ADDRESS: _____

The manufacturer executing this certificate by signature below does hereby attest to the accuracy and validity of the responses to the following questions:

- 1. Is the bidder listed above an authorized dealer? _____ Yes _____ No
- 2. Do you as a manufacturer agree to supply the bidder / dealer with the product (s) ordered pursuant to any resulting contract with the State? _____ Yes _____ No

MANUFACTURER'S COMPANY NAME: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

E-MAIL ADDRESS: _____

PRINTED OR TYPED NAME OF REPRESENTATIVE	TITLE
-----------------------------------------	-------

SIGNATURE OF AUTHORIZED MANUFACTURER'S REPRESENTATIVE	DATE
----------------------------------------------------------	------

* * * * *

Offerer's Affirmation of Understanding of and Agreement pursuant to New York State Finance Law §139-j (3) and §139-j (6) (b)

New York State Finance Law §139-j(6)(b) provides that:

Every Governmental Entity shall seek written affirmations from all Offerers as to the Offerer's understanding of and agreement to comply with the Governmental Entity's procedures relating to permissible contacts during a Governmental Procurement pursuant to subdivision three of this section.

Offerer affirms that it understands and agrees to comply with the procedures of the Government Entity relative to permissible contacts as required by New York State Finance Law §139-j (3) and §139-j (6) (b).

By: _____ Date: _____
SIGNATURE

Name: _____

Title: _____

Contractor Name: _____

Contractor Address: _____

Offerer Disclosure of Prior Non-Responsibility Determinations

Background:

New York State Finance Law §139-k(2) obligates a Governmental Entity to obtain specific information regarding prior non-responsibility determinations with respect to State Finance Law §139-j. This information must be collected in addition to the information that is separately obtained pursuant to State Finance Law §163(9). In accordance with State Finance Law §139-k, an Offerer must be asked to disclose whether there has been a finding of non-responsibility made within the previous four (4) years by any Governmental Entity due to: (a) a violation of State Finance Law §139-j or (b) the intentional provision of false or incomplete information to a Governmental Entity. The terms "Offerer" and "Governmental Entity" are defined in State Finance Law § 139-k(1). State Finance Law §139-j sets forth detailed requirements about the restrictions on Contacts during the procurement process. A violation of State Finance Law §139-j includes, but is not limited to, an impermissible Contact during the restricted period (for example, contacting a person or entity other than the designated contact person, when such contact does not fall within one of the exemptions).

As part of its responsibility determination, State Finance Law §139-k(3) mandates consideration of whether an Offerer fails to timely disclose accurate or complete information regarding the above non-responsibility determination. In accordance with law, no Procurement Contract shall be awarded to any Offerer that fails to timely disclose accurate or complete information under this section, unless a finding is made that the award of the Procurement Contract to the Offerer is necessary to protect public property or public health safety, and that the Offerer is the only source capable of supplying the required Article of Procurement within the necessary timeframe. See State Finance Law §§139-j (10)(b) and 139-k(3).

Instructions:

A Governmental Entity must include a disclosure request regarding prior non-responsibility determinations in accordance with State Finance Law §139-k in its solicitation of proposals or bid documents or specifications or contract documents, as applicable, for procurement contracts. The attached form is to be completed and submitted by the individual or entity seeking to enter into a Procurement Contract. It shall be submitted to the Governmental Entity conducting the Governmental Procurement.

Offerer Disclosure of Prior Non-Responsibility Determinations

Name of Individual or Entity Seeking to Enter into the Procurement Contract:

Address: _____

Name and Title of Person Submitting this Form: _____

Contract Procurement Number: _____

Date: _____

1. Has any Governmental Entity made a finding of non-responsibility regarding the individual or entity seeking to enter into the Procurement Contract in the previous four years? (Please circle):

No ___ Yes ___

If yes, please answer the next questions:

2. Was the basis for the finding of non-responsibility due to a violation of State Finance Law §139-j (Please circle):

No ___ Yes ___

3. Was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a Governmental Entity? (Please circle):

No ___ Yes ___

4. If you answered yes to any of the above questions, please provide details regarding the finding of non-responsibility below.

