

City Use Only	City Use Only	City Use Only
City Vendor No.	Vendor Name	City Contract/PO No.



Fire Apparatuses

Specification Number: 410835

Issued by:

CITY OF CHICAGO DEPARTMENT OF PROCUREMENT SERVICES

Required for use by:

CITY OF CHICAGO DEPARTMENT OF FLEET AND FACILITY MANAGEMENT

Bidder Inquiry Deadline: March 28, 2018 4:00 p.m. Central Time, Inquiries must be in writing.

Pre-Bid Conference: March 23, 2018 at 2:00 p.m. Central Time

Bid Opening Date: April 30, 2018

Bid Opening Time: 11:00 a, m, Central Time

Bid Opening Location: Bid & Bond Room, City Hall, Room 103, 121 N. LaSalle Street, Chicago, Illinois 60602

Information: William L. Dotson, Procurement Specialist

Email: william.dotson@cityofchicago.org, **Fax:** 312-744-0010, **Phone:** 312-744-4924

DPS Address: City Hall, Room 806, 121 North LaSalle Street, Chicago, Illinois 60602

DPS Web: www.cityofchicago.org/procurement and www.cityofchicago.org/bids

Execute and submit one (1) complete original bid package. All signatures to be sworn to before a Notary Public. Bid must be received in the City of Chicago Department of Procurement Services (DPS) Bid & Bond Room no later than the date and time above during regular business hours (8:30 AM to 4:30 PM Central Time). Bids will be read publicly. Bid package must be complete and returned in its entirety. Do not scan or recreate the bid package, the original must be used.

Bid must be submitted in sealed envelope(s) or package(s). The outside of the envelope or package must clearly indicate the name of the project, **Fire Apparatuses**, the specification number, **410835**, the time and date specified for receipt and marked "**Bid Enclosed**". The name, address and phone number of the Bidder must also be clearly printed on the outside of all envelope(s) or package(s).

Bid Deposit:	None	DPS Unit:	Vehicles & Equipment
Performance Bond:	None	Reverse Auction:	No
Veteran-Owned Small Local Business and Eligible Joint Ventures Preference	Yes	Drawings:	None
City Business Preference	Yes	Exhibits:	One (1)
Local Manufacture Preference	Yes	Maps:	None
Mentoring Preference	Yes	Contract Term:	Sixty (60) Months
Alternative Fuel Vehicle Preference	Yes	Start Date:	_____
BEPD Incentive	Yes	Expiration Date:	_____
Funding Source:	Non-Federal	Bid Specific Goals:	0% MBE and 0% WBE
Fund Number:	01-013-0C42-0382005-5416-220450-0000- 54016111 and Various		

Rahm I. Emanuel
Mayor

Jamie L. Rhee
Chief Procurement Officer



DEPARTMENT OF PROCUREMENT SERVICES

CITY OF CHICAGO

Dear Vendor:

Under the leadership of Mayor Rahm Emanuel, the City continues to identify ways contractors can be good corporate citizens, enhance the City's business community, and improve small businesses' chances of being successful City contractors. The City has several bid incentives and programs designed to benefit local businesses, small businesses and utilization thereof, and reward corporate responsibility and community awareness, including bid incentives for apprentice utilization, city-based businesses, city-based manufacturers, project-area subcontractors, veteran/small business joint ventures, and the use of alternatively powered vehicles, as well as the diversity credit program. Information about all of the City's programs and incentives can be found at www.cityofchicago.org/city/en/depts/dps/provdrs/comp.html.

One program that you may not be aware of is the City's Mentor-Protégé Program ("Program"). Under this Program, a prime contractor mentor is eligible to receive (1) a 1% bid incentive; and (2) an additional 0.5 percent participation credit for every one percent of the value of the contract performed by a subcontractor MBE/WBE protégé (in addition, instead of being mentored by the prime, can be mentored by a first-tier subcontractor), up to a maximum of five additional percentage points of utilization credit. The mentor and protégé must enter into a formal, written agreement that must be approved by the Chief Procurement Officer and that describes how the mentor-protégé relationship will develop the capacity of the MBE/WBE protégé firm to become self-sufficient, competitive, and profitable.

The Mentor-Protégé Program thus embodies two of the City's most important goals: fostering economic development through the growth of small businesses, and connecting our communities to one another through lasting relationships that may not otherwise have formed. We encourage you to make connections at pre-bids and other networking events, contact the assist agencies¹ for vendors specializing in the area of work you are looking to subcontract, and search our MBE/WBE directory online, with the hope that you will take advantage of this Program.

Please also review the following additional reminders about bidding, contracting, and compliance.

Please read Instructions for Bidders, Requests for Proposals and Requests for Qualifications carefully. We understand that government solicitations for bids, proposals and qualifications contain a lot of information and may have mandatory forms to complete. However, errors and omissions in your bids, proposals and qualifications cost both you and the City time and money, since non-responsive bids must be rejected. Rejected bids may result in your firm not getting the contract and increase the cost of work to the City.

If you have a question, ask us. The telephone number and e-mail address of the individual from DPS who is responsible for each solicitation is stated on the cover page of that solicitation. Call or write us – we are here to assist you. However, please keep in mind that in regards to bid solicitations, we must communicate answers to anything but the most general questions to all firms in the vendor pool. This is usually done via an addendum.

The City remains committed to the development and utilization of small, minority, women and disadvantaged owned businesses. In each bid solicitation, you receive a list of the City's registered assist

¹ For a list of assist agencies, visit www.cityofchicago.org/content/dam/city/depts/dps/ContractAdministration/Forms/AssistAgenciesJune2016.pdf.

agencies. As you plan for meeting your MBE/WBE goals, remember to contact the assist agencies. They have members holding certification in a variety of disciplines. Please utilize them whenever you have contracting needs. In fact, contacting these agencies *well in advance of the bid opening date* is a requirement for demonstrating good faith efforts to obtain MBE/WBE participation if you request a reduction or waiver of goals.

All subcontractors must be approved by the Chief Procurement Officer. A contractor may not make any substitution for a previously approved subcontractor unless the substitution is acceptable to the Chief Procurement Officer. All requests to substitute subcontractors must be submitted on the appropriate form.

You must pay all subcontractors and suppliers within seven days of your receiving payment for that portion of the work from the City. Failure to pay your subcontractors within the seven-day time period may subject you to fines or other penalties.

Vendors are required to report payments to all subcontractors and suppliers in C2. The City's Certification and Compliance Management system, C2, allows prime contractors to report M/W/DBE utilization quickly and efficiently through a web-based format while simultaneously allowing subcontractors the ability to confirm payment activity.

EDSs must be kept up to date. Vendors are required to fill out an Economic Disclosure Statement ("EDS") prior to award of a contract. Until final completion of the project, you must provide, without need for request by the City, an updated EDS if there is any change in ownership or change in any other circumstance that would render the EDS then currently on file inaccurate or obsolete. Failure to provide an updated EDS when required is an event of default.

Persons who lobby City government are required to register as a lobbyist with the Board of Ethics and submit activity reports every quarter. For more information regarding this requirement, please contact the City of Chicago Board of Ethics. Information about the Board may be found at www.cityofchicago.org/ethics.

Check the Debarred Vendor List. Prior to submitting a bid, or for existing contracts, a request for approval of subcontractors, you must check the list of debarred vendors to make sure that you are not proposing the use of a firm that is ineligible to do business with the City. The list of vendors ineligible to do business with the City may be found at www.cityofchicago.org/city/en/depts/dps/provdrs/debarred_firms_list.html.

Comply with prevailing wage and minimum wage requirements. Pursuant to the Illinois Prevailing Wage Act, (or Davis Bacon Act for federally funded contracts), contractors and subcontractors must pay laborers, workers and mechanics performing services on public works projects no less than the current "prevailing rate of wages" (hourly cash wages plus amount for fringe benefits) in the county where the work is performed and, no later than the tenth day of each calendar month, file a certified payroll for the immediately preceding month with the public body in charge of the project. Additionally, pursuant to Mayoral Executive Order 2014-1, the minimum wage* must be paid to all employees regularly performing work on City property or at a City jobsite, and all employees whose regular work entails performing a service for the City under a City contract. For more information about the prevailing wage, visit www.illinois.gov/idol/Laws-Rules/CONMED/Pages/prevailing-wage-rates.aspx. For a copy of Mayoral Executive Order 2014-1 regarding minimum wage, visit www.cityofchicago.org/content/dam/city/depts/dps/RuleRegulations/ExecutiveOrderNo2014-1.pdf.

Comply with the United States Department of Labor Occupational Safety & Health Administration ("OSHA") laws and regulations. Under the Occupational Safety and Health Act, employers are responsible for providing a safe and healthful workplace. OSHA's mission is to assure safe and healthful workplaces by setting and enforcing standards, and by providing training, outreach, education and assistance. Employers must comply with all applicable OSHA standards. Employers must also comply with the

General Duty Clause of the OSH Act, which requires employers to keep their workplace free of serious recognized hazards. For more information, visit www.osha.gov/law-regs.html.

Comply with the Multi-Project Labor Agreement ("PLA"). The City is a signatory to the PLA, which applies to all contractors and subcontractors of any tier performing construction work, including construction, demolition, rehabilitation, maintenance, and/or renovation of real property located in Chicago. See the relevant sections of the bid specification for more information.

Assistance in meeting the City's requirements for project area labor is available through the Chicago Cook Workforce Partnership. On construction projects of \$100,000 or more, at least 50% of the total hours worked must be provided by City residents, and at least 7.5% of the hours worked must be provided by residents of the project area. The City and Cook County have partnered to provide job training and collaborate with unions, among other workforce development initiatives. For more information and to request assistance with complying with Chicago residency and project area residency requirements, visit www.workforceboard.org/businesses or call (312) 603-7066.

Schedule Cs must reflect the agreement between the subcontractor and the prime contractor. A subcontractor's signature on the Schedule C means it has agreed to the scope and price of work that is described therein. We strongly caution against subcontractors signing and sending blank Schedule Cs to prime contractors.

Pay at least the applicable wage rate, and note the requirements of the paid sick leave ordinance. On December 2, 2014, the City Council of the City of Chicago passed a new chapter of the Municipal Code, 1-24, specifying a minimum wage to be paid to all workers within the City of Chicago – not just employees of City contractors – effective July 1, 2015. For work performed on City contracts, a Contractor must pay the highest of (1) prevailing wage/Davis-Bacon rate, if applicable; (2) minimum wage specified by Mayoral Executive Order 2014-1*; (3) "Living Wage" rate specified by MCC Sect. 2-92-610; (4) Chicago Minimum Wage rate specified by MCC Chapter 1-24*; or (5) the highest applicable State or Federal minimum wage. In addition, § 1-24-045, Paid Sick Leave, which was passed in 2016, requires all employers of employees performing work in the City to provide paid sick leave, **effective July 1, 2017.**

Note that there are different types of waivers of lien. A *Conditional Waiver and Release Upon Progress Payment* is used when the claimant is required to sign a waiver and release in exchange for, or in order to, induce a progress payment, and the claimant has not yet been paid. A *Conditional Waiver and Release Upon Final Payment* is used when the claimant is required to sign a waiver and release in exchange for, or in order to induce a final payment, and the claimant has not yet been paid. Remember, any outstanding balance that is owed to the claimant or retainage held should be noted in the balance section of the waiver of lien. An *Unconditional Waiver and Release Upon Progress Payment* is used when the claimant is required to sign a waiver and release in exchange for, or in order to, induce a progress payment, and the claimant asserts in the waiver that he or she has received the progress payment. An *Unconditional Waiver and Release Upon Final Payment* is used when the claimant is required to sign a waiver and release in exchange for, or in order to, induce a final payment and the claimant asserts in the waiver that he or she has received the final payment.

Please take a moment to fill out the **optional** survey that follows this letter to help us gain a better understanding of your firm. Thank you for your attention to these important matters, and we look forward to partnering with you on future City contracts.

Sincerely,



Jamie L. Rhee
Chief Procurement Officer

*For the most up-to-date wage rate information, visit www.cityofchicago.org/city/en/depts/dps/provdrs/comp.html.

PLEASE NOTE: Do not return this survey with your bid, as it is optional and does not affect the evaluation of your bid. If you choose to complete the survey, please fax it to 312-744-0010 or email it to dps.feedback@cityofchicago.org.

Vendor Name ("Vendor"): _____

Date: _____

- (1) Does Vendor have a formal tracking and reporting system of energy/utility/waste/water usage to identify trends and unusual fluctuations and usage?

- (2) Does Vendor have an awareness program for energy conservation that includes regular communication to employees about avoiding wasteful practices and encourages turning off lights and other devices when not in use?

If so, are reminder signs posted in appropriate locations? _____

- (3) Has a policy or practice been adopted to avoid or prohibit the use of high energy-consuming outdoor advertising (such as LED billboards)?

- (4) Are employees instructed to shut down personal computers at the end of each work period?

Are computers set to turn off monitor, hard drive, or go on standby after 30 minutes or less of inactivity, or are network/system controls used to minimize energy use in idle work stations?

- (5) Are supplies and cleaning products chosen based on a goal of minimizing harmful or hazardous contents?

(6) Is preference given whenever practicable to local suppliers and products produced locally or regionally?

(7) What percentage of Vendor's full-time employees identify as:

- a. White _____%
- b. Black or African-American _____%
- c. Hispanic _____%
- d. Asian _____%
- e. Other _____%

(8) What percentage of Vendor's full-time employees identify as:

- a. Male _____%
- b. Female _____%

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BID SUBMITTAL CHECKLIST

Missing Information, Documents, and/or Bonds May Invalidate Your Bid.

To help ensure that you are submitting a complete bid, place an "X" next to each item below after completing and incorporating the item into your bid package. Write "N/A" if an item does not apply to your bid.

1. Bid Submittal Checklist
2. Insurance Certificate of Coverage Policy Number
 - a. Workers Compensation and Employers Liability _____
 - b. Commercial General Liability (Primary and Umbrella) _____
 - c. Automobile Liability (Primary and Umbrella) _____
 - d. Property – If Applicable _____
3. MBE/WBE Compliance Plan
 - a. Schedule B – Affidavit of Joint Venture MBE/WBE – (only if bidder is a joint venture)
 - b. Schedule C-1: Letter(s) of Intent from MBE/WBE to Perform as Sub-contractor, Supplier and/or Consultant (if applicable).
 - c. Schedule D-1: Affidavit of MBE/WBE Goal Implementation Plan (if applicable).
 - d. Request for a reduction or waiver of MBE/WBE goals (if applicable)
4. Certificate of Filing of Economic Disclosure Statement and Affidavit (EDS)
5. Bid Incentive/Preference Affidavit(s): Chicago Business, Local Manufacture, MBE and WBE Firms No Stated Goals, Alternatively Powered Vehicles, Veteran-Owned Small Local Business or Eligible Joint Venture, Utilization of Veteran-Owned Subcontractors, Mentoring Program, and/or Commitment Regarding BEPD (if applicable)
6. Sweatshop Free Procurement Affidavit (if specification is for purchase of garments)
7. Proposal Page(s) (Schedule of Prices)
8. Bid Execution Page
9. Bid Deposit (if required)

NOTE: Each page requiring a signature must be signed by the person with proper authority and sworn before a Notary Public where noted.

NOTE: Each Bidder must acknowledge the receipt of a full set of Bid Documents and any and all Addenda at the top of the Bid Execution Page.

ARTICLE 1. REQUIREMENTS FOR BIDDING AND INSTRUCTIONS TO BIDDERS

Read this carefully before preparing your bid.

1.1. The Bid Documents

The Bid Documents include this Invitation for Bids, Legal Advertisement Notice, Bid Proposal Pages, Requirements for Bidding and Instructions for Bidders, Standard Terms and Conditions, Special Conditions, Scope of Work and Detailed Specifications, Plans and Drawings (if any), Insurance Requirements, MBE/WBE Special Conditions or DBE Special Conditions (as applicable) and all other exhibits attached hereto, and any and all Clarifications and Addenda issued by the City. Upon the award and execution of a contract pursuant to the Bid Documents, the Bid Documents become the Contract Documents.

1.2. Obtaining the Bid Documents

Bidders are solely responsible for obtaining all Bid Documents, including Clarifications and Addenda.

In the event of a conflict or inconsistency between the Bid Documents obtained on-line and the printed Bid Documents available from the Bid & Bond Room, the terms and conditions of the printed Bid Documents will prevail.

1.2.1. Printed Bid Documents

Printed copies of Bid Documents are available for pickup from:

Bid & Bond Room
Room 103 City Hall
121 North LaSalle Street
Chicago, IL 60602
Phone # 312-744-9773
Fax # 312-744-5611

Plans and Drawings may only be available on CD.

1.2.2. Downloadable Bid Documents

Documents may be downloaded from the DPS' website at the following URL:

www.cityofchicago.org/bids

In order to receive notice of clarifications and addenda, Bidders that download the Bid Documents must register as a Bid Document Holder by (i) faxing the company's name, contact person, address, e-mail address, telephone number and fax number to the Bid & Bond Room at 312-744-5611 (include specification number and bid title/description) or (ii) by calling the Bid & Bond Room at 312-744-9773.

Bid Document Holders are listed on the Bid & Bond Room Opportunity Take Out List. The Opportunity Take Out List is public information and is posted to the DPS web site at www.cityofchicago.org/TOL. To find Opportunity Take Out lists go to "Get Started Online" and search by the specification number.

1.3. Clarifications and Addenda

The City sends out clarifications and addenda to the Bid Documents to entities on the list of registered Bid Document Holders. Additionally, Clarifications and Addenda will be posted at the following URL, and made available at the Bid & Bond Room:

www.cityofchicago.org/bids

Bidders that download Bid Documents from the City of Chicago's website instead of obtaining the Bid Documents from the City of Chicago's Bid & Bond Room and which have not registered as a Bid Document Holder are responsible for checking the City of Chicago's website for Clarifications and/or Addenda.

There may be multiple Clarifications and Addenda. Failure to obtain Clarifications and/or Addenda, for whatever cause, will not relieve a Bidder from the obligation to bid according to and comply with any changed or additional terms and conditions contained in the Clarifications and Addenda.

Failure to acknowledge Clarifications and/or Addenda in the Bid Documents when submitting the bid will render the bid non-responsive. Any harm to the bidder resulting from failure to obtain all necessary documents, for whatever cause, will not be valid grounds for a protest against award(s) made under this bid solicitation.

1.4. Examination of the Bid Documents and Work Site

Bidders are required to carefully examine all of the Bid Documents before completing the forms and submitting a Bid. If the specification calls for work to be performed onsite, Bidders are also required to inspect the site of the work to be performed, and familiarize itself with the conditions at the site that will affect the work.

A Bidder that is awarded a contract will be solely responsible for all costs arising from and associated with that Bidder's (i) failure to comply with the requirements of the Bid Documents, including, without limitation, this requirement to inspect the Bid Documents and site of the work, and (ii) failure to include any costs or expense attributable to site conditions that could have reasonably been discovered through a site inspection or examination of the Bid Documents.

1.5. Pre-Bid Conference and Site Visit

If a pre-bid conference will be held to answer questions regarding these Bid Documents, it will be held on the date and time stated on the front cover of the Bid Documents. The pre-bid conference may be recorded by DPS.

If a pre-bid conference will be held, attendance is strongly encouraged. The Chief Procurement Officer or her representative, as well as representatives from the City Department for which the Bid Documents have been issued will comprise the panel to respond to Bidders' questions.

Bidders must familiarize themselves with the locations for contract performance required by the Bid Documents and take into account all relevant conditions when preparing its Bid. The Contractor will not be paid additional compensation due to failure to account for conditions that may be observed by a site visit in its bid.

If the site for the work is not accessible to the public during normal business hours, instructions for obtaining access, including a date and time for guided visits, is set out on the cover of the Bid Documents.

1.6. Questions Regarding the Bid Documents; Bidder Inquiry Deadline

All inquiries regarding the Bid Documents or procurement process must be directed to the Procurement Specialist/Senior Procurement Specialist at the email address listed on the front cover of the Bid Documents. **Inquiries must be submitted via email and MUST include the specification number in the subject line of the email.**

The Bidder Inquiry Deadline is listed on the front cover of the Bid Documents. Inquiries received after the Bidder Inquiry Deadline will not be answered except at the discretion of the Chief Procurement Officer.

Bidders may only rely on written answers in a Clarification or in an Addendum duly issued by the Chief Procurement Officer. Bidders cannot rely on oral or informal responses; such answers will not be binding upon the City.

1.7. Exceptions

Any deviations from or exceptions to any provisions or requirements of the Bidding documents, including but not limited to the specifications of the goods and/or services to be provided, must be noted on the Proposal Page(s) or attached thereto, with the exact nature of the change outlined in sufficient detail, and as provided below under "Trade Names and Substitutions," as applicable. Bidder must provide the reason for which deviations were made. Failure of a Bidder to comply with the terms of this paragraph may be cause for rejection of its Bid.

If a Bidder takes exception to or deviates from any provision or requirement, the Chief Procurement Officer shall reject the Bid as non-responsive in the event that the Chief Procurement Officer, in her sole opinion, determines such exception(s) or deviations to be material.

1.8. Taxes Included in Bid Prices

With few exceptions, materials purchased by the City of Chicago are not subject to the Federal Excise Tax. The Illinois Retailers' Occupation Tax, Use Tax, and Municipal Retailers' Occupation Tax do not apply to materials or services purchased by the City of Chicago.

Bidders shall include all other applicable federal, state and local taxes, direct or indirect, in their Bid Prices.

1.9. Bid Prices Must Incorporate All Costs

Bid pricing must incorporate any/all peripheral costs including, but not limited to the costs of products/services, delivery/transportation charges, training, materials, labor, insurance, applicable taxes, warranty, overhead and profit, etc. that are required by the Bid Documents.

1.10. Completion of the Bid Documents

Each Bidder must complete all of the forms listed on the Bid Submittal Checklist, if a Checklist is provided. The forms, including the Bid Proposal Pages, must be completed in ink, or typewritten. Bidders may not change any of the Bid Documents. Any changes made by a Bidder to the Bid Documents may result in rejection of the Bid, and will not be binding upon the City.

Bidders must use the Bid Execution Page that is appropriate for their form of business organization (e.g., sole proprietorship, corporation, partnership, or joint venture). The individual(s) that sign the Bid Execution Page on behalf of the Bidder, by their signature, represents and warrants to the City that such individual is authorized to execute bids and contracts on behalf of the Bidder, and that the Bidder agrees and shall be bound to all of the terms and conditions of the Bid Documents and, upon execution by the City, the Contract Documents. Signatures must be sworn before a Notary Public.

1.11. Conflicts of Interest

If any Bidder (or any partner in a joint venture or partnership or any member of the limited liability company if the Bidder is a joint venture, partnership, LLP, or LLC) has assisted the City in the preparation of these Bidding Documents such that provision of such assistance would give Bidder an unfair advantage or otherwise impair the integrity of the procurement process, or if Bidder has an organizational conflict of interest that might compromise Bidder's ability to perform the contract, that Bidder may be disqualified from bidding. If applicable, Bidder must provide a statement and information disclosing its participation with respect to the Bid Documents and/or potential organizational conflicts of interest.

1.12. Required Forms and Fees

1.12.1. Certificate of Filing for Online EDS

Bidders must complete an online EDS prior to the bid due date. A Bidder who does not file an electronic EDS prior to the bid due date may be found non-responsive and its bid rejected. If you are unable to complete the EDS online and print a Certificate of Filing prior to the response due date, the City will accept a paper EDS provided written justification is provided explaining the Bidders good faith efforts to complete it before the response due date and the reasons why it could not be completed. Refer to the Instructions for Completing Economic Disclosure Statement and Affidavit On-Line.

1.12.2. MBE/WBE Program

The goals for MBE and WBE participation are set forth in the Proposal Pages. The rules, regulations, and forms for achieving these goals are set forth in the Special Conditions Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment ("M/WBE Special Conditions").

- **Schedule B: Affidavit of Joint Venture (if applicable)**
If applicable, complete and submit this form if a non-certified firm has formed a joint venture with one or more MBE/WBE certified firms to submit a Bid. Such Affidavit should be signed by the appropriate Joint Venture members and notarized.
- **Schedule C-1**

If applicable, include a completed Letter of Intent from each certified MBE or WBE that will perform as a Subcontractor, Supplier and/or Consultant. Such letter(s) must be signed and notarized.

- **Schedule D-1**

If applicable, include the Bidder's Affidavit of MBE/WBE Goal Implementation Plan. This Affidavit must be signed and notarized.

- **Request for a Reduction or Waiver of the MBE/WBE Goals**

If applicable, after making good faith efforts, the Bidder is unable to provide a plan for the utilization of MBE and WBE firms that will achieve compliance with the MBE/WBE goals, the Bidder must, as required by the MBE/WBE Special Conditions, submit a request for whole or partial waiver of the goals with its Bid. Any waiver request must include documentation as required by the M/WBE Special Conditions including but not limited to notification to an assist agency.

1.12.3. Bid Deposits and Bid Bonds

Bid deposits, if required, may be in the form of a bond, certified check, cashier's check or money order payable to the City of Chicago. Bid bonds must be in the form provided by the Department of Procurement Services, and must be executed by a surety licensed and authorized to do business in the State of Illinois.

Cash is not an acceptable form of bid deposit. Substantial failure to comply with bid deposit requirements will result in rejection of the bid. A non-substantial failure to comply with the bid deposit requirement is a failure that does not provide a commercial advantage to the Bidder over other bidders.

Bid deposits will be returned, with the exception of the bid bond deposit for the contract awardee's bid, after the CPO has awarded the contract. The bid bond deposit for the awardee's bid will be returned after the contract has been awarded and a satisfactory performance and payment bond has been approved by the City, where such bond is required.

The Chief Procurement Officer may return bid deposits sooner, but reserves the right to hold all bid deposits until a contract has been awarded or, in the case of multiple awards, all contracts have been awarded for the Bid in question.

If a bid deposit is required, it will be indicated on the front cover of the Bid Documents.

1.12.4. Performance and Payment Bonds

If a performance and payment bond is required, failure to provide the required bond within the required time period when requested will result in rejection of the bid and forfeit of the bid deposit, if a deposit was required. The forfeiture shall not limit any other City remedies against the Bidder. Performance and payment bonds must be in the form specified by the City, a specimen of which will be attached to the Bid Documents as an exhibit or available from the Bid & Bond Room.

MCC Section 2-92-040 requires that the surety be listed as a certified surety in the current edition of U.S. Treasury Department Circular 570 and have an underwriting limitation in that publication in an amount greater than the amount bid. Circular 570 is available at www.fms.treas.gov/c570. Co-sureties may be accepted in the sole discretion of the CPO, but each co-security must individually meet the requirement. Reinsurance may not be used to achieve a sufficient underwriting limitation.

If a performance and payment bond is required to be provided prior to contract award, it will be indicated on the front cover of the Bid Documents.

1.12.5. Contractor's Financial Statement

If requested by the Chief Procurement Officer, Bidder must file a "Contractor's Statement of Experience and Financial Condition" dated not earlier than the end of Bidder's last fiscal year period. The "Contractor's Statement of Experience and Financial Condition" will be kept on file as a representative statement for one year. The "Contractor's Statement of Experience and Financial Condition" forms are

available in the Bid & Bond Room, City Hall Room 103, Chicago, IL 60602, or may be downloaded at www.cityofchicago.org/form. Failure to provide a "Contractor's Statement of Experience and Financial Condition" if requested may be cause for rejection of the Bid.

1.12.6. Other Required Forms and Documents

Other forms required to be included with the Bid are:

- Insurance Certificate of Coverage
- Affidavit of Chicago Business (if applicable)
- Affidavit of Locally-Manufactured Goods (if applicable)
- Alternatively Powered Vehicles Affidavit (if applicable)
- Veteran-Owned Small Local Businesses and Eligible Joint Ventures (if applicable)
- Mentoring Program Bid Preference (if applicable)
- Commitment Regarding BEPD (if applicable)
- DBE or MBE/WBE compliance forms as applicable
- Proposal Page(s) (Schedule of Prices)
- Bid Execution Page

1.13. Trade Names and Substitutions

Reference to a specific manufacturer or trade name in this solicitation is intended to be descriptive (but not restrictive) and to indicate to prospective bidders those product(s) that have been deemed by the City to be satisfactory. The Bidder must, if awarded the Contract, provide the product(s) specified, unless equivalent alternatives have been proposed as described below and found acceptable to the Chief Procurement Officer.

A Bidder that chooses to respond to this solicitation for bids with alternate product(s) from those specified in the solicitation, must identify such alternate items with its Bid with a detailed explanation and documentation in support of how the alternate items proposed by the Bidder can perform as well as or better than those specified. Unless an alternate item is so identified, it is understood that the Bidder proposes, and will be required to provide, the specific item described in the specifications. No substitution of specified items will be allowed thereafter except as otherwise provided for in the specifications.

Documentation in support of alternate items includes:

- 1) Complete data substantiating compliance of proposed alternate items with requirements stated in the solicitation, including:
 - a) Product identification, including manufacturer's name and address.
 - b) Manufacturer's literature identifying:
 - i) Product description
 - ii) Reference standards
 - iii) Performance and test data
 - c) Samples, as applicable
 - d) Name and address of similar projects on which the product has been used, and date of usage.
- 2) Itemized comparison of the proposed alternate item with product or service specified; listing of significant variations.

A Bidder warrants and represents that in making a formal request for substitution with alternate items that:

- 1) The proposed alternate item is equivalent to or superior in all respects to the product specified, and
- 2) The same warranties and guarantees will be provided for the alternate item as for the product specified.

The CPO may, in her sole discretion, accept an alternate item for a specified item, provided the alternate item so bid is, in the CPO's sole opinion, the equivalent of the item specified in the solicitation. An alternate

item that the CPO determines not to be equivalent to the specified item shall render the bid non-responsive and the CPO shall reject the bid.

1.14. Authorized Dealer/Distributor

For bids involving the furnishing of equipment or other goods that are subject to manufacturer warranties that require sale or installation by authorized dealers or distributors, the Contractor must be the manufacturer or an authorized dealer/distributor of the proposed manufacturer and be capable of providing genuine parts, assemblies and/or accessories as supplied by the manufacturer. Further, the Contractor must be capable of furnishing original product warranty and manufacturer's related services such as product information, product recall notices, etc. The Bid Documents will typically ask the Bidder to certify that it is an authorized dealer/distributor when this requirement is applicable. The Bidder's compliance with these requirements will be determined by the CPO, whose decision will be binding.

1.15. Estimated Quantities

Unless explicitly stated to the contrary in the Scope of Work, Detailed Specifications, or Proposal pages, any quantities shown on the Proposal Pages represent estimated usage and as such are for bid canvassing purposes only. The City reserves the right to increase or decrease quantities ordered. Nothing herein will be construed as intent on the part of the City to procure any goods or services beyond those determined by the City to be necessary to meet its needs.

The City will only be obligated to order and pay for such quantities as are from time to time ordered, performed and accepted on Blanket Releases issued directly by the Department.

1.16. Submission of Bids

1.16.1. Date, Time, and Place

Bids are to be delivered to the Bid & Bond Room of the Department of Procurement Services, City Hall Room 103, 121 North LaSalle Street, Chicago, Illinois 60602 on the date and prior to the time stated on the cover of the Bid Documents, or any addendum issued by the City to change such date and/or time. No bid will be accepted after the date and time specified. The time of the receipt of the bid will be determined solely by the clock located in the Bid & Bond Room.

Bids must be dropped off in the Bid & Bond Room during regular business hours: 8:30 am to 4:30 pm, Monday through Friday, excluding Holidays of the City.

1.16.2. Bids Must Be Sealed and Properly Labeled

All Bids must be submitted in sealed envelopes. The Department of Procurement Services provides official bid enclosure envelopes at the Bid & Bond Room. Use of official envelopes is not required but is preferred.

All envelopes containing Bids must be marked "Bid Enclosed," and must have the Bidder's name and address, the Specification Number, and the advertised date and time of bid opening stated on the envelope. Failure to properly mark the envelope may result in a failed delivery, and result in rejection of the Bid. If more than one envelope is needed to submit the Bid, each envelope must be marked with all the information required above and be marked to indicate that the envelopes belong together (e.g., one of three, two of three).

1.16.3. Bidders Are Responsible for Bid Delivery

Each Bidder is solely and completely responsible for delivery of its Bid to the Bid & Bond Room before the date and time established for the Bid opening. Any Bid that is not delivered on time, including Bids mistakenly delivered to other City offices, will not be accepted. The City is under no obligation to ensure that misdirected Bids are delivered to the Bid & Bond Room prior to Bid opening.

When bids are sent via U.S. Postal Service, messenger, printing service or any other carrier, Bidder is responsible for their delivery and drop-off to the correct location during business hours before the date and hour set for the opening of bids. It is Bidder's sole responsibility to ensure the Bid is delivered to the correct location and received as required.

Bids are not to be delivered after hours by pushing them under the door.

1.16.4. Transparency Website; Trade Secrets

Consistent with the City's practice of making available all information submitted in response to a public procurement, all bids, any information and documentation contained therein, any additional information or documentation submitted to the City as part of this solicitation, and any information or documentation presented to City as part of negotiation of a contract or other agreement may be made publicly available through the City's Internet website.

However, Bidders may designate those portions of a Bid which contain trade secrets or other proprietary data ("Data") which Bidder desires remain confidential.

To designate portions of a Bid as confidential, Bidder must:

A. Mark the cover page as follows: "This bid includes trade secrets or other proprietary data."

B. Mark each sheet or Data to be restricted with the following legend: "Confidential: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this bid."

C. Provide a CD-ROM with a redacted copy of the entire bid or submission in .pdf format for posting on the City's website. Bidder is responsible for properly and adequately redacting any Data which Bidder desires remain confidential. If entire pages or sections are removed, they must be represented by a page indicating that the page or section has been redacted. Failure to provide a CD-ROM with a redacted copy may result in the posting of an un-redacted copy.

D. Provide a written explanation of the basis under which each redacted item has been deemed confidential, making reference to the Illinois Freedom of Information Act (5 ILCS 140/1 et seq.).

Indiscriminate labeling of material as "Confidential" may be grounds for deeming a bid as non-responsive.

All Bids submitted to the City are subject to the Freedom of Information Act. The City will make the final determination as to whether information, even if marked "confidential," will be disclosed pursuant to a request under the Freedom of Information Act, valid subpoena, or other legal requirement. Bidder agrees not to pursue any cause of action against the City with regard to disclosure of information.

1.17. Withdrawal of Bids

Bidders may withdraw their Bid at any time prior to the date and time for Bid opening. Requests for withdrawal must be made in writing on the Bidder's letterhead to the Bid & Bond Room. Bidders must make their own arrangements for the return of their Bids.

1.18. Bid Opening

Bids will be opened and read publicly in the Bid & Bond Room by the Department of Procurement Services immediately after the deadline for the submission of Bids has passed. Announcement of the Bids and the apparent low Bidder are neither final nor binding. All Bids and Bid Documents are subject to review by the Department of Procurement Services to determine the lowest responsive and responsible bidder and whether a contract will be awarded.

Bid tabulations are public information and are posted on the City's website www.cityofchicago.org/BidTab. URL is case sensitive. Select "Get Started Online" and search by specification number.

1.19. Effective Term of Bid

Unless a Bid is expressly rejected by the Chief Procurement Officer, all Bids will remain in effect for ninety (90) days subsequent to the Bid opening. The City may request that Bidders extend the effective period of their Bids. Such requests shall be in writing, and will require the Bidders' written consent to the extension.

Bidder may not withdraw or cancel or modify its Bid for a period of ninety (90) calendar days after the advertised closing time for the receipt of Bids. The City reserves the right to withhold and deposit, as liquidated damages, the bid deposit of any bidder requesting withdrawal, cancellation or modification of its Proposal prior to the ninety (90) day period.

1.20. Evaluation of Bids

1.20.1. Determination of Responsiveness

DPS will review Bids to determine whether they conform to the requirements of the Bid Documents.

1.20.1.1. Must Bid All Line Items

The Bidder must bid all Line Items set forth on the Proposal Pages, except to the extent that the Specification expressly allows otherwise. Bids submitted to the contrary will be considered incomplete and as a result, will be rejected as being non-responsive to this requirement.

Per the Basis of Award, if Contract(s) will be awarded per Group, Bidders must bid all items within a Group, except to the extent that the Specification expressly allows otherwise, but Bidders are not required to bid all Groups. Bids submitted to the contrary will be considered incomplete and as a result, will be rejected as being non-responsive to this requirement.

1.20.1.2. Mathematical Calculations

The Chief Procurement Officer reserves the right to make corrections, after receiving the bids, to any clerical error apparent on the face of the bid, including but not limited to obviously incorrect units or misplaced decimal points, or arithmetic errors. In the event that comparison of the Bidder's "Unit Price" and "Total Price" submitted for any line item reveals a calculation error, the Unit Price will prevail.