Governmental Entity: _____

Date of Finding of Non-responsibility: _____

Basis of Finding of Non-Responsibility: _____

(Add additional pages as necessary)

5. Has any Governmental Entity or other governmental agency terminated or withheld a Procurement Contract with the above-named individual or entity due to the intentional provision of false or incomplete information? (Please circle):

No ___ Yes ___

6. If yes, please provide details below.

Governmental Entity: _____

Date of Termination or Withholding of Contract: _____

Basis of Termination or Withholding: _____

(Add additional pages as necessary)

Offerer certifies that all information provided to the Governmental Entity with respect to State Finance Law §139-k is complete, true and accurate.

By: _____ Date: _____
 SIGNATURE

**Offerer's Certification of Compliance
with State Finance Law §139-k(5)**

New York State Finance Law §139-k(5) requires that every Procurement Contract award subject to the provisions of State Finance Law §§139-k or 139-j shall contain a certification by the Offerer that all information provided to the Office of General Services with respect to State Finance Law §139-k is complete, true and accurate.

Offerer Certification:

I certify that all information provided to the Office of General Services with respect to State Finance Law §139-k is complete, true and accurate.

By: _____ Date: _____
SIGNATURE

Name: _____

Title: _____

Contractor Name: _____

Contractor Address: _____

Procurement Lobbying Termination

The Office of General Services reserves the right to terminate this contract in the event it is found that the certification filed by the Offerer in accordance with New York State Finance Law §139-k was intentionally false or intentionally incomplete. Upon such finding, the Office of General Services may exercise its termination right by providing written notification to the Offerer in accordance with the written notification terms of this contract.

ST-220-TD

(6/06)



New York State Department of Taxation and Finance

Contractor Certification

(Pursuant to Section 5-a of the Tax Law, as amended, effective April 26, 2006)

For information, consult Publication 223, *Question and Answers Concerning Tax Law Section 5-a* (see *Need help?* below).

Contractor name			
Contractor's principal place of business	City	State	ZIP code
Contractor's mailing address (if different than above)			
Contractor's federal employer identification number (EIN)		Contractor's sales tax ID number (if different from contractor's EIN)	Contractor's telephone number ()
Covered agency name	Contract number or description		Estimated contract value over the full term of the contract (but not including renewals) \$
Covered agency address		Covered agency telephone number	

General information

Section 5-a of the Tax Law, as amended, effective April 26, 2006, requires certain contractors awarded certain state contracts valued at more than \$100,000 to certify to the Tax Department that they are registered to collect New York State and local sales and compensating use taxes, if they made sales delivered by any means to locations within New York State of tangible personal property or taxable services having a cumulative value in excess of \$300,000, measured over a specified period. In addition, contractors must certify to the Tax Department that each affiliate and subcontractor exceeding such sales threshold during a specified period is registered to collect New York State and local sales and compensating use taxes. Contractors must also file a Form ST-220-CA, certifying to the procuring state entity that they filed Form ST-220-TD with the Tax Department and that the information contained on Form ST-220-TD is correct and complete as of the date they file Form ST-220-CA.

For more detailed information regarding this form and section 5-a of the Tax Law, see Publication 223, *Questions and Answers Concerning Tax Law Section 5-a*, (as amended, effective April 26, 2006), available at www.nystax.gov. Information is also available by calling the Tax Department's Contractor Information Center at 1 800 698-2931.

Note: Form ST-220-TD must be signed by a person authorized to make the certification on behalf of the contractor, and the acknowledgement on page 4 of this form must be completed before a notary public.

Mail completed form to:

**NYS TAX DEPARTMENT
DATA ENTRY SECTION
W A HARRIMAN CAMPUS
ALBANY NY 12227**

Privacy notification

The Commissioner of Taxation and Finance may collect and maintain personal information pursuant to the New York State Tax Law, including but not limited to, sections 5-a, 171, 171-a, 287, 308, 429, 475, 505, 697, 1096, 1142, and 1415 of that Law; and may require disclosure of social security numbers pursuant to 42 USC 405(c)(2)(C)(i).

This information will be used to determine and administer tax liabilities and, when authorized by law, for certain tax offset and exchange of tax information programs as well as for any other lawful purpose.

Information concerning quarterly wages paid to employees is provided to certain state agencies for purposes of fraud prevention, support enforcement, evaluation of the effectiveness of certain employment and training programs and other purposes authorized by law.

Failure to provide the required information may subject you to civil or criminal penalties, or both, under the Tax Law.

This information is maintained by the Director of Records Management and Data Entry, NYS Tax Department, W A Harriman Campus, Albany

Need Help?

	Internet access: www.nystax.gov (for information, forms, and publications)	
	Fax-on-demand forms:	1 800 748-3676
	Telephone assistance is available from 8:00 A.M. to 5:00 P.M. (eastern time), Monday through Friday.	1 800 698-2931
To order forms and publications:		1 800 462-8100
Sales Tax Information Center:		1 800 462-8100
From areas outside the U.S. and outside Canada:		(518) 485-6800
Hearing and speech impaired (telecommunications device for the deaf (TDD) callers only):		1 800 634-2110
	Persons with disabilities: In compliance with the Americans with Disabilities Act, we will ensure that our lobbies, offices, meeting rooms, and other facilities are accessible to persons with disabilities. If you have questions about special accommodations for persons with disabilities, please call 1 800 972-1233.	

NY 12227; telephone 1 800 225-5829. From areas outside the United States and outside Canada, call (518) 485-6800.

I, _____, hereby affirm, under penalty of perjury, that I am _____

(name)

(title)

of the above-named contractor, and that I am authorized to make this certification on behalf of such contractor.

Make only one entry in each section below.

Section 1 - Contractor registration status

- The contractor has made sales delivered by any means to locations within New York State of tangible personal property or taxable services having a cumulative value in excess of \$300,000 during the four sales tax quarters which immediately precede the sales tax quarter in which this certification is made. The contractor is registered to collect New York State and local sales and compensating use taxes with the Commissioner of Taxation and Finance pursuant to sections 1134 and 1253 of the Tax Law, and is listed on Schedule A of this certification.
- The contractor has not made sales delivered by any means to locations within New York State of tangible personal property or taxable services having a cumulative value in excess of \$300,000 during the four sales tax quarters which immediately precede the sales tax quarter in which this certification is made.

Section 2 - Affiliate registration status

- The contractor does not have any affiliates.
- To the best of the contractor's knowledge, the contractor has one or more affiliates having made sales delivered by any means to locations within New York State of tangible personal property or taxable services having a cumulative value in excess of \$300,000 during the four sales tax quarters which immediately precede the sales tax quarter in which this certification is made, and each affiliate exceeding the \$300,000 cumulative sales threshold during such quarters is registered to collect New York State and local sales and compensating use taxes with the Commissioner of Taxation and Finance pursuant to sections 1134 and 1253 of the Tax Law. The contractor has listed each affiliate exceeding the \$300,000 cumulative sales threshold during such quarters on Schedule A of this certification.
- To the best of the contractor's knowledge, the contractor has one or more affiliates, and each affiliate has not made sales delivered by any means to locations within New York State of tangible personal property or taxable services having a cumulative value in excess of \$300,000 during the four sales tax quarters which immediately precede the sales tax quarter in which this certification is made.