1.20.1.3. Unbalanced Bids

The Chief Procurement Officer reserves the right to reject any Bid that, in her sole discretion and authority, determines is materially unbalanced.

1.20.1.4. Cash Billing Terms

Cash billing discounts offered will not be considered in the evaluation of bids.

1.20.2. Determination of Responsibility

The determination of the responsibility of a Bidder is within the sole discretion and authority of the Chief Procurement Officer.

The Chief Procurement Officer may request any Bidder to submit such additional information pertaining to the Bidder's responsibility as the Chief Procurement Officer deems necessary. Failure to comply with any such request will result in a finding of non-responsibility and rejection of the Bid.

1.20.2.1. Bidder Debts or Defaults

The Chief Procurement Officer reserves the right to refuse to award a Contract to any bidder that is in arrears or is in default to the City upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to the City, or has failed to perform faithfully any previous contract with the City.

1.20.2.2. Competency of Bidder

The Bidder, if requested, must present within a reasonable time, as determined by the Chief Procurement Officer, evidence satisfactory to the Chief Procurement Officer of ability to perform the Contract and possession of necessary facilities, pecuniary resources and adequate insurance to comply with the terms of these specifications and contract documents.

1.21. Rejection of Bids and Waiver of Informalities

The Chief Procurement Officer, in her sole discretion and authority, may determine that it is in the best interest of the City to reject any or all Bids submitted in response to any Invitation for Bids. The Chief Procurement Officer, in her sole discretion and authority, may disregard or waive any informality in the Bids or bidding process.

1.22. Statutory Adjustments to the Bid

1.22.1. City-based Businesses (Chicago Business Preference)

For purposes of this section only, the following definitions shall apply:

"City-based business" means a person who (i) conducts meaningful day-to-day business operations at a facility located within the city and reports such facility to the Internal Revenue Service as a place of employment for the majority of its regular, full-time workforce; (ii) holds all appropriate city licenses; and (iii) is subject to applicable city taxes. These taxes may include the City Wheel Tax as provided at Chapter 3-56 of the MCC.

"City residents," as defined in Section 2-92-330 of the MCC, means persons domiciled within the city.

"Contract" means any contract, purchase order or agreement awarded by the city and whose cost is to be paid from funds belonging to or administered by the city; provided that the term "contract" does not include: (i) a delegate agency contract; (ii) a lease of real property; or (iii) a collective bargaining agreement.

"Prime Contractor" means a person who is a city-based business and the primary contractor on a contract. A "Prime Contractor" does not include any subcontractors.

"City resident employee" means an individual who resides in the City and who is employed by a prime contractor in a permanent, full-time employment and whose work is not counted towards the work hours required by Section 2-92-330.

"Socio-economically disadvantaged area" means an area within the City that meets the criteria for designation as a socio-economically disadvantaged area as set forth in rules promulgated by the City's Commissioner of Planning and Development pursuant to Section 2-92-390.

If these Bid Documents pertain to a Contract having an estimated contract value of \$100,000 or more, the CPO may apply a bid preference ("City Based Business Preference") of: (i) two percent of the contract base bid; or (ii) four percent of the contract base bid, if the majority of such prime contractor's employees are city resident employees; or (iii) six percent of the contract base bid, if such prime contractor is eligible for an incentive under subsection (ii) and the majority of such contractor's city resident employees are residents of a socio-economically disadvantaged area, in accordance with section 2-92-412 of the MCC, to any qualified bidder that is a Prime Contractor. If the CPO has determined that a City Based Business Preference may be applied, it will be indicated on the cover page of the Bid Documents.

If a City Based Business Preference is applied to a Bidder's Bid, the Local Goods Incentive pursuant to Section 2-92-410 of the MCC will not be applied to that same Bid.

Bidders desiring to take advantage of the City Based Business Preference must submit documentation with their Bid that Bidder is a City-Based Business.

1.22.2. Locally Manufactured Goods

For purposes of this section only, the following definitions shall apply:

"City-based manufacturer" means a person who: (i) holds any appropriate city license; (ii) is subject to applicable city taxes; and (iii) owns, operates, or leases a manufacturing facility within the city.

"Contract for Goods" means any contract, purchase order or agreement for the purchase of goods awarded by the city and whose cost is to be paid from funds belonging to or administered by the city; provided that a "contract" does not include: (i) a delegate agency contract; (ii) a lease of real property; (iii) a collective bargaining agreement; or (iv) a construction contract as defined in Section 2-92-670 of the MCC.

"Locally manufactured goods" means goods whose value, either in whole or in part, is derived from growing, producing, processing, assembling, or manufacturing activities that occur within a city-based manufacturer's facility located within the city.

"Manufacture" means to produce tangible goods for use from raw or prepared materials by giving the materials new forms, qualities, properties or combinations, whether by hand-labor or machines.

If these Bid Documents pertain to a contract for goods having an estimated contract value of \$100,000 or more, the CPO may allocate a bid incentive ("Local Goods Incentive") in accordance with section 2-92-410 of the MCC. If the CPO has determined that a Local Goods Incentive will be allocated, it will be indicated on the cover page of the Bid Documents and shall consist of the following:

Total Dollar Value of Locally Manufactured Goods Provided in the Contract	Bid Incentive
25% to 49%	1% of the contract base bid
50% to 74%	1.5% of the contract base bid
75% or greater	2% of the contract base bid

Bidders desiring to take advantage of the Local Goods Incentive, if allocated, must submit documentation with their bid that the goods to be provided will be locally manufactured goods: "Bidders Commitment to Provide Locally Manufactured Goods" and "Local Manufacturing Affidavit." Contractors must provide such other supporting documentation of local manufacture during the term of the Contract as the CPO may require.

Upon completion of the work, any Contractor that has failed to supply the required percentage of locally manufactured goods for which the Local Goods Incentive was allocated shall be fined in an amount equal to three times the amount of the difference between the bid incentive allocated and the bid incentive that would have been allocated to that contractor for the amount of locally manufactured goods actually supplied under the contract, unless the contractor can demonstrate that due to circumstances beyond the Contractor's control, the contractor for good cause was unable to provide the required percentage of locally manufactured goods.

1.22.3. Alternately Powered Vehicles Bid Incentive

1.22.3.1. Definitions for Alternately Powered Vehicles Bid Incentive

For purposes of this Section 1.22.3 only, the following definitions apply:

"Alternative fuel" has the meaning ascribed to that term in the Energy Policy Act of 1992, and the rules promulgated by the United States Department of Energy pursuant to that Act. The term "alternative fuel" includes but is not limited to natural gas, liquefied petroleum gas, hydrogen, ethanol E85 or electricity;

"Alternately powered vehicle" means a vehicle that:

(A) is fueled by alternative fuel; provided that if a vehicle is capable of being powered by alternative fuel and traditional petroleum-based gasoline or petroleum-based diesel fuel, the vehicle must be powered by the alternative fuel for no less than 80% BTUs consumed during the three months prior to the submission of the bid; or

(B) is commonly referred to as a hybrid vehicle that is capable of being powered by a combination of any fuel and an alternative power source and the alternative power source includes an energy storage system to store generated or accumulated energy which substantially reduces the fuel use and emissions when compared to a standard vehicle of the same age, type and size; or

(C) is fueled by a biodiesel blend; provided that the vehicle is powered by the biodiesel blend for no less than 80% of the gallons consumed during the three months prior to the submission of the bid; or

(D) is fueled by traditional petroleum-based gasoline or petroleum-based diesel fuel, but powered by an engine substantially more efficiently designed than a standard vehicle of the same age, type and size; provided that the vehicle is rated by the United States Environmental Protection Agency in the top 5% for fuel efficiency for similar vehicles.

An "alternatively powered vehicle" does not include any vehicle which is: (i) primarily used in a warehouse or similar type of enclosed structure; (ii) required to use, or given credit for using, alternative fuel by any federal, state or local law; or (iii) subject to Section 2-92-595 of the MCC.

"Bid incentive" means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid contract.

"Biodiesel blend" has the meaning ascribed to that term in Section 2-92-595 of the MCC.

"Construction project" has the meaning ascribed to that term in Section 2-92-335 of the MCC.

"Contract" means any contract, purchase order, construction project, or other agreement (other than a delegate agency contract or lease of real property or collective bargaining agreement) awarded by the city and whose cost is to be paid from funds belonging to or administered by the city.

"Contract base bid" means the total dollar amount a contractor bids on a contract without factoring any bid incentive or percentage reductions in the bid amount.

"Eligible business" means a business located within the counties of Cook, DuPage, Kane, Lake, McHenry or Will in the State of Illinois (the "Six County Region"), and as to which: (1) a majority of the business' fleet is located and used within the Six County Region; and (2) a majority of those vehicles located and used within the Six County Region are alternatively powered vehicles.

"Fleet" means 10 or more vehicles that are owned, operated, leased or otherwise controlled by a business.

"Vehicle" means every device powered by a motor or engine and by, upon, or in which any person or property is or may be transported or drawn upon a street or highway, except a "vehicle" shall not include motorized wheelchairs, golf carts, neighborhood electric vehicles, as that term is defined in Section 9-4-010 of the MCC, devices moved solely by human power, devices used exclusively upon stationary rails or tracks, or snowmobiles, as defined in the Snowmobile Registration and Safety Act of Illinois.

1.22.3.2. Eligibility for Alternatively Powered Vehicles Bid Incentive

(A) Unless otherwise prohibited by any federal, state or local law, for any contract having an estimated contract value of \$100,000 or more advertised, or if not advertised awarded, the Chief Procurement Officer may allocate a bid incentive of 1/2% of the contract base price to a qualified bidder when the qualified bidder is an eligible business. If the CPO has determined that an Alternatively Powered Vehicles Preference may be applied, it will be indicated on the cover page of the Bid Documents.

The bid incentive is used only to calculate an amount to be used in evaluating the bid to determine the low bidder, and it does not affect the contract price.

For purposes of this section the total dollar value of a construction project contract includes both materials and labor.

(B) As a condition of being awarded the bid incentive, the eligible business shall continue to meet the definition of an eligible business during the term of the contract.

(C) The contractor shall maintain adequate records necessary to monitor compliance with this section and shall submit such reports as required by the Chief Procurement Officer. Full access to the contractor's and subcontractors' records shall be granted to the Chief Procurement Officer, the commissioner of the supervising department, the inspector general, or any duly authorized representative thereof. The contractor and subcontractors shall maintain all relevant records for a period of no less than seven years after final acceptance of the work.

(D) A bidder desiring to receive an incentive pursuant to this section shall include with its bid submission the *Affidavit of Eligible Business for Bid Incentive for Alternative Powered Vehicles*, which affirms that the bidder satisfies all pertinent requirements as an eligible business.

(E) Upon completion of the work, any eligible business that receives a bid preference but that fails to meet the definition as an eligible business during the term of the contract shall be fined in an amount equal to three times the amount of the bid incentive awarded.

(F) This section shall not apply to any contract to the extent that the requirements imposed by this section are inconsistent with procedures or standards required by any law or regulation of the United States or the State of Illinois to the extent such inconsistency is not permitted under law or the home rule powers of the city.

1.22.4. Bid Incentives for Veteran-Owned Small Local Businesses and Eligible Joint Ventures

For purposes of this section only, the following definitions shall apply:

"Bid incentive" means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid contract.

"Contract base bid" means the total dollar amount a contractor bids on a contract without factoring any bid incentive or percentage reductions to the bid amount.

"Eligible joint venture" means an association of one or more small business enterprises in combination with one or more veteran-owned business enterprises, proposing to perform as a single for-profit business enterprise, in which each joint venture partner contributes property, capital, efforts, skill and knowledge. Joint ventures must have an agreement in writing specifying the terms and conditions of the relationship between the partners and their respective roles in the contract.

"Owned" means, as MCC 2-92-670 may be updated from time to time, having all of the customary incidents of ownership, including the right of disposition, and sharing in all of the risks, responsibilities and profits commensurate with the degree of ownership.

"Small business enterprise" means, as MCC 2-92-670 may be updated from time to time, a small business as defined by the U.S. Small Business Administration, pursuant to the business size standards found in 13 C.F.R. Part 121, relevant to the scope(s) of work the firm seeks to perform on city contracts. A firm is not an eligible small business enterprise in any city fiscal year in which its gross receipts, averaged over the firm's previous five fiscal years, exceed the size standards of 13 C.F.R. Part 121.

"Veteran-owned business enterprise" means an enterprise which: (1) is at least 51 percent owned by one or more veterans, or in the case of a publicly held corporation, at least 51 percent of all classes of the stock of which is owned by one or more veterans, whose management, policies, major decisions and daily business operations are independently managed and controlled by one or more veterans; or (2) has been certified by the State of Illinois as a qualified service-disabled veteran-owned small business or a qualified veteran-owned small business pursuant to 30 ILCS 500/45-57.

"Veteran-owned small local business" means a business that is both a veteran-owned business enterprise and a small local business enterprise as defined in Section 2-92-670.

"Veteran" means a person who has served in the United States armed forces and was discharged or separated under honorable conditions.

Unless otherwise prohibited by any federal, state or local law, the CPO shall allocate a bid incentive of 5% of the contract base price, in accordance with section 2-92-418 of the MCC, to any qualified bidder that is a veteran-owned small local business or an eligible joint venture.

Bidders desiring to receive this incentive must submit an affidavit and other supporting documents demonstrating that the bidder satisfies all pertinent requirements as a veteran-owned small local business or an eligible joint venture. Bidders should consult the DPS regulations regarding this incentive and be prepared to comply with the self-performance requirements, which in some circumstances affect

the calculation of MBE and WBE participation toward contract goals when a small business enterprise involved in receiving this incentive is also a certified MBE or WBE.

As a condition of being awarded the bid incentive, the veteran-owned small local business or eligible joint venture shall continue to meet the definition of a veteran-owned small local business or an eligible joint venture. If a contract is awarded to the veteran-owned small local business or eligible joint venture, upon completion of the work, any veteran-owned small local business or eligible joint venture that receives a bid preference but fails to meet the definition of a veteran-owned small local business or eligible joint venture during the term of the contract for which the bid incentive was awarded shall be fined in an amount equal to three times the amount of the bid incentive awarded.

The contractor shall maintain adequate records necessary to ensure compliance with this section and shall submit such reports as required by the Chief Procurement Officer. Full access to the contractor's and subcontractors' records shall be granted to the Chief Procurement Officer, the commissioner of the supervising department, the inspector general, or any duly authorized representative thereof. The contractor and subcontractor shall maintain all relevant records a period that is the longer of seven years or as after final acceptance of the work in accordance with the Local Records Act.

1.22.5. Commitment Regarding Business Enterprises Owned By People With Disabilities (BEPD)

1.22.5.1. Policy and Terms

It is the policy of the City that businesses certified as Business Enterprises owned by People with Disabilities (BEPD) in accordance with MCC 2-92-337 *et seq.*, *Regulations Governing Certification of Business Enterprises owned by People with Disabilities*, and all other Regulations promulgated under the aforementioned sections of the Municipal Code; shall have the full and fair opportunities to participate fully in the performance of this Contract. Therefore, the Bidder or Contractor shall not discriminate against any person or business on the basis of disability, and shall take affirmative actions to ensure BEPDs shall have full and fair opportunities to compete for and perform subcontracts for supplies or services.

Failure to carry out the commitments and policies set forth herein shall constitute a material breach of the Contract and may result in the termination of the Contract or such remedy as the City deems appropriate.

1.22.5.2. Definitions

For purposes of this section only, the following definitions apply:

- (A) "Business Enterprises owned or operated by People with Disabilities" or "BEPD" has the same meaning ascribed to it in section 2-92-586.
- (B) "Bid incentive" means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid contract.
- (C) "Contract base bid" means the total dollar amount a contractor bids on a contract without factoring any bid incentive or percentage reductions to the bid amount.

1.22.5.3. Commitments

Where not otherwise prohibited by federal, state, or local law, the CPO shall allocate to any qualified bidder the following bid incentive for utilization of a BEPD as a prime contractor or subcontractor in the performance of the contract.

% of total dollar contract amount performed by BEPD	Bid incentive
2 to 5%	1% of the contract base bid
6 to 9%	2% of the contract base bid

10 to 13%	3% of the contract base bid
14% or more	4% of the contract base bid

The bid incentive shall be calculated and applied in accordance with the provisions of this section. The bid incentive is used only to calculate an amount to be used in evaluating the bid. The bid incentive does not affect the contract price.

Upon completion of the work, any Contractor that has failed to retain the percentage of BEPD subcontractors for which a bid incentive was taken into consideration in awarding of a contract shall be fined an amount equal to three times the amount of the bid incentive allocated, unless the Contractor can demonstrate that due to circumstances beyond the Contractor's control, the Contractor for good cause was unable to retain the percentage of BEPD participants throughout the duration of the contract period.

1.22.5.4. Records and Reports

The Contractor shall maintain accurate and detailed books and records necessary to monitor compliance with this section and shall submit such reports as required by the CPO, or the commissioner of the supervising department.

Full access to the Contractor's and Subcontractor's records shall be granted to the CPO, the commissioner of the supervising department, or any duly authorized representative thereof. The Contractor and Subcontractors shall maintain all relevant records for a period of at least three years after final acceptance of the work.

1.22.6. Mentoring Program Bid Preference (Section 2-92-535 of the Chicago Municipal Code)

For purposes of this section only, the following definitions shall apply:

"Mentoring agreement" means a written mentor-protégé agreement approved by the CPO with MBEs and WBEs to develop their capacity in becoming self-sufficient, competitive and profitable business enterprises, as defined in Section 2-92-535.

"Subcontractor-to-subcontractor mentoring agreement" means a subcontractor's written mentor-protégé agreement approved by the CPO to develop the capacity of MBE or WBE subcontractors, as defined in Section 2-92-535.

Unless otherwise prohibited by any federal, state or local law, the CPO shall allocate a bid incentive of 1% of the contract base price, in accordance with Section 2-92-535 of the MCC, to any prime contractor that has entered into a mentoring agreement or whose subcontractor has entered into a subcontractor-to-subcontractor mentoring agreement.

Bidders desiring to receive this incentive must submit an affidavit and other supporting documents demonstrating that the bidder has entered into a mentoring agreement or that the bidder's subcontractor has entered into a subcontractor-to-subcontractor mentoring agreement, at the time of bid submission and at any time during the term of the Contract, as requested by the CPO.

As a condition of being awarded the bid preference, the Contractor shall maintain records adequate to monitor compliance with MCC Section 2-92-535 and shall submit such reports as required by the CPO. Full access to the Contractor's records shall be granted to the CPO, the Commissioner of the supervising department, the Inspector General, or any duly authorized representative thereof. The Contractor and subcontractors shall maintain all relevant records for a period of no less than three years after the expiration of the Contract.

Upon completion of the work, any Contractor that has failed to maintain a mentoring agreement or a subcontractor that has a subcontractor-to-subcontractor mentoring agreement, for which a bid preference was taken into consideration in awarding of a contract, shall be fined in an amount equal to three times the amount of the bid preference allocated, unless the Contractor can demonstrate that due

to circumstances beyond the Contractor's control, the Contractor for good cause was unable to maintain a mentoring agreement or a subcontractor that has a subcontractor-to-subcontractor mentoring agreement throughout the duration of the Contract period.

1.22.7. Child Support Arrearage

Pursuant to Section 2-92-415 of the MCC, an eight percent (8%) penalty will be applied to the Bids of Bidders whose substantial owners, as defined in the Code, are in arrears on court-ordered child support payments and who have not entered into an agreement for payment or are otherwise not in compliance with the order. The penalty will pertain to the Bid only, and will not affect the contract price or payments under the Contract. This penalty does not apply to federally-funded contracts.

1.22.8. MacBride Principles Ordinance

If the Bidder conducts any business operations in Northern Ireland, it is hereby required that the Bidder will make reasonable and good faith efforts to conduct those operations in accordance with the MacBride Principles for Northern Ireland as defined in Illinois Public Act 85-1390 and Section 2-92-580 of the Municipal Code to promote fair and equal employment opportunities and labor practices for religious minorities in Northern Ireland.

Bidders who take exception to the provision set forth above will be assessed an eight percent (8%) penalty on their Bids. The penalty will pertain to the Bid only, and will not affect the contract price or payments under the Contract.

1.23. Consideration of Bids

The CPO represents and acts for the City in all matters pertaining to this invitation for bids and any contract subsequently awarded. The CPO reserves the right to reject any and all bids and to disregard any informalities in a bid or the bidding process, when in her opinion the best interest of the City will be served by such action.

1.24. Bid Protests

The bidder shall submit any protests or claims regarding this solicitation to the office of the City's Chief Procurement Officer located at City Hall Room 806, 121 North LaSalle Street, Chicago, Illinois 60602.

All protests or claims must set forth the name and address of the protester, the specification number, the grounds for the protest or claim, and the course of action that the protesting party desires that the CPO undertake.

Copies of the Bid Protest Procedures (entitled Department of Procurement Services Solicitations and Contracting Process Protest Procedures) are available at the Bid & Bond Room and on DPS' website www.cityofchicago.org/procurement under "Rules, Regulations and Ordinances" then under the link marked "Solicitation and Contracting Process Protest Procedures."

1.25. Award of Contract; Notice of Award

The Contract consists of the Bid Documents. Upon the award and execution of a contract pursuant to the Bid Documents, the Bid Documents become the Contract Documents, which collectively comprise the Contract.

The Department of Procurement Services will, by written notice, notify the Bidder that is, per the Basis of Award, the lowest responsive and responsible Bidder of the City's award of a Contract.

1.26. Title VI Solicitation Notice

The City, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

ARTICLE 2. INCORPORATION OF EXHIBITS

The following attached Exhibits are made a part of this agreement:

- Exhibit 1: Insurance Certificate

ARTICLE 3. STANDARD TERMS AND CONDITIONS

3.1. General Provisions

3.1.1. Definitions

"**Addendum**" is an official revision of the Bid Documents issued by the Chief Procurement Office prior to Bid Opening Date.

"**Airports**" means Chicago O'Hare International Airport and Chicago Midway International Airport.

"**Airside**" means, generally, those areas of an Airport which requires a person to pass through a security checkpoint to access. References to "sterile areas" generally mean Airside areas within terminal buildings. References to "Airfield", "Aircraft Operations Area", "AOA", or "**Secured areas**" generally mean outdoor Airside areas or areas not accessible to passengers.

"**Attachments**" are all the exhibits and other documents attached to the Bid Documents and/or incorporated into the Contract by reference.

"**Bid**" refers to an offer made by a Bidder in response to an invitation for bids which includes a binding proposal to perform the Contract which the City may rely on and accept, or in the case of an RFP or RFQ, the submission/proposal in response to that solicitation which may be subject to negotiation.

"**Bidder**" is a person, firm, or entity submitting a Bid in response to an invitation for bids; for RFPs and RFQs, references may be made to "Respondents." Once the Contract is awarded the Contractor shall assume that all references to a Bidder or Respondent and such attendant obligations apply to the Contractor.

"**Bid Opening Date**" is the date and time publicly advertised by the Chief Procurement Officer as the deadline for submission of Bids; this may be referred to as a "Proposal Due Date" for RFP and RFQ solicitations.

"**Bid Documents**" means all the documents issued by the Chief Procurement Officer, or referenced by the Chief Procurement Officer as being available on the City's website and incorporated by such reference, in connection with an invitation for bids or proposals. Except for such Bid Documents as are posted on the City's website and incorporated by reference, all Bid Documents must be submitted by a bidder on the Bid Opening Date.

"**Business Day**" means business days (Monday through Friday, excluding legal holidays, or City shut-down days) in accordance with the City of Chicago business calendar.

"**Calendar Day**" means all calendar days in accordance with the world-wide accepted calendar.

"**Chief Procurement Officer**" abbreviated as "CPO" means the chief executive of the City's Department of Procurement Services ("DPS"), and any representative duly authorized in writing to act on the Chief Procurement Officer's behalf.

"**City**" means the City of Chicago, a municipal corporation and home rule government under Sections 1 and 6(a), Article VII, of the 1970 Constitution of the State of Illinois.

"**Commissioner**" means the chief executive of any City department that participates in this Contract (regardless of the actual title of such chief executive), and any representative duly authorized in writing to act on the Commissioner's behalf with respect to this Contract.

"**Contact Person**" means the Contractor's management level personnel who will work as liaison between the City and the Contractor and be available to respond to any problems that may arise in connection with Contractor's performance under the Contract.

"**Contract**" means, upon notice of award from the CPO, the contract consisting of all Bid Documents relating to a specific invitation for bids or proposals, and all amendments, modifications, or revisions made from time to time in accordance with the terms thereof. All such documents comprising the Contract are referred to as the "Contract Documents".

"Contractor" means the Bidder or Proposer (person, firm, or entity) that is awarded the Contract by the CPO. Any references to the Bidder or Proposer in the Contract Documents is understood to apply to the Contractor.

"Department" which may also be referred to as the using/user Department is the City Department which appears on the applicable Purchase Order Release for goods, work, or services provided under this Contract.

"Detailed Specifications" refers to the contract specific requirements that includes but is not limited to a detailed description of the scope, term, compensation, price escalation, and such other additional terms and conditions governing this specific Contract.

"Holidays" refers to the official City Holidays when the City is generally closed for business which includes: New Year's Day, Dr. Martin Luther King Jr.'s Birthday, Lincoln's Birthday, Pulaski Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas Day.

"MCC" is the abbreviation for the Municipal Code of Chicago.

"Party" or collectively "Parties" refers to the entities that have entered into this Contract including the Contractor and the City.

"Purchase Order" means a written purchase order from a Department referencing this Contract. Purchase Orders may also be referred to as "Blanket Releases".

"Services" refers to all work, services, and materials whether ancillary or as required by the Detailed Specifications that Contractor provides in performance of its obligations under this Contract.

"Specification" means the Bid Documents, including but not limited to the Detailed Specifications.

"Subcontractor" means any person or entity with whom the Contractor contracts to provide any part of the goods, services or work to be provided by Contractor under the Contract, including subcontractors of any tier, suppliers and material men, whether or not in privity with the Contractor.

3.1.2. Interpretation of Contract

3.1.2.1. Order of Precedence

The order of precedence of the component contract parts will be as follows:

- If funded by the Federal government or State of Illinois, terms required by the Federal Government or State of Illinois, as applicable, whether set out in this document, in a Task Order Request (if applicable), or otherwise.
- Standard provisions and form provisions relating to this procurement type
- Scope of Work and Detailed Specifications
- Task Order (if applicable)
- All other parts of this Contract.

Provided, however, in the event of an inconsistency between terms set out among different component parts of the Contract, or terms set out within a Contract part, notwithstanding the order of precedence noted above, the term that is most favorable to the City controls, unless expressly stated otherwise.

3.1.2.2. Interpretation and Rules

Unless a contrary meaning is specifically noted elsewhere, the phrases "as required", "as directed", "as permitted", and similar words mean the requirements, directions, and permissions of the Commissioner or CPO, as applicable. Similarly, the words "approved", "acceptable", "satisfactory", and similar words mean approved by, acceptable to, or satisfactory to the Commissioner or the CPO, as applicable.

The words "necessary", "proper", or similar words used with respect to the nature or extent of work or services mean that work or those services must be conducted in a manner, or be of a character which is necessary or proper for the type of work or services being provided in the opinion of the

Commissioner and the CPO, as applicable. The judgment of the Commissioner and the CPO in such matters will be considered final.

Wherever the imperative form of address is used, such as "provide equipment required" it will be understood and agreed that such address is directed to the Contractor unless the provision expressly states that the City will be responsible for the action.

3.1.2.3. Severability

The invalidity, illegality, or unenforceability of any one or more phrases, sentences, clauses, or sections in this Contract does not affect the remaining portions of this Contract.

3.1.2.4. Entire Contract

The Contract Documents constitute the entire agreement between the parties and may not be modified except by the subsequent written agreement of the parties.

3.1.3. Subcontracting and Assignment

3.1.3.1. No Assignment of Contract

Pursuant to 65 ILCS 8-10-14, Contractor may not assign this Contract without the prior written consent of the CPO. In no case will such consent relieve the Contractor from its obligations, or change the terms of the Contract. The Contractor must notify the CPO, in writing, of the name of any proposed assignee and the reason for the assignment; consent to which is solely in the CPO's discretion.

3.1.3.2. Subcontracts

No part of the goods, work, or services to be provided under this Contract may be subcontracted without the prior written consent of the CPO; but in no case will such consent relieve the Contractor from its obligations, or change the terms of the Contract. Further, substitution of a previously approved Subcontractor without the prior written consent of the CPO is not permitted. The Contractor must notify the CPO of the names of all Subcontractors to be used and shall not employ any that the CPO has not approved. Prior to proposing the use of a certain Subcontractor, the Contractor must verify that neither the Subcontractor nor any of its owners is debarred from or otherwise ineligible to participate on City contracts. This information can be found on the City's website:

http://www.cityofchicago.org/city/en/depts/dps/provdrs/comp/svcs/debarred_firms_list.html

The Contractor will only subcontract with competent and responsible Subcontractors. If, in the judgment of the Commissioner or the CPO, any Subcontractor is careless, incompetent, violates safety or security rules, obstructs the progress of the services or work, acts contrary to instructions, acts improperly, is not responsible, is unfit, is incompetent, violates any laws applicable to this Contract, or fails to follow the requirements of this Contract, then the Contractor will, immediately upon notice from the Commissioner or the CPO, discharge or otherwise remove such Subcontractor and propose an acceptable substitute for CPO approval. Removal and substitution must be in compliance with any applicable requirements of the MBE/WBE or DBE program.

All subcontracts and all approvals of Subcontractors are, regardless of their form, considered conditioned upon performance by the Subcontractor in accordance with the terms and conditions of this Contract. Upon request of the City, Contractor must promptly provide a copy of its agreement(s) with its subcontractor(s). All subcontracts must contain provisions that require the subcontracted activity be performed in strict accordance with the requirements of this Contract, provide that the Subcontractors are subject to all the terms of this Contract, and are subject to the approval of the CPO. If the subcontract agreements do not prejudice any of the City's rights under this Contract, such agreements may contain different provisions than are provided in this Contract with respect to extensions of schedule, time of completion, payments, guarantees and matters not affecting the quality of the activity to be performed.

3.1.3.3. No Pledging or Assignment of Contract Funds Without City Approval

The Contractor may not pledge, transfer, or assign any interest in this Contract or contract funds due or to become due without the prior written approval of the CPO. Any such attempted pledge, transfer, or assignment, without the prior written approval of the CPO is void as to the City and will be deemed an event of default under this Contract.

3.1.3.4. City's Right to Assign

The City expressly reserves the right to assign or otherwise transfer all or any part of its interests in this Contract without the consent or approval of the Contractor.

3.1.3.5. Assigns

All of the terms and conditions of this Contract are binding upon and inure to the benefit of the parties hereto and their respective legal representatives, successors, transferees, and assigns.

3.1.4. Contract Governance

3.1.4.1. Governing Law and Jurisdiction

This Contract will be governed in accordance with the laws of the State of Illinois, without regard to choice of law principles. The Contractor hereby irrevocably submits, and will cause its Subcontractors to submit, to the original jurisdiction of those State or Federal courts located within the County of Cook, State of Illinois, with regard to any controversy arising out of, relating to, or in any way concerning the execution or performance of this Contract and irrevocably agrees to be bound by any final judgment rendered thereby from which no appeal has been taken or is available. The Contractor irrevocably waives any objection (including without limitation any objection of the laying of venue or based on the grounds of forum non conveniens) which it may now or hereafter have to the bringing of any action or proceeding with respect to this Contract in the jurisdiction set forth above.

3.1.4.2. Consent to Service of Process

The Contractor agrees that service of process on the Contractor may be made, at the option of the City, either by registered or certified mail addressed to the applicable office as provided for in this Contract, by registered or certified mail addressed to the office actually maintained by the Contractor, or by personal delivery on any officer, director, or managing or general agent of the Contractor. The Contractor designates and appoints the representative identified on the signature page hereto under the heading "Designation of Agent for Service Process", as its agent in Chicago, Illinois, to receive on its behalf service of all process (which representative will be available to receive such service at all times), such service being hereby acknowledged by such representative to be effective and binding service in every respect. Said agent may be changed only upon the giving of written notice by the Contractor to the City of the name and address of a new Agent for Service of Process who works within the geographical boundaries of the City of Chicago. Nothing herein will affect the right to serve process in any other manner permitted by law or will limit the right of the City to bring proceedings against the Contractor in the courts of any other jurisdiction.

3.1.4.3. Cooperation by Parties and between Contractors

The Parties hereby agree to act in good faith and cooperate with each other in the performance of this Contract. The Contractor further agrees to implement such measures as may be necessary to ensure that its staff and its Subcontractors will be bound by the provisions of this Contract. The City will be expressly identified as a third party beneficiary in the subcontracts and granted a direct right of enforcement thereunder.

Unless otherwise provided in Detailed Specifications, if separate contracts are let for work within or adjacent to the project site as may be further detailed in the Contract Documents, each Contractor must perform its Services so as not to interfere with or hinder the progress of completion of the work being performed by other contractors.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with its contract, and shall protect and hold harmless the City from any and all damages or claims that may

arise because of inconvenience, delay, or loss experienced by the Contractor because of the presence and operations of other contractors working within the limits of its work or Services. Each Contractor shall assume all responsibility for all work not completed or accepted because of the presence and operations of other contractors.

The Contractor must as far as possible, arrange its work and space and dispose of the materials being used, so as not to interfere with the operations of the other contractors within or adjacent to the limits of the project site.

3.1.4.4. No Third Party Beneficiaries

The Parties agree that this Contract is solely for the benefit of the Parties and nothing herein is intended to create any third party beneficiary rights for subcontractors or other third parties.

3.1.4.5. Independent Contractor

This Contract is not intended to and does not constitute, create, give rise to, or otherwise recognize a joint venture, partnership, corporation or other formal business association or organization of any kind between Contractor and the City. The rights and the obligations of the Parties are only those set forth in this Contract. Contractor must perform under this Contract as an independent contractor and not as a representative, employee, agent, or partner of the City.

This Contract is between the City and an independent contractor and, if Contractor is an individual, nothing provided for under this Contract constitutes or implies an employer-employee relationship such that:

The City will not be liable under or by reason of this Contract for the payment of any workers' compensation award or damages in connection with the Contractor performing the Services required under this Contract.

Contractor is not entitled to membership in any City Pension Fund, Group Medical Insurance Program, Group Dental Program, Group Vision Care, Group Life Insurance Program, Deferred Income Program, vacation, sick leave, extended sick leave, or any other benefits ordinarily provided to individuals employed and paid through the regular payrolls of the City.

The City is not required to deduct or withhold any taxes, FICA or other deductions from any compensation provided to Contractor.

3.1.4.6. Authority

Execution of this Contract by the Contractor is authorized and signature(s) of each person signing on behalf of the Contractor have been made with complete and full authority to commit the Contractor to all terms and conditions of this Contract, including each and every representation, certification, and warranty contained herein, attached hereto and collectively incorporated by reference herein, or as may be required by the terms and conditions hereof. If other than a sole proprietorship, Contractor must provide satisfactory evidence that the execution of the Contract is authorized in accordance with the business entity's rules and procedures.

3.1.4.7. Joint and Several Liability

In the event that Contractor, or its successors or assigns, if any, is comprised of more than one individual or other legal entity (or a combination thereof), then and in that event, each and every obligation or undertaking herein stated to be fulfilled or performed by Contractor will be the joint and several obligation or undertaking of each such individual or other legal entity.

3.1.4.8. Notices

All communications and notices to the City from the Contractor must be faxed, delivered personally, electronically mailed or mailed first class, postage prepaid, to the Commissioner of the using Department that appears on the applicable Purchase Order, with a copy to the Chief Procurement Officer, Room 806, City Hall, 121 N. LaSalle Street, Chicago, Illinois 60602.

A copy of any communications or notices to the City relating to Contract interpretation, a dispute, or indemnification obligations shall also be sent by the same means set forth above to the Department of Law, Room 600, City Hall, 121 N LaSalle Street, Chicago, Illinois 60602.

All communications and notices from the City to the Contractor, unless otherwise provided for, will be faxed, delivered personally, electronically mailed or mailed first class, postage prepaid, to the Contractor care of the name and to the address listed on the Bid Documents' proposal page. If this contract was awarded through a process that does not use bid or proposal documents, notices to contractor will be sent to an address specified in the Contract.

3.1.4.9. Amendments

Following Contract award, no change, amendment, or modification of the Contract Documents or any part thereof, is valid unless stipulated in writing and signed by the Contractor, Mayor, CPO, and Comptroller, unless specifically allowed for by the Contract Documents.

3.1.4.10. No Waiver of Legal Rights

Neither the acceptance by the City, or any representative of the City, nor any payment for or acceptance of the whole or any part of the deliverables, nor any extension of time, nor any possession taken by the City, shall operate as a waiver by the City of any portion of the Contract, or of any power herein reserved or any right of the City to damages herein provided.

A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach. Whenever under this Contract the City by a proper authority waives the Contractor's performance in any respect or waives a requirement or condition to either the City's or the Contractor's performance, the waiver so granted, whether express or implied, shall only apply to the particular instance and will not be deemed a waiver forever or for subsequent instance of the performance, requirement, or condition. No such waiver shall be construed as a modification of this Contract regardless of the number of time the City may have waived the performance, requirement, or condition.

3.1.4.11. Non-appropriation of Funds

Pursuant to 65 ILCS 5/8-1-7, any contract for the expenditure of funds made by a municipality without the proper appropriation is null and void.

If no funds or insufficient funds are appropriated and budgeted in any fiscal period of the City for payments to be made under this Contract, then the City will notify the Contractor of that occurrence and this Contract shall terminate on the earlier of the last day of the fiscal period for which sufficient appropriation was made or whenever the funds appropriated for payment under this Contract are exhausted.

No payments will be made to the Contractor under this Contract beyond those amounts appropriated and budgeted by the City to fund payments under this Contract.

3.1.4.12. Participation By Other Government Agencies

Other Local Government Agencies (defined below) may be eligible to participate in this Contract if (a) such agencies are authorized, by law or their governing bodies, to execute such purchases, (b) such authorization is consented to by the City of Chicago's CPO, and (c) such purchases have no net adverse effect on the City of Chicago and result in no diminished services from the Contractor to the City's Departments.

Examples of such Local Government Agencies are: the Chicago Board of Education, Chicago Park District, City Colleges of Chicago, Chicago Transit Authority, Chicago Housing Authority, Chicago Board of Elections, Metropolitan Pier and Exposition Authority (McCormick Place, Navy Pier), and the Municipal Courts.

Said purchases will be made upon the issuance of a purchase order directly from the Local Government Agency. The City will not be responsible for payment of any amounts owed by any

other Local Government Agencies, and will have no liability for the acts or omissions of any other Local Government Agency.

3.1.5. Confidentiality

All deliverables and reports, data, findings or information in any form prepared, assembled or encountered by or provided by Contractor under this Contract are property of the City and are confidential, except as specifically authorized in this Contract or as may be required by law. Contractor must not allow the Deliverables to be made available to any other individual or organization without the prior written consent of the City. Further, all documents and other information provided to Contractor by the City are confidential and must not be made available to any other individual or organization without the prior written consent of the City. Contractor must implement such measures as may be necessary to ensure that its staff and its Subcontractors are bound by the confidentiality provisions contained in this Contract.

Contractor must not issue any publicity news releases or grant press interviews, and except as may be required by law during or after the performance of this Contract, disseminate any information regarding its Services or the project to which the Services pertain without the prior written consent of the Commissioner.

If Contractor is presented with a request for documents by any administrative agency or with a subpoena duces tecum regarding any records, data or documents which may be in Contractor's possession by reason of this Contract, Contractor must immediately give notice to the Commissioner, CPO and the Corporation Counsel for the City with the understanding that the City will have the opportunity to contest such process by any means available to it before the records or documents are submitted to a court or other third party. Contractor, however, is not obligated to withhold the delivery beyond the time ordered by the court or administrative agency, unless the subpoena or request is quashed or the time to produce is otherwise extended.

3.1.6. Indemnity

Contractor must defend, indemnify, keep and hold harmless the City, its officers, representatives, elected and appointed officials, agents and employees (collectively, the "Indemnified Parties,") from and against any and all Losses (as defined below), in consequence of the granting of this Contract or arising out of or being in any way connected with the Contractor's performance under this Contract, except as otherwise provided in 740 ILCS 35 "Construction Contract Indemnification for Negligence Act" if it applies, including those related to: injury, death or damage of or to any person or property; any infringement or violation of any property right (including any patent, trademark or copyright); failure to pay or perform or cause to be paid or performed Contractor's covenants and obligations as and when required under this Contract or otherwise to pay or perform its obligations to any subcontractor; the City's exercise of its rights and remedies under this Contract; and injuries to or death of any employee of Contractor or any subcontractor under any workers compensation statute. When 740 ILCS 35 applies, indemnification provided by the Contractor to the Indemnified Parties will be to the maximum extent permitted under applicable law.

"Losses" means, individually and collectively, liabilities of every kind, including monetary damages and reasonable costs, payments and expenses (such as, but not limited to, court costs and reasonable attorneys' fees and disbursements), claims, demands, actions, suits, proceedings, fines, judgments or settlements, any or all of which in any way arise out of or relate to the negligent or otherwise wrongful errors, acts, or omissions of Contractor, its employees, agents and subcontractors.

The Contractor will promptly provide, or cause to be provided, to the Commissioner and the Corporation Counsel copies of such notices as Contractor may receive of any claims, actions, or suits as may be given or filed in connection with the Contractor's performance or the performance of any Subcontractor and for which the Indemnified Parties are entitled to indemnification hereunder.

At the City Corporation Counsel's option, Contractor must defend all suits brought upon all such Losses and must pay all costs and expenses incidental to them, but the City has the right, at its option, to

participate, at its own cost, in the defense of any suit, without relieving Contractor of any of its obligations under this Contract. Any settlement must be made only with the prior written consent of the City Corporation Counsel, if the settlement requires any action on the part of the City.

The Contractor shall be solely responsible for the defense of any and all claims, demands, or suits against the Indemnified Parties, including without limitation, claims by an employee, subcontractors, agents, or servants of Contractor even though the claimant may allege that the Indemnified Parties were in charge of the work or service performed under the Contract, that it involves equipment owned or furnished by the Indemnified Parties, or allege negligence on the part of the Indemnified Parties. The City will have the right to require Contractor to provide the City with a separate defense of any such suit.

To the extent permissible by law, Contractor waives any limits to the amount of its obligations to indemnify, defend or contribute to any sums due to third parties arising out of any Losses, including but not limited to any limitations on Contractor's liability with respect to a claim by any employee of Contractor arising under the Workers Compensation Act, 820 ILCS 305/1 *et seq.* or any other related law or judicial decision (such as, *Kotecki v. Cyclops Welding Corporation*, 146 Ill. 2d 155 (1991)). The City, however, does not waive any limitations it may have on its liability under the Illinois Workers Compensation Act, the Illinois Pension Code or any other statute.

The indemnities in this section survive expiration or termination of this Contract for matters occurring or arising during the term of this Contract or as the result of or during the Contractor's performance of work or services beyond the term. Contractor acknowledges that the requirements set forth in this section to indemnify, keep and save harmless and defend the City are apart from and not limited by the Contractor's duties under this Contract, including the insurance requirements set forth in the Contract.

3.1.7. Non-Liability of Public Officials

Contractor and any assignee or Subcontractor of Contractor must not charge any official, employee or agent of the City personally with any liability or expenses of defense or hold any official, employee or agent of the City personally liable to them under any term or provision of this Contract or because of the City's execution, attempted execution or any breach of this Contract.

3.2. Compensation Provisions

3.2.1. Ordering, Invoices, and Payment

3.2.1.1. Purchase Orders

Requests for work, services or goods in the form of a Purchase Order will be issued by the Department and sent to the Contractor to be applied against the Contract. The Contractor must not honor any order(s), perform work or services or make any deliveries of goods without receipt of a Purchase Order issued by the City of Chicago. Any work, services, or goods provided by the Contractor without a Purchase Order is made at the Contractor's risk. Consequently, in the event such Purchase Order is not provided by the City, the Contractor releases the City from any liability whatsoever to pay for any work, services, or goods provided without said Purchase Order.

Purchase Orders will indicate quantities ordered for each line item, unit/total cost, shipping address, delivery date, fund chargeable information, catalog information (if applicable), and other pertinent instructions regarding performance or delivery.

3.2.1.2. Invoices

If required by the Scope of Work / Detailed Specifications, original invoices must be sent by the Contractor to the Department to apply against the Contract. Invoices must be submitted in accordance with the mutually agreed upon time period with the Department. All invoices must be signed, dated and reference the City's Purchase Order number and Contract number. A signed work ticket, time sheets, manufacturer's invoice, if applicable, or any documentation requested by the Commissioner must accompany each invoice. If a Contractor has more than one contract with the City, separate invoices must be prepared for each contract in lieu of combining items from different contracts under the same invoice. Invoice quantities, description of work, services or goods, unit of measure, pricing and/or catalog information must correspond to the items on the accepted Price

List or Proposal Pages or of the Bid Documents. If invoicing Price List/Catalog items, indicate Price List/Catalog number, item number, Price List/Catalog date and Price List/Catalog page number on the invoice.

3.2.1.3. Payment

The City will process payment within sixty (60) calendar days after receipt of invoices and all supporting documentation necessary for the City to verify the satisfactory delivery of work, services or goods to be provided under this Contract.

Contractor may be paid, at the City's option, by electronic payment method. If the City elects to make payment through this method, it will so notify the Contractor, and Contractor agrees to cooperate to facilitate such payments by executing the City's electronic funds transfer form, available for download from the City's website at:

http://www.cityofchicago.org/content/dam/city/depts/fin/supp_info/DirectDepositCityVendor.pdf.

The City reserves the right to offset mistaken or wrong payments against future payments.

The City will not be obligated to pay for any work, services or goods that were not ordered with a Purchase Order or that are non-compliant with the terms and conditions of the Contract Documents. Any goods, work, or services which fail tests and/or inspections are subject to correction, exchange or replacement at the cost of the Contractor.

3.2.1.4. Electronic Ordering and Invoices

The Contractor will cooperate in good faith with the City in implementing electronic ordering and invoicing, including but not limited to price lists/catalogs, purchase orders, releases and invoices. The electronic ordering and invoice documents will be in a format specified by the City and transmitted by an electronic means specified by the City. Such electronic means may include, but are not limited to, disks, e-mail, EDI, FTP, web sites, and third party electronic services. The CPO reserves the right to change the document format and/or the means of transmission upon written notice to the Contractor. Contractor will ensure that the essential information, as determined by the CPO, in the electronic document, corresponds to that information submitted by the Contractor in its paper documents. The electronic documents will be in addition to paper documents required by this Contract, however, by written notice to the Contractor, the CPO may deem any or all of the electronic ordering and invoice documents the official documents and/or eliminate the requirement for paper ordering and invoice documents.

3.2.1.5. City Right to Offset

The City may offset against any invoice from Contractor any costs incurred by the City as a result of event of default by Contractor under this Contract or otherwise resulting from Contractor's performance or non-performance under this Contract, including but not limited to any credits due as a result of over-billing by Contractor or overpayments made by the City. If the amount offset is insufficient to cover those costs, Contractor is liable for and must promptly remit to the City the balance upon written demand for it. This right to offset is in addition to and not a limitation of any other remedies available to the City.

3.2.1.6. Records

Upon request the Contractor must furnish to the City such information related to the progress, execution, and cost of the Services. All books and accounts in connection with this Contract must be open to inspection by authorized representatives of the City. The Contractor must make these records available at reasonable times during the performance of the Services and will retain them in a safe place and must retain them for a period that is the longer of five (5) years or as required by relevant retention schedules after the expiration or termination of the Contract.

3.2.1.7. Audits

3.2.1.7.1. City's Right to Conduct Audits

The City may, in its sole discretion, audit the records of Contractor or its Subcontractors, or both, at any time during the term of this Contract or within five years after the Contract ends, in connection with the goods, work, or services provided under this Contract. Each calendar year or partial calendar year may be deemed an "audited period".

3.2.1.7.2. Recovery for Over-Billing

If, as a result of such an audit, it is determined that Contractor or any of its Subcontractors has overcharged the City in the audited period, the City will notify Contractor. Contractor must then promptly reimburse the City for any amounts the City has paid Contractor due to the overcharges and, depending on the facts, also some or all of the cost of the audit, as follows:

If the audit has revealed overcharges to the City representing less than 5% of the total value, based on the contract prices, of the goods, work, or services provided in the audited period, then the Contractor must reimburse the City for 50% of the cost of the audit and 50% of the cost of each subsequent audit that the City conducts;

If, however, the audit has revealed overcharges to the City representing 5% or more of the total value, based on the contract prices, of the goods, work, or services provided in the audited period, then Contractor must reimburse the City for the full cost of the audit and of each subsequent audit.

Failure of Contractor to reimburse the City in accordance with the foregoing is an event of default under this Contract, and Contractor will be liable for all of the City's costs of collection, including any court costs and attorneys' fees.

3.2.2. Subcontractor Payment Reports

The Contractor must report payments to Subcontractors on a monthly basis in the form of an electronic report. Upon the first payment issued by the City to the Contractor for services performed, on the first day of each month and every month thereafter, email and/or fax notifications will be sent to the Contractor with instructions to report payments to Subcontractors that have been made in the prior month. This information must be entered into the Certification and Compliance Monitoring System (C2), or whatever reporting system is currently in place, on or before the fifteenth (15th) day of each month.

Once the Contractor has reported payments made to each Subcontractor, including zero dollar amount payments, the Subcontractor will receive an email and/or fax notification requesting that they log into the system and confirm payments received.

All monthly confirmations must be reported on or before the twentieth (20th) day of each month. Contractor and Subcontractor reporting to the C2 system must be completed by the twenty-fifth (25th) of each month or payments may be withheld.

All contracts between the Contractor and its Subcontractors must contain language requiring the Subcontractors to respond to email and/or fax notifications from the City requiring them to report payments received from the Contractor.

Access to the Certification and Compliance Monitoring System (C2), which is a web-based reporting system, can be found at: <https://chicago.mwdbe.com>

(Note: This site works for reporting all Subcontractor payments regardless of whether they are MBE/WBE/DBE or non-certified entities.)

If a Subcontractor has satisfactorily performed in accordance with the requirements of the Contract, Contractor must pay Subcontractor for such work, services, or materials within seven (7) calendar days of Contractor receiving payment from the City. Failure to comply with the foregoing will be deemed an event of default.

3.2.3. Prompt Payment to Subcontractors

3.2.3.1. Incorporation of Prompt Payment Language in Subcontracts

Contractor must state the requirements of these Prompt Payment provisions in all Subcontracts and purchase orders. If Contractor fails to incorporate these provisions in all Subcontracts and purchase orders, the provisions of this Section are deemed to be incorporated in all Subcontracts and purchase orders. Contractor and the Subcontractors have a continuing obligation to make prompt payment to their respective Subcontractors. Compliance with this obligation is a condition of Contractor's participation and that of its Subcontractors on this Contract.

3.2.3.2. Payment to Subcontractors Within Seven Days

The Contractor must make payment to its Subcontractors **within 7 days** of receipt of payment from the City for each invoice.

Provided the Subcontractor's performance has met the terms of the Contract Documents, and that Subcontractor has submitted its request for payment to the Contractor with such documentation as is reasonably necessary to substantiate such performance, the Contractor shall bill the City for such performance when the Contractor is first authorized under the payment schedule of the Contract to submit an invoice to the City for such performance. Contractor may only invoice the City at the rates contained in the Contract Documents.

3.2.3.2.1. Reporting Failures to Promptly Pay

The City posts payments to prime contractors on the web at

<http://webapps.cityofchicago.org/VCSearchWeb/org/cityofchicago/vcsearch/controller/payments/begin.do?agencyId=city>.

If the Contractor, without reasonable cause, fails to make any payment to its Subcontractors and material suppliers **within 7 days** after receipt of payment under a City contract, the Contractor shall pay to its Subcontractors and material suppliers, in addition to the payment due them, interest in the amount of 2% per month, calculated from the expiration of the 7-day period until fully paid.

In the event that a Contractor fails to make payment to a Subcontractor within the 7-day period required above, the Subcontractor may notify the City by submitting a report form that may be downloaded from the DPS website at:

http://www.cityofchicago.org/content/dam/city/depts/dps/ContractAdministration/StandardFormsAgreements/Failure_to_Promptly_Pay_Fillable_Form_3_2013.pdf

The report will require the Subcontractor to affirm that (a) its invoice to the Contractor was included in the payment request submitted by the contractor to the City and (b) Subcontractor has not, at the time of the report, received payment from the contractor for that invoice. The report must reference the payment (voucher) number posted on-line by the City in the notice of the payment to the contractor.

Subcontractors are hereby reminded that per Chapters 1-21, "False Statements," and 1-22, "False Claims," of the Municipal Code of Chicago, making false statements or claims to the City are violations of law and subject to a range of penalties including fines and debarment.

3.2.3.2.2. Whistleblower Protection

Contractor shall not take any retaliatory action against any Subcontractor for reporting non-payment pursuant to this Sub-Section 3.2.3.2.2. Any such retaliatory action is an event of default under this Contract and is subject to the remedies set forth in Section 3.5.3 hereof, including termination. In addition to those remedies, any retaliatory action by a contractor may result in a contractor being deemed non-responsible for future City contracts or, if, in the sole judgment of the Chief Procurement Officer, such retaliatory action is egregious, the Chief Procurement Officer may initiate debarment proceedings against the contractor. Any such debarment shall be for a period of not less than one year.

3.2.3.3. Liquidated Damages for Failure to Promptly Pay

Much of the City's economic vitality derives from the success of its small businesses. The failure by contractors to pay their subcontractors in a timely manner, therefore, is clearly detrimental to the City. Inasmuch as the actual damages to the City due to such failure are uncertain in amount and difficult to prove, Contractor and City agree that the Chief Procurement Officer may assess liquidated damages against contractors who fail to meet their prompt payment requirements. Such liquidated damages shall be assessed to compensate the City for any and all damage incurred due to the failure of the Contractor to promptly pay its subcontractors, and does not constitute a penalty. Any and all such liquidated damages collected by the City shall be used to improve the administration and outreach efforts of the City's Small Business Program.

3.2.3.4. Action by the City

Upon receipt of a report of a failure to pay, the City will issue notice to the contractor, and provide the contractor with an opportunity to demonstrate reasonable cause for failing to make payment within applicable period set forth in the Contract. The Chief Procurement Officer, in her sole judgment, shall determine whether any cause for nonpayment provided by a contractor is reasonable. In the event that the contractor fails to demonstrate reasonable cause for failure to make payment, the City shall notify the contractor that it will assess liquidated damages. Any such liquidated damages will be assessed according to the following schedule:

First Unexcused Report:	\$50
Second Unexcused Report:	\$100
Third Unexcused Report:	\$250
Fourth Unexcused Report:	\$500

3.2.3.5. Direct Payment to Subcontractors By City

The CPO may notify the Contractor that payments to the Contractor will be suspended if the CPO has determined that the Contractor has failed to pay any Subcontractor, employee, or workman, for work performed. If Contractor has not cured a failure to pay a Subcontractor, employee or workman within 10 days after receipt of such notice, the CPO may request the Comptroller to apply any money due, or that may become due, to Contractor under the Contract to the payment of such Subcontractors, workmen, and employees and the effect will be the same, for purposes of payment to Contractor of the Contract Price, as if the City had paid Contractor directly.

Further, if such action is otherwise in the City's best interests, the CPO may (but is not obligated to) request that the Comptroller make direct payments to Subcontractors for monies earned on contracts and the effect will be the same, for purposes of payment to Contractor of the Contract Price, as if the City had paid Contractor directly. The City's election to exercise or not to exercise its rights under this paragraph shall not in any way affect the liability of the Contractor or its sureties to the City or to any such Subcontractor, workman, or employee upon any bond given in connection with such Contract.

3.2.4. General Price Reduction – Automatic Eligibility for General Price Reductions

If at any time after the Bid Opening Date the Contractor makes a general reduction in the price of any goods, services or work covered by the Contract to its customers generally, an equivalent price reduction based on similar quantities and/or considerations shall apply to the Contract for the duration of the contract period (or until the price is further reduced). Such price reduction will be effective at the same time and in the same manner as the reduction in the price to customers generally.

For purpose of this provision, a general price reduction will mean any reduction in the price of an article or service offered (1) to Contractor's customers generally, or (2) in the Contractor's price schedule for the class of customers, i.e., wholesalers, jobbers, retailers, etc., which was used as the basis for bidding on this Contract. An occasional sale at a lower price, or sale of distressed merchandise at a lower price, would not be considered a general price reduction under this provision.

The Contractor must invoice at such reduced prices indicating on the invoice that the reduction is pursuant to the General Price Reduction provision of the Contract. The Contractor, in addition, must within 10 calendar days of any general price reduction notify the CPO of such reduction by letter. Failure to do so will be an event of default. Upon receipt of any such notice of a general price reduction all participating Departments will be duly notified by the CPO.

Failure to notify the CPO of a General Price Reduction is an event of default, and the City's remedies shall include a rebate to the City of any overpayments.

3.3. Compliance With All Laws

3.3.1. General

Contractor must observe and comply with all applicable federal, state, county and municipal laws, statutes, regulations, codes, ordinances and executive orders, in effect now or later and as amended whether or not they appear in the Contract Documents.

Provisions required by law, ordinances, rules, regulations, or executive orders to be inserted in the Contract are deemed inserted in the Contract whether or not they appear in the Contract.

Contractor must pay all taxes and obtain all licenses, certificates, and other authorizations required in connection with the performance of its obligations hereunder, and Contractor must require all Subcontractors to also do so. Failure to do so is an event of default and may result in the termination of this Contract.

3.3.2. Certification of Compliance with Laws

By entering into this Contract with the City, Contractor certifies to the best of its knowledge and belief that it, its principals and any subcontractors used in the performance of this contract, meet City requirements and have not violated any City or sister agency policy, codes, state, federal, or local laws, rules or regulations and have not been subject to any debarment, suspension or other disciplinary action by any government agency. Additionally, if at any time the contractor becomes aware of such information, it must immediately disclose it to the City.

3.3.3. Federal Affirmative Action

It is an unlawful employment practice for the Contractor (1) to fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to his compensation, or the terms, conditions, or privileges of his employment, because of such individuals race, color, religion, sex, age, handicap or national origin; or (2) to limit, segregate, or classify his employees or applicants for employment in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individuals race, color, religion, sex, age, handicap or national origin.

Contractor must comply with The Civil Rights Act of 1964, 42 U.S.C. sec. 2000 et seq. (1988), as amended. Attention is called to: Exec. Order No. 11,246,30 Fed. Reg. 12,319 (1965), reprinted in 42 U.S.C. 2000(e) note, as amended by Exec. Order No. 11,375,32 Fed. Reg. 14,303 (1967) and by Exec. Order No. 12,086,43 Fed. Reg. 46,501 (1978); Age Discrimination Act, 42 U.S.C. sec. 61 01-61 06 (1988); Rehabilitation Act of 1973, 29 U.S.C. sec. 793-794 (1988); Americans with Disabilities Act, 42 U.S.C. sec. 12102 et seq.; and 41 C.F.R. Part 60 et seq. (1990); and all other applicable federal laws, rules, regulations and executive orders.

3.3.4. Civil Rights Act of 1964, Title VI, Compliance With Nondiscrimination Requirements

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

3.3.4.1. Compliance with Federal Nondiscrimination Requirements

The contractor will comply with federal nondiscrimination laws, regulations, and authorities, as they may be amended from time to time ("Acts and Regulations"), which include:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);

- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination under Title VI includes discrimination because of limited English proficiency (LEP). (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, prohibits discrimination because of sex in education programs or activities (20 U.S.C. 1681 et seq);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, religion, color, national origin, or sex in any activity carried out with a grant from the FAA).

3.3.4.2. Non-discrimination

The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21 (Nondiscrimination in Federally-Assisted Programs of the US Department of Transportation).

3.3.4.3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment

In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's

obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

3.3.4.4. Information and Reports

The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the City or applicable federal agency (e.g. Federal Aviation Administration, Federal Highway Administration, Federal Transit Authority, Transportation Security Administration, Department of Housing and Urban Development, etc.) providing funding to the City department(s) on this contract to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the federal agency, as appropriate, and will set forth what efforts it has made to obtain the information.

3.3.4.5. Sanctions for Noncompliance

In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the City will impose such contract sanctions as it or the relevant federal funding agency may determine to be appropriate, including, but not limited to:

- A. Withholding payments to the contractor under the contract until the contractor complies; and/or
- B. Cancelling, terminating, or suspending a contract, in whole or in part.

3.3.4.6. Incorporation of Provisions

The contractor will include the provisions of above paragraphs 3.3.4.1, "Compliance with Federal Nondiscrimination Requirements" through 3.3.4.6 "Incorporation of Provisions" in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the applicable federal agency may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

3.3.5. Other Non-Discrimination Requirements

3.3.5.1. Illinois Human Rights Act

3.3.5.1.1. Generally

Contractor must comply with the Illinois Human Rights Act, 775 ILCS 5/1-1 01 et seq., as amended and any rules and regulations promulgated in accordance therewith, including, but not limited to the Equal Employment Opportunity Clause, 44 Ill. Admin. Code 750 Appendix A.

Contractor must comply with the Public Works Employment Discrimination Act, 775 ILCS 10/0.01 et seq., as amended; and all other applicable state laws, rules, regulations and executive orders.

3.3.5.1.2. State of Illinois Equal Employment Opportunity Clause

In the event of the Contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause or the Illinois Human Rights Act, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this contract, the Contractor agrees as follows:

- A) That Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service; and, further, that he or she will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any underutilization.
- B) That, if Contractor hires additional employees in order to perform this contract or any portion of this contract, Contractor will determine the availability (in accordance with 44 Ill. Admin. Code Part 750) of minorities and women in the areas from which Contractor may reasonably recruit and Contractor will hire for each job classification for which employees are hired in a way that minorities and women are not underutilized.
- C) That, in all solicitations or advertisements for employees placed Contractor or on Contractor's behalf, Contractor will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service.
- D) That Contractor will send to each labor organization or representative of workers with which Contractor has or is bound by a collective bargaining or other agreement or understanding, a notice advising the labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and 44 Ill. Admin. Code Part 750. If any labor organization or representative fails or refuses to cooperate with the Contractor in Contractor's efforts to comply with the Act and this Part, the Contractor will promptly notify the Illinois Department of Human Rights and the City and will recruit employees from other sources when necessary to fulfill its obligations under the contract.
- E) That Contractor will submit reports as required by 44 Ill. Admin. Code Part 750, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or the City, and in all respects comply with the Illinois Human Rights Act and 44 Ill. Admin. Code Part 750.
- F) That Contractor will permit access to all relevant books, records, accounts and work sites by personnel of the City and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights' Rules and Regulations.
- G) That Contractor will include verbatim or by reference the provisions of this clause in every subcontract awarded under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify the City and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with the provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

3.3.5.2. Chicago Human Rights Ordinance MCC Ch. 2-160

Contractor must comply with the Chicago Human Rights Ordinance, MCC Ch. 2-160, Sect. 2-160-010 et seq., as amended; and all other applicable municipal code provisions, rules, regulations and executive orders.

Contractor must furnish or shall cause each of its Subcontractors to furnish such reports and information as requested by the Chicago Commission on Human Relations.

3.3.5.3. Business Enterprises Owned by People With Disabilities (BEPD)

Pursuant to MCC 2-92-586, Contractor is strongly encouraged to subcontract with businesses certified as business enterprises owned or operated by people with disabilities ("BEPD") as defined in that section or MCC 2-92-337, and to use BEPD businesses as suppliers.

3.3.6. Wages

Contractor must pay the highest of (1) prevailing wage/Davis-Bacon rate, if applicable; (2) minimum wage specified by Mayoral Executive Order 2014-4; "Living Wage" rate specified by MCC Sect. 2-92-610; (3) Chicago Minimum Wage rate specified by MCC Chapter 1-24, or (4) the highest applicable State or Federal minimum wage.

3.3.6.1. Minimum Wage, Mayoral Executive Order 2014-1

Mayoral Executive Order 2014-1 provides for a fair and adequate Minimum Wage to be paid to employees of City contractors and subcontractors performing work on City contracts.

If this contract was advertised on or after October 1, 2014, Contractor must comply with Mayoral Executive Order 2014-1 and any applicable regulations issued by the CPO. The Minimum Wage to be paid pursuant to the Order as of July 1, 2017 is **\$13.45 per hour**. The Minimum Wage must be paid to:

All employees regularly performing work on City property or at a City jobsite.

All employees whose regular work entails performing a service for the City under a City contract.

Beginning on July 1, 2015, and every July 1 thereafter, the hourly wage specified by the Executive Order shall increase in proportion to the increase, if any, in the Consumer Price Index for All Urban Consumers most recently published by the Bureau of Labor Statistics of the United States Department of Labor. Any hourly wage increase shall be rounded up to the nearest multiple of \$0.05. Such increase shall remain in effect until any subsequent adjustment is made. On or before June 1, 2015, and on or before every June 1 thereafter, the City shall make available to City Concessionaires a bulletin announcing the adjusted minimum hourly wages for the upcoming year.

The Minimum Wage is not required to be paid to employees whose work is performed in general support of contractor's operations, does not directly relate to the services provided to the City under the contract, and is included in the contract price as overhead, unless that employee's regularly assigned work location is on City property or at a City jobsite. It is also not required to be paid by employers that are 501(c)(3) not-for-profits.

Except as further described, the Minimum Wage is also not required to be paid to categories of employees subject to subsection 4(a)(2), subsection 4(a)(3), subsection 4(d), subsection 4(e), or Section 6 of the Illinois Minimum Wage Law, 820 ILCS 105/1 et seq., in force as of the date of this Contract or as amended. Nevertheless, the Minimum Wage is required to be paid to those workers described in subsections 4(a)(2)(A) and 4(a)(2)(B) of the Illinois Minimum Wage Law.

Additionally, the Minimum Wage is not required to be paid to employees subject to a collective bargaining agreement that provides for different wages than those required by Mayoral Executive Order 2014-1, if that collective bargaining agreement was in force prior to October 1, 2014 or if that collective bargaining agreement clearly and specifically waives the requirements of the order.

If the payment a Base Wage pursuant to Municipal Code of Chicago Sect. 2-92-610 is required for work or services done under this Contract, and the Minimum Wage is higher than the Base Wage, then the Contractor must pay the Minimum Wage. Likewise, if the payment of a prevailing wage is required and the prevailing wage is higher than the Minimum Wage, then the Contractor must pay the prevailing wage.

Contractors are reminded that they must comply with Municipal Code Chapter 1-24 establishing a minimum wage.

3.3.6.2. Living Wage Ordinance

MCC Sect. 2-92-610 provides for a living wage for certain categories of workers employed in the performance of City contracts, specifically non-City employed security guards, parking attendants, day laborers, home and health care workers, cashiers, elevator operators, custodial workers, and clerical workers ("Covered Employees"). Accordingly, pursuant to MCC Sect. 2-92-610 and regulations promulgated thereunder:

if the Contractor has 25 or more full-time employees, and if at any time during the performance of the contract the Contractor and/or any subcontractor or any other entity that provides any portion of the Services (collectively "Performing Parties") uses 25 or more full-time security guards, or any number of other full-time Covered Employees, then The Contractor's obligation to pay, and to assure payment of, the Base Wage will begin at any time during the Contract term when the conditions set forth in (1) and (2) above are met, and will continue thereafter until the end of the Contract term.

As of July 1, 2017 the Base Wage is \$12.30. The current rate can be found on the Department of Procurement Services' website.

Note: As of July 1, 2017, the wage specified by Mayoral Executive Order 2014-1 is higher than the Base Wage rate. Therefore, the higher wage specified by the Executive Order (or other applicable rule or law) must be paid.

Each July 1st the Base Wage will be adjusted, using the most recent federal poverty guidelines for a family of four (4) as published annually by the U.S. Department of Health and Human Services, to constitute the following: the poverty guidelines for a family of four (4) divided by 2000 hours or the current base wage, whichever is higher. At all times during the term of this Contract, Contractor and all other Performing Parties must pay the Base Wage (as adjusted in accordance with the above). If the payment of prevailing wages is required for work or services done under this Contract, and the prevailing wages for Covered Employees are higher than the Base Wage, then the Contractor must pay the prevailing wage rates.

The Contractor must include provisions in all subcontracts requiring its Subcontractors to pay the Base Wage to Covered Employees. The Contractor agrees to provide the City with documentation acceptable to the CPO demonstrating that all Covered Employees, whether employed by the Contractor or by a subcontractor, have been paid the Base Wage, upon the City's request for such documentation. The City may independently audit the Contractor and/or subcontractors to verify compliance herewith.

Failure to comply with the requirements of this Section will be an event of default under this Contract, and further, failure to comply may result in ineligibility for any award of a City contract or subcontract for up to three years.

Not-for-Profit Corporations: If the Contractor is a corporation having Federal tax-exempt status under Section 501(c)(3) of the Internal Revenue Code and is recognized under Illinois not-for-profit law, then the provisions above do not apply.

3.3.6.3. Chicago Paid Sick Leave Ordinance

The Paid Sick Leave Ordinance, which is published in the June 22, 2016 Council Journal, pages 27188 – 27197 and which will be codified at MCC 1-24-045, became effective July 1, 2017. Contractor understands that, to the extent that the Ordinance applies to its activities, it must comply with the Ordinance.

3.3.6.4. Equal Pay

The Contractor will comply with all applicable provisions of the Equal Pay Act of 1963, 29 U.S.C. 206(d) and the Illinois Equal Pay Act of 2003, 820 ILCS 112/1, *et seq.*, as amended, and all applicable related rules and regulations including but not limited to those set forth in 29 CFR Part 1620 and 56 Ill. Adm. Code Part 320.

3.3.7. Economic Disclosure Statement and Affidavit and Appendix A ("EDS")

Pursuant to MCC Ch. 2-154 and 65 ILCS 5/8-10-8.5 any person, business entity or agency submitting a bid or proposal to or contracting with the City of Chicago will be required to complete the Disclosure of Ownership Interests in the EDS. Failure to provide complete or accurate disclosure will render this Contract voidable by the City.

Contractors must complete an online EDS prior to the Bid Opening Date. Contractors are responsible for notifying the City and updating their EDS any time there is a change in circumstances that makes any information provided or certification made in an EDS inaccurate, obsolete or misleading. Failure to so notify the City and update the EDS is grounds for declaring the Contractor in default, terminating the Contract for default, and declaring the Contractor ineligible for future contracts.

Contractor makes certain representations and certifications that the City relies on in its decision to enter into a contract. The Laws and requirements that are addressed in the EDS include the following:

3.3.7.1. Business Relationships With Elected Officials MCC Sect. 2-156-030(b)

Pursuant to MCC Sect. 2-156-030(b), it is illegal for any elected official, or any person acting at the direction of such official, to contact either orally or in writing any other City official or employee with respect to any matter involving any person with whom the elected official has any business relationship that creates a financial interest on the part of the official, or the domestic partner or spouse of the official, or from whom or which he has derived any income or compensation during the preceding twelve months or from whom or which he reasonably expects to derive any income or compensation in the following twelve months. In addition, no elected official may participate in any discussion in any City Council committee hearing or in any City Council meeting or vote on any matter involving the person with whom the elected official has any business relationship that creates a financial interest on the part of the official, or the domestic partner or spouse of the official, or from whom or which he has derived any income or compensation during the preceding twelve months or from whom or which he reasonably expects to derive any income or compensation in the following twelve months.

Violation of MCC Sect. 2-156-030 by any elected official with respect to this contract will be grounds for termination of this contract. The term financial interest is defined as set forth in MCC Chapter 2-156.

3.3.7.2. MCC 1-23 and 720 ILCS 5/33E Bribery, Debts, and Debarment Certification

The Contractor or each joint venture partner, if applicable, must complete the appropriate subsections in the EDS which certify that the Contractor or each joint venture partner, its agents, employees, officers and any subcontractors (a) have not been engaged in or been convicted of bribery or attempted bribery of a public officer or employee of the City of Chicago, the State of Illinois, any agency of the federal government or any state or local government in the United States or engaged in or been convicted of bid-rigging or bid-rotation activities as defined in this section as required by the Illinois Criminal Code; (b) do not owe any debts to the State of Illinois, in accordance with 65 ILCS 5/11-42.1-1 and (c) are not presently debarred or suspended; Certification Regarding Environmental Compliance; Certification Regarding Ethics and Inspector General; and Certification Regarding Court-Ordered Child Support Compliance.

Contractor, in performing under this contract shall comply with MCC Sect. 2-92-320, as follows:

No person or business entity shall be awarded a contract or sub-contract if that person or business entity: (a) has been convicted of bribery or attempting to bribe a public officer or employee of the City of Chicago, the State of Illinois, or any agency of the federal government or of any state or local government in the United States, in that officers or employee's official capacity; or (b) has been convicted of agreement or collusion among bidders or prospective bidders in restraint of freedom of competition by agreement to bid a fixed price, or otherwise; or (c) has made an admission of guilt of such conduct described in (a) or (b) above which is a matter of record but has not been prosecuted for such conduct; or (d) has violated MCC Sect. 2-92-610; or (e) has violated any

regulation promulgated by the Chief Procurement Officer that includes ineligibility as a consequence of its violation; or (f) has committed, within a 24-month period, three or more violations of Chapter 1-24 of the MCC; or (g) has been debarred by any local, state or federal government agency from doing business with such government agency, for any reason or offense set forth in subsections (a), (b), or (c) of this section, or substantially equivalent reason or offense, for the duration of the debarment by such government agency..