Section 3 - Subcontractor registration status

- The contractor does not have any subcontractors.
- To the best of the contractor's knowledge, the contractor has one or more subcontractors having made sales delivered by any means to locations within New York State of tangible personal property or taxable services having a cumulative value in excess of \$300,000 during the four sales tax quarters which immediately precede the sales tax quarter in which this certification is made, and each subcontractor exceeding the \$300,000 cumulative sales threshold during such quarters is registered to collect New York State and local sales and compensating use taxes with the Commissioner of Taxation and Finance pursuant to sections 1134 and 1253 of the Tax Law. The contractor has listed each subcontractor exceeding the \$300,000 cumulative sales threshold during such quarters on Schedule A of this certification.
- To the best of the contractor's knowledge, the contractor has one or more subcontractors, and each subcontractor has not made sales delivered by any means to locations within New York State of tangible personal property or taxable services having a cumulative value in excess of \$300,000 during the four sales tax quarters which immediately precede the sales tax quarter in which this certification is made.

Sworn to this _____ day of _____, 20 _____

(sign before a notary public)

(title)

ST-220-CA

(6/06)



New York State Department of Taxation and Finance

Contractor Certification to Covered Agency

(Pursuant to Section 5-a of the Tax Law, as amended, effective April 26, 2006)

For information, consult Publication 223, *Question and Answers Concerning Tax Law Section 5-a* (see *Need Help? on back*).

Contractor name		For covered agency use only Contract number or description
Contractor's principal place of business	City State ZIP code	
Contractor's mailing address (if different than above)		Estimated contract value over the full term of contract (but not including renewals)
Contractor's federal employer identification number (EIN)	Contractor's sales tax ID number (if different from contractor's EIN)	
Contractor's telephone number ()	Covered agency name	\$
Covered agency address		Covered agency telephone number

I, _____, hereby affirm, under penalty of perjury, that I am

_____ (name)

_____ (title)

of the above-named contractor, that I am authorized to make this certification on behalf of such contractor, and I further certify that:

(Mark an X in only one box)

- The contractor has filed Form ST-220-TD with the Department of Taxation and Finance in connection with this contract and, to the best of contractor's knowledge, the information provided on the Form ST-220-TD, is correct and complete.
- The contractor has previously filed Form ST-220-TD with the Tax Department in connection with _____ (insert contract number or description) and, to the best of the contractor's knowledge, the information provided on that previously filed Form T-220-TD, is correct and complete as of the current date, and thus the contractor is not required to file a new Form ST-220-TD at this time.

Sworn to this _____ day of _____, 20 ____

_____ (sign before a notary public)

_____ (title)

Instructions

General Information

Tax Law section 5-a was amended, effective April 26, 2006. On or after that date, in all cases where a contract is subject to Tax Law section 5-a, a contractor must file (1) Form ST-220-CA, *Contractor Certification to Covered Agency*, with a covered agency, and (2) Form ST-220-TD with the Tax Department before a contract may take effect. The circumstances when a contract is subject to section 5-a are listed in Publication 223, Q&A 3. This publication is available on our Web site, by fax, or by mail. (See *Need help?* for more information on how to obtain this publication.) In addition, a contractor must file a new Form ST-220-CA with a covered agency before an existing contract with such agency may be renewed.

If you have questions, please call our information center at 1 800 698-2931.

Furthermore, the procuring entity must have begun the solicitation to purchase on or after January 1, 2005, and the resulting contract must have been awarded, amended, extended, renewed, or assigned on or after April 26, 2006 (the effective date of the section 5-a amendments).

Note: Form ST-220-CA must be signed by a person authorized to make the certification on behalf of the contractor, and the acknowledgement on page 2 of this form must be completed before a notary public.

When to complete this form

As set forth in Publication 223, a contract is subject to section 5-a, and you must make the required certification(s), if:

- i. The procuring entity is a *covered agency* within the meaning of the statute (see Publication 223, Q&A 5);
- ii. The contractor is a *contractor* within the meaning of the statute (see Publication 223, Q&A 6); and
- iii. The contract is a *contract* within the meaning of the statute. This is the case when it (a) has a value in excess of \$100,000 and (b) is a contract for *commodities* or *services*, as such terms are defined for purposes of the statute (see Publication 223, Q&A 8 and 9).