For purposes of this section, where an official, agent or employee of a business entity has committed any offense under this section on behalf of such an entity and pursuant to the direction or authorization of a responsible official thereof, the business entity will be chargeable with the conduct.

One business entity will be chargeable with the conduct of an affiliated agency. Ineligibility under this section will continue for three (3) years following such conviction or admission. The period of ineligibility may be reduced, suspended, or waived by the CPO under certain specific circumstances. Reference is made to Section 2-92-320 for a definition of affiliated agency, and a detailed description of the conditions which would permit the CPO to reduce, suspend, or waive the period of ineligibility.

3.3.7.3. Federal Terrorist (No-Business) List

Contractor warrants and represents that neither Contractor nor an Affiliate, as defined below, appears on the Specially Designated Nationals List, the Denied Persons List, the Unverified List, the Entity List, or the Debarred List as maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury or by the Bureau of Industry and Security of the U.S. Department of Commerce or their successors, or on any other list of persons or entities with which the City may not do business under any applicable law, rule, regulation, order or judgment.

"Affiliate" means a person or entity which directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control with Contractor. A person or entity will be deemed to be controlled by another person or entity if it is controlled in any manner whatsoever that results in control in fact by that other person or entity, either acting individually or acting jointly or in concert with others, whether directly or indirectly and whether through shared ownership, a trust, a contract or otherwise.

3.3.7.4. Governmental Ethics Ordinance 2-156

Contractor must comply with MCC Ch. 2-156, Governmental Ethics, including but not limited to MCC Sect. 2-156-120 pursuant to which no payment, gratuity or offer of employment will be made in connection with any City contract, by or on behalf of a subcontractor to the prime Contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order. Any contract negotiated, entered into, or performed in violation of any of the provisions of this Chapter will be voidable as to the City.

3.3.7.5. Lobbyists

Contractor must comply with Chapter 2-156 of the Municipal Code. Contractor acknowledges that any Agreement entered into, negotiated or performed in violation of any of the provisions of Chapter 2-156, including any contract entered into with any person who has retained or employed a non-registered lobbyist in violation of Section 2-156-305 of the Municipal Code is voidable as to the City.

3.3.8. Restrictions on Business Dealings

3.3.8.1. Prohibited Interests in City Contracts

No member of the governing body of the City or other unit of government and no other officer, employee or agent of the City or other unit of government who exercises any functions or responsibilities in connection with the work or services to which this Contract pertains is permitted to have any personal interest, direct or indirect, in this Contract. No member of or delegate to the

Congress of the United States or the Illinois General Assembly and no alderman of the City or City employee is allowed to be admitted to any share or part of this Contract or to any financial benefit to arise from it.

3.3.8.2. Conflicts of Interest

The Contractor covenants that it, and to the best of its knowledge, its subcontractors if any, presently have no interest and will not acquire any interest, direct or indirect, in any enterprise, project or contract which would conflict in any manner or degree with the performance of the work, services or goods to be provided hereunder. The Contractor further covenants that in the performance of the Contract no person having any such interest will be employed, either by Contractor or any subcontractor, to perform any work or services under the Contract or have access to confidential information.

If the City determines that the Contractor does have such a conflict of interest, the City will notify the Contractor in writing, stating the basis for its determination. The Contractor will thereafter have 30 days in which to respond with reasons why the Contractor believes a conflict of interest does not exist. If the Contractor does not respond or if the City still reasonably determines a conflict of interest to exist, the Contractor must terminate its interest in the other enterprise, project, or contract. Further, if the City in the reasonable judgment of the CPO or Commissioner determines that any subcontractor's work or services for others conflicts with the work or services to be provided by them, upon request of the City, Contractor must require that subcontractor to terminate such other work or services immediately.

If Contractor or any subcontractors become aware of a conflict, they must immediately stop work on the activity causing the conflict and notify the City.

If Contractor or any subcontractors ("Contracting Parties") assist the City in determining the advisability or feasibility of a project or in recommending, researching, preparing, drafting or issuing a request for proposals, bid specifications for a project, or other procurement solicitation document, the Contracting Parties must not participate, directly or indirectly, as a prime, subcontractor, subconsultant or joint venturer in that project or in the preparation of a proposal or bid for that project during the term of this Contract or afterwards. The Contracting Parties may, however, assist the City in reviewing the proposals or bids for the project if none of the Contracting Parties have a relationship with the persons or entities that submitted the proposals or bids for that project.

3.3.8.3. Prohibition on Certain Contributions, Mayoral Executive Order 2011-4

No Contractor or any person or entity who directly or indirectly has an ownership or beneficial interest in Contractor of more than 7.5% ("Owners"), spouses and domestic partners of such Owners, Contractor's Subcontractors, any person or entity who directly or indirectly has an ownership or beneficial interest in any Subcontractor of more than 7.5% ("Sub-owners") and spouses and domestic partners of such Sub-owners (Contractor and all the other preceding classes of persons and entities are together, the "Identified Parties"), shall make a contribution of any amount to the Mayor of the City of Chicago (the "Mayor") or to his political fundraising committee during (i) the bid or other solicitation process for this Contract or Other Contract, including while this Contract or Other Contract is executory, (ii) the term of this Contract or any Other Contract between City and Contractor, and/or (iii) any period in which an extension of this Contract or Other Contract with the City is being sought or negotiated.

Contractor represents and warrants that since the date of public advertisement of the specification, request for qualifications, request for proposals or request for information (or any combination of those requests) or, if not competitively procured, from the date the City approached the Contractor or the date the Contractor approached the City, as applicable, regarding the formulation of this Contract, no Identified Parties have made a contribution of any amount to the Mayor or to his political fundraising committee.

Contractor shall not: (a) coerce, compel or intimidate its employees to make a contribution of any amount to the Mayor or to the Mayor's political fundraising committee; (b) reimburse its employees for a contribution of any amount made to the Mayor or to the Mayor's political fundraising committee; or (c) bundle or solicit others to bundle contributions to the Mayor or to his political fundraising committee.

The Identified Parties must not engage in any conduct whatsoever designed to intentionally violate this provision or Mayoral Executive Order No. 2011-4 or to entice, direct or solicit others to intentionally violate this provision or Mayoral Executive Order No. 2011-4.

Violation of, non-compliance with, misrepresentation with respect to, or breach of any covenant or warranty under this provision or violation of Mayoral Executive Order No. 2011-4 constitutes a breach and default under this Contract, and under any Other Contract for which no opportunity to cure will be granted. Such breach and default entitles the City to all remedies (including without limitation termination for default) under this Contract, under Other Contract, at law and in equity. This provision amends any Other Contract and supersedes any inconsistent provision contained therein.

If Contractor violates this provision or Mayoral Executive Order No. 2011-4 prior to award of the Contract resulting from this specification, the CPO may reject Contractor's bid.

For purposes of this provision:

"Other Contract" means any agreement entered into between the Contractor and the City that is (i) formed under the authority of MCC Ch. 2-92; (ii) for the purchase, sale or lease of real or personal property; or (iii) for materials, supplies, equipment or services which are approved and/or authorized by the City Council.

"Contribution" means a "political contribution" as defined in MCC Ch. 2-156, as amended.

"Political fundraising committee" means a "political fundraising committee" as defined in MCC Ch. 2-156, as amended.

3.3.9. Debts Owed to the City; Anti-Scofflaw, MCC Sect. 2-92-380

In addition to the certifications regarding debts owed to the City in the EDS, Contractor is subject to MCC Sect. 2-92-380.

Pursuant to MCC Sect. 2-92-380 and in addition to any other rights and remedies (including set-off) available to the City under this Contract or permitted at law or in equity, the City will be entitled to set off a portion of the contract price or compensation due under the Contract, in an amount equal to the amount of the fines and penalties for each outstanding parking violation complaint and the amount of any debt owed by the contracting party to the City. For purposes of this section, outstanding parking violation complaint means a parking ticket, notice of parking violation, or parking violation complaint on which no payment has been made or appearance filed in the Circuit Court of Cook County within the time specified on the complaint, and debt means a specified sum of money owed to the City for which the period granted for payment has expired.

However no such debt(s) or outstanding parking violation complaint(s) will be offset from the contract price or compensation due under the contract if one or more of the following conditions are met:

the contracting party has entered into an agreement with the Department of Finance, or other appropriate City department, for the payment of all outstanding parking violation complaints and debts owed to the City and the Contracting party is in compliance with the agreement; or

the contracting party is contesting liability for or the amount of the debt in a pending administrative or judicial proceeding; or the contracting party has filed a petition in bankruptcy and the debts owed the City are dischargeable in bankruptcy.

3.3.10. Other City Ordinances and Policies

3.3.10.1. False Statements

False statements made in connection with this Contract, including statements in, omissions from and failures to timely update the EDS, as well as in any other affidavits, statements or Contract Documents constitute a material breach of the Contract. Any such misrepresentation renders the Contract voidable at the option of the City, notwithstanding any prior review or acceptance by the City of any materials containing such a misrepresentation. In addition, the City may debar Contractor, assert any contract claims or seek other civil or criminal remedies as a result of a misrepresentation (including costs of replacing a terminated Contractor pursuant to MCC Sect. 1-21-010).

3.3.10.2. MacBride Principles Ordinance, MCC Sect. 2-92-580

This law promotes fair and equal employment opportunities and labor practices for religious minorities in Northern Ireland and provides a better working environment for all citizens in Northern Ireland.

If this contract was let by a competitive bidding process as set forth in the Municipal Purchasing Act for Cities of 500,000 or More Population, in accordance with MCC Sect. 2-92-580 if the primary Contractor conducts any business operations in Northern Ireland, it is hereby required that the Contractor will make all reasonable and good faith efforts to conduct any business operations in Northern Ireland in accordance with the MacBride Principles for Northern Ireland as defined in Illinois Public Act 85-1390 (1988 Ill. Laws 3220).

The provisions of this Section will not apply to contracts for which the City receives funds administered by the United States Department of Transportation (USDOT) except to the extent Congress has directed that USDOT not withhold funds from states and localities that choose to implement selective purchasing policies based on agreement to comply with the MacBride Principles for Northern Ireland, or to the extent that such funds are not otherwise withheld by the USDOT.

3.3.10.3. City Hiring Plan Prohibitions

- A. The City is subject to the June 16, 2014 "City of Chicago Hiring Plan" (the "2014 City Hiring Plan") entered in *Shakman v. Democratic Organization of Cook County*, Case No 69 C 2145 (United States District Court for the Northern District of Illinois). Among other things, the 2014 City Hiring Plan prohibits the City from hiring persons as governmental employees in non-exempt positions on the basis of political reasons or factors.
- B. Contractor is aware that City policy prohibits City employees from directing any individual to apply for a position with Contractor, either as an employee or as a subcontractor, and from directing Contractor to hire an individual as an employee or as a Subcontractor. Accordingly, Contractor must follow its own hiring and contracting procedures, without being influenced by City employees. Any and all personnel provided by Contractor under this Contract are employees or Subcontractors of Contractor, not employees of the City of Chicago. This Contract is not intended to and does not constitute, create, give rise to, or otherwise recognize an employer-employee relationship of any kind between the City and any personnel provided by Contractor.
- C. Contractor will not condition, base, or knowingly prejudice or affect any term or aspect of the employment of any personnel provided under this Contract, or offer employment to any individual to provide services under this Contract, based upon or because of any political reason or factor, including, without limitation, any individual's political affiliation, membership in a political organization or party, political support or activity, political financial contributions, promises of such political support, activity or financial contributions, or such individual's political sponsorship or recommendation. For purposes of this Contract, a political organization or party is an identifiable group or entity that has as its primary purpose the support of or opposition to candidates for elected public office.

Individual political activities are the activities of individual persons in support of or in opposition to political organizations or parties or candidates for elected public office.

- D. In the event of any communication to Contractor by a City employee or City official in violation of paragraph B above, or advocating a violation of paragraph C above, Contractor will, as soon as is reasonably practicable, report such communication to the Hiring Oversight Section of the City's Office of the Inspector General, and also to the head of the relevant City Department utilizing services provided under this Contract. Contractor will also cooperate with any inquiries by OIG Hiring Oversight.

3.3.10.4. Inspector General

It is the duty of any bidder, proposer or Contractor, all Subcontractors, every applicant for certification of eligibility for a City contract or program, and all officers, directors, agents, partners and employees of any bidder, proposer, Contractor, Subcontractor or such applicant to cooperate with the Inspector General in any investigation or hearing, if applicable, undertaken pursuant to MCC Ch. 2-56. Contractor understands and will abide by all provisions of MCC Ch. 2-56.

All subcontracts must inform Subcontractors of this provision and require understanding and compliance with them.

3.3.10.5. Duty to Report Corrupt Activity

Pursuant to MCC 2-156-018, it is the duty of the Contractor to report to the Inspector General, directly and without undue delay, any and all information concerning conduct which it knows to involve corrupt activity. "Corrupt activity" means any conduct set forth in Subparagraph (a)(1), (2) or (3) of Section 1-23-020 of the MCC. Knowing failure to make such a report will be an event of default under this Contract. Reports may be made to the Inspector General's toll free hotline, 866-IG-TIPLINE (866-448-4754).

3.3.10.6. Electronic Mail Communication

Electronic mail communication between Contractor and City employees must relate only to business matters between Contractor and the City.

3.3.10.7. EDS Update Obligation

Contractor is required to notify the City and update the EDS whenever there is a change in circumstances that makes any certification or information provided in an EDS inaccurate, obsolete or misleading. Failure to notify the City and update the EDS is grounds for declaring the Contractor in default, termination of the Contract for default, and declaring that the Contractor is ineligible for future contracts.

3.3.10.8. Wheel Tax (City Sticker)

Contractor must pay all Wheel Tax required by Chapter 3-56 of the MCC, as amended from time to time. Contractor should take particular notice of MCC 3-56-020 and MCC 3-56-125 which relate to payment of the tax for vehicles that are used on City streets or on City property by City residents. For the purposes of Chapter 3-56, any business that owns, leases or otherwise controls a place of business within the City wherein motor vehicles or semi-trailers are stored, repaired, serviced, or loaded or unloaded in connection with the business is also considered to be a City resident.

3.3.10.9. Participation By Other Local Government Agencies

If Contractor consents, other local government agencies may be eligible to participate in this Contract pursuant to the terms and conditions of this Contract if such agencies are authorized, by law or their governing bodies, to execute such purchases, and if such authorization is allowed by the Chief Procurement Officer, if such purchases have no net adverse effect on the City and result in no diminished services from the bidder to the City's user departments pursuant to such purchases. Examples of such Local Government Agencies are: Board of Education, Chicago Park District, City Colleges of Chicago, Chicago Transit Authority, Chicago Housing Authority, Chicago Board of Elections, Metropolitan Pier and Exposition Authority (McCormick Place, Navy Pier), and the Municipal Courts. Said purchases shall be made upon the issuance of a purchase order directly from

the Local Government Agency. The City will not be responsible for payment of any amounts owed by any other Local Government Agencies, and will have no liability for the acts or omissions of any other Local Government Agency.

3.3.11. Compliance with Environmental Laws and Related Matters

3.3.11.1. Definitions

For purposes of this section, the following definitions shall apply:

Environmental Agency: An Environmental Agency is any governmental agency having responsibility, in whole or in part, for any matter addressed by any Environmental Law. An agency need not be responsible only for matters addressed by Environmental Law(s) to be an Environmental Agency for purposes of this Contract.

Environmental Claim: An Environmental Claim is any type of assertion that Contractor or any Subcontractor is liable, or allegedly is liable, or should be held liable, under any Environmental Law, or that Contractor or any Subcontractor has or allegedly has violated or otherwise failed to comply with any Environmental Law. A non-exhaustive list of Environmental Claims includes, without limitation: demand letters, lawsuits and citations of any kind regardless of originating source.

Environmental Law: An Environmental Law is any Law that in any way, directly or indirectly, in whole or in part, bears on or relates to the environment or to human health or safety. A non-exhaustive list of Environmental Laws includes without limitation the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601, *et seq.*, the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*, the Hazardous Materials Transportation Act, 49 U.S.C. 5101, *et seq.*, the Clean Air Act, 42 U.S.C. 7401, *et seq.*, the Federal Water Pollution Control Act, 33 U.S.C. 1251, *et seq.*, the Occupational Safety and Health Act, 29 U.S.C. 651, *et seq.*, the Illinois Environmental Protection Act, 415 ILCS 5/1, *et seq.*, the Illinois Occupational Safety and Health Act, 820 ILCS 219/1, *et seq.*, Chapters 7-28 and 11-4 of the Chicago Municipal Code, and all related rules and regulations.

Law(s): The word "Law" or "Laws," whether or not capitalized, is intended in the broadest possible sense, including without limitation all federal, state and local: statutes; ordinances; codes; rules; regulations; administrative and judicial orders of any kind; requirements and prohibitions of permits, licenses or other similar authorizations of any kind; court decisions; common law; and all other legal requirements and prohibitions.

Routine: As applied to reports or notices, "routine" refers to a report or notice that must be made, submitted or filed on a regular, periodic basis (e.g., quarterly, annually, biennially) and that in no way arises from a spill or other release or any kind, or from an emergency response situation, or from any actual, possible or alleged noncompliance with any Environmental Law.

3.3.11.2. Joint Ventures

If Contractor or any Subcontractor is a joint venture, then every party to every such joint venture is deemed a Subcontractor for purposes of this section, which is entitled "Compliance with Environmental Laws and Related Matters" and every subsection thereof.

3.3.11.3. Compliance With Environmental Laws

As part of or in addition to its obligation to observe and comply with all applicable laws, Contractor must observe and comply with all applicable Environmental Laws and ensure that all Subcontractors observe and comply with all applicable Environmental Laws.

Any noncompliance, by Contractor or any Subcontractor, with any Environmental Law during the time that this Contract is effective is an event of default, regardless of whether the noncompliance relates to performance of this Contract. This includes without limitation any failure by Contractor or any Subcontractor to keep current, throughout the term of this Contract, all insurance certificates,

permits and other authorizations of any kind that are required, directly or indirectly, by any Environmental Law.

3.3.11.4. Costs

Any cost arising directly or indirectly, in whole or in part, from any noncompliance, by Contractor or any Subcontractor, with any Environmental Law, will be borne by the Contractor and not by the City. This includes, but is not limited to, any cost associated with removal of waste or other material from a facility lacking any required permit. No provision of this Contract is intended to create or constitute an exception to this provision.

3.3.11.5. Proof of Noncompliance; Authority; Cure

Any adjudication, whether administrative or judicial, against Contractor or any Subcontractor, for a violation of any Environmental Law, is sufficient proof of noncompliance, and therefore of an event of default, for purposes of this Contract.

Any citation issued to/against Contractor or any Subcontractor, by any government agent or entity, alleging a violation of any Environmental Law, is sufficient proof of noncompliance for purposes of this Contract, and therefore of an event of default, if the citation contains or is accompanied by, or the City otherwise obtains, any evidence sufficient to support a reasonable conclusion that a violation has occurred.

Any other evidence of noncompliance with any Environmental Law is sufficient proof of noncompliance for purposes of this Contract, and therefore of an event of default, if the evidence is sufficient to support a reasonable conclusion that noncompliance has occurred.

The CPO shall have the authority to determine whether noncompliance with an Environmental Law has occurred, based on any of the foregoing types of proof. Upon determining that noncompliance has occurred, she may in her discretion declare an event of default and may in her discretion offer Contractor an opportunity to cure the event of default, such as by taking specified actions, which may include without limitation ceasing and desisting from utilizing a Subcontractor.

The CPO may consider many factors in determining whether to declare an event of default, whether to offer an opportunity to cure, and if so any requirements for cure, including without limitation: the seriousness of the noncompliance, any effects of the noncompliance, Contractor's and/or Subcontractor's history of compliance or noncompliance with the same or other Laws, Contractor's and/or Subcontractor's actions or inaction towards mitigating the noncompliance and its effects, and Contractor's or Subcontractor's actions or inaction towards preventing future noncompliance.

3.3.11.6. Copies of Notices and Reports; Related Matters

If any Environmental Law requires Contractor or any Subcontractor to make, submit or file any non-Routine notice or report of any kind, to any Environmental Agency or other person, including without limitation any agency or other person having any responsibility for any type of emergency response activity, then Contractor must deliver a complete copy of the notice or report (or, in the case of legally required telephonic or other oral notices or reports, a comprehensive written summary of same) to the Law Department within 24 hours of making, submitting or filing the original report.

Additionally, to the extent not already achieved by Contractor's compliance with this paragraph 3.3.11.6 and paragraph 3.3.11.8, Contractor must notify the Commissioner of the Department, within 24 hours of learning of any of the following:

- (i) any release, suspected release, or threatened release of any waste or other material relating to the work performed under the Contract;
- (ii) any notice of any kind received by Contractor, any Subcontractor, or any employee or agent of Contractor or any Subcontractor, from an Environmental Agency or any other person, of or relating to any release, suspected release, or threatened release of any waste or other material relating to the work performed under the Contract.

This notification must be in writing, must be submitted by a fast method such as email, and must include, to the best of Contractor's knowledge at the time of submittal: the types and amounts of the waste or other material at issue; the location; the cause and any contributing factors; all actions taken, being taken, and intended to be taken by Contractor and any Subcontractors; and a copy of any notice received by Contractor, any Subcontractor, or any employee or agent of Contractor or any Subcontractor. Contractor must also provide written updates to the Commissioner by email or other method as indicated by the Commissioner whenever Contractor becomes aware of information that is different from or additional to the information provided in the initial notification.

The requirements of this provision apply, regardless of whether the subject matter of the required notice or report concerns performance of this Contract.

Failure to comply with any requirement of this provision is an event of default.

3.3.11.7. Requests for Documents and Information

If the Commissioner requests documents or information of any kind that directly or indirectly relate(s) to performance of this Contract, Contractor must obtain and provide the requested documents and/or information to the Commissioner within 5 business days.

Failure to comply with any requirement of this provision is an event of default.

3.3.11.8. Environmental Claims and Related Matters

Within 24 hours of receiving, or of any Subcontractor's receiving, notice of any Environmental Claim, Contractor must submit copies of all documents constituting or relating to the Environmental Claim to the Law Department. Thereafter, Contractor must submit copies of related documents if requested by the Law Department. These requirements apply, regardless of whether the Environmental Claim concerns performance of this Contract.

Failure to comply with any requirement of this provision is an event of default.

3.3.11.9. Preference for Recycled Materials

To the extent practicable and economically feasible and to the extent that it does not reduce or impair the quality of any work or services, Contractor must use recycled products in performance of the Contract pursuant to U.S. Environment Protection Agency (U.S. EPA) guidelines at 40 CFR Parts 247-253, which implement section 6002 of the Resource Conservation and Recovery Act, as amended, 42 USC § 6962.

3.3.11.10. No Waste Disposal in Public Way MCC 11-4-1600(E)

Contractor warrants and represents that it, and to the best of its knowledge, its Subcontractors have not violated and are not in violation of the following sections of the Code (collectively, the Waste Sections):

- 7-28-390 Dumping on public way;
- 7-28-440 Dumping on real estate without permit;
- 11-4-1410 Disposal in waters prohibited;
- 11-4-1420 Ballast tank, bilge tank or other discharge;
- 11-4-1450 Gas manufacturing residue;
- 11-4-1500 Treatment and disposal of solid or liquid waste;
- 11-4-1530 Compliance with rules and regulations required;
- 11-4-1550 Operational requirements; and
- 11-4-1560 Screening requirements.

During the period while this Contract is executory, Contractor's or any Subcontractor's violation of the Waste Sections, whether or not relating to the performance of this Contract, constitutes a breach of and an event of default under this Contract, for which the opportunity to cure, if curable, will be granted only at the sole discretion of the CPO. Such breach and default entitles the City to all remedies under the Contract, at law or in equity.

This section does not limit the Contractor's and its Subcontractors' duty to comply with all applicable federal, state, county and municipal laws, statutes, ordinances and executive orders, in effect now or later, and whether or not they appear in this Contract.

Non-compliance with these terms and conditions may be used by the City as grounds for the termination of this Contract, and may further affect the Contractor's eligibility for future contract awards.

3.4. Contract Disputes

3.4.1. Procedure for Bringing Disputes to the Department

The Contractor and using Department must attempt to resolve all disputes arising under this Contract in good faith, taking such measures as, but not limited to investigating the facts of the dispute and meeting to discuss the issue(s).

In order to bring a dispute to the Commissioner of a Department, Contractor must provide a general statement of the basis for its claim, the facts underlying the claim, reference to the applicable Contract provisions, and all documentation that describes, relates to and supports the claim. By submitting a Claim, the Contractor certifies that:

- A. The Claim is made in good faith;
- B. The Claim's supporting data are accurate and complete to the best of the person's knowledge and belief;
- C. The amount of the Claim accurately reflects the amount that the claimant believes is due from the City; and
- D. The certifying person is duly authorized by the claimant to certify the Claim.

The Commissioner shall have 30 days from receipt of the Claim to render a written "final decision of the Commissioner" stating the Commissioner's factual and contractual basis for the decision. However, the Commissioner may take an additional period, not to exceed 10 days, to render the final decision. If the Commissioner does not render a "final decision of the Commissioner" within the prescribed time frame, then the Claim should be deemed denied by the Commissioner.

3.4.2. Procedure for Bringing Disputes before the CPO

Only after the Commissioner has rendered a final decision denying the Contractor's claim may a dispute be brought before the CPO.

If the Contractor and using Department are unable to resolve the dispute, prior to seeking any judicial action, the Contractor must and the using Department may submit the dispute the CPO for an administrative decision based upon the written submissions of the parties. The party submitting the dispute to the CPO must include documentation demonstrating its good faith efforts to resolve the dispute and either the other party's failure to exercise good faith efforts or both parties' inability to resolve the dispute despite good faith efforts.

The decision of the CPO is final and binding. The sole and exclusive remedy to challenge the decision of the CPO is judicial review by means of a common law writ of certiorari.

The administrative process is described more fully in the "Regulations of the Department of Procurement Services for Resolution of Disputes between Contractors and the City of Chicago", which are available in City Hall, 121 N. LaSalle Street, Room 103, Bid and Bond Room, and on-line at:

http://www.cityofchicago.org/content/dam/city/depts/dps/RulesRegulations/Dispute_Regulations_2002.pdf

3.5. Events of Default and Termination

3.5.1. Events of Default

In addition to any breach of contract and events of default described within the Contract Documents, the following constitute an event of default:

- A. Any material misrepresentation, whether negligent or willful and whether in the inducement or in the performance, made by Contractor to the City.
- B. Contractor's material failure to perform any of its obligations under this Contract including the following:
- C. Failure to perform the Services with sufficient personnel and equipment or with sufficient material to ensure the timely performance of the Services
- D. Failure to have and maintain all professional licenses required by law to perform the Services;
- E. Failure to timely perform the Services;
- F. Failure to perform the Services in a manner reasonably satisfactory to the Commissioner or the CPO or inability to perform the Services satisfactorily as a result of insolvency, filing for bankruptcy or assignment for the benefit of creditors;
- G. Failure to promptly re-perform, as required, within a reasonable time and at no cost to the City, Services that are rejected as erroneous or unsatisfactory;
- H. Discontinuance of the Services for reasons within Contractor's reasonable control;
- I. Failure to update promptly EDS(s) furnished in connection with this Contract when the information or responses contained in it or them is no longer complete or accurate;
- J. Failure to comply with any other term of this Contract, including the provisions concerning insurance and nondiscrimination; and
- K. Any change in ownership or control of Contractor without the prior written approval of the CPO, which approval the CPO will not unreasonably withhold.
- L. Contractor's default under any other Contract it may presently have or may enter into with the City during the life of this Contract. Contractor acknowledges and agrees that in the event of a default under this Contract the City may also declare a default under any such other agreements.
- M. Contractor's repeated or continued violations of City ordinances unrelated to performance under the Contract that in the opinion of the CPO indicate a willful or reckless disregard for City laws and regulations.
- N. Contractor's use of a subcontractor that is currently debarred by the City or otherwise ineligible to do business with the City.

3.5.2. Cure or Default Notice

The occurrence of any event of default permits the City, at the City's sole option, to declare Contractor in default.

The CPO will give Contractor written notice of the default, either in the form of a cure notice ("Cure Notice"), or, if no opportunity to cure will be granted, a default notice ("Default Notice").

If a Cure Notice is sent, the CPO may in her sole discretion give Contractor an opportunity to cure the default within a specified period of time, which will typically not exceed 30 days unless extended by the CPO. The period of time allowed by the CPO to cure will depend on the nature of the event of default and the Contractor's ability to cure. In some circumstances the event of default may be of such a nature that it cannot be cured. Failure to cure within the specified time may result in a Default Notice to the Contractor.

Whether to issue the Contractor a Default Notice is within the sole discretion of the CPO and neither that decision nor the factual basis for it is subject to review or challenge under the Disputes provision of this Contract

If the CPO issues a Default Notice, the CPO will also indicate any present intent the CPO may have to terminate this Contract. The decision to terminate is final and effective upon giving the notice. If the CPO decides not to terminate, this decision will not preclude the CPO from later deciding to terminate the Contract in a later notice, which will be final and effective upon the giving of the notice or on such later date set forth in the Default Notice.

When a Default Notice with intent to terminate is given, Contractor must discontinue any Services, unless otherwise directed in the notice.

3.5.3. Remedies

After giving a Default Notice, the City may invoke any or all of the following remedies:

- A. The right to take over and complete the Services, or any part of them, at Contractor's expense and as agent for Contractor, either directly or through others, and bill Contractor for the cost of the Services, and Contractor must pay the difference between the total amount of this bill and the amount the City would have paid Contractor under the terms and conditions of this Contract for the Services that were assumed by the City as agent for Contractor
- B. The right to terminate this Contract as to any or all of the Services yet to be performed effective at a time specified by the City;
- C. The right to seek specific performance, an injunction or any other appropriate equitable remedy;
- D. The right to seek money damages;
- E. The right to withhold all or any part of Contractor's compensation under this Contract;
- F. The right to deem Contractor non-responsible in future contracts to be awarded by the City.

3.5.4. Non-Exclusivity of Remedies

The remedies under the terms of this Contract are not intended to be exclusive of any other remedies provided, but each and every such remedy is cumulative and is in addition to any other remedies, existing now or later, at law, in equity or by statute. No delay or omission to exercise any right or power accruing upon any event of default impairs any such right or power, nor is it a waiver of any event of default nor acquiescence in it, and every such right and power may be exercised from time to time and as often as the City considers expedient.

3.5.5. City Reservation of Rights

If the CPO considers it to be in the City's best interests, the CPO may elect not to declare default or to terminate this Contract. The parties acknowledge that this provision is solely for the benefit of the City and that if the City permits Contractor to continue to provide the Services despite one or more events of default, Contractor is in no way relieved of any of its responsibilities, duties or obligations under this Contract, nor does the City waive or relinquish any of its rights.

3.5.6. Early Termination

The City may terminate this Contract, in whole or in part, at any time by a notice in writing from the City to the Contractor. The effective date of termination will be the date the notice is received by the Contractor or the date stated in the notice, whichever is later.

After the notice is received, the Contractor must restrict its activities, and those of its Subcontractors, to activities pursuant to direction from the City. No costs incurred after the effective date of the termination are allowed unless the termination is partial.

Contractor is not entitled to any anticipated profits on services, work, or goods that have not been provided. The payment so made to the Contractor is in full settlement for all services, work or goods satisfactorily provided under this Contract. If the Contractor disputes the amount of compensation determined by the City to be due Contractor, then the Contractor must initiate dispute settlement procedures in accordance with the Disputes provision.

If the City's election to terminate this Contract for default pursuant to the default provisions of the Contract is determined in a court of competent jurisdiction to have been wrongful, then in that case the termination is to be deemed to be an early termination pursuant to this Early Termination provision.

3.6. Department-specific Requirements

Contractor must comply with the relevant user Department's specific requirements in the performance of this Contract if applicable.

3.6.1. Department of Aviation Standard Requirements

For purposes of this section "Airport" refers to either Midway International Airport or O'Hare International Airport, which are both owned and operated by the City of Chicago.

3.6.1.1. Confidentiality of Airport Security Data

Contractor has an ongoing duty to protect confidential information, including but not limited to any information exempt from disclosure under the Illinois Freedom of Information Act such as information affecting security of the airport ("Airport Security Data"). Airport Security Data includes any Sensitive Security Information as defined by 49 CFR Part 1520. Contractor acknowledges that information provided to, generated by, or encountered by Contractor may include Airport Security Data. If Contractor fails to safeguard the confidentiality of Airport Security Data, Contractor is liable for the reasonable costs of actions taken by the City, the airlines, the Federal Aviation Administration ("FAA"), or the Transportation Security Administration ("TSA") that the applicable entity, in its sole discretion, determines to be necessary as a result, including without limitation the design and construction of improvements, procurement and installation of security devices, and posting of guards. All Subcontracts or purchase orders entered into by the Contractor, with parties providing material, labor or services to complete the Work, must contain the language of this section. If the Contractor fails to incorporate the required language in all Subcontracts or purchase orders, the provisions of this section are deemed incorporated in all Subcontracts or purchase orders.

3.6.1.2. Aviation Security

This Contract is subject to the airport security requirements of 49 United States Code, Chapter 449, as amended, the provisions of which govern airport security and are incorporated by reference, including without limitation the rules and regulations in 14 CFR Part 107 and all other applicable rules and regulations promulgated under them. All employees providing services at the City's airports must be badged by the City. (See Airport Security Badges.) Contractor, Subcontractors and the respective employees of each are subject to such employment investigations, including criminal history record checks, as the Administrator of the Federal Aviation Administration ("FAA"), the Under Secretary of the Transportation Security Administration ("TSA"), and the City may deem necessary. Contractor, Subcontractors, their respective employees, invitees and all other persons under the control of Contractor must comply strictly and faithfully with any and all rules, regulations and directions which the Commissioner, the FAA, or the TSA may issue from time to time, or may issue during the life of this Contract with regard to security, safety, maintenance and operation of the Airport and must promptly report any information regarding suspected violations in accordance with those rules and regulations.

Gates and doors that permit entry into restricted areas at the Airport must be kept locked by Contractor at all times when not in use or under Contractor's constant security surveillance. Gate or door malfunctions must be reported to the Commissioner without delay and must be kept under constant surveillance by Contractor until the malfunction is remedied.

3.6.1.3. Airport Security Badges

As part of airport operations and security, the Contractor must obtain from the airport badging office Airport Security Badges for each of his employees, subcontractors, material men, invitees or any person(s) over whom Contractor has control, which must be visibly displayed at all times while at the airport. No person will be allowed beyond security checkpoints without a valid Airport Security Badge. Each such person must submit signed and properly completed application forms to

receive Airport Security Badges. Additional forms and tests may be required to obtain Airport Drivers Certification and Vehicle Permits. The application forms will solicit such information as the Commissioner may require in his discretion, including but not limited to name, address, date of birth (and for vehicles, driver's license and appropriate stickers). The Contractor is responsible for requesting and completing the form for each employee and subcontractor employee who will be working at the Airport and all vehicles to be used on the job site. Upon signed approval of the application by the Commissioner or his designee, the employee will be required to attend a presentation regarding airport security and have his or her photo taken for the badge. The Commissioner may grant or deny the application in his sole discretion. The Contractor must make available to the Commissioner, within one day of request, the personnel file of any employee who will be working on the project.

As provided in Aviation Security above, in order for a person to have an Airport Security Badge that allows access to the airfield or aircraft, a criminal history record check (CHRC) conducted by the Department of Aviation will also be required. The CHRC will typically include a fingerprint analysis by the Federal Bureau of Investigation and such other procedures as may be required by the TSA.

Airport Security Badges, Vehicle Permits and Driver's Licenses will only be issued based upon properly completed application forms. Employees or vehicles without proper credentials may be removed from the secured area and may be subject to fine or arrest. Contractor will be jointly and severally liable for any fines imposed on its employees or its Subcontractor's employees.

In addition to other rules and regulations, the following rules related to Airport Security Badges, Vehicle Permits and Driver's Licenses must be adhered to:

- A. Each person must wear and display his or her Airport Security Badge on their outer apparel at all times while at the airport.
- B. All individuals operating a vehicle on the Aircraft Operations Area (AOA) must be familiar and comply with motor driving regulations and procedures of the State of Illinois, City of Chicago and the Department of Aviation. The operator must be in possession of a valid, State-issued Motor Vehicle Operators Driver's License. All individuals operating a vehicle on the AOA without an escort must also be in possession of a valid Aviation-issued Airport Driver's Permit.
- C. All operating equipment must have an Airport Vehicle Access Permit affixed to the vehicle at all times while operating on the Airport. All required City stickers and State Vehicle Inspection stickers must be valid.
- D. Individuals must remain within their assigned area and haul routes unless otherwise instructed by the Department of Aviation.
- E. The Contractors personnel who function as supervisors, and those that escort the Contractors equipment/operators to their designated work sites, may be required to obtain an added multi-area access designation on their personnel Airport Security Badge which must also be displayed while on the AOA.

3.6.1.4. General Requirements Regarding Airport Operations

3.6.1.4.1. Priority of Airport Operations

Where the performance of the Contract may affect airport operation, the Contractor must cooperate fully with the Commissioner and his representatives in all matters pertaining to public safety and airport operation. Whether or not measures are specifically required by this Contract, the Contractor at all times must maintain adequate protection to safeguard aircraft, the public and all persons engaged in the work and must take such precaution as will accomplish such end, without interference with aircraft, the public, or maintenance and operations of the airport.

The Contractor's attention is drawn to the fact that airport facilities and infrastructure, including but not limited to runways, taxiways, vehicular roadways, loadways, loading aprons, concourses, holdrooms, gates, and passenger right-of-ways, are being used for scheduled and unscheduled civilian air transportation. Arrivals and departures are under the control of the FAA control tower(s). Use of the Airport for air transportation takes precedence over all of the Contractor's operations. No extra compensation will be allowed for any delays brought about by the operations of the Airport which require that Contractor's work must be interrupted or moved from one part of the work site to another.

3.6.1.4.2. Interruption of Airport Operations

If Contractor requires interruption of Airport facilities or utilities in order to perform work, Contractor must notify the Deputy Commissioner in charge of the project at least five (5) working days in advance of such time and must obtain the Deputy Commissioner's approval prior to interrupting the service. Interruption of service must be kept to an absolute minimum, and to the extent practicable the work which occasions such interruptions must be performed in stages in order to reduce the time of each interruption. In case of interruptions of electrical services, service must be restored prior to sunset of the same day.

Prior to start of work, the Contractor must request of the Deputy Commissioner in charge of the project to provide specific requirements and instructions which are applicable to the particular work site areas, including, but not limited to, areas available for storage of any equipment, materials, tools and supplies needed to perform the work. Contractors must advise the Deputy Commissioner in charge of the project of the volume of equipment, materials, tools, and supplies that will be required in the secured areas of the airport in order to make arrangements for inspection of such equipment, materials, tools, and supplies at a security checkpoint.

3.6.1.4.3. Safeguarding of Airport Property and Operations

The Contractor must not permit or allow its employees, subcontractors, material men, invitees or any other persons over whom Contractor has control to enter or remain upon, or to bring or permit any equipment, materials, tools, or supplies to remain upon any part of the work site if any hazard to aircraft, threat to airport security, or obstruction of airport maintenance and operations, on or off the ground, would be created in the opinion of either the Commissioner or the Deputy Commissioner. Contractors must safeguard, and may be required to account for, all items brought beyond a security checkpoint, especially with respect to tools used in a terminal building.

3.6.1.4.4. Work on the Airfield

For any work on the airfield, between sunset and sunrise, any equipment and materials stored outside must be marked with red obstruction lights acceptable to the Commissioner and in conformity with all FAA requirements, including Advisory Circular 150/5345-43F. All obstruction lights must be kept continuously in operation between sunset and sunrise 7 days a week and also during any daylight periods when aircraft ceiling is below 500 feet and visibility is less than 5 miles. Information on ceiling and visibility may be obtained by the Contractor on request at the office of the Deputy Commissioner of Operations or from the FAA Control Tower Operator. Proper compliance with these obstruction light requirements is essential to the protection of aircraft and human life and the Contractor has the responsibility of taking the initiative at all times to be aware of ceiling and visibility conditions, without waiting for the FAA Control Tower Operator or any other City representative to ask the Contractor to post obstruction lights.

For any work on the airfield, the Contractor must furnish aircraft warning flags, colored orange and white, in two sizes, one size 2' x 3' for hand use, and one size 3' x 5'. Each separate group or individual in all work areas, regardless of whether or not near runways, taxiways or aprons, must display a flag which must be maintained vertical at all times. Each truck or other piece of

equipment of the Contractor must have attached to it, in a vertical and clearly visible position, a warning flag of the larger size. Except as otherwise agreed by the Commissioner or his designee, all cranes or booms used for construction work on the airfield must be lowered to ground level and moved 200 feet off the runways, taxiways and aprons during all hours of darkness and during all daylight hours when the aircraft ceiling is below the minimums specified in this section.

The Contractor acknowledges the importance of fully complying with the requirements of this section in order to protect aircraft and human life, on or off the ground. Failure on the part of the Contractor to perform the work in accordance with the provisions of this section and to enforce same with regard to all subcontractors, material men, laborers, invitees and all other persons under the Contractor's control is an event of default.

3.6.1.4.5. Parking Restrictions

Prior to commencing work, the Contractor must provide the Deputy Commissioner in charge of the project with an estimate of the number of vehicles that will require parking. Contractors are encouraged to provide employee parking elsewhere and shuttle their employees to the work site. The Department of Aviation may, but is not required to, provide parking areas for a limited number of vehicles in designated storage areas. All other vehicles must be parked in the public parking lots at the Airport, and there will be no reduced rate or complimentary parking for such vehicles. Employees must not, at any time, park their personal automobiles, no matter how short the duration, in any drive, road, or any other non-parking lot location at the airport. Such vehicles will be subject to immediate towing at the employee's expense.

3.6.1.5. General Civil Rights (Airport and Airway Improvement Act of 1982, Section 520)

The contractor agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

3.6.2. Emergency Management and Communications (OEMC) Security Requirements

3.6.2.1. Identification of Workers and Vehicles

All employees and vehicles working within O.E.M.C facilities must be properly identified. All vehicles and personnel passes will be issued to the Contractor by the Executive Director, as required. Contractor, Subcontractors, and employees must return identification material to the Executive Director upon completion of their respective work within the Project, and in all cases, the Contractor must return all identification material to the Executive Director after completion of the Project. Final Contract Payment will not be made until all passes issued have been returned to O.E.M.C Security.

3.6.2.2. Access to Facilities

For purposes of this section, "employee" refers to any individual employed or engaged by Contractor or by any Subcontractor. If the Contractor, or any employee, in the performance of this Contract, has or will have access to an Office of Emergency Management and Communications (O.E.M.C) facility, the City may conduct such background and employment checks, including criminal history record checks and work permit documentation, as the Executive Director of the Office of Emergency Management and Communications and the City may deem necessary, on the Contractor, any Subcontractor, or any of their respective employees. The Executive Director of the Office of Emergency Management and Communications has the right to require the Contractor to supply or provide access to any additional information the Executive Director deems relevant. Before beginning work on the project, Contractor must:

Provide the City with a list of all employees requiring access to enable the City to conduct such background and employment checks;

Deliver to the City consent forms signed by all employees who will work on the project consenting to the City's and the Contractor's performance of the background checks described in this Section; and

Deliver to the City consent forms signed by all employees who will require access to the O.E.M.C facility consenting to the searches described in this Section.

The Executive Director may preclude Contractor, any Subcontractor, or any employee from performing work on the project. Further, the Contractor must immediately report any information to the Executive Director relating to any threat to O.E.M.C infrastructure or facilities or the water supply of the City and must fully cooperate with the City and all governmental entities investigating the threat. The Contractor must, notwithstanding anything contained in the Contract Documents to the contrary, at no additional cost to the City, adhere, and cause its Subcontractors to adhere, to any security and safety guidelines developed by the City and furnished to the Contractor from time to time during the term of the Contract and any extensions of it.

Each employee whom Contractor wishes to have access to an O.E.M.C facility must submit a signed, completed "Area Access Application" to the O.E.M.C to receive an O.E.M.C Security Badge. If Contractor wishes a vehicle to have access to an O.E.M.C facility, Contractor must submit a vehicle access application for that vehicle. The applications will solicit such information as the Executive Director may require in his discretion, including name, address, and date of birth (and for vehicles, driver's license and appropriate stickers). The Contractor is responsible for requesting and completing these forms for each employee who will be working at O.E.M.C facilities and all vehicles to be used on the job site. The Executive Director may grant or deny the application in his sole discretion. The Contractor must make available to the Executive Director, within one (1) day of request, the personnel file of any employee who will be working on the project.

At the Executive Director's request, the Contractor and Subcontractor must maintain an employment history of employees going back five years from the date Contractor began Work or Services on the project. If requested, Contractor must certify that it has verified the employment history as required on the form designated by the Executive Director. Contractor must provide the City, at its request, a copy of the employment history for each employee. Employment history is subject to audit by the City.

3.6.2.3. Security Badges and Vehicle Permits

O.E.M.C Security Badges and Vehicle Permits will only be issued based upon properly completed Area Access Application Forms. Employees or vehicles without proper credentials will not be allowed on O.E.M.C property.

The following rules related to Security Badges and Vehicle Permits must be adhered to:

- A. Each employee must wear and display the O.E.M.C Security Badge issued to that employee on his or her outer apparel at all times.
- B. At the sole discretion of the Executive Director and law enforcement officials, including but not limited to the Chicago Police Department, Cook County Sheriff's Office, Illinois State Police or any other municipal, state or federal law enforcement agency, all vehicles (and their contents) are subject to interior and/or exterior inspection entering or exiting O.E.M.C facilities, and all employees and other individuals entering or exiting O.E.M.C facilities are subject to searches. Vehicles may not contain any materials other than those needed for the project. The Executive Director may deny access to any vehicle or individual in his sole discretion.
- C. All individuals operating a vehicle on O.E.M.C property must be familiar and comply with motor driving regulations and procedures of the State of Illinois and the City of Chicago.

The operator must be in possession of a valid, state-issued Motor Vehicle Operator's Driver License.

- D. All required City stickers and State Vehicle Inspection stickers must be valid.
- E. Individuals must remain within their assigned area and haul routes unless otherwise instructed by the City.
- F. Access to the Work sites will be as shown or designated on the Contract Documents Drawings or determined by the Executive Director. The Executive Director may deny access when, in his sole discretion, the vehicle or individual poses some security risk to O.E.M.C.

3.6.2.4. Gates and Fences

Whenever the Contractor receives permission to enter O.E.M.C property in areas that are exit/entrance points not secured by the City, the Contractor may be required to provide gates that comply with O.E.M.C design and construction standards. Contractor must provide a licensed and bonded security guard, subject to the Executive Director's approval and armed as deemed necessary by the Executive Director, at the gates when the gates are in use. O.E.M.C Security will provide the locks. Failure to provide and maintain the necessary security will result in an immediate closure by O.E.M.C personnel of the point of access.

Stockpiling materials and parking of equipment or vehicles near O.E.M.C security fencing is prohibited.

Any security fencing, gates, or alarms damaged by the Contractor or its Subcontractors must be manned by a licensed and bonded security guard of the Contractor at Contractor's expense until the damaged items are restored. Contractor must restore them to their original condition within an eight (8) hour period from the time of notice given by the Executive Director.

Temporary removal of any security fencing, gate or alarm to permit construction must be approved by the Executive Director, and Contractor must man the site by a licensed and bonded security guard, approved by and armed as deemed necessary by the Executive Director, at Contractor's expense, on a twenty-four (24) hour basis during the period of temporary removal. Contractor must restore the items removed to their original condition when construction is completed.

3.6.2.5. Hazardous or Illegal Materials

Unauthorized hazardous or illegal materials, including but not limited to hazardous materials as defined in 49 C.F.R. Parts 100-185 (e.g. explosives, oxidizers, radiological materials, infectious materials), contraband, firearms and other weapons, illegal drugs and drug paraphernalia, may not be taken on O.E.M.C property. Alcoholic beverages are also prohibited.

3.6.3. Chicago Police Department Security Requirements

As part of Police operations and security, the Contractor must obtain from the Police Department, Security Badges for each of its employees, subcontractors, material men, invitees or any person(s) over whom Contractor has control, which must be visibly displayed at all times while at any Police Department facility. No person will be allowed beyond security checkpoints without a valid Security Badge. Each such person must submit signed and properly completed application forms to receive Security Badges. The application forms will solicit such information as the Superintendent may require; including but not limited to name, address, date of birth (driver's license). The Contractor is responsible for requesting and completing the form for each employee and subcontractor's employee. The Superintendent may grant or deny the application in his sole discretion. The Contractor must make available to the Superintendent, within one (1) day of request, the personnel file of any employee who will be working on the project.

In addition to other rules and regulations, the following rules related to Security Badges, must be adhered to:

- A. Each person must wear and display his or her Security Badge on their outer apparel at all times while at any Chicago Police Department facility.
- B. Individuals must remain within their assigned area unless otherwise instructed by the Chicago Police Department.

3.6.4. Department of Water Management ("DOWM") Security Requirements

3.6.4.1. Identification of Workers and Vehicles

All employees and vehicles working within DOWM facilities must be properly identified. All vehicles and personnel passes will be issued to the Contractor by the Commissioner, as required. Contractor, Subcontractors, and employees must return identification material to the Commissioner upon completion of their respective work within the Project, and in all cases, the Contractor must return all identification material to the Commissioner after completion of the Project. Final Contract Payment will not be made until all passes issued have been returned to DOWM Security.

3.6.4.2. Access to Facilities

For purposes of this section, "employee" refers to any individual employed or engaged by Contractor or by any Subcontractor. If the Contractor, or any employee, in the performance of this Contract, has or will have access to a Department of Water Management (DOWM) facility, the City may conduct such background and employment checks, including criminal history record checks and work permit documentation, as the Commissioner of the Department of Water Management and the City may deem necessary, on the Contractor, any Subcontractor, or any of their respective employees. The Commissioner of the Department of Water Management has the right to require the Contractor to supply or provide access to any additional information the Commissioner deems relevant. Before beginning work on the project, Contractor must:

Provide the City with a list of all employees requiring access to enable the City to conduct such background and employment checks;

Deliver to the City consent forms signed by all employees who will work on the project consenting to the City's and the Contractor's performance of the background checks described in this Section; and

Deliver to the City consent forms signed by all employees who will require access to the DOWM facility consenting to the searches described in this Section.

The Commissioner may preclude Contractor, any Subcontractor, or any employee from performing work on the project. Further, the Contractor must immediately report any information to the Commissioner relating to any threat to DOWM infrastructure or facilities or the water supply of the City and must fully cooperate with the City and all governmental entities investigating the threat. The Contractor must, notwithstanding anything contained in the Contract Documents to the contrary, at no additional cost to the City, adhere, and cause its Subcontractors to adhere, to any security and safety guidelines developed by the City and furnished to the Contractor from time to time during the term of the Contract and any extensions of it.

3.6.4.3. Security Badges and Vehicle Permits

Each employee whom Contractor wishes to have access to a DOWM facility must submit a signed, completed "Area Access Application" to the DOWM to receive a DOWM Security Badge. If Contractor wishes a vehicle to have access to a DOWM facility, Contractor must submit a vehicle access application for that vehicle. The applications will solicit such information as the Commissioner may require in his discretion, including name, address, date of birth (and for vehicles, driver's license and appropriate stickers). The Contractor is responsible for requesting and completing these forms for each employee who will be working at DOWM facilities and all vehicles to be used on the job site. The Commissioner may grant or deny the application in his sole discretion. The Contractor must make available to the Commissioner, within one (1) day of request, the personnel file of any employee who will be working on the project.

At the Commissioner's request, the Contractor and Subcontractor must maintain an employment history of employees going back five years from the date Contractor began Work or Services on the project. If requested, Contractor must certify that it has verified the employment history as required on the form designated by the Commissioner. Contractor must provide the City, at its request, a copy of the employment history for each employee. Employment history is subject to audit by the City.

DOWM Security Badges and Vehicle Permits will only be issued based upon properly completed Area Access Application Forms. Employees or vehicles without proper credentials will not be allowed on DOWM property.

The following rules related to Security Badges and Vehicle Permits must be adhered to:

- A. Each employee must wear and display the DOWM Security Badge issued to that employee on his or her outer apparel at all times.
- B. At the sole discretion of the Commissioner and law enforcement officials, including but not limited to the Chicago Police Department, Cook County Sheriff's Office, Illinois State Police or any other municipal, state or federal law enforcement agency, all vehicles (and their contents) are subject to interior and/or exterior inspection entering or exiting DOWM facilities, and all employees and other individuals entering or exiting DOWM facilities are subject to searches. Vehicles may not contain any materials other than those needed for the project. The Commissioner may deny access to any vehicle or individual in his sole discretion.
- C. All individuals operating a vehicle on DOWM property must be familiar and comply with motor driving regulations and procedures of the State of Illinois and the City of Chicago. The operator must be in possession of a valid, state-issued Motor Vehicle Operator's Driver License.
- D. All required City stickers and State Vehicle Inspection stickers must be valid.
- E. Individuals must remain within their assigned area and haul routes unless otherwise instructed by the City.
- F. Access to the Work sites will be as shown or designated on the Contract Documents Drawings or determined by the Commissioner. The Commissioner may deny access when, in his sole discretion, the vehicle or individual poses some security risk to DOWM.

3.6.4.4. Gates and Fences

Whenever the Contractor receives permission to enter DOWM property in areas that are exit/entrance points not secured by the City, the Contractor may be required to provide gates that comply with DOWM design and construction standards. Contractor must provide a licensed and bonded security guard, subject to the Commissioner's approval and armed as deemed necessary by the Commissioner, at the gates when the gates are in use. DOWM Security will provide the locks. Failure to provide and maintain the necessary security will result in an immediate closure by DOWM personnel of the point of access.

Stockpiling materials and parking of equipment or vehicles near DOWM security fencing is prohibited.

Any security fencing, gates, or alarms damaged by the Contractor or its Subcontractors must be manned by a licensed and bonded security guard of the Contractor at Contractor's expense until the damaged items are restored. Contractor must restore them to their original condition within an eight (8) hour period from the time of notice given by the Commissioner.

Temporary removal of any security fencing, gate or alarm to permit construction must be approved by the Commissioner, and Contractor must man the site by a licensed and bonded security guard, approved by and armed as deemed necessary by the Commissioner, at Contractor's expense, on a

twenty-four (24) hour basis during the period of temporary removal. Contractor must restore the items removed to their original condition when construction is completed.

3.6.4.5. Hazardous or Illegal Materials

Unauthorized hazardous or illegal materials, including but not limited to hazardous materials as defined in 49 C.F.R. Parts 100-185 (e.g. explosives, oxidizers, radiological materials, infectious materials), contraband, firearms and other weapons, illegal drugs and drug paraphernalia, may not be taken on DOWM property. Alcoholic beverages are also prohibited.

ARTICLE 4. TERMS FOR VEHICLE AND HEAVY EQUIPMENT CONTRACTS

4.1. Blanket Releases / Purchase Orders

Unless otherwise provided in the Scope of Work and Detailed Specifications, orders for products to be provided under this Contract will be in the form of a written City of Chicago Blanket Release (a.k.a. purchase order, purchase order release, sub-order, or sub-order release) that will be issued by the Department and sent to the Contractor. Blanket Releases will indicate the specification number, Contract/purchase order number, product description, quantities ordered for each line item, unit cost, total cost, shipping address, delivery date, fund chargeable information and other pertinent instructions regarding delivery.

For Blanket Releases issued before a price increase effective date, if this Contract provides for price increases, Contractor must honor Contract prices listed on the Blanket Release, even if the Blanket Release specifies multiple shipments with delivery dates that are scheduled after the effective date of the price increase.

The Contractor must not honor any verbal order(s) or make any deliveries without receipt of a written Blanket Release issued by the Department. Any items provided by the Contractor without a written Blanket Release are made at the Contractor's risk. Consequently, in the event a written Blanket Release is not provided by the City, the Contractor releases the City from any liability whatsoever to pay for any items provided without a written Blanket Release.

4.2. Delivery and Acceptance

4.2.1. Delivery

As stated above, Contractor must not make any deliveries without a written City of Chicago Blanket Release issued by the appropriate department. Upon receipt of a Blanket Release, deliveries must be made to the location(s) listed in the Scope and Detailed Specifications or other location specified by the Commissioner or CPO in the written purchase order. Unless otherwise clearly and specifically provided in the Detailed Specifications or the written purchase order, all deliveries will be F.O.B. destination (City of Chicago).

Contractor understands and agrees that the initial acceptance of any delivery will not be considered as a waiver of any provision of this Contract and will not relieve the Contractor of its obligation to supply satisfactory goods which conform to the Contract.

4.2.2. Delivery of Parts

Deliveries of Parts required for repairs and performance of repairs services will be made within seventy-two (72) hours of request to the Contractor's or if applicable, the subcontractor's shop, regardless of the Blanket Release release amount.

4.2.3. Parts Pricing and Parts Invoicing

The Contractor must submit copies of all parts pricing for each order with their invoice that is submitted to the City (copy of invoice showing the actual price paid by the Contractor inclusive of all rebates, etc.). Pricing to the City will be based on the percentage markup indicated on the Proposal Pages. Percentage markup will remain fixed for the life of the contract.

Contractor must be capable of obtaining wholesale pricing for readily available stock parts.

4.2.4. Inspection and Defects

The City will have the right to inspect any products to be provided by Contractor under this Contract. Upon delivery of the products, the City will conduct an in-depth initial visual examination solely for the purpose of identifying gross and obvious damage, defects or non-conformance with specifications. The Contractor's representative may be present for the initial examinations. This does not limit the City's right to conduct subsequent inspection of the products delivered.

If defects or omissions are discovered in the initial or subsequent inspections, the City may exercise any or all of the following remedies, in addition to any other remedies specified in this agreement:

- Refuse acceptance of any/all units.
- Require the Contractor to make corrections at Contractor's expense, either on-site or at Contractor's place of business, whether or not the term of the Contract has expired.
- Require the Contractor to replace the units at Contractor's expense.
- Require the Contractor to reimburse the City for the cost of inspection.

Any and all labor and materials which may be required to correct or replace damaged, defective or non-conforming products must be provided by the Contractor at no cost to the City. The Contractor must correct or replace the incorrect, damaged or defective or non-conforming items within seven (7) business days of the return unless otherwise provided in the Detailed Specifications. The City of Chicago will not be subject to restocking charges.

Failure to correct or replace unacceptable goods, or repeated delivery of unacceptable goods, will be an event of default under this Contract.

4.2.5. Inspection Upon Delivery

Upon delivery of the specified vehicles or equipment, the City will conduct an in-depth initial visual examination solely for the purpose of identifying gross and obvious damage. The Contractor's representative may be present for the initial examinations.

If defects or omissions are discovered during the inspection, the City may:

- A. Refuse acceptance of any/all units.
- B. Arrange with the Contractor to make corrections.
- C. Require the Contractor to remove any/all units from the City's premises at its own cost to make the necessary corrections.

The Contractor must provide any/all labor and materials that may be required to correct non-compliant aspects of all items in a prompt manner, at no cost to the City. The "promptness" of corrective actions will be established by the City based upon the quantity and scope of the corrections required.

4.2.6. Shipment Errors

The Contractor will be responsible for any errors in shipments that are the fault of the Contractor. The Contractor must make arrangements with their common carrier or company personnel to pick-up, at Contractor's expense, any un-ordered products, over-shipments of product, or products that otherwise do not comply with the applicable purchase order within forty-eight (48) hours after notification by the Department. Contractor must promptly supply any under-shipment of product promptly after notification by the Department.

The City of Chicago will not be subject to restocking charges due to shipment errors.

Repeated errors in shipments will be an event of default under this Contract.

4.2.7. Acceptance

Products provided under this Contract will be deemed to be accepted by the City thirty days after delivery, unless previously rejected. The City may revoke acceptance if items are later discovered to be non-conforming or if the non-conformity is not remedied by the Contractor as expected by the City, even if the value of the item(s) is not substantially decreased due to the non-conformity.

4.3. Unspecified Items

Any Commodity not specifically listed herein may be added to this Contract if it falls within the same general category of items/services already specified in the Contract. Pursuant to 2-92-646 of the Municipal Code of Chicago, the lifetime, aggregate value of the City's purchase of any items/services added to this Contract pursuant to this provision must not exceed ten percent (10%) of the original value of the Contract.

The Department will notify the Contractor in writing of the unspecified items which are necessary and request a written price proposal for the addition of the item(s) to this Contract under the same terms and conditions of the original Contract. Upon receipt of a price proposal, the Department will forward the request and proposal to the Chief Procurement Officer for approval to add the unspecified item(s) to the Contract. Such item(s) may be added to the Contract only if the prices are competitive with current market prices and said items are approved by the Chief Procurement Officer in writing. The Chief Procurement Officer reserves the right to seek competitive pricing information on said item(s) from other suppliers and to procure such item(s) in a manner that serves the best interest of the City.

Any such unspecified item(s) delivered by the Contractor, without a written approval and modification of the Contract signed by the Chief Procurement Officer, are delivered entirely at the Contractor's risk. Consequently, the Contractor hereby releases the City from any liability whatsoever to pay for any items delivered prior to the Contractor's receipt of fully signed Contract modification approving the unspecified item(s).

4.4. Quality and Source

4.4.1. Quality

Product must conform to any industry standards specified in the Detailed Specifications as well as the best industry practices and standards with respect to quality of materials and workmanship. Unless otherwise specified in the Detailed Specifications, all products provided must be new and in conformance with the Contract and acceptable in every detail to the Commissioner. If requested, the Contractor must certify to the Commissioner that all products to be provided comply with all Contract requirements. Only products which conform to the quality requirements of the Contract will be accepted.

4.4.2. Source

The Contractor must promptly notify the Commissioner upon request, of the source (or sources) from which the Contractor expects to obtain the products. The source(s) of supply, including the manufacturer, must not be debarred from contracting or otherwise be ineligible to contract with the City.

If sources are found to be unacceptable at any time or fail to be the source of products satisfactory to the Commissioner, the Contractor must furnish products from other, acceptable sources.

4.5. Manufacturer's Warranty & Product Information

Contractor must have, and must demonstrate upon request or as required by the Detailed Specifications, that it has authorization to transfer product warranties to the City of Chicago. The Contractor is required to provide and transfer all documentation issued by the manufacturer for the items to be provided under this agreement. This includes the manufacturer's genuine parts/product information, recall notices, manuals, licenses, assemblies and/or accessories as supplied by the original equipment manufacturer (O.E.M.).

The Contractor must provide the original product warranty and related services for the products provided under this Contract in accordance with the standard warranty regularly provided by the OEM for that product, unless the Detailed Specifications call for a different warranty.

4.6. Contractor's Warranties

The Contractor warrants that the title to the products to be provided under this agreement is good and its transfer is rightful, and that the products will be delivered to the City free from all liens or any security interest or other encumbrance.

In addition to all warranties that may be implied by law, the items shall conform to specifications, drawings, and other requirements in the Detailed Specifications and shall be free from defects in materials and workmanship. Contractor also warrants that they will be free from defects in design except to the extent that they are non-standard products manufactured pursuant to detailed designs furnished by the City and the defect is in the portion of the design furnished by the City. Such warranties, including warranties implied by law, shall run to City, its successors, assigns, customers, and to users of the goods.

At a minimum, the Contractor hereby warrants for a period of at least one year from the date of final acceptance by the City, that it will, at its own expense and without any cost to the City, replace all defective parts that may be required or made necessary by reason of defective design, material or workmanship, or by reason of non-compliance with the Contract Documents. The warranty period will commence on the first day the individual item is placed in service by the City. The City may revoke acceptance if the materials, goods, or components are later discovered not to be in conformance with this Contract.

4.7. Compensation

The Services will be provided at the prices listed on the Proposal Pages submitted with the Contractor's bid and as accepted by the City. Adjustments to prices will be as provided in the Scope of Work and Detailed Specifications, as applicable.

ARTICLE 5. TERMS FOR VEHICLE AND EQUIPMENT MAINTENANCE CONTRACTS

5.1. Scope of Services

The scope of repair and/or maintenance services ("Work" or "Services") is described in the Scope of Work and Detailed Specifications article of this agreement.

5.2. Estimated Quantities/Level of Service

Any quantities or level of usage shown herein are estimated for the initial Contract term. The City reserves the right to increase or decrease the quantities or level of Services required under this Contract. Nothing herein will be construed as intent on the part of the City to contract for any Services other than those determined by the City to be necessary to meet its needs.

The City will only be obligated to pay for such Services as are from time to time requested, performed, and issued via a Purchase Order release directly by the City.

5.3. Shop Facilities

The Contractor must have, or must provide a subcontractor which has, factory trained mechanics and personnel, and adequate shop facilities, tools, parts and service facilities in the Chicago Metropolitan area (defined as being no more than 50 road miles from 210 W. 69th Street, Chicago, IL 60621) to service the equipment under this contract in its own shop. Upon request, the shop facility will be open to inspection by any City representatives.

During the warranty period for any vehicles or equipment provided under this Contract, Contractor must have, or must provide a subcontractor which has, factory warranty authorization.

The manufacturer(s)/dealer(s) of the mounted equipment and/or accessories furnished by the Contractor under this specification must employ sufficient factory trained personnel and maintain adequate shop facilities, service facilities and parts inventories within the Chicago Metropolitan area to service/repair the subject equipment/accessories throughout their warranty period.

Shop or service facilities must be equipped with the necessary parts to provide full service to the City equipment either in stock and a turnaround time must be clear to perform all repair and service operations that may be required.

The Contractor's facility will be of sufficient size and accessibility to accommodate the anticipated amount of repair service to City owned equipment.

The Contractor must have available an enclosed, secured area to store City equipment awaiting repairs.

5.4. Factory Trained Mechanics

The Contractor must employ, or must have a subcontractor that employs, certified factory trained personnel who are authorized to perform service and/or repair work on the specified equipment described herein.

5.5. Unspecified Services

Any service not specifically included in the Scope of Work and Detailed Specifications article may be added to this Contract if it falls within the same general category of Services already specified in the Contract. Pursuant to MCC Section 2-92-646, the lifetime, aggregate value of the City's purchase of any Services added to this Contract must not exceed ten percent (10%) of the original value of the Contract.

The Department will notify the Contractor in writing of the services which are necessary and request a written price proposal for the addition of the services to this Contract under the same terms and conditions of the original Contract, then forward the documents to the CPO. Such services may be added to the Contract only if the prices are competitive with current market prices and said services are approved by the CPO in writing. The CPO reserves the right to seek competitive pricing information on said services from other vendors and to solicit such services in a manner that serves the best interest of the City.

Any such services provided by the Contractor, without a written approval signed by the CPO, are done so entirely at the Contractor's risk. Consequently, in the event that such addition to the Contract is not

approved by the CPO, the Contractor hereby releases the City from any liability whatsoever to pay for any services provided prior to the Contractor's receipt of the fully signed modification.

5.6. Standard Working Hours

Pursuant to MCC Section 2-92-220 a standard working day consists of 8 hours for this Contract; shifts must be coordinated with the Department. No overtime or premium pay is allowed unless otherwise specified in the Detailed Specifications and authorized by the Commissioner.

5.7. Timeliness

The Contractor must provide the Services in the time-frame required in the Scope of Work and Detailed Specifications. If Contractor's response and/or completion time for performance of the Services fails to meet this standard, the CPO may declare the Contractor in default.

5.8. Delay

If the City has caused the Contractor be obstructed or delayed in the commencement, prosecution or completion of the Services by any act or delay of the City or by order of the Commissioner, then the time herein fixed for the completion of said Services will be extended for an equivalent period of time.

It is otherwise understood that no extension of time will be granted to the Contractor unless Contractor, immediately upon knowledge of the causes of an unavoidable delay, first notifies the Commissioner and CPO in writing, stating the approximate expected duration of delay. Contractor shall not be entitled to an extension of time without such prior notification and request for extension.

The CPO and the Commissioner will determine the number of days, if any, that the Contractor has been delayed. Such determination when approved and authorized in writing by the Commissioner and CPO, will be final and binding.

It is further expressly understood and agreed that the Contractor shall not be entitled to any damages or compensation from the City, or be reimbursed for any loss or expense on account of any delay or delays resulting from any of the causes aforesaid.

5.9. Quality of Workmanship and Materials

5.9.1. Standards of Performance

The Contract will perform or cause to be performed, all Work required of it under the terms and conditions of this Contract with that degree of skill care and diligence normally exercised by experienced Contractors performing work in projects of a scope and magnitude comparable to this project. The Contractor will use reasonable efforts to assure timely and satisfactory completion of the Work. The Contractor will at all times, act in the best interest of the City. The contractor will perform or cause to be performed, all Work in accordance with the terms and conditions of this Contract and to the reasonable satisfaction of the City.

5.9.2. Correction of Work

The Contractor when directed in writing by the Commissioner, will promptly remove, re-perform or correct all Work identified to be defective or as failing to conform to the Standards set forth above or in the Contract Documents, whether observed before or after completion of the Contractor's Work and whether or not installed or completed. The Contractor will bear all costs of correcting such defective or nonconforming Work, including costs associated with removing any nonconforming Work and installing corrected Work and compensation for any additional services made necessary thereby.

5.9.3. Failure to Proceed with Directed Work

In case of failure on the part of the Contractor to execute Work ordered, in writing, by the Commissioner, the Commissioner may, at the expiration of a period of forty-eight (48) hours, request the Chief Procurement Officer to give notice, in writing, to the Contractor and proceed to execute such Work as may be deemed necessary and the cost thereof, will be deducted from compensation due or which may become due the Contractor under this Contract.

5.9.4. Protection of Work, Damages and Repairs

The Contractor must provide protection for all uncompleted work under this contract until the work has been completed and accepted by the City.

The Contractor will be responsible for and shall repair and pay for damages to new and existing structures, material, equipment, plant, stock and apparatus during the course of the work, where such damage is directly due to work under this contract or where such damage is the result of the negligence or carelessness on the part of the Contractor or of its employees or on the part of the Contractors subcontractor or its employees. However, the Contractor must first immediately notify the Commissioner or his authorized representative and report the nature and extent of damages prior to making any such necessary repairs.

5.9.5. Clean Up

The Contractor must, during the progress of the work, remove and dispose of all materials and the resultant dirt and debris on a daily basis and keep the work site(s) and adjacent premises in a clean condition satisfactory to the City. Upon completion of work, the Contractor must remove all materials, tools and machinery and restore the site to the same general condition that existed prior to the commencement of its operation.

5.9.6. Public Convenience

All work performed under this Contract will be so conducted as to cause a minimum of dust, noise and inconvenience to the normal activities of the facility where the work is performed. The Contractor is responsible for conducting all work in such a manner as to minimize debris left in the public way and shall provide clean-up as required by the Commissioner. Whenever the Commissioner determines any type of operation constitutes a nuisance, the Contractor will immediately proceed to conduct its operations in an approved manner.

The Commissioner may at any time require additional provisions if such are deemed necessary for public safety or convenience.

5.9.7. Character of Workers

The Contractor will employ only competent and efficient employees and whenever, in the opinion of the Commissioner, any employee is careless, incompetent, obstructs the progress of the work, acts contrary to instructions or conducts themselves improperly, the Contractor will, upon the request of the Commissioner, remove the employee from the work and will not employ such employee again for the work under this Contract, except with the written consent of the Commissioner. The Contractor will not permit any person to enter any part of a City facility or property while under the influence of intoxicating liquors or controlled substances. The Contractor will not permit obnoxious behavior or possession or consumption of alcoholic beverages or drugs anywhere on the site of any work to be performed under this Contract.

The Commissioner has authority to request the Contractor to remove any worker who proves to be incompetent or negligent in his/her duties.

5.10. Work In Progress

Any Services in progress at the termination date of the Contract will be completed by the Contractor in the most expedient method available. In no event will the Contractor be relieved of its obligations under this Contract until all Services requested prior to the expiration of the Contract has been completed and accepted by the Commissioner.

5.11. Warranties for Repair Services and Replacement Parts

The Contractor must warrant for a period of 90 days from the date of final acceptance (i.e. the date the unit is returned to the City) all parts and services, that it will, at its own expense and without any cost to the City of Chicago, replace all defective parts and make any repairs that may be required or made necessary by reason of defective design, material or workmanship or by reason of non-compliance with these specifications.

The Contractor must provide copies of standard warranties that will be used in the regular course of business for service repairs. Warranties will not commence until the vehicle is accepted by the Department and placed into service. The Contractor will be responsible for the warranty of all parts and labor, regardless of whether the parts/and/or labor was provided by subcontractors.

The Contractor must furnish a warranty for the items and services provided under this Contract in accordance with the standard warranty regularly supplied. Exceptions to this warranty will be damage or loss due to theft, vandalism or accidental occurrences outside the Contractor's control.

In the event that any such repair(s) fails to endure this minimum period, the City may elect to repair the unit in-house on an emergency basis and/or the Contractor will replace the subject part(s) and/or furnish the necessary labor to make good the subject repair at no additional cost to the City.