Individual, Corporation, Partnership, or LLC Acknowledgment

STATE OF }
COUNTY OF }
: SS.:

On the day ____ of ____ in the year 20 __, before me personally appeared _____
known to me to be the person who executed the foregoing instrument, who, being duly sworn by me did depose and say that

_he resides at _____ ,

Town of _____ ,County of _____ ,

State of _____ ; and further that:

[Mark an X in the appropriate box and complete the accompanying statement.]

- (If an individual): _he executed the foregoing instrument in his/her name and on his/her own behalf.
(If a corporation): _he is the _____ of _____
the _____ , the corporation described in said instrument; that, by authority of the Board of Directors of said corporation, _he is
authorized to execute the foregoing instrument on behalf of the corporation for purposes set forth therein; and that,
pursuant to that authority, _he executed the foregoing instrument in the name of and on behalf of said corporation as the
act and deed of said corporation.
(If a partnership): _he is the _____ of _____
the _____ , the partnership described in said instrument; that, by the terms of said partnership, _he is authorized to execute
the foregoing instrument on behalf of the partnership for purposes set forth therein; and that, pursuant to that authority,
_he executed the foregoing instrument in the name of and on behalf of said partnership as the act and deed of said
partnership.
(If a limited liability company): _he is a duly authorized member of _____ LLC,
the limited liability company described in said instrument; that _he is authorized to execute the foregoing instrument on
behalf of the limited liability company for purposes set forth therein; and that, pursuant to that authority, _he executed
the foregoing instrument in the name of and on behalf of said limited liability company as the act and deed of said limited
liability company.

Registration No. _____

Notary Public

Privacy notification

The Commissioner of Taxation and Finance may collect and maintain personal information pursuant to the New York State Tax Law, including but not limited to, sections 5-a, 171, 171-a, 287, 308, 429, 475, 505, 697, 1096, 1142, and 1415 of that Law; and may require disclosure of social security numbers pursuant to 42 USC 405(c)(2)(C)(i).

This information will be used to determine and administer tax liabilities and, when authorized by law, for certain tax offset and exchange of tax information programs as well as for any other lawful purpose.

Information concerning quarterly wages paid to employees is provided to certain state agencies for purposes of fraud prevention, support enforcement, evaluation of the effectiveness of certain employment and training programs and other purposes authorized by law.

Failure to provide the required information may subject you to civil or criminal penalties, or both, under the Tax Law.

This information is maintained by the Director of Records Management and Data Entry, NYS Tax Department, W A Harriman Campus, Albany NY 12227; telephone 1 800 225-5829. From areas outside the United States and outside Canada, call (518) 485-6800.

Need Help?
Internet access: www.nystax.gov
Fax-on-demand forms: 1 800 748-3676
Telephone assistance is available from 8:00 A.M. to 5:00 P.M. (eastern time), Monday through Friday. 1 800 698-2931
To order forms and publications: 1 800 462-8100
From areas outside the U.S. and outside Canada: (518) 485-6800
Hearing and speech impaired (telecommunications device for the deaf (TDD) callers only): 1 800 634-2110
Persons with disabilities: In compliance with the Americans with Disabilities Act, we will ensure that our lobbies, offices, meeting rooms, and other facilities are accessible to persons with disabilities. If you have questions about special accommodations for persons with disabilities, please call 1 800 972-1233.

NYS Required Certifications

NONDISCRIMINATION IN EMPLOYMENT IN NORTHERN IRELAND MACBRIDE FAIR EMPLOYMENT PRINCIPLES

In accordance with Section 165 of the State Finance Law, the bidder, by submission of this bid, certifies that it or any individual or legal entity in which the bidder holds a 10% or greater ownership interest, or any individual or legal entity that holds a 10% or greater ownership interest in the bidder, either (answer yes or no to one or both of the following, as applicable):

1. have business operations in Northern Ireland No Yes , and if yes:

2. shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles relating to nondiscrimination in employment and freedom of workplace opportunity regarding such operations in Northern Ireland, and shall permit independent monitoring of compliance with such principles.