Also, in the event that any such repair(s) fail to endure this minimum period, the Contractor will incur all costs in transporting the unit back to the maintenance location and returning it to the City after the warranty repair is completed.

When only labor is furnished by the Contractor to complete a work order, the Contractor will warrant the work for a minimum period of 90 days.

5.12. Multi Project Labor Agreement (PLA)

The City has entered into the PLA with various trades regarding projects involving construction, demolition, maintenance, rehabilitation, and/or renovation work, as described in the PLA, a copy of which may be found on the City's website at: <http://www.cityofchicago.org/dam/city/depts/dps/RulesRegulations/Multi-ProjectLaborAgreement-PLAandSignatoryUnions.pdf>.

To the extent that this Contract involves a project that is subject to the PLA, Contractor acknowledges familiarity with the requirements of the PLA and its applicability to any Work under this Contract, and shall comply in all respects with the PLA.

ARTICLE 6. SCOPE OF WORK AND DETAILED SPECIFICATIONS

6.1. General

The Contactor will provide and deliver like manufacturer new, current model, Fire Apparatuses separately or in conjunction with Repair Services in accordance with the terms and conditions of this specification. The Contactor will also provide and deliver Repair Services for vehicles and equipment purchased under this Contract in accordance with all the terms and conditions of this specification. All specified requirements are minimum requirements unless stated otherwise.

6.2. Basis of Award

In the event that a contract is awarded pursuant to this specification, the Chief Procurement Officer will award such contract to the lowest responsive and responsible bidder as determined by the bid price, including any statutorily mandated adjustments to the bid price as applicable, meeting the terms and conditions set out in the Bid Documents.

The Contractor's bid pricing will incorporate any/all peripheral costs including, but not limited to the costs of (products/services), delivery/transportation charges, training, materials, labor, insurance, applicable taxes, warranty, overhead and profit, etc. that are required by this Specification.

6.3. Funding

The source of funds for payments under this Contract is Fund Number 01-013-0C42-0382005-5416-220450-0000 – 54016111 and Various. Funding for this Agreement is subject to the availability of funds and their appropriation by the City Council of the City.

6.4. Contract Term

6.4.1. Initial Term

The Initial Term for this Contract will be sixty (60) months, unless terminated earlier or extended pursuant to the terms of this contract.

The City will establish the start and expiration dates at the time of formal award and release of this contract.

The start date will be no later than the first day of the succeeding month from the date shown as the Contract Award and Release Date on the Proposal Acceptance Page.

6.4.2. Term Extension

The City has the option to unilaterally extend the term of this Contract following the expiration of the Initial Term, for up to thirty-six (36) months, subject to acceptable performance by the Contractor and contingent upon the appropriation of sufficient funds. The option may be exercised as a single thirty-six month extension or as up to three separate extensions, each with a term no less than twelve months.

No less than sixty (60) calendar days before the expiration of the Initial Term, or if previously extended, the expiration of the term as extended, the Chief Procurement Officer will give the Contractor notice of the City's intent to exercise its option to renew the Contract. The date on which the Chief Procurement Officer gives notice is the date the notice is mailed, if it is mailed, or the date the notice is delivered, if sent by courier or messenger service.

With the same amount of notice as for options, the City reserves the right to extend the contract period for a period of no more than one hundred eighty-one (181) calendar days, either in lieu of exercising an option period or following the exhaustion of all option periods, for the purpose of providing continuity while procuring a replacement contract.

6.5. No Stated Goals for MBE/WBE Participation

It is the policy of the City of Chicago that local businesses certified as Minority-owned Business Enterprises (MBE) and Women-owned Business Enterprises (WBE) in accordance with Section 2-92-450 of the Municipal Code of Chicago and Regulations Governing Certification of Minority and Women-owned Businesses shall have the maximum opportunity to participate fully in the performance of all City contracts.

The Chief Procurement Officer has determined that the nature of the goods and/or services to be provided under this Contract are such that direct subcontracting opportunities will not be practicable or cost-effective. Therefore, there will be no stated goals for MBE/WBE participation in this Contract. This determination is being made pursuant to Section 2-92-450 of the Municipal Code of Chicago.

6.6. Authorized Dealer

The Contractor must be the manufacturer of, or an authorized dealer or distributor of the manufacturer of, the Fire Apparatuses. The Contractor must be able to provide genuine parts, assemblies and/or accessories as supplied by the original equipment manufacturer (OEM). Further, the Contractor must be able to provide original product warranty and manufacturer's related services such as product information, product recall notices, etc.

Documentation which validates the Contractor's current status of authorized dealer or distributor must be submitted with the bid. Contractor must also demonstrate that it has authorization to transfer product warranties to the City of Chicago.

6.7. Licensed New Vehicle Dealer

When required by the Illinois Motor Vehicle Code, Section 625 ILCS 5/5-101, the Bidder must be a licensed vehicle dealer in accordance with the Illinois Motor Vehicle Code, Section 625 ILCS 5/5-101. **Bidder must provide a copy of current Registration for Authority to Deal in Vehicles issued by the Illinois Secretary of State with the bid.** Failure to obtain the required licenses may cause the bids to be rejected as non-responsive.

Bidder must be licensed by the Illinois Secretary of State to deal in the specific make of vehicle proposed. If, at the time of the submission of its bid, the Bidder is not registered to deal in the specific make of vehicle proposed, Bidder has until 30 days after the bid opening date to obtain the required documentation and submit it to the City.

If the proposed unit is manufactured in stages, bidder either must be registered to deal in the specific make of vehicle proposed (as the incomplete vehicle portion of the proposed vehicle) or must be registered to deal in the specific make manufactured by the final-stage manufacturer. In cases where the bidder is registered to deal in the specific make of vehicle proposed (as the incomplete vehicle portion of the proposed vehicle), the bidder or bidder's subcontractor must be registered to deal in the specific make manufactured by the final-stage manufacturer. If the bidder is registered to deal in the specific make manufactured by the final-stage manufacturer, bidder or bidder's subcontractor must be registered to deal in the specific make of vehicle proposed (as the incomplete vehicle portion of the proposed vehicle). **In all cases, bidders must provide documentation of current Registration for Authority to Deal in Vehicles both specific to the make of vehicle proposed (as the incomplete vehicle portion of the proposed vehicle) and specific to the make manufactured by the final-stage manufacturer; the required, current registration may be issued to and furnished by the bidder and its subcontractor or by the bidder alone but not to subcontractor(s) alone.** Bidder must provide documentation of current registration both for the specific make of vehicle proposed and for the proposed specific make manufactured by the final-stage manufacturer. If, at the time of the submission of its bid, the Bidder is not registered to deal for both the specific make of vehicle proposed and for the proposed specific make manufactured by the final-stage manufacturer, Bidder has until 30 days after the bid opening date to obtain the required documentation.

Bidders not located in Illinois must provide with their bid all such registration/license documentation from their state in lieu of documentation from the Illinois Secretary of State.

Bidders will not be required to be licensed vehicle dealers and will not be required to furnish Registration for Authority to Deal in Vehicles where not required by the Illinois Motor Vehicle Code, Section 625 ILCS 5/5-101, when proposing only units that are exempt from the requirements of the Illinois Motor Vehicle Code for dealer licensing and certificates of title.

6.8. Centralized Invoice Processing

Unless stated otherwise in the Detailed Specifications, this Contract is subject to Centralized Invoice Processing ("CIP"). Invoices must be submitted directly to the Comptroller's office by US Postal Service mail to the following address as appropriate:

Invoices for any City department other than the Department of Aviation:

Invoices
City of Chicago, Office of the City Comptroller
121 N. LaSalle St., Room 700, City Hall
Chicago, IL 60602

Invoices for the Department of Aviation:

Chicago Department of Aviation
10510 W. Zemke Blvd.
P.O. Box 66142
Chicago, IL 60666
Attn: Finance Department

OR

Invoices for any department, including Aviation, may be submitted via email to: invoices@cityofchicago.org with the word "INVOICE" in the subject line.

All invoices must be signed, marked "original," and include the following information or payment will be delayed:

- Invoice number and date
- Contract/Purchase Order number
- Blanket Release number (if applicable)
- Vendor name and/or number
- Remittance address
- Name of City Department that ordered the goods or services
- Name and phone number of your contact at the ordering department
- Invoice quantities, commodity codes, description of deliverable(s)
- Amount due
- Receipt number (provided by the ordering department after delivery of goods/services)

Invoice quantities, service description, unit of measure, pricing and/or catalog information must correspond to the terms of the Bid Page(s).

If applicable, if invoicing Price List/Catalog items, indicate Price List/Catalog number, item number, Price List/Catalog date, and Price List/Catalog page number on the invoice.

Invoices for over-shipments or items with price/wage escalations will be rejected unless the Contract includes a provision for such an adjustment.

Freight, handling and shipping costs are not to be invoiced; deliveries are to be made F.O.B., City of Chicago. The City of Chicago is exempt from paying State of Illinois sales tax and Federal excise taxes on purchases.

The City may Change its invoice submission and processing during the term of this Contract. Should a change occur, the City will notify Contractor of the new procedure which the Contractor will then be required to follow.

6.9. Price Adjustments

6.9.1. Price Adjustment for Vehicles and Equipment, Bid Lines Numbers 1, 2, and 3

The original bid prices will be valid and firm for the initial twelve (12) month contract period beginning with the start date of the Contract. Beginning on the date after the initial twelve (12) month term, and for each twelve (12) month anniversary thereafter, subject to acceptable performance by the Contractor and contingent upon the appropriation of sufficient funds for the purchase of the equipment provided for in this Contract, annual price adjustments of the contract pricing may be made after receipt of written request from the Contractor made no later than thirty (30) calendar days after the expiration of each such twelve (12) month period. If Contractor does not request a price adjustment within such thirty (30) calendar day period, Contractor will not be entitled to a price adjustment for the upcoming year.

Annual requests for price adjustments will reference an equally weighted combination of the Producer Price Indices ("PPI") for Heavy Duty Trucks, Series ID: WPU14110684 and Metals and Metal Products, Series ID: WPU10, not seasonally adjusted, as they appear in the periodical Producer Price Indices published by the U.S. Department of Labor, Bureau of Labor Statistics. The indices can currently be found on the Internet at <http://data.bismovilabiavatoutside.ispOsurvey=wo> although this site's URL is subject to change. (Select "commodity data", then select Machinery and Equipment, and items "Heavy Duty Trucks", Series ID: WPU14110684 and "Metals and Metal Products", Series ID: WPU10, and "get data".)

In the case where the referenced series are no longer updated, comparable series will be selected by the City for computing price adjustments.

The adjusted contract price will be determined by performing the following calculation: The lesser of the original contract price(s) and the original contract price(s) as adjusted by any applicable price reduction (see Price Reduction Section of the General Conditions) will be multiplied by the quotient, and then be rounded to two decimal places to calculate the adjusted contract price(s). The quotient will equal the average of the monthly index values for the final three (3) full months of the annual contract period divided by the index value for the date of the contract award. Adjusted price(s) may be higher or lower than the original contract pricing, as dictated by the applicable index values. Any price adjustments requested in subsequent years of the agreement will be calculated in the same manner.

The Contractor's unit prices will be adjusted by an amount no more than five percent (5%) per year for each addition twelve (12) month period.

All price adjustment calculations will be based upon the latest version of the PPI available on the eighteenth (18th) day of the month following the anniversary of the contract. The effective date of an adjustment will be 1 month following the anniversary date.

If Producer Price Index data are not available for any month of the final three full months of the annual contract period, the PPI data for the most recent three full months preceding the anniversary of the contract will be used in computing the price adjustment.

ILLUSTRATION: If the contract award date is 9/5/07, the Contract pricing will be subject to adjustment after - 9/5/08. An adjustment to the contract pricing is requested by the Contractor no later than 10/10/08. The index values (available on 9/18/08) for 6/08, 7/08 and 8/08 will be averaged (added, then divided by three). That averaged value will be divided by the index value for 9/07. The original contract price(s) will be multiplied by the quotient of that calculation, and then be rounded to two decimal places to calculate the adjusted contract price(s). The adjusted prices will be effective as of 10/5/08.

This process may be duplicated on each anniversary of the contract (e.g. after 10/5/09, the original contract. Price(s) will again be subject to adjustment. Adjustment will be based upon the percentage difference when comparing the average index value for the three months from 6/09, 7/09 and 8/09 That

average value will be divided by the index value for 9/5/07.. The data used will be the latest data available on 9/18/09. The re-adjusted prices will become effective as of 11/5/09).

If approved by the Chief Procurement Officer, a properly executed contract modification must be signed by the Contractor and executed by the City to reflect the price change and the effective date for the change. Original bid prices are in effect until the modification has been fully executed and released to the Contractor unless the modification specifies an effective date for the agreed upon price change.

Any equipment and/or services provided by the Contractor at a price change, without a properly executed contract modification signed by the Chief Procurement Officer, is made at the Contractor's risk. Consequently, in the event such modification is not executed by the City, the Contractor releases the City from any liability whatsoever to pay for services rendered at the price change.

6.9.2. Price Adjustment for Communication Systems , Labor Rates Bid Lines 4,5 and 6

For only line items listed above, the original bid prices for labor rates are to be valid and firm for the initial twelve (12) month contract period beginning with the start date of the Contract. Beginning on the date after the initial twelve (12) month term, and for each twelve (12) month anniversary thereafter, subject to acceptable performance by the Contractor and contingent upon the appropriation of sufficient funds for the services provided for in this Contract, annual labor rate adjustments of the contract unit price(s) may be granted at the time of escalation request after receipt of a written request from the Contractor.

The adjusted contract price(s) will be adjusted by an amount of no more than five percent (5%) per year, for each twelve (12) month period.

The Contractor will be required to furnish supporting documents to verify the new rates and to furnish a certified statement or affidavit, which is to state information requested by the Chief Procurement Officer to verify the price change.

If approved by the Chief Procurement Officer, a price adjustment must be signed by the Chief Procurement Officer reflecting the price adjustment and the effective date for the change. Original bid prices are in effect until the price adjustment has been signed by the Chief Procurement Officer reflecting the price adjustment and the effective date for the change.

Any equipment provided by the Contractor at the new price, without a price adjustment signed by the Chief Procurement Officer, is made at the Contractor's risk. Consequently, in the event such price adjustment is not signed by the Chief Procurement Officer, the Contractor releases the City from any liability whatsoever to pay for equipment.

6.9.3. Price Adjustment for Parts Bid Lines Numbers 7, 8, and 9

No price adjustment for parts will be allowed. The percentage markup will remain fixed for the life of the contract.

6.9.4. Price Adjustment for Labor Rates: Bid Line Number 10

The original bid prices for labor rates are to be valid and firm for the initial twelve (12) month contract period beginning with the start date of the Contract. Beginning on the date after the initial twelve (12) month term and for each twelve (12) month anniversary thereafter, subject to acceptable performance by the Contractor and contingent upon the appropriation of sufficient funds for the services provided for in this Contract, annual labor rate adjustments of the contract unit price(s) may be granted based on the prevailing wage rate at the time of escalation request after receipt of a written request from the Contractor. The Contractor's written request must be made to the User Department no earlier than thirty (30) Calendar Days before the anniversary date or no later than thirty (30) Calendar Days after the expiration date of each such twelve (12) month period. If Contractor does not request a price

adjustment within such period, Contractor will not be entitled to a labor rate adjustment for the upcoming year.

The Contractor's unit prices will be adjusted "New Contract Price(s)" by an amount of no more than five percent (5%) per year, for each additional twelve (12) month period.

The Contractor will be required to furnish supporting documents to verify the new rates and to furnish a certified statement or affidavit, which is to state information requested by the User Department and/or Chief Procurement Officer to verify the rate change. If approved by the Chief Procurement Officer, a labor rate adjustment must be signed by the Chief Procurement Officer reflecting the labor rate adjustment and the effective date for the change. Original bid prices are in effect until the labor rate escalation has been signed by the Chief Procurement Officer reflecting the price adjustment and the effective date for the change.

Any service provided by the Contractor at the new labor rate, without a labor rate escalation signed by the Chief Procurement Officer, is made at the Contractor's risk. Consequently, in the event such labor rate escalation is not signed by the Chief Procurement Officer, the Contractor releases the City from any liability whatsoever to pay for services rendered at the labor wage rate.

6.9.5. Price Adjustment for Transportation Bid Line Number 11

The bid price will remain fixed for the life of the contract.

6.10. Delivery of Vehicles and Equipment

6.10.1. Pre-Delivery, Servicing and Adjustments

Prior to delivery of any vehicles and equipment, the Contractor will perform any/all preparatory operations recommended by the manufacturer, including (where applicable):

- Tuning the engine;
- Testing the operation of all accessories;
- Testing electrical, hydraulic and air systems;
- Charging batteries;
- Inflating tires to recommended pressures;
- Lubricating all "zerk" fitting and friction points;
- Filling all lubricant and fluid reservoirs; and
- Filling fuel tank using fresh fuel.

6.10.2. Equipment, Component and Dimensional Data

Under this agreement, the Contractor is required to assemble and furnish to the Department a detailed list of information (approximately 150 data items) related to the specified Vehicles, the component parts and mounted equipment, no later than fifteen (15) calendar days prior to scheduled delivery date. Such information must be furnished by completing a "VMART Tech. Spec. Item Form", a copy of which may be obtained from the Department, Technical Services Division; (312) 744-4300. Any and all costs involved in providing the requested information must be anticipated by the Contractor and incorporated into the bid pricing. The Contractor will not be entitled to any additional compensation from the City as a result of this provision.

6.10.3. Delivery

The Contractor must deliver the specified vehicles or equipment, complete with all attachments and ready for use. Delivery must be made between the hours of 8:00 a.m. and 2:30 p.m., Monday through Friday, excluding Holidays. Vehicles must be delivered F.O.B. Destination (City of Chicago), IL at the following address: Department of Fleet and Facility Management

6900 S. Wentworth Ave.
Chicago, IL 60621
Attn: Edward Ebertsch, Phone#: (312) 745-1258

Delivery of the specified Fire Apparatus must be completed within 280 Calendar Days following the issue date of purchase order release.

The above noted Contact Person must be notified at least 48 hours prior to delivery of the specified Vehicles.

6.10.4. Liquidated Damages

Time is of the essence in Contractor's performance under this Contract. Failure of the Contractor to deliver the Vehicles ordered under the Contract within the specified 280 Calendar Days would jeopardize the operation of the Chicago Fire Department and the City of Chicago and as a result, would incur losses not readily calculated in dollars. Therefore, if any Vehicles ordered under the Contract is not delivered within the specified 200 Calendar Days delivery time, the Contractor must pay to the City the sum of \$250 per unit for each Calendar Day after the specified 280 Calendar Days delivery time that Contractor has not delivered the Fire Apparatus in accordance with the terms of the Contract and such moneys must be paid as liquidated damages, not a penalty, to partially cover costs and losses by the City.

The City will recover such liquidated damages by deducting the amount thereof out of any moneys due or that may become due to the Contractor. If such moneys are insufficient to cover said damages, the Contractor must pay any remaining amount due.

Nothing contained in this Section will be construed as limiting the right of the City to recover from the Contractor any and all amounts due or to become due and any and all costs and expenses sustained by the City for improper performance hereunder, repudiation of the Contract by the Contractor, failure to perform or breach or breaches in any other respect, including but not limited to, defective workmanship or materials. Additionally, nothing in this Section will be construed as a waiver by the City of any other rights or remedies that exist under this Contract, at law or in equity, including the right to terminate the Contract.

6.11. Vehicle and Equipment Additional Requirements

6.11.1. Meetings and Inspections

A Post award meeting must be held at the Department of Fleet and Facility Management facility at 210 W. 69th Street., Chicago, IL 60621, prior to construction This meeting must be attended by the Contractor's technical representatives, body and chassis, to discuss construction techniques and particular component placement. The Contractor representatives must have the full authority to provide binding decisions on the Contractor's behalf.

For each sub-order, a Pre-Construction meeting must be held at the Manufacturers facility prior to construction of cab/chassis and body. Two representatives from each ordering department and two representatives from the Department of Fleet and Facility Management will attend this inspection

For each sub-order, a body Pre-Paint meeting may be held at the facility of the body manufacturer during the body construction. Two representatives from each ordering department and two representatives from the Department of Fleet and Facility Management will attend this inspection.

For each sub-order, a final inspection meeting may be held at the facility of the body manufacturer during the body construction. Two representatives from each ordering department and two representatives from the Department of Fleet and Facility Management will attend this inspection.

The expense of appropriate travel, lodging and meals for all meetings and inspections not held within the City of Chicago must be borne by the Contractor. For purposes of travel expenses, travel to and from the inspections by Department personnel must be by automobile up to a maximum of 200 road miles from the Fleet and Facility Management Maintenance Facility at 6900 S. Wentworth Ave., Chicago, IL 60621. If travel is required in excess of 200 road miles, the Contractor must provide City employees with travel via commercial airlines with a 14 day notice of arrangements being provided prior to the

inspection date. Travel arrangements must be made in accordance with City of Chicago Travel Guidelines, as shown in Exhibit 5, attached.

Final acceptance will be at the Department of Fleet and Facility Management facility at 6900 S. Wentworth Ave., Chicago, IL 60621.

6.11.2. Approval Drawings

Drawings for approval and blue prints with all details thereon must be furnished after the pre-construction conference and before construction of the apparatus begins. The engineering drawings must be drawn to scale and representative of the bid unit after the pre-construction conference clarifications are incorporated. Views of sides as well as front, back and top must be shown. Generic drawings are unacceptable. The Department will make every endeavor to correct the approval drawing before it is returned. However, if a variation or an omission between the approval drawing and the written specifications is discovered, the City of Chicago written specifications will prevail.

6.11.3. Equipment Demonstration

The City, at its option, reserves the right to request an equipment demonstration be conducted by the Contractor at a designated site in the Chicago area within 21 days after receipt of notice from the City to determine whether the proposed equipment meets all City requirements.

Contractor will pay travel expenses for up to three (3) City personnel in the event the site is located outside of the Chicago area. All costs related to the equipment demonstration must be borne by the Contractor. Failure of the Contractor to provide an equipment demonstration upon request will be grounds for rejecting the bid as being non-responsive.

For purposes of travel expenses, travel to and from the inspections by department personnel must be by automobile up to a maximum of 200 road miles from the Fleet Management Maintenance Facility at 1685 N. Throop Street, Chicago, Illinois. If travel is required in excess of 200 road miles, the Contractor must provide City employees with travel via commercial airlines with a 14-day notice of arrangements being provided prior to the inspection date. The levels of travel and accommodations for City representatives must not exceed those established within the City of Chicago Travel Guidelines.

6.11.4. General Construction

The vehicles or equipment furnished will be the manufacturer's latest models. Appurtenances and/or accessories not herein mentioned but necessary to furnish a complete unit ready for use upon delivery will be included. The vehicles or equipment will conform to the best practices known to the trade in strength, quality of material and workmanship and be subject to this specification in full. The specification will be construed as minimum. Should the manufacturer's current published data or standard package exceed this, it will be considered minimum and will be furnished. The City reserves the right to waive or make exceptions to this requirement if it be to the City's best interest.

6.11.5. Standard Product

Experimental vehicles will not be acceptable. Any vehicles which are not produced by regular production methods and/or which have not been offered for sale to the public through accepted industry trade channels for approximately one (1) year prior to the offering of this bid, will be considered experimental. The Chief Procurement Officer reserves the right to determine what constitutes experimental equipment.

Hybrids and/or combinations of two (2) or more standard production units may not be accepted. The Contractor must furnish evidence upon request that the Vehicles to be furnished have been commercially available through the proposed manufacturer to the trade for a period of not less than approximately one (1) year and has been fully field tested to the satisfaction of the Chief Procurement Officer.

6.11.6. Design and Construction Practices

The vehicles and any/all assemblies, subassemblies, component parts, etc., must be designed with a factor of safety that is equal to or greater than that which is considered standard and acceptable for this class of equipment. Where applicable, the vehicles or equipment must conform to the standards established by Military Specifications, the Society of Automotive Engineers, Federal Aviation Administration or the Federal Motor Safety Standards. Assemblies, sub-assemblies, component parts, etc., must be standard and interchangeable throughout the entire quantity of units purchased under this document. Assemblies, sub-assemblies, component parts, etc., that are obsolete or approaching obsolescence due to material, design changes or improvements will not be acceptable and will be subject to replacement with current assemblies, sub-assemblies, component parts, etc. The Vehicles furnished by the Contractor under this Specification must also comply with all applicable Federal OSHA, State of Illinois and local laws/acts ordinances in effect at the time of delivery.

The vehicles must be designed to function reliably and efficiently in sustained operation, under conditions which are typical for the intended application. Vehicle must conform to the current published NFPA 1901 standards.

The vehicles must be designed to permit accessibility to all major lubrication and maintenance points with minimal disturbance of other components or assemblies.

Where "heavy-duty" items are required by this Specification, the term will be understood to define items which exceed the quality, capacity, durability and/or quantity of those items normally supplied with a standard production unit.

No dealer advertising labels may be affixed to a unit when delivered to the City.

6.11.7. Quality Control

The Contractor must utilize industry-recognized standards and procedures to assure that a satisfactory level of quality control are maintained in all stages of the manufacturing, assembly and installation process. Employees of the Department of Procurement Services and the Department or agents acting on behalf of the City, accompanied by such City personnel will have open access to all areas/ facilities in order to ensure that proper quality control standards are being met.

6.11.8. Special Requirements for Auxiliary Electrical Equipment

When any auxiliary electrical items are required by the specifications, a fuse or junction box suitable for connection of the auxiliary equipment required must be installed in a location subject to approval by the Department, Automotive Engineering Section. Junction box must include fused circuits sufficient to accommodate the required auxiliary equipment. Fuses connected to constant power must be connected directly to the chassis battery with a continuous run of 8-gauge marine-rated wire. An appropriately sized waterproof circuit breaker with test button and swing-out reset switch must be installed in the main lead within 12" of the battery.

Each relay and fuse added to power auxiliary equipment must be clearly and permanently labeled with the function it controls. Each fuse must be sized as necessary to match circuit demands and component-manufacturer recommendations; each fuse must be rated to effectively protect its circuit.

All auxiliary equipment wiring, including wiring in the engine compartment and in the passenger compartment, must be enclosed in suitably sized wire loom. All wiring must be continuous lengths with soldered and heat-shrink-wrapped connections and must include service loops of slack wire, neatly stowed, at each end, in lengths sufficient to permit removal and service of all electronic equipment without cutting or disconnecting wires. Any opening cut in metal must be appropriately sized and must be fitted with a grommet to protect wiring and filled with silicon to seal out weather and noise.

In all cases, installation of auxiliary equipment must be done in a professional manner, following the requirements and guidelines of all involved auxiliary-equipment manufacturers and, where more restrictive, applicable industry (NFPA, NEMA and SAE) standards and best practices.

Installations must be consistent from vehicle to vehicle furnished by the Contractor under this Specification, including such details as operation, wire colors and wire routing. Readable, electronically printed wiring diagrams showing the consistent installation methods must be furnished at time of delivery for each model year and equipment configuration furnished by the Contractor under this Specification.

Wiring must not pass within 3" of exhaust system components. Wiring installed from 3" to 6" of exhaust system components must be heat shielded.

References to LED light-module part numbers as examples is intended to demonstrate the configuration, functionality and light output, including off-axis light output, required by this specification.

6.11.9. Training/Technical Assistance

The Contractor must furnish professionally conducted training sessions to the extent described below. This training will be provided by the Contractor as a portion of the Contract, at no additional cost to the City.

For each unit delivered, the Contractor must train City personnel in the proper, safe operation of the unit and any auxiliary items for a minimum of three shifts of personnel. This training will be conducted professional, certified instructors, at the Chicago Fire Department training facility.

In addition, for each unit delivered, the Contractor must provide a structured training program for City trades technicians. These technicians must be trained in diagnostic and preventive maintenance procedures, general maintenance and repair along with systems reconditioning for the unit and any auxiliary items. This training will be conducted by knowledgeable, experienced personnel, at the facility of Department of Fleet and Facility Management.

The Contractor must furnish four vehicle-training manuals and other multimedia training aids to the Chicago Fire Department.

6.11.10. Manuals, Certificates, Applications

One (1) operator's manuals and one (1) set of maintenance manuals must be provided with each vehicle purchased. All manuals must be provided in English.

For purposes of these specifications, a set of maintenance manuals must include one (1) complete parts manual, one (1) technical service manual, one (1) complete wiring schematic (if not included with in the service manual) and service and parts manuals for all auxiliary equipment.

A complete set of electrical and air-system troubleshooting guides for the complete apparatus must be provided with each vehicle purchased.

A complete set of as-built air-system diagrams, wiring diagrams, hydraulic-system diagrams and a line sheet for the apparatus must be supplied with each vehicle purchased. All as-built diagrams must include all components that create a complete system as installed on the vehicle to which the diagrams correspond. The diagrams must include manufacturer part numbers for all components and sub-assemblies used in the contraction of the apparatus.

Technical Service Bulletins (TSBs) must be forwarded directly to the Department as they are issued.

A minimum of forty-eight (48) hours prior to delivery, the Contractor must furnish the Department, attention Kevin Campbell, 6900 S. Wentworth Ave., Chicago, IL 60621, with the following items for each unit being delivered: Certificate of Origin and line-set sheet; Odometer Statement (in addition to odometer disclosure on Certificate of Origin) and applicable warranty certificate(s).

Completed Illinois Department of Revenue Form #ST556 (for Illinois suppliers) or RUT-25 (for out-of-state suppliers) must be provided a minimum of 48 hours prior to delivery. Forms can be obtained from the Illinois Department of Revenue by calling (800) 356-6302.

NOTE: The above listed documents must indicate the "CITY OF CHICAGO" as the owner of the vehicle. The assigned unit number and the respective Department name must also be indicated on all documents, in the appropriate places.

No vehicle/equipment deliveries will be accepted unless the Contractor has fulfilled all of the above listed requirements.

6.11.11. Engine Diagnostic Tool

An engine diagnostic tool must be provided with each sub order. Tool must be equipped with all processors, displays, programs and connectors to fully service and maintain the chassis engine and the auxiliary engine. A three year subscription to any service required to maintain the engines must be provided along with the tool.

6.11.12. Special Tools

Where there are special tools, manufactured or designed by the Contractor or manufacturer, that are required to provide routine service on any component of the apparatus, such as wheel seals etc., such tools must be provided with each apparatus. The Contractor must provide with each sub order a portable diagnostic machine, with connectors and software capable of link up to the apparatus, to diagnose faults or problems throughout the apparatus, including but not limited to engine, transmission, multiplex system and any other apparatus systems that have troubleshooting capabilities.

6.11.13. Software Licenses

Where applicable, the City reserves the right to negotiate licenses for software directly with the software supplier.

6.11.14. Tax Incentives

In the event that the vehicles purchased under this Contract utilize alternative-fuels, hybrid systems or alternative-technologies, Federal and State tax incentives may be available to offset the purchase cost. In such cases, these tax incentives must not be included in the Contractor's bid pricing. Rather, when allowed by the applicable tax regulations, tax incentives must be claimed by the Contractor on behalf of the City on a per order basis.

Prior to vehicle delivery, the Contractor must notify the Chief Procurement Officer in writing of all tax credits and other tax incentives allowable at the time of sale, with respect to each vehicle being delivered. All tax incentives, whether available on a Federal or State basis, available for each vehicle being delivered must be furnished by the Contractor in the form of a check payable to the City of Chicago. Amount of reimbursement to the City must be 80 percent of the tax incentive amount. Tax incentive payments must be forwarded to the City within 10 calendar days of the vendor's next tax filing.

The Contractor is wholly responsible for complying with Federal and State tax regulations and procedures necessary to apply for and receive these tax incentives.

Failure of Contractor to reimburse the City for available tax incentives is an event of Default under this Contract and Contractor will be liable for all of the City's costs of collection, including any court costs and attorneys' fees.

6.12. Repair Services

6.12.1. Written Repair Proposals

The Contractor will inspect the equipment and prepare a written proposal for all repairs including but not limited to the following information:

- A. contract number
- B. name of City Department
- C. name and phone number of City contact person
- D. description of equipment (make, model, serial number)
- E. date equipment received by Contractor
- F. repair work required
- G. listing of parts used to repair equipment
- H. number of hours of labor to repair equipment
- I. name and signature of the Contractor's employees performing the work

The Contractor, upon written approval, in the form of a purchase order release from an authorized representative of the Department, may proceed with repairs. In the event any piece of equipment cannot be repaired, due to replacement parts no longer being manufactured or other specific reasons, the Contractor will prepare a written explanation of the condition of the equipment and a recommended method of corrective action to be taken.

The City reserves the right to add and/or delete various models and types of Vehicles during the term of the Contract.

6.12.2. Repair & Service Requirements Shop Facilities, Service Facilities, and Notification

The Contractor or an authorized subcontractor must operate a fully equipped repair shop or service facility and employ certified factory trained personnel who are authorized to perform service and/or repair work on the specified equipment described herein. Upon request, the shop facility will be open to inspection by any City representatives.

The shop or service facility must be equipped with the necessary parts to provide full service to the City equipment either in stock and a turnaround time must be clear to perform all repair and service operations that may be required.

The Contractor's or an authorized subcontractor's facility will be of sufficient size and accessibility to accommodate the anticipated amount of repair service to City owned equipment.

The Contractor or an authorized subcontractor must have available an enclosed, secured area to store City equipment awaiting repairs.

Any City Department may contact the Contractor by phone for any replacement parts, new equipment or repair services required. The City Department will provide the Contractor with the location and description of the equipment needing service. The name and phone number of a contact person will be provided at the time of notification.

6.12.3. Service Hours

For purposes of pickup, return or repair of equipment, Regular hours are 7:00 a.m. to 3:00 p.m., Monday through Friday.

6.12.4. Performance of Repair Services (Regular Service Hours)

The Contractor will respond to requests for repair service within four (4) hours of verbal notification by the Using Department. The Contractor will inspect the equipment and prepare a written proposal for all repairs.

The City expects all repairs to be made within 72 hours or less, unless approved otherwise by the City, at the Contractor's, or if applicable the subcontractor's shops, regardless of the Blanket Release amount.

The Contractor and its subcontractors understand that the vehicles covered under this specification are critical to the City's Fleet operations. Therefore, the Contractor will give priority service to the City and proceed with authorized work in an expeditious manner to ensure that all work is completed within the agreed upon schedule and to ensure that vehicle downtime is kept to a minimum.

Contractor will notify the Using Department immediately if any parts have been discontinued or are on back order. If the equipment is found to be irreparable, the Contractor is to notify the Using Department immediately and the Using Department will make the determination of what course of action to take.

If there are delays due to a lack of parts, insufficient manpower or other circumstances, then the Contractor will notify the Using Department immediately of the delay. If the equipment is found to be irreparable, the Contractor is to notify the Using Department immediately and the Using Department will make a determination of what course of action to take.

Repair Service will be billed as follows:

- A. The Contractor quotation must include the number of total hours of labor to repair the equipment and cost of parts to repair the equipment.
- B. The labor cost for Repair Service Labor performed will be billed as a straight time, hourly rate, Monday through Friday, 7:00 a.m. to 3:00 p.m., (excluding nights Saturday, Sunday and legal holidays), as quoted on the Proposal Page bid lines.
- C. All costs associated with labor for Repair Service are to be included in the hourly rate as quoted on the Proposal Pages. The hourly rate will include any and all peripheral costs.

6.13. Diagnostic Testing Fees

Contractor or Authorized Subcontractor must request authorization from the Department of Fleet and Facility Management to proceed with diagnostic testing. Upon approval, all diagnostic tests must be charged at the contracted labor rate, with no additional charges for the use of diagnostic equipment.

6.14. Service and Repairs of Major Components and Sub-Systems

The City reserves the right to direct service and/or repair work to the Contractor for any major component or sub-system of a vehicle/unit (engine, transmission, hydraulics, etc.) for which the Contractor or subcontractor is qualified to service, regardless of the make of the vehicle/unit. Such service/repairs are to be billed at the contracted hourly rate.

6.15. Reporting Requirements

The Contractor must provide records of all vehicles serviced.

The Contractor must generate a quarterly report of all transactions with the City of Chicago, Department of Fleet and Facility Management. The report must be listed by City unit number, invoice numbers, purchase order number, date of service, nature of service performed, hours of service performed, detailed description of parts ordered with the repair services (catalog and part number).

Copies of invoices for parts may be requested at any time and must be provided within three (3) Business Days of the request. A faxed or copy or emailed PDF copy will initially be accepted, but if deemed necessary, the original must later be provided for verification purposes.

6.16. Inventory Lead Time

The Contractor must maintain an inventory of sufficient diversity and quantity as to ensure the delivery of any parts listed on the Proposal Page(s), which is ordered by the City within forty-eight (48) hours after receipt of a City department's order. In lieu of the inventory, the Contractor must be able to arrange such prompt delivery.

Repeated failure of the Contractor to meet the above state delivery requirements may be used by the City as grounds for the termination of this contract and may further affect the Contractor's eligibility for future contract awards.

The Contractor's compliance with these requirements will be determined by the Chief Procurement Officer, whose decision will be binding.

6.17. Literature / Data

The Contractor must submit three copies of each of the following informational items with the bid or upon the request of the Chief Procurement Officer or a designee:

- 1 Detailed two-view drawing of the proposed chassis, listing dimensions including BBC, WB, CA, OAH, etc.;
2. Manufacturer's literature for all pertinent drivetrain components, i.e., engine, fuel storage, transmission and axles; and Manufacturer's literature and detailed multiple-view drawings for the proposed apparatus body.

6.18. Manufacturer Descriptive Product

The Bidder must, if awarded the Contract, provide the items specified in the Contract Documents when those items are specified by manufacturer's trade name, unless equivalent alternatives have been proposed as described below (with the exception of Section 6.20.48, 6.21.44 and 6.22.36 entitled Communications Systems.) Reference to a specific manufacturer, trade name, or catalog is intended to be descriptive but not restrictive and only to indicate to the prospective bidder items that will be satisfactory. The Bidder may bid another product(s) provided that the alternative product is on a separate sheet of paper designated as such and is supported by the appropriate information, in order to facilitate the Chief Procurement Officer's evaluation of such product. The Chief Procurement Officer may, in his sole discretion, accept an alternate bid for a specified item, provided the alternate item so bid is, in the Chief Procurement Officer's sole opinion, the equivalent of the item specified in the Contract Documents. An alternate that is not equivalent to, or higher in performance and value the specified item may render the bid non-responsive.

6.19. Upgrades, Accessories, or Additional Items

The Contractor must provide quotes on the Proposal Page for Bid Lines # 7, 8, and 9. The Department reserves the right to order Electrical and Mechanical Parts and Options and Accessories on a standalone basis, regardless of whether a Fire Apparatus is ordered. Pricing for each Bid Line is for only what is required by that Bid Line and must not include the unit price indicated on any other Bid Line.

Additional Item pricing must be a non-negative value. Quotes showing a credit or "no charge" will be assigned a price value of \$0 for canvassing and contract award purposes.

All Bid Lines must be designed and constructed for use with the unit as described in all other Bid Lines and must be furnished complete with all necessary peripheral items required for proper/safe operation regardless of the combination of Bid Lines selected.

6.20. BID LINE #1: Crew Cab Chassis Aerial Tower Ladder Truck

6.20.1. Overall Design

- A. It is the intent of these specifications to procure an Aerial Tower Ladder Truck with an approximate overall length of 568". The vehicle must provide the required cubic feet of compartment space with the required dimensions as described.
- B. It is the intent of these specifications to procure an apparatus with a maximum overall unloaded travel height of 142".
- C. It is the intent of these specifications to procure an apparatus with a maximum overall width of 101", excluding the outside rear view mirrors.

D. Design of the apparatus must embody the latest approved automotive engineering practices. The workmanship must be of the highest quality in its respective field. Construction must be rugged, and ample safety factors must be provided to carry the loads specified and to meet both on and off road requirements and speed conditions. Welding must not be employed in the assembly of the apparatus in a manner that will prevent the ready removal of any component part for service or repair. All steel welding must follow American Welding Society D 1.1 - 96, recommendations for structural steel welding. All aluminum welding must follow American Welding Society and ANSI D1.2-96, requirements for structural welding of aluminum. Flux core arc welding must use alloy rods, type 7000, American Welding Society standards A5.20-E70T1. The manufacturer must have an American Welding Society certified welding inspector in plant during working hours to monitor weld quality.

6.20.2. Chassis

A. The vehicle chassis, complete with crew cab, front-wheel steering, diesel engine driven. Parts and accessories necessary for the safe operation of the vehicle must be provided as required by, and must conform to, NFPA, Federal, State and local regulations that may be applicable for this type of apparatus at the time of its manufacture.

6.20.3. Wheelbase

A. The wheelbase must be the optimum engineered for the proper weight distribution and performance of the apparatus.

6.20.4. Frame, Bumpers and Tow Hooks

A. The minimum frame is to consist of double channel side rails and cross members forming a ladder style frame. The sides of the rails must be constructed of "C" channel, 10.25 inches high X 3.5 inches deep X .38 inches thick with an inner channel of 9.44 inches high X 3.13 inches deep and .38 inches thick, 110,000 psi minimum yield high strength low alloy steel

B. The frame must be of bolted construction using Grade 8 fasteners and must be provided with adequate cross members, exclusive of engine supports, designed and constructed to support the gross weight of the body and load, engine, pump, filled agent tanks, and all other equipment under the specified operating conditions.

C. The apparatus must be equipped with a heavy duty front frame extension designed to support the front bumper and associated equipment to be mounted to the front bumper area of the unit.

D. The apparatus must be equipped with a heavy duty "Chicago Style" front bumper.

E. The bumper must be a one piece, minimum 3/16" thick steel bumper, with a minimum 10" height.

F. The bumper must be supported by a steel support structure which is bolted to the front frame extension.

G. The bumper must extend a full 20" from the front of the cab structure.

H. The bumper must be complete with a full width and depth gravel panel.

I. The bumper must be capable of supporting and mounting of sirens and air horns as needed. Design and construction must be approved prior to installation.

J. The bumper must be equipped with 3 seatbelt type straps to secure hose to front bumper. Design and construction must be approved prior to installation.

K. Tow loops must be "Chicago Style", fabricated from 1" inch thick steel. Two tow loops must be supplied on the front of the apparatus, protruding out the face of the front bumper.

L. The tow loops must have an inside diameter opening of 3".

M. The tow loops must be positioned to allow the vehicle to be pulled without damage to cab body metal work.

N. The apparatus must be equipped with "Chicago Style" rear tow loops, directly bolted to the rear frame of the apparatus.

O. The rear tow loops must be accessible for lifting of the apparatus from the rear.

P. Each unit must be equipped with a pair of tow fixtures to allow the use of an underlift towing apparatus to transport the vehicle when towing is needed. Fixtures to be attached to the frame not the frame extension. Design and construction must be approved prior to installation.

6.20.5. Engine

A. The chassis must be powered by an current production on road commercial truck Electronic Diesel engine.

B. The engine must be a minimum of 11.5 L, six cylinder turbo charged engine.

C. The engine must produce a minimum 450 HP @ 2100 rpm.

D. The engine must produce a minimum of 1650 foot pounds of torque @ 1200 RPM.

E. The engine must be equipped with a speed governor which will limit the engine to 2100 RPM maximum.

F. The engine must be current EPA compliant for on highway use.

G. The engine must be equipped with a Donaldson dry type air cleaner element system or equivalent, resistant to flaming embers and easily accessible for replacement by tilting the cab.

H. The air intake must be protected by a chrome grille with ember separator mesh screen. The system must be sealed to prevent water entering the inlet pipe or air cleaner. A moisture evacuator must be provided to allow discharge of condensation from the intake system.

I. Engine oil filters must be approved by the engine manufacturer, spin on, full flow and bypass lube oil filters.

J. A dash mounted air restriction gauge must be provided.

K. The engine must be equipped with a Kysor Fan system with a Kysor K-22RA spring on / air disengage fan clutch or equivalent. The automatic fan control must engage the fan when the air conditioning system is operating, or on firefighting use demand.

L. The engine starter must be a Delco Remy 12 V model # 39MT or equivalent, with over crank protection and thermal protection controlled by a dash mount rocker switch.

M. The engine must be provided with a Niehoff model alternator with a minimum rated output of 320 A or equivalent as measured by SAE method J56. The alternator must meet NFPA 1901, current edition requirements for performance.

6.20.6. Exhaust System

- A. The exhaust system must be constructed from minimum 5" diameter stainless steel.
- B. The exhaust must exit on the curb side ahead of the rear wheels.
- C. A heat deflector shield must be provided where the tail pipe is routed under any side compartmentation.
- D. Units must comply with any and all Federal, State and Local Emissions regulations at the time of production.
- E. The exhaust system is to include a diesel particulate filter (DPF), a diesel oxidation catalyst, and a selective catalytic reduction catalyst (SCR) to meet current EPA standards.
- F. The selective catalytic reduction catalyst is to utilize a diesel exhaust fluid solution consisting of urea and purified water to convert nitrogen oxide into nitrogen, water, and trace amounts of carbon dioxide. The solution must be injected into the system through the decomposition tube between the DPF and SCR.
- G. The system must utilize 0.065 inch thick stainless steel exhaust tubing between the engine turbo and the DPF.
- H. The DPF, the decomposition tube, and the SCR canister through the end of the tailpipe must all be connected with zero leak gasketed clamps. The discharge must terminate horizontally on the right side of the vehicle ahead of the rear tires.
- I. There must be a molded cross linked polyethylene tank for the Diesel Exhaust Fluid (DEF). The tank must have a capacity of not less than ten (10) usable gallons and must be mounted on the left hand side of the chassis frame in front of the batteries below the frame. Design and placement to be approved at the pre-construction conference.
- J. The DEF tank must be designed with capacity for expansion in case of fluid freezing. Engine coolant, which is to be thermostatically controlled, must be run through lines in the tank to help prevent the DEF from freezing and to provide a means of thawing the fluid.

6.20.7. Idle Control

- A. A high idle switch must be provided inside the cab, on the instrument panel, which will automatically maintain a preset engine RPM. A switch must be installed at the cab instrument panel for activation/deactivation.
- B. The high idle must be operational only when the parking brake is on and the truck transmission is in neutral.
- C. A green indicator light must be provided adjacent to the switch. The light must illuminate when the above conditions are met. The light must be labeled "OK to Engage High Idle".

6.20.8. Engine Cooling System

- A. The engine cooling system must be of the circulating liquid type, with a thermostatic control to maintain a coolant temperature consistent with the engine manufacturer's recommendations, when operating under the intended service conditions. System must be designed so that upon failure of the thermostatic controls, the engine continues normal operation without overheating due to restricted engine coolant circulation.

- B. A bypass must be provided to permit coolant circulation in the engine block, with the thermostat closed, until normal operating temperature is reached.
- C. Drain locks must be installed at the low point of the cooling system, and at any other points necessary to drain the system completely.
- D. A coolant temperature gauge must be provided on the cab instrument panel.
- E. All the coolant and the heater hoses must be made of silicone material, installed with pressure-compensating clamps.
- F. A low level engine coolant indicator light and buzzer must be provided in the cab.
- G. A high engine coolant temperature indicator light and buzzer must be provided in the cab.

6.20.9. Fuel System

- A. System must include, but not be limited to, injectors, fuel pumps, (1) electrical and (1) mechanical, fuel strainers, all necessary piping, valves, fittings, fuel lines, and all other necessary accessories to make up a complete and reliable system.
- B. The fuel tank must be equipped with an accessible drain plug. The filler pipe opening must be in an accessible location outside of the cab.
- C. The fuel tank must have a minimum capacity of 65 gallons and must be mounted so that it will not be damaged by distortion of the chassis, and must not be affected by external heat, or heat from the engine or exhaust.
- D. A fuel water separator/filter with a thermostatically controlled heating element must be provided to effectively filter any fuel contamination encountered.

6.20.10. Transmission

- A. An electronic transmission with six forward speeds and one reverse speed.
- B. The transmission control must be electric, push button type with digital read-out screen indicating gear selection, located within easy reach of the operator.
- C. The transmission must include an air to oil cooler integrated into the lower portion of cooling package. The transmission cooling system must meet all transmission manufacturer requirements.
- D. A hot shift PTO must power one hydraulic pump to supply hydraulic power for all boom functions. Hydraulic power for all operations must be supplied by one hydraulic pump flange mounted to one power take off installed on the road transmission with engagement control in cab. A flow control valve is to be installed in the system to prevent over speeding of the elevating platform during water pump operation.
- E. An Allison transmission retarder system or equivalent must be provided and installed.
- F. The Allison transmission retarder control to be modulated by one-third at 0% throttle a two-thirds of the brake pedal actuation and must include a rocker switch mounted on the dash. A retarder system activation indicator light must be provided on the dash to show when the system is enabled. The activation of the retarder must activate the brake lights. The retarder must be inactive during pump mode.

G. The transmission retarder application must feature a separate water to oil cooling system. The cooler will be installed into the transmission hydraulic circuit providing cooling for the retarder. The tube bundle cooler must be mounted to the chassis, connected to the engine cooling system plumbing.

6.20.11. Front and Rear Axles

A. Front and rear axles furnished must be certified as being suited for use in this vehicle by the axle manufacturer. Axle manufacturer's published rating must not be raised to conform to the requirements of this specification.

B. The front axle must be a Meritor Easy Steer Non drive front axle or equivalent. The axle must include a conventional style hub with a standard knuckle. The weight capacity for the axle must be rated to 110 % of front gear

C. There must be a protective stainless steel strap installed over each axle oil seal fill cap.

D. The rear axles must be a tandem axle assembly meeting 110 % of the GAWR. The axles must include single reduction gearing and must have a fire service rated capacity.

E. Automatic traction control must be installed on the single rear axle. The automatic traction control system must apply the anti-lock braking system when the drive wheels loose traction. The system must scale the electronic engine throttle back to prevent wheel spin while accelerating on ice or wet surfaces.

F. A momentary rocker style switch must be provided and properly labeled "mud/snow". When the switch is pressed once, the system must allow a momentary wheel slip to obtain traction under extreme mud and snow conditions. During this condition the ATC light and the light on the rocker switch must blink continuously notifying the driver of activation. Pressing the switch again must deactivate the mud/snow feature.

6.20.12. Front and Rear Suspension

A. The front suspension must be heavy duty, semi elliptical, taper leaf design with a rated capacity to meet GVWR + 10% safety factor.

B. Two inert, nitrogen gas filled shock absorbers must be provided and installed as part of the front suspension system.

C. The rear suspension must be heavy duty Hendrickson "Fire maax "or equivalent, regular production air ride type suspension to meet GVWR + 10 % safety factor.

D. Four inert, nitrogen gas filled shock absorbers must be provided and installed as part of the rear suspension system.

E. Suspension must be designed with provisions for reduced maintenance, by providing "lubed for life" components where available, and incorporating maximum parts commonality between axle / suspension components.

6.20.13. Air Brake System

- A. A rapid build-up air brake system must be provided. The air brakes must include a two (2) air tank, three (3) reservoir system with a total of 4152 cubic inch of air capacity. A floor mounted treadle valve must be mounted inside the cab for graduated control of applying and releasing the brakes. An inversion valve must be installed to provide a service brake application in the unlikely event of primary air supply loss.
- B. The rear axle spring brakes must automatically apply in any situation when the air pressure loss below 25 PSI with a mechanical means for releasing the spring brake chambers exists. An audible alarm must designate when system air pressure is below 60 PSI. The front brakes must be Meritor EX225 Disc Plus disc brakes with 17.00 inch vented rotors or equivalent.
- C. The front brakes must be Meritor EX225 Disc Plus disc brakes with 17.00 inch vented rotors or equivalent.
- D. The rear brakes must be Meritor EX225 Disc Plus disc brakes with 17.00 inch vented rotors or equivalent
- E. Upon application of the push-pull valve in the cab, the rear brakes will engage via mechanical spring force. This is accomplished by dual chamber rear brakes, satisfying the Federal Motor Vehicle Safety Standards (FMVSS) parking brake requirements.
- F. A Meritor-Wabco manual hand control push-pull style valve or equivalent must operate the parking brake system. The control must be yellow in color.
- G. The parking brake actuation valve must be mounted on the center of the tunnel within easy access of both the driver and officer positions. The control must include a protective bar which must prevent accidental activation of the parking brake and still allow proper actuation of the control. No holes or lines in tunnel, lines to run to center panel, under tunnel.
- H. Front brake automatic slack adjusters must be an integral part of the brake assembly and be supplied by the brake manufacturer.
- I. Rear brake automatic slack adjusters must be an integral part of the brake assembly and be supplied by the brake manufacturer.
- J. The brake system must include a Wabco System Saver 1200 air dryer or equivalent. The air dryer incorporates an internal turbo cutoff valve that closes the path between the air compressor and air dryer purge valve during the compressor "unload" cycle. The turbo cutoff valve allows purging of moisture and contaminants without the loss of turbo boost pressure. The air dryer must be located in an accessible location approved by 2FM at preconstruction. .
- K. The air compressor provided for the engine must be a two (2) cylinder reciprocating Wabco SS318 pass-through drive type compressor which must be capable of producing 18.7 CFM at 1200 engine RPMs or equivalent.
- L. An air governor which must cut-in and cut-out pressures on the vehicle must be provided and must be adjusted so that the maximum pressure in the air system and the minimum cut-in pressure.
- M. One (1) auxiliary air tank, 2084 cubic inch reservoir, must be installed on the chassis to act as an additional reserve supply to the air system for air horn, air tool, or other non-service brake use. The reservoir must be isolated with a 90 PSI pressure protection valve on the reservoir supply side to prevent depletion of the air to the air brake system.

- N. Manual drain valves must be installed on all reservoirs of the air supply system.
- O. Brass compression type fittings must be used on the nylon tubing. All drop hoses must include fiber reinforced neoprene covered hoses.
- P. A quick release outside air inlet male connector for the shoreline air inlet must be provided on the driver side of the cab, located in the driver's step in the forward position.
- Q. A Gast, dual piston, on board 110V. air compressor, with appropriate pressure switch, filter and check valves must be furnished and installed in a protected, adequately ventilated area. The compressor must be wired to the auto eject shoreline. Location and install to be approved at the pre-construction meeting.

6.20.14. Anti-Lock and Stability Control Systems

- A. A six sensor, six modulator anti-lock braking system (ABS) must be installed on the front and rear axles in order to prevent the brakes from locking or skidding while braking during hard stops or on icy or wet surfaces. This in turn must allow the driver to maintain steering control under heavy braking and in most instances, shorten the braking distance. The electronic monitoring system must incorporate diagonal circuitry which must monitor wheel speed during braking through a sensor and tone ring on each wheel.
- B. A dash mounted ABS lamp must be provided to notify the driver of a system malfunction. The ABS system must automatically disengage the auxiliary braking system device when required. The speedometer screen must be capable of reporting all active defaults using PID/SID and FMI standards.
- C. Additional handling capabilities must include roll stability control which must monitor the vehicles rollover threshold based on the lateral acceleration. The system must activate a computerized device which will slow the vehicle when the threshold is exceeded in either direction. Normal vehicle operation must resume once the problematic conditions cease. Roll stability control must be integral with the ABS and ATC systems.
- D. The electronic stability control unit (ESC) is a functional extension of the electronic braking system. It is able to detect any skidding of the vehicle about its vertical axis as well as any rollover tendency. The control unit comprises an angular-speed sensor that measures the vehicle's motion about the vertical axis, caused, for instance, by cornering or by skidding on a slippery road surface. An acceleration sensor measures the vehicle's lateral acceleration. The CAN bus provides information on the steering angle. On the basis of lateral acceleration and steering angle, an integrated microcontroller calculates a theoretical angular speed for the stable vehicle condition.

6.20.15. Steering System

- A. The chassis must be equipped with power assisted steering. The steering mechanism must be designed to permit sufficient manual steering to bring the fully loaded vehicle to a safe stop in the event of failure of the power assist.
- B. The power assisted steering must have sufficient capacity so that no more than 15 lbs. of pull is required on the steering wheel in order to turn the steering wheel from lock to lock with the stationary vehicle wheels on dry, level pavement and the engine idling.
- C. Stops must be provided which will accurately limit the turning angle to the maximum intended.
- D. The steering gear must be per the NFPA standards.

E. The cab must include steering column which will capable to be a seven (7) position tilt and 2.25 inch telescopic type with an 18.00 inch steering wheel located on the left side of the cab designating the driver's position. The steering wheel must be covered with black padding.

6.20.16. Tires and Wheels

A. The wheels must be hub piloted steel wheels. The hub piloted mounting system must provide easy installation and must include two-piece flange nuts. Rim contours and sizes must conform to the current recommended practices of the Tire and Rim Association, Inc., for the type of vehicle and the intended service.

B. The front tires must be Goodyear or equivalent highway tread meeting the GAWR and meeting NFPA 1901.

C. The rear tires must be Goodyear or equivalent traction tread meeting the GAWR and meeting NFPA1901.

D. There must be a tire pressure indicator at each tire's valve stem on the vehicle that must indicate if there is insufficient pressure in the specific tire.

6.20.17. Electrical

A. Circuits must be provided with properly rated low voltage over-current protective devices. Such devices must be readily accessible and protected against heat in excess of the components rating, mechanical damage, and water spray. Circuit protection must be accomplished by utilizing fuses, circuit breakers, and / or fusible links that conform to SAE J156, SAE J553, SAE J2077, SAE J554 and/or SAE J1888. All wiring must meet or exceed SAE J1127, SAE J1128, or SAE J1560.

B. All wiring must be individually color coded and must be labeled at three to four inch intervals (measured center to center) on the insulation as to its function as follows.

C. Within 24 inches of each termination toward the termination,

D. Within 12 inches of the breakout point from the main harness on the branch connectors toward the main harness,

E. Minimum of one code fully exposed and easily readable at each termination.

F. Wiring installed by the body builder must be run in a plastic protective automotive loom, held in place with a rubber coated bracket that must be fastened in place with stainless steel screws.

G. The loom must run under the apparatus from the front to the rear. A plastic protective loom must be utilized inside the body. All looms passing through any flanges or flat surfaces must be properly grommeted.

H. All wire connections must be protected with a marine "soft seal" to promote a lasting corrosion free connection. All terminal points must be protected with a hard rubber shield. All wire harnesses must be easily accessible and replaceable. All wires must be protected by automatic circuit breakers that must reset. All electrical equipment switches must be mounted on a switch panel in the cab, located for driver convenience. All exterior connectors must be weatherpac type.

I. The exterior housing of lamps, electronic devices, and fixtures must be corrosion resistant and waterproofed. Electrical fixtures attached to the sides of the apparatus below the 75" level must be near flush mounted. Fixtures must not protrude more than 2", except for such items as spotlights.

J. The entire system must have an "Amperage Load Analysis" completed on the apparatus prior to delivery. A copy of the analysis must be supplied with the apparatus at the time of delivery.

K. At the time of delivery a detailed electrical schematic must be furnished. It must be supplied on a full size print for easy review.

L. All electrical equipment installed by the apparatus builder must conform to the latest requirements as outlined in NFPA 1901.

M. All electrical wiring installed by the apparatus builder must utilize stranded copper or copper alloy conductors of a gauge rated to carry 125% of the maximum current for which the circuit is protected.

N. Voltage drops in all wiring from the power source to the using device must not exceed 10%. The use of star washers for circuit ground connections must not be permitted. All wiring must be highly resistant to grease, oil, acids, brake fluid and abrasion. All circuits must be wired in conformance with SAE J1292.

O. The battery system must be a single system consisting a minimum of six group 31, 12 VDC heavy duty, high cycle automotive batteries each with a minimum of 1000 CCA.

P. The battery group must be mounted in a protected, readily accessible location on the vehicle

Q. Batteries must be placed on non-corrosive mats and must be stored in well-ventilated compartments located under the crew area of the cab. The compartment must provide for weatherproof protection of the electrical components mounted within the battery area.

R. Heavy-duty battery cables must be used to provide maximum power to the electrical system. Cables must be color coded.

S. Battery terminal connections must be coated with anti-corrosion compound. Battery solenoid terminal connections must be encapsulated with semi-permanent rubberized compound.

T. One set of battery jumper studs with plastic color coded covers must be installed in the drivers door step well. Placement must allow sufficient room for easy jumper cable access. A tag must be provided for positive/negative terminals.

U. The chassis must be equipped with a Kussmaul "Auto Charge" 1200 battery charger or equivalent. The charger output must be rated for 40 A at 12 VDC for fast battery recharge.

V. A Kussmaul "Super Auto Eject" 20 A shore line receptacle or equivalent must be provided. The auto eject receptacle must be completely sealed from road dirt contamination and must be mounted on the left side of the cab. The electrical shore line must be automatically ejected when the engine starter circuit is engaged. A yellow spring-loaded weatherproof cover must protect each receptacle.

W. Two bright finish Grover Stuttertone 24" air horns or equivalent must be mounted below the front bumper. A horn/air-horn selector switch must be installed on the central dash panel for selecting either the dual electric horns or the air horns. All horns must be activated by the steering wheel horn button.

X. The front turn signals must be Weldon 4 x 6 LED type or equivalent, rectangular amber sequencing lamps mounted in a polished aluminum housing positioned below the front windshield.

Y. The rear FMVSS lights must be a pair of Weldon, 3 light LED modules or equivalent. Each module must include a stop/tail light, Directional light and Backup light, all mounted in a polished aluminum housing.

Z. The cab roof must be equipped with two Federal Signal View Point Model # 535NFPA6P7CFD lights or equivalent. The light assemblies must be wired to properly sized barrel type "Deutsch" connectors.

AA. Two pair of Federal Signal Model # QL64SFC-R LED lights or equivalent must be mounted in the front lower zone. Each pair of warning lights must be housed in a common bezel located above the headlight assemblies.

BB. The front grille must include one Federal Signal model TCLF Traffic Clearing light or equivalent.

CC. The front corners of the unit must be equipped with two Federal Signal Model # QL64XFC-R LED lights or equivalent, one each side of the cab corner radius.

DD. The unit must be equipped with three Federal Signal Model # QL64XFC-R LED lights or equivalent lower mounted on the vehicle; one on the cab, one on the vehicle's midpoint and a third on the rear body.

EE. The unit must be equipped with two Federal Signal model # QL64XR LED lights or equivalent upper body side warn lights , position to be approved at the preconstruction meeting

FF. The rear of the unit must be equipped with 8 Federal Signal Model # QL64XFC-R LED lights or equivalent, one each side of the rear upper body and six rear body mounted in the manufacturer's standard mounting locations.

GG. A Federal E2QB siren or equivalent must be mounted in the cab, and must be provided with one foot switch on the driver's side, and one foot switch on the officer's side. Foot switches are to be mounted on wedge blocks on the floor positioned at the preconstruction meeting

HH. One Federal BP200-EF siren speaker with 200-watt driver or equivalent must be installed, wired to the electronic siren.

II. A 110 volt duplex outlet must be mounted in the cab area of the apparatus. Location to be provided at the Pre-Construction conference. The duplex must be wired to the existing Kussmaul or equivalent auto eject plug.

JJ. The chassis must have a Vehicle Data Recorder system installed. The system must be designed to meet NFPA 1901. The following information must be recorded:

Vehicle Speed

Acceleration

Deceleration

Engine Speed

Engine Throttle Position

ABS Event

Seat Occupied Status

Seat Belt Status

Master Optical Warning Device Switch Position

Time

Date

KK. A seatbelt warning system integrated with the Vehicle Data Recorder system must be installed for each seat within the chassis. The system must provide visual and audible warning when any seat is occupied (sixty pounds minimum), the corresponding seat belt remains unfastened, and the park brake is released. Once activated, the visual and audible indicators must remain active until all occupied seats have the seat belts fastened. The dash must include an indicator panel display indicating the occupation of seats.

LL. The front headliner of the cab must include a red LED light, located in the center for greatest visibility. The light must be minimum 5 inches long X 2 inches wide must be clearly labeled "Do Not Move Apparatus". In addition to the flashing red light, an audible alarm must be included which must sound when a door is open and the parking brake is released. The light and alarm must be interlocked for activation when a cab door is not firmly closed or an apparatus cabinet door is not closed and the parking brake is released.

MM. The officer position must include a 12-volt Optronics KB-4003 or equivalent hand-held spotlight which will be mounted to the right of the engine tunnel. The Optronics spot light or equivalent must offer 400,000 candle power. It must have a 10.00 foot coiled cord and a momentary push button switch.

NN. The apparatus must be equipped with a Total System Manager for performing electrical load management. The TSM must have sixteen programmable outputs to supply warning and load switching requirements. The TSM must be protected against reverse polarity and shorted outputs and be enclosed in a metal enclosure to enhance Electromagnetic interference /Radio-frequency interference (EMI/RFI) protection.

6.20.18. Cab

A. The cab must be constructed of aluminum to minimize weight and provide protection against corrosion.

B. The cab must be a front driver and passenger, cockpit style, with a rear crew area designed specifically for the fire service and manufactured by the chassis builder.

C. The cab must be constructed at minimum of 5052-H32 Marine Grade, one hundred percent primary aluminum plate. A single formed, one piece extrusion, manufactured from 6061-T6 100. The cab must be constructed of 5052-H32 Marine Grade, one hundred percent primary aluminum plate. A single formed, one piece extrusion, manufactured from 6061-T6 100 percent primary one- quarter inch thick aluminum must be used for the "A" pillar adding strength and rigidity to the cab as well as additional roll-over protection. The cab side wall and roof skins and must be 0.125 inch thick, the rear wall skin must be 0.19 inch thick, the front skin must be 0.125 inch thick.

D. The cab must be approximately 96" wide, with an approximate interior width of 90".

E. The floor to ceiling height inside the full crew cab must be a minimum of 53.75".

F. The flat crew cab floor must measure a minimum of 65" @ from the rear wall to the back side of engine tunnel.

G. The cab must be full tilt style.

H. The engine must be easily accessible and capable of being removed with the cab tilted.

I. A hydraulic cab lift system must be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves.

- J. A remote control must be provided for raising and lowering the cab. The remote control must be mounted in the curb side front body area or door step well. Design and construction must be approved prior to installation.
- K. Cab must be locked down by a two-point, automatic, spring-loaded hook mechanism that actuates after the cab has been lowered.
- L. The hydraulic cylinders must be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position.
- M. A redundant mechanical stay arm must automatically be engaged once the cab has been fully raised. Before lowering the cab, this device must be disengaged using the stay arm control located adjacent to the cab raise/lower switch. The arm and release must be curb side mounted to keep operators safe with curb side operation.
- N. In the event of electrical failure, a manual hydraulic override must be provided.
- O. The cab lift must be interlocked to the parking brake. The cab tilt mechanism must be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism must be disabled.
- P. A one or two piece tinted, curved safety glass windshield must be provided
- Q. The cab windshield must have trim inserts in the rubber molding to hold the glass in place.
- R. All cab glass must be tinted.
- S. Padded vinyl sun visors must be provided above the windshield, right and left.
- T. Two electric windshield wipers with washer must be provided, meeting FMVSS and SAE requirements.
- U. The washer reservoir must be able to be filled without raising the cab. Must be mounted in a protected location outside the crew step area.
- V. The cab dash fascia must be severe duty wraparound design to provide easy access of controls.
- W. The engine tunnel must be severe duty with padding and treadplate overlay or approved equal.
- X. Engine hood side walls must be constructed of .50" aluminum. Top must be constructed of .19" aluminum, and must be tapered at the top to allow for maximum driver and passenger elbow room.
- Y. The engine hood must be insulated for protection from heat and sound. The noise insulation must maintain a DBA level within the limits stated in the current National Fire Protection Agency (NFPA) series 1901 pamphlet.
- Z. The headliner must be installed in both forward and rear cab sections. Headliner material must be vinyl. A sound barrier must be part of its composition. Material must be installed on aluminum sheet, securely fastened to the interior cab ceiling.
- Forward portion of cab headliner must provide easy access for servicing electrical wiring or for other maintenance needs without removing the entire unit.
- AA. The cab interior upholstery must be black or gray.
- BB. The cab exposed interior metal surfaces must be "Rhino Liner" type urethane coated.

- CC. The cab flooring must be constructed with NFPA step surface type bright aluminum treadplate.
- DD. All cab entry doors must be equipped with manual roll up or sliding windows. Roll up windows to be equipped with metal conventional gear driven regulators and actuators. To be approved at the pre-construction meeting.
- EE. The cab access steps must be 26" wide X 8.5" deep
- FF. The inside cab steps must not exceed 16.6" high.
- GG. A 20", Knurled aluminum slip resistant handrail must be provided adjacent to all door openings to assist entrance into the cab.
- HH. A cast aluminum grab handle must be provided on the inside of each rear crew door. The handle must extend horizontally the width of the window just above the windowsill. The handle must assist with entry and egress from the crew area of the vehicle.
- II. The cab doors must be barrier type approximately 43" wide x 69" high.
- JJ. All cab entry doors must be constructed of extruded aluminum, with a nominal material thickness of .125". The exterior skins must be constructed from .090" aluminum.
- KK. Flush mounted, paddle type door handles must be provided on the exterior and interior of the cab doors.
- LL. The door hinge must be stainless steel piano type, with a .25" pin.
- MM. There must be double automotive type rubber seals around the perimeter of the door framing and door edges to ensure a weather tight fit.
- NN. Polished stainless steel scuff plates must be installed on the inside of all cab doors, extending from the bottom of the door up to the window sill.
- OO. The crew cab area doors must be barrier type with sliding or rollup type windows. Roll up type windows must be equipped with a metal conventional gear driven regulators and actuators. To be approved at pre-construction.
- PP. Cab door panels must be removable without disconnecting door and window mechanisms.
- QQ. An "H. O. Bostrom" high back air-ride style driver's seat or equivalent must be installed in the cab.
- RR. An "H. O. Bostrom" Self Contained Breathing Apparatus (SCBA) Seat or equivalent must be installed in the cab, curb side, for the officer. The SCBA cavity must be adjustable front to rear in 0.50 " increments to accommodate different size SCBA bottles.
- SS. Three "H. O. Bostrom" Self Contained Breathing Apparatus (SCBA Seats) or equivalent must be installed in the crew cab area, one rear facing and two forward facing. The SCBA cavity must be adjustable front to rear in 0.50 " increments to accommodate different size SCBA bottles.
- TT. Moving the SCBA cavity must be accomplished by unbolting, relocating and rebolting in the desired location. All brackets are to be fitted to the bottles in use by the Fire Department at time of delivery.
- UU. Seats must be furnished with integral three-point shoulder type seat belts. The seat belts must be furnished with automatic retractors. Extensions must be provided with the seat belts so the male end can

be easily grasped and the female end easily located while sitting in a normal position. All belts to be bright orange. Design and construction must be approved prior to installation.

VV. All seat upholstery must be "Dura Wear" cloth resistant to oil, grease and mildew.

WW. All SCBA type seats in the cab area must be equipped with positive locking, mechanically-releasing SCBA holders, mounted in each backrest. The brackets must be adjustable up and down by unbolting, relocating and rebolting in the desired position. SCBA make and model will be determined at the pre-construction meeting and adjusted before final delivery

XX. A radio compartment must be provided under the officer's seat. Design and construction must be approved prior to installation.

YY. The minimum inside compartment dimensions must be 14.13" deep x 15.75" across x 5.25" high.

ZZ. A drop down door with a lift and turn latch must be provided for access.

AAA. The compartment must be constructed of smooth aluminum and painted to match the cab interior. Interior of the compartment must have a DA sanded finish.

BBB. There must be three LED dome lights installed to illuminate the interior rear compartment on the left and right side of the crew cab.

CCC. The steering column must feature an 18", four spoke steering wheel located at the driver's position; a seven (7) position tilt and 2.25" telescopic adjustment.

DDD. The cab must be equipped with an exterior access compartment on the left and right side of the cab behind the crew door below the floor line. The compartment interior dimensions must be minimum 12 inches wide X 31 inches high x 12 inches wide. A Chicago style hand pump bracket must be mounted in the compartment.

EEE. Deluxe, full length west coast stainless steel mirrors with a 6" x 16" flat section must be mounted on the cab doors, one on each side.

FFF. Mirrors must be mounted on spring loaded retractable loops on the cab doors.

GGG. Mirrors must be heated and lighted.

HHH. The mirror clearance lights to be illuminated when the apparatus ICC lighting is on. A red light must be mounted on the left side mirror head and a green light on the right mirror head.

III. A separate switch must be provided for the mirror heaters, labeled accordingly.

JJJ. The wiring to the mirror heads must have a weatherproof electrical connector outside of the cab to facilitate easy replacement of the mirror heads.

KKK. A 6" diameter round convex mirror must be installed below each west coast mirror head.

LLL. A Rollover Occupant Protection System (ROPS) must be integrated in the cab design. ROPS must secure occupants, increase the survivable space within the cab and protect against head / neck injuries in the event of a rollover accident.

MMM. The system must function using a microprocessor- controlled, solid state sensing device which, when the system detects a side roll will provide instantaneous occupant protection by automatically initiating the following sequence:

NNN. Seat belts must tighten around the occupant on all seats excluding theatre flip-up style seats.

OOO. The air suspension on each seat must be reduced to its lowest position, belt must tighten around occupant, and seat must locking in this position, thereby providing more survivable space and minimizing head contact with the interior roof.

PPP. An inflatable curtain must deploy which includes an air filled bag across the driver's and passenger's side windows which will protect and cushion the head and neck of the occupants thereby reducing movement and chance of head contact with the side of the vehicle. The inflatable curtain must be applicable on all seats adjacent to the cab side excluding theatre flip-up seating. Air filled bags to deploy in the forward area in front of the driver and officers seats for forward occupant impact protection.

QQQ. The rear facing outer seat position must be equipped with the rollover occupant protection system which must secure occupants, increase the survivable space within the cab and protect against head/neck injuries in the event of a rollover accident.

RRR. The system must function using a microprocessor-controlled, solid-state sensing device which, when the system detects a side roll must provide instantaneous occupant protection

SSS. An Integrated Roll Sensor IRS - detects an imminent rollover, activates protective devices and records crash events.

TTT. An engine compartment light must be installed under the engine hood equipped with an integrated switch.

UUU. One clear LED type six inch dome light must be mounted in the cab ceiling area at each entry door with a door actuated control switch.

VVV. Each step well area must be equipped with a round LED step well light.

WWW. An Emergency Medical Service (EMS) compartment, approximately floor to ceiling high x 20" wide x 23" deep, must be installed.

XXX. A ROM roll-up door with lock must be installed on the compartment.

YYY. The compartment must be located on the right outboard, rear-facing seat riser. The compartment must be constructed of aluminum and coated to match the cab interior.

ZZZ. The compartment must be equipped with strip light lighting. The lights must be controlled by an automatic door switch.

AAAA. The storage compartment must be compliant with NFPA 1901 Standard for Automotive Fire Apparatus, 2009 Edition or most current.

BBBB. There must be two shelves provided in the EMS compartment.

CCCC. The shelves must be constructed of .090" aluminum with a 1.25" up-turned lip. Shelving must be infinitely adjustable by means of a threaded tightener sliding in a track.

DDDD. The compartment must be provided with a 110 V Duplex power source wired to the shoreline system.

EEEE. The front exterior cab wheel wells are to be equipped with plastic fender liners.

FFFF. Rubber fender crowns must be installed at the cab wheel openings

6.20.19. Cab Instrumentation

A. An ergonomically designed instrument panel is to be provided. The gauges must be backlit with red LED lamps. All gauges must be driven by stepper motor movements. The instrumentation system must be multiplexed and must receive engine and transmission information over the J1939 data bus to reduce redundant sensors.

B. The instrument panel must contain the following gauges:

One electronic tachometer.

One electronic speedometer with an integral LCD odometer/ trip odometer and hour meter.

Air pressure gauges which must read from 0 to 140 pounds per square inch (PSI).

Fuel gauge with a yellow indicator light must indicate low fuel at the quarter tank level.

One engine oil pressure The scale on the engine oil pressure gauge must read from 0 to 140 pounds per square inch (PSI). A red indicator light in the gauge must indicate low engine oil pressure.

One coolant temperature gauge which must read from 160 to 250 degrees Fahrenheit (F). A red indicator light in the gauge must indicate high coolant temperature.

One transmission oil temperature gauge which must read from 100 to 300 degrees Fahrenheit (F). *A red indicator light in the gauge must indicate high transmission oil temperature.

One voltmeter which must read from 8 to 16 volts. A red indicator light must indicate high or low system voltage.

C. The instrument panel must contain the following red indicator lights. All indicator lights must contain LED lamps:

Stop Engine - indicates critical engine fault.

Park Brake - indicates park brake is set.

Volts - indicates high or low system voltage.

Low Oil Press - indicates low engine oil pressure.

High Coolant Temp - indicates excessive engine coolant temperature.

High Trans Temp - indicates excessive transmission oil temperature.

Low Air - indicates low air pressure in either system one or system two.

Low Coolant Level - indicates low engine coolant level.

Air Filter - indicates excessive engine air intake restriction.

Seat Belt Indicator – indicates when a seat is occupied and corresponding seat belt remains unfastened.

D. The instrument panel must contain the following yellow indicator lights. All indicator lights must contain LED lamps.

Check Engine - indicates engine fault.

Check Trans - indicates transmission fault.

Wait to Start - indicates active engine air preheat cycle.

ABS - indicates anti-lock brake system fault.

Water in Fuel - indicates presence of water in fuel filter.

Check Message Center – indicates there is a fault message present in the LCD digital display.

SRS – indicates a problem in the RollTek or equivalent supplemental restraint system.

DPF – indicates a restriction of the diesel particulate filter.

HEST – indicates a high exhaust system temperature.

MIL – indicates an engine emission control system fault.

E. The instrument panel must contain the following green indicator lights. All indicator lights must contain LED lamps.

Left and Right turn signal indicators.

Aux Brake Active - indicates secondary braking device is active.

High Idle - indicates engine high idle is active.

ATC – indicates low wheel traction for automatic tractions control equipped vehicles, also indicates mud/snow mode is active for ATC system.

The instrument panel must contain the high beam green LED indicator light.

F. The instrumentation system to provide a constant audible alarm for the following situations:

Low air pressure.

Low engine oil pressure.

High engine coolant temperature.

High transmission oil temperature.

Low coolant level.

High or low system voltage.

Critical engine fault.

G. The Check Message Center icon will illuminate and a message will be displayed in the LCD screen for the following situations:

Low Oil Level

Door Ajar

Engine Communication Error

Transmission Communication Error

ABS Communication Error

High Coolant Temp

Turn Signal Reminder

Low Fuel

Low Oil Pressure

Low Coolant Level

Low Battery Voltage

High Battery Voltage

Low Primary Air Pressure

Low Secondary Air Pressure

High Transmission Temperature

An aerial pump engaged indicator light.

H. The officers dash must have a display providing for the vehicle speedometer, transmission retarder status, occupant secured display and with touch button functionality for emergency lighting, climate control functions.

I. Right of the driver position must be a display and touch button functionality for Emergency lighting, Climate controls and other driver operated functions as needed.

J. An emergency light switch console must be located either overhead or to the right of the driver.

K. The vehicle must be equipped with a keyless ignition and master, with an "Off/ On" and a two switch for "Off/ Start".

6.20.20. Heating and Air Conditioning

A. The cab must include a 57,600 BTU @ 425 CFM front air conditioning /heater/defroster system installed. Controls are to be dash mounted with in the climate control screen of the multiplex system.

B. The air conditioning system must be capable of lowering the cab interior temperature from 100 degrees to 70 degrees within thirty minutes, with a relative humidity of sixty percent.

C. A roof mounted A/C condenser must be installed on driver's side of the cab, mid-roof.

D. The air-conditioning compressor must be a belt driven, engine mounted, open type Seltec model TM-16 or equivalent. The compressor must be compatible with R-134A refrigerant and PAG oil.

E. The air conditioning system must have adjustable air outlets incorporated into the cab at both the engineer and officer positions. The evaporator unit in the crew cab must have adjustable air outlets located directly on the evaporator unit.

F. The evaporators must be provided with a gravity drain to drain all water from the drain pan automatically.

G. The cab and crew area walls must be insulated with 2" insulation where space permits, and the roof with 1" insulation to aid in cooling.

H. The crew area must be equipped with a heater mounted below the rear facing seat riser.

I. Two, six inch diameter, two speed, individually controlled, windshield defroster fans mounted overhead in the driver area must be supplied.

6.20.21. Apparatus Body

A. The apparatus body and framework must be constructed entirely of 304 grade low carbon stainless steel material or aluminum. The complete apparatus body must be constructed of a combination of structural tubing and formed sheet metal. The framework of the body substructure and compartmentation must be engineered with structural tubing for ultimate durability. These components must be welded together utilizing a A.W.S. Certified welding procedure. This process will ensure the quality of structural stability of the apparatus body.

B. 2" x 2" square and 2" x 1" rectangular tubing minimum must be used at minimum throughout the construction of the body module. The tubular construction must form a framework which provides the structural integrity for the entire body module. Sheet metal panels must complete the structure by forming the compartmentation specified. A minimum 12 gauge sheeting is to be used, 12 or 10 gauge sheet must be used in extreme load bearing applications.

C. Absolutely no dissimilar metals must be used in the body and its supporting substructure without being separated by a sufficient corrosion and electrolysis inhibitor.

D. A Torsion Mounting System must be used to allow the body to "float" above the chassis frame rails on vibration and torsion isolator assemblies. The body substructure will NOT come into direct contact with the chassis frame rails. The body substructure will be mounted to the assemblies which provide a space above the frame rails and allow independent flexing to occur between the body and the chassis.

E. Each assembly must have a two-part rubber vibration isolator. The isolator must be designed to carry the necessary loads of the apparatus, including items such as the body, equipment, etc.

F. There must be no welding to the chassis frame rail sides, web or flanges, or drilling of holes in the top or bottom frame flanges between axles. All body to chassis connections must be bolted so that in the event of an accident, the body must be easily removable from the truck chassis for repair or replacement.

G. Because of the constant vibration and twisting action that occurs in chassis frame rails and suspension, the torsion mounting system is required to minimize the possibility of premature body structural failures. The Torsion Mounting System must have a lifetime warranty on all of its components.

I. All horizontal surfaces, rear steps, running boards, walkways, and rear body surface must be aluminum fire apparatus quality bright finish tread brite. Must meet NFPA standard.

J. Each rear wheel well of the body must have a one piece full width wraparound wheel well liner. The liner must be bolted to the body to permit easy removal for service and maintenance. The liner is to be stainless steel or of a City approved poly-type material.

K. Smooth stainless panels must be installed on the entire rear surface of the apparatus body using 3 panels.

L. All aluminum tread plate installed on the apparatus body must be A bright finish@ with a minimum 0.125" thickness. For corrosion resistance, aluminum tread plate must not be installed prior to paint as described in the following paint section.

M. All overlay materials must be coated with 3M adhesive sealant on the back portion to provide an insulating barrier between dissimilar metals.

6.20.22. Body Compartments

- A. All compartment floors must be constructed of stainless steel or aluminum material welded in place. All compartment seams must be sealed by using a permanent pliable silicone caulking. Wherever this sheet metal serves as a load-bearing component, it must be reinforced with structural tubular supports to ensure sound construction for lasting service. Body compartment floors must be 'sweep-out' in design to aid in regular cleaning maintenance.
- B. All compartments must be provided with a flow through type filtered ventilation system designed to prevent the entry of dirt, dust, excessive moisture and road splash. This ventilation system must not be through the compartment doors.
- C. All compartment dimensions will be dictated upon the required placement of the stabilizers on each manufacturer's chassis for safe weight distribution. Total cubic volume of storage must be met at minimum. Dependant upon stabilizer designs alternate compartment dimensions will be accepted if the total storage volume as specified is met.
- D. Street side compartment one and curb side forward compartment S1 & C1, interior dimensions to be a minimum of 30" wide by 69" high. The lower 21" of the compartment must be 22.5" deep and the upper area must be transverse.
- E. A lift bar must be provided for opening door. It is to be located at the bottom of door and have latches on the outer extrusion of the door frame. A ledge must be supplied over lift bar from additional area to aid in closing the door.
- F. There is to be a compartment S2 located above the front stabilizer utilizing the most width and height usable. Size to be approved at the pre-construction meeting.
- G. There must be one full height compartment S3, ahead of the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 58" wide by 69" high with a depth of 22.5" ..
- H. There must be one compartment S4, located above the rear wheels on the left side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 65" wide by 40" high with a depth of 22.5" .
- I. There must be one compartment S5, located above the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 53" wide by 30" high with a depth of 22.5" .
- J. There must be one compartment S6, located rear of the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 30" wide by 57" high with a depth of 20" .
- K. There must be one compartment S7, located behind the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment Must be a minimum of 30" wide by 56" high with a depth of 20" .
- L. There is to be a compartment S2 located above the front stabilizer utilizing the most width and height usable. Size to be approved at the pre-construction meeting.
- M. There must be one full height compartment C3, ahead of the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 58" wide by 69" high with a depth of 22.5" .

N. There must be one compartment C4, located above the rear wheels on the left side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 53" wide by 40" high with a depth of 22.5".

O. There must be one compartment C5, located above the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 53" wide by 30" high with a depth of 22.5".

P. There must be one compartment C6, located rear of the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 50" wide by 40" high with a depth of 20".

Q. All compartments and adjustable shelves are to have custom fitted black floor tile installed on the interior floors to help in protecting the entire surface of the compartment floor and shelving from equipment damage.

S. A total of six air bottle compartments must be provided. Compartments to be three each side located at the rear wheels area. The air bottle compartment must be in the form of a round tube (7.63" diameter minimum) and of adequate depth to accommodate different size air bottles. Flooring must be rubber lined and have a drain hole. A stainless steel or aluminum door with a chrome plated latch must be provided to contain the air bottle. A dielectric barrier must be provided between the door hinge, hinge fasteners and the body sheet metal.

T. There must be a rear load compartment traveling through the torque box for ground ladder storage to horizontally store the below listed ground ladders.

One Alco lite or equivalent 3 section 50 foot with poles and heal plate

Two Alco lite or equivalent 2 section 35 foot with heal plate

One 28 foot 2 section with heal plate

One 20 foot roof ladder

One 10 foot folding ladder

Ten Pike poles

U. The storage area for the ground ladders is critical. A certified drawing of the storage area and capacity must be provided with bid submittal.

V. The ground ladders are stored within the torque box and are removable from the rear with exception to a 14' to be banked horizontally on the street side or approved alternate while providing the detailed storage compartment requirements.

W. Ladders must be fully enclosed to prevent road dirt and debris from fouling or damaging the ladders.

X. The ladders to rest in full length stainless steel slides and are arranged in such a manner that any one ladder can be removed without having to move or remove any other ladder.

Y. A stainless steel plate with a two bend flange and a stainless steel hinge must be provided to secure the ground ladder complement. The plate assembly must be mounted to the bottom of the entrance of the torque box ladder storage area.

Z. When the plate is vertical, it must secure the ladders and prevent them from migrating to the rear of the apparatus. When the plate is down and not securing the ladders, the roll - up door cannot close, which must activate the A Open Door Indicator Light@ within the cab. The roll - up door together with the hinge friction must secure the plate in place during driving operations.

AA. A brushed anodized aluminum roll - up door must be provided to secure the ground ladder complement. The door must have extruded aluminum construction. The latching mechanism must consist of a full length lift bar lock with latches on the outer extrusion of the door frame.

BB. The following pike pole tubular holders are to be furnished and located in the ground ladder storage compartment to hold:

2 - six (6) foot

4 - eight (8) foot

2 - ten (10) foot

2 - twelve (12) foot

1 - fourteen (14) foot

1 - sixteen (16) foot

10- Pike poles

CC. An open storage area must be provided in the center of the upper apparatus body inboard of the compartments. The floor of the storage area must be constructed of aluminum tread plate with 2" drain holes in each of the (4) four corners.

6.20.23. Compartment Doors

A. All body compartments must be fitted with ROM double faced aluminum roll up doors. The doors must be painted red to match body color.

B. Lath sections must be a driven ball and socket design and individually replaceable without complete disassembly of door.

C. Between each lath at the pivoting joint must be a fitted flexible seal for weather resistance. Seals must allow door to operate in extreme temperatures ranging from plus 212 to minus 40 degrees Fahrenheit. Synthetic rubber side, top and bottom seals must be provided to resist ingress of dirt and weather.

D. All hinges, barrel clips and end pieces must be type -6 nylon. End pieces must be riveted to each lath. Hardened plastic will not be acceptable.

E. A stainless steel lift bar must be provided for opening door. It is to be located at the bottom of door and have latches on the outer extrusion of the door frame. A ledge must be supplied over lift bar for additional area to aid in closing the door.

F. Doors must be constructed from an aluminum box section with a wall thickness of .03937" an depth of 1.30". Inside surfaces must be smooth to prevent loose equipment from jamming on the inside.

G. A heavy duty magnetic switch must be used for control of an open compartment door@ warning lights.

6.20.24. Trays, Shelves, and Accessories

- A. There must be three (3) slide-out trays, one (1) full transverse and (2) half width with 2.00" sides and a minimum capacity of 500 pounds provided in C1 compartment. Capacity rating must be in the extended position.
- B. Compartment S3 and C3 each must be equipped with three adjustable shelves with 2" sides and a minimum capacity of 250 lbs.
- C. There must be two (2) slide-out trays with 2.00" sides and a minimum capacity of 250 pounds provided one each in S3 and C3. Capacity rating must be in the extended position.
- D. There must be two (2) slide-out trays with 2.00" sides and a minimum capacity of 250 pounds provided one each in S4 and C4. Capacity rating must be in the extended position.
- E. There must be two (2) slide-out trays with 2.00" sides and a minimum capacity of 500 pounds provided one each in S6 and C6. Capacity rating must be in the extended position.
- F. The shelf construction must consist of .125" pan - shaped aluminum with 2.00" sides. Each shelf must be infinitely adjustable by means of a threaded fastener, which slides in a track.
- G. The tray corners must be welded for strength and rigidity.
- H. There must be black Turtle Tile matting provided in all compartments and tray floors.
- I. All tray slides must be ball bearing guide type for ease of operation and years of dependable service.
- J. All slide trays must be equipped with automatic locks for both the " in " and " out " positions. The trip mechanism for it must be located at the front of the tray for ease of use with a gloved hand.

6.20.25. Rub Rails, Hand Rails, Steps, and Etc.

- A. The body must have a minimum 1 ½" wide x 1" thick solid aluminum Bolt-On rub rail along each side below the compartments, front of body, to rear and across the entire rear step. There must be a nylon spacer to insure and insulate any electrolysis interaction.
- B. The rear step must be minimum 3" square tube fabricated of stainless steel material. The step must be an independent assembly welded to the rear body structural framing to provide body protection and a solid rear stepping platform. The rear step must be designed to incorporate "crush zone" technology
- C. Rubber fender crowns must be provided around the rear wheel openings.
- D. The hand rails must be constructed of 1 1/4" diameter heavy duty knurled extruded aluminum tubing with polished chrome plated brass mounting brackets.
- E. Four (4) approximately 12" inch long straight knurled handrails must be installed, one mounted on each cab/crew area door inner panel.
- F. Four (4) approximately 20" inch long straight knurled handrails must be installed, one mounted on each cab/crew area door out board cab panel.
- G. Two (2) - 24" long straight knurled handrails must be installed forward of the A-frame type stairways at the rear of the apparatus body, one (1) per side. The rails must be recessed to not protrude past the body side.

- H. Two (2) 36" long straight knurled handrails must be installed at the A- Frame type stairways at the rear of the apparatus body, one (1) per side. The rails must be recessed to not protrude past the body side.
- I. Two (2) - 22" semicircular knurled handrails must be installed on the top rear surface of the apparatus, one (1) per side.
- J. All exterior surfaces designated as stepping, standing and walking areas must comply with the required average slip resistance of NFPA section 13- 7.3 .
- K. Access to the turntable must be provided by a total of five (5) steps, a combination of fixed and swing down, at the rear of the apparatus.
- L. The access steps must be located on each side, just behind the compartmentation.
- M. All steps must have a height not greater than 14.00" from top surface to top surface.
- N. The fixed steps must be constructed of bright aluminum tread plate furnished with Morton Cass inserts at minimum.
- O. The steps must also have bright aluminum tread plate furnished on each side of the steps to act a scuff plates.
- P. The bottom step on each side must have a step height not exceeding 24.00" from the ground to the top surface of the step at any time.
- Q. All cab and crew doors must be equipped with full width interior handrails.
- R. Two (2) pair of folding Ziamatic SAC-44 aluminum alloy Quick Choc wheel blocks with SQCH-44-H horizontal mounting brackets or equivalent must be provided. Mounting location to be approved at pre-construction meeting.

6.20.26. Aerial Ladder

- A. The ladder must be constructed to meet the requirements as described in NFPA 1901-2003 edition. The ladder must be designed and tested with a safety factor of two to one (2:1) based on the rated load, and a stability factor of one and one half to one (1.5:1). These capabilities must be established in an unsupported configuration. All welding must be in compliance with the American Welding Society standards. All welding personnel must be certified, as qualified under AWS welding codes.
- B. The ladder is comprised of four sections and must extend to a nominal height of 95 – 100 feet above the ground at 75 degrees.
- C. The ladder must have the capability to support a minimum of 500 pounds at the tip in the unsupported configuration, based upon 360 degree rotation, up to full extension and from -5 degrees to +80 degrees.
- D. The ladder must be constructed of high strength aluminum, minimum 70,000 pounds per square inch yield, with full traceability on all structural members.
- E. Each section must be trussed diagonally, vertically and horizontally using aluminum tubing. All critical points are reinforced for extra rigidity and to provide a high strength-to- weight ratio All ladder rungs are round and welded to each section utilizing "K" bracing for torsional rigidity.
- F. The inside width dimensions of the ladder must be:

Base Section	40" to 45"
Lower Mid-Section	32" to 36"
Upper Mid-Section	27" to 30"
Fly Section	19" to 23"

G. Each rung must be covered with a secure, heavy duty, deep serrated, rubber sheathing or NFPA approved grip surface built into the rungs. The sheathing is easily replaceable if the rubber becomes worn.

H. The turntable is lighted for nighttime operation with three work lights activated by the aerial master switch. 42.00" handrails must be provided, one on each side and one at the rear.

I. Extension markings and corresponding numerical indicators must be provided along each inside and outside top rail of the base section of the aerial every ten (10) feet. They must indicate various positions of extension up to full. Markings and indicators must be clearly visible to the control operator. To aid in visibility during hours of darkness, the markings and numerical indicators must be of a red reflective material.

6.20.27. Elevation System

Two double acting lift cylinders must be utilized to provide smooth precise elevation from 10 degrees below horizontal to 75 degrees above horizontal.

B. The lift cylinders must be equipped with integral holding valves located on the cylinder to prevent the unit from falling should the charged lines be severed at any point within the hydraulic system.

C. They also must have spherical bushings at each end to reduce pin wear.

D. Both raising and lowering functions are influenced by flow compensation which maintains ladder tip speed within approximately 10% regardless of load, angle or extension

6.20.28. Extension / Retraction System

A. A full hydraulic powered extension and retraction system must be provided using two hydraulic cylinders and cables. Each set is capable of operating the ladder in the event of a failure to the other.

B. Extension and retraction must be internally limited within the cylinders, eliminating excess strain on cables, sheaves and the ladder structure.

C. Each of the cylinders, cables and the sheave assemblies must be completely independent of the other, so as to provide a safety factor wherein a failure of one assembly must not affect the function and operation of the other.

D. The extension cylinders are equipped with counter balance valves to synchronize the cylinders for smoother operation and prevent the unit from retracting should the charged lines be severed at any point within the hydraulic system.

E. The reeling of the cable must be such as to provide synchronized, simultaneous movement of all sections to full extension.

F. Ultra-high-molecular-weight (UHMW) wear pads to be used between the telescoping sections for maximum weight distribution, strength and the smoothness of operation. Adjustment screws to be provided on the wear pads to permit proper side alignment. Or Two roller assisted slide pads per ladder section consisting of natron lubrication free rollers and pads.

6.20.29. Rotation System

- A. A minimum 40.00" diameter, external tooth, swing circle bearing to be used for the rotation system.
- B. The bearing race must provide 360 degree continuous rotation.
- C. The turntable base and the torque box bearing plate must be machined to fit the bearing thereby providing even distribution of forces.
- D. A dual hydraulically driven, planetary gear box with a drive speed reducer must be used to provide infinite and minute rotation control throughout the entire rotational travel. The gearbox must have a torque rating of 100,000 pounds per square inch. A spring applied, hydraulically released disc type swing brake must be furnished to provide positive braking of the turntable assembly.
- E. Provisions must be made for auxiliary operation of the system in case of prime mover failure. The hydraulic system is equipped with pressure relief valves which will limit the rotational torque to a non-destructive power.

6.20.30. Rotation Interlock

- A. A permanently installed prevention mechanism must be provided as part of the rotation system to prevent the rotation of the aerial device to the side in which the stabilizers have not been fully deployed.
- B. The mechanism must allow full and unrestricted use of the aerial in the 180 degree area on the side(s) where the stabilizers have been fully deployed.
- C. The system must also have a manual override to comply with NFPA 1901. This must consist of a switch located in the lower control station so that activation must require two (2) persons (one at an aerial device control location and one at the lower control station) which will permit the aerial to rotate to the "short jack" side without automatically stopping the rotation and / or without actuation of the "manual override" will not be accepted. systems that only include an alarm are not considered an interlock and must not be accepted.

6.20.31. Torque Box

- A. A "torsion box" sub frame must be installed on the chassis frame rails or integral to the rails, integral with the stabilizers. If not integral the torque box must be constructed of minimum .188" steel plate with steel tubing overlaid on each side of the box in the turntable area.
- B. The torque box sub frame assembly to be capable of withstanding all torsional and horizontal loads when the unit is on the stabilizers.

6.20.32. Boom Support

- A. On the base section of the ladder, a stainless steel scuff plate must be provided where the ladder comes into contact with the boom support.
- B. The boom support must be located just to the rear of the chassis cab, recessed into the engineer compartment.
- C. A heavy duty boom support must be provided for support of the ladder in the travel position.

6.20.33. Aerial Electrical and Controls

- A. Four (4) Collins, model FX-12, 750,000 candle power, 12 - volt spot / floodlights must be furnished. The two (2) "tracking lights" must be mounted on the base section of the ladder, one (1) each side.

The two (2) "tip lights" must be mounted on the tip of the ladder, one (1) on each side. The tip lights are to be up fitted with guards to protect the lights from possible obstruction damage. The lights must be mounted below the handrail height so as not to increase the overall height of the unit. An individual master switch with appropriate identification labels must be provided for the "tracking lights" and "tip lights" in addition to the on/off switch located on the light itself.

- B. A control station must be located at the rear of the apparatus in an easily accessible area.
- C. Controls and indicator lights are clearly identified and conveniently located for ease of operation and viewing.

6.20.34. Stabilizer Controls

A. Two (2) illuminated electronic stabilizer control stations must be provided, one (1) on each side of the rear of the vehicle.

B. The stabilizer control switches must be enclosed in a recessed compartment to protect each control from damage or accidental movement.

C. The controls must be located such that the operator can see the stabilizer he is operating. Body designs that block the view of the stabilizers from the control station will not be acceptable.

D. The stabilizer control functions must be operated independently, so that the vehicle may be set up in restricted areas or on uneven terrain.

E. The left stabilizer control station must incorporate the following:

Stabilizer set indicator lights

Rotation interlock system override

Fast idle switch

Emergency pump control button

Warning decals

Panel light switch

Hydraulic test ports

F. The right stabilizer control station must incorporate the following:

Stabilizer set indicator lights

Rotation interlock system override

Fast idle switch

Emergency pump control button

Panel light switch

Warning decals

Hydraulic test ports

G. A water tight compartment must be provided behind the control panel and contains the aerial circuit breakers, interlock components and control circuit distribution terminals. Design to be approved at the pre-construction meeting.

6.20.35. Turn Table Control Station

A. The turntable control station must be located on the left side of the turntable such that the operator can easily observe the ladder tip while operating the controls. The lower part of the console must be angled away from the operator, to provide as much foot room as possible for the operator.

B. An access panel door must be provided on the front of the console and an access door at the rear of the console to provide complete access to the electrical and hydraulic components mounted inside the console.

C. The console must be illuminated for night operations, and must have the following controls and indicators clearly marked:

Three (3) hydraulic ladder control levers.

A foot operated "dead man switch" that electrically opens the aerial control valve must protect against accidental movement of the control handles.

Rung alignment indicator light for ladder climbing operations.

Cradle alignment indicator light.

Engine high idle control switch.

Emergency pump power switch.

Intercom controls

Bubble type angle indicator on base section near console.

Illuminated load chart on front of console.

Protected console cover over controls

D. An Atkinson communication system or equivalent must be furnished between the aerial tip and the turntable operator's position. The communication system must be a two - way system with the communications speaker at the tip requiring no operator attention to transmit or receive. The transmitting and receiving volume controls must be located at the turntable operator's position.

6.20.36. Stabilizers

A. Four Telescoping/downward penetrating jacking stabilizers must be located two rear of cab and two aft of the rear wheels to provide vehicle stability during aerial tower operation. This must provide maximum jack penetration and truck leveling capability in a reduced setup envelope.

B. The jack cylinders must be equipped with integral holding valves which must hold the cylinder either in the stowed position or the working position should a charged line be severed at any point within the hydraulic system.

C. The jack cylinders must be equipped with integral (on the cylinder) holding valves, which must hold the jack cylinder in either the stowed position or the deployed position should a hydraulic line be severed at any point within the hydraulic system.

- D. Each jack cylinder must also have a thermal relief system that must prevent the cylinder fluid pressures from rising due to fluid temperature increase.
- E. The vertical jack cylinders must be inverted allowing the cylinder rods to be encapsulated within the stabilizer beam jack towers, therefore preventing them from being nicked or scored during operations on the fire ground.
- F. To aid in leveling the unit, a bubble type gauge must be provided adjacent to the stabilizer controls.
- G. A stabilizer deployment warning alarm must be provided at each side of the body, activated by the stabilizer mode. The warning alarm deactivates only when all the stabilizers are placed in the load supporting configuration.
- H. A "Stabilizers Not Stowed" indicator light must be provided in the driver's compartment. It must illuminate automatically whenever the stabilizers are not fully stowed, to prevent damage to the apparatus if moved. The stabilizer system must also be wired to the "Do Not Move Indicator Light", which must flash whenever the apparatus parking brake is not fully engaged and the stabilizers are not fully stowed.
- I. A set of four auxiliary pads are provided for additional load distribution on soft surfaces. The pads are 24.00" square and constructed of 6061 - T6 .38" high strength aluminum. One auxiliary pad must be stored adjacent to each stabilizer.

6.20.37. Cradle Interlock System

- A. A cradle interlock system must be provided to prevent the lifting of the aerial from the nested position until the operator has positioned all the stabilizers in a load supporting configuration.
- B. A switch must be installed at the cradle to prevent operation of the stabilizers once the aerial has been elevated from the nested position.
- C. The aerial must be capable of being operated with full rated capabilities in any plane up to 5 degrees out of level with the turntable leveled as much as possible by placement of the stabilizers. Operation beyond this limit must be at the operator's discretion.

6.20.38. Ladder Cradle Alignment Light

- A. Two amber LED indicator lights, left rotation disabled and right rotation disabled, will be supplied on the control console to indicate to the operator when the aerial is aligned with the travel bed support and can be lowered into the travel support.
- B. A limit switch on the base section must signal by means of an amber indicator light when the aerial rungs are in alignment.

6.20.39. Platform Basket Construction

- A. The platform basket must be constructed of an aluminum with access doors, front sides and rear with continuous 42" high guard railing. The floor must be built of aluminum bar grating for a skid resistant surface and to provide for drainage.
- B. The gates on the left and right front corners must swing inward and a gate for entry from the ladder to the platform must swing upward.

- C. A heat reflective shield is provided on the front, sides, and bottom of the platform.
- D. A water curtain system provides a cooling spray under the entire floor of the platform with a minimum of 75 gallons per minute. A single quarter turn valve with an actuator accessible from the platform must control the spray system.
- E. The platform must have provisions for personnel working on the platform to attach fall protection harnesses. Four (4) safety belt loops must be provided in the platform, two at the back, one on each side
- F. Two (2) rope rescue eyelets, with a combined lifting capacity of 1000 pounds, must be welded to the bottom of the platform. The eyelets must be able to carry 500 lbs per eyelet with no other in or attached to the platform.
- G. A platform leveling system must be provided and so designed that the platform, together with its rated payload, capable supported and maintained level in relation to the turntable, regardless of the elevation of the ladder.
- H. Platform leveling must be accomplished by hydraulic circuitry that is independent from the main hydraulic system with an interconnecting control valve.
- I. The platform leveling must be accomplished by the following two (2) systems working together.
- J. The leveling of the platform must feature a dual master/slave system with each capable of maintaining the platform level. Two (2) 3" bore master cylinders must be mounted between the turntable and the ladder base section; and two (2) 3" bore slave cylinders must be mounted between the ladder fly section and the platform. Master/Slave cylinders must be equipped with spherical swivel bushings on both ends to extend cylinder seal life, provide proper alignment between the ladder and platform. As the platform is raised and lowered, hydraulic fluid must be transferred from the master cylinder to the slave cylinders, thus maintaining the platform level. The slave cylinder must be mounted outside of the platform for maximum platform space utilization.
- K. Auto-leveling system- An automatic level-sensing inclinometer, located in the platform must be provided to ensure that the platform is always level with respect to the horizon.
- L. The leveling system must be designed that with the platform raised to its maximum elevation, the platform slave cylinders must be fully retracted thus making tipping of the platform impossible should a hydraulic failure occur.
- M. Leveling cylinders must have hydraulic holding valves to prevent the platform from tipping should the hydraulic lines be severed.
- N. The slave cylinders must be mounted outside the platform for maximum utilization of space and for safety of personnel from moving cylinders.

6.20.40. Stability Alarms

- A. An audible alarm, with a 100 DBA level must be provided at the control console to alert the operator should the stability limitations of the ladder be exceeded.
- B. The alarm must only notify the operator of the condition but in no way restrict the further operation of the ladder.

- C. Two (2) Eco amber strobe lights or equivalent must be located at the tip of the base section, one each side, wired to the stability gauge to indicate an unsafe condition.
- D. An electronic warning device must be provided at each stabilizer to warn personnel that the stabilizers are being deployed.
- E. Each alarm must produce a fast pulsing 90 DBA signal and must cancel only when the stabilizer is put into a load bearing configuration.
- F. 4.00" clear floodlight must be provided on each stabilizer to illuminate the surrounding area. The light must be actuated by the aerial master switch
- G. One (1) LED warning light must be mounted on each stabilizer cover panel. These warning lights must be activated by the "NFPA SIDE" switch.
- H. One (1) 6.00" diameter, double-faced, red flashing LED light must be mounted on each stabilizer facing to the front and rear of the truck. These warning lights must also be activated with the aerial master switch.

6.20.41. Hydraulic System

- A. The apparatus must be equipped with a power takeoff driven by the chassis transmission and actuated by an electric shift, located inside the cab.
- B. The power takeoff which drives the hydraulic pump must meet all the requirements for the aerial unit operations.
- C. The hydraulic system must operate at a nominal 32 gallons per minute at flows up to 3,000 pounds per square inch.
- D. An amber indicator light must be installed on the cab instrument panel to notify the operator that the power takeoff is engaged.
- E. An interlock must be provided that allows operation of the aerial power takeoff shift only after the chassis spring brake has been set and the chassis transmission has either been placed in the neutral position or drive position after the driveline has been disengaged from the rear axle.
- F. The tubing used in the hydraulic system must have a high pressure rating, with the tubing having a minimum burst pressure of 9,000 pounds per square inch.
- G. High pressure hose must have a working pressure rating of 4000 pounds per square inch and a burst pressure rating of 16,000 pounds per square inch.
- H. The hydraulic oil tank to have minimum capacity of 38 gallons or greater if system dictates the need.
- I. A dipstick or sight gauge must be provided to check the oil level.
- J. The oil fill is in an easily accessible area and must be conspicuously marked "HYDRAULIC OIL".
- K. The oil fill must be furnished with a cap that will act as a ventilator to provide clean fresh air into the oil tank and a 40 micron filter to provide positive protection from contaminates.
- L. A magnet must be provided in a low point of the oil tank.
- M. The hydraulic tank fill must terminate with a quarter turn valve and plug.

N. An easily accessible 10 micron replaceable return oil filter must be provided. A micron high pressure oil filter must be installed between the hydraulic pump and gear diverter valve.

O. The hydraulic oil tank to be furnished with two pick-up tubes, one pick-up tube being used for normal operation and the other is reserved for emergency operations. The emergency pick - up tube extends further down into the oil tank to provide for some reserve oil in case a hydraulic line is broken. Normal operation pick-up tube must have a 200 mesh filter.

P. The tank must be supplied with a 1/4 turn ball valve in the suction line.

Q. The hydraulic system to be supplied by a loading sensing piston type pump. The pump must provide adequate fluid volume to allow all ladder functions to operate simultaneously, without loss of speed. The aerial is operable (at reduced speed) at engine idle. The pump supplies oil only when the ladder is in motion, thereby preventing overheating of the hydraulic oil. When the hydraulic pressure reaches a preset level the pressure compensating feature of the pump discontinues any flow into the system.

R. A high pressure manifold block with test ports must be located at the turntable to allow testing of any and all aerial functions.

S. The hydraulic system must be protected from possible any hydraulic pump malfunctions by a relief valve which must route the excess oil into the oil tank when the pressure in the hydraulic system exceeds 3,150 pounds per square inch.

T. The hydraulic control valves are to be protected by being plumbed to a pressure relief valve to protect them from high pressure.

U. There must be two pressure gauges at the control console, one showing the system hydraulic pressure and one to indicate the stability load. The gauge indicating the load must provide the operator with a continuous " read -out " of the load relative to the maximum rated capacity.

V. The apparatus