NON-COLLUSIVE BIDDING CERTIFICATION

In accordance with Section 139-d of the State Finance Law, by submitting its bid each bidder and each person signing on behalf of any other bidder certifies, and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of his or her knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose 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.
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.

In the event that the Bidder is unable to certify as stated above, the Bidder shall provide a signed statement which sets forth in detail the reasons why the Bidder is unable to furnish the certificate as required in accordance with State Finance law §139-d(1)(b).

DIESEL EMISSION REDUCTION ACT

Pursuant to N.Y. Environmental Conservation Law §19-0323 of the (“the Law”) it is a requirement that heavy duty diesel vehicles in excess of 8,500 pounds use the best available retrofit technology (“BART”) and ultra-low sulfur diesel fuel (“ULSD”). The requirement of the Law applies to all vehicles owned, operated by or on behalf of, or leased by State agencies and State or regional public authorities. It also requires that such vehicles owned, operated by or on behalf of, or leased by State agencies and State or regional public authorities with more than half of its governing body appointed by the Governor utilize BART.

The Law may be applicable to vehicles used by contract vendors “on behalf of” State agencies and public authorities and require certain reports from contract vendors. All heavy duty diesel vehicles must have BART by December 31, 2015 (unless further extended by Law). The Law also provides a list of exempted vehicles. Regulations set forth in 6 NYCRR Parts 248 and 249 provide further guidance. The Bidder hereby certifies and warrants that all heavy duty vehicles, as defined in NYECL §19-0323, to be used under this contract, will comply with the specifications and provisions of NYECL §19-0323, and 6 NYCRR Parts 248 and 249.

By signing you certify your express authority to sign on behalf of yourself, your company, or other entity and full knowledge and acceptance of this Attachment and that all information provided is complete, true and accurate.

Legal Business Name of Company Bidding:	
D/B/A - Doing Business As (if applicable):	
Bidder’s Signature:	Printed or Typed Name:
Title:	Date:

Category: Safety & Security--Group: 40501

**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:

Will New York State Businesses be used in the performance of this contract? Yes No

If yes, identify New York State Businesses that will be used; (Attach identifying information or list below):

<u>Business Name</u>	<u>City</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

APPENDIX A

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

**PLEASE RETAIN THIS DOCUMENT
FOR FUTURE REFERENCE.**

TABLE OF CONTENTS

	Page
1. Executory Clause	3
2. Non-Assignment Clause	3
3. Comptroller's Approval	3
4. Workers' Compensation Benefits	3
5. Non-Discrimination Requirements	3
6. Wage and Hours Provisions	3
7. Non-Collusive Bidding Certification	4
8. International Boycott Prohibition	4
9. Set-Off Rights	4
10. Records	4
11. Identifying Information and Privacy Notification	4
12. Equal Employment Opportunities For Minorities and Women	4-5
13. Conflicting Terms	5
14. Governing Law	5
15. Late Payment	5
16. No Arbitration	5
17. Service of Process	5
18. Prohibition on Purchase of Tropical Hardwoods	5-6
19. MacBride Fair Employment Principles	6
20. Omnibus Procurement Act of 1992	6
21. Reciprocity and Sanctions Provisions	6
22. Compliance with New York State Information Security Breach and Notification Act	6
23. Compliance with Consultant Disclosure Law	6
24. Procurement Lobbying	7
25. Certification of Registration to Collect Sales and Compensating Use Tax by Certain State Contractors, Affiliates and Subcontractors	7
26. Iran Divestment Act	7

STANDARD CLAUSES FOR NYS 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, licenser, 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 anyone 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 moneys 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 §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
email: 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
email: mwb certification@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 §165-a that it is not on the "Entities Determined to be Non-Responsive Bidders/Offerors 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 §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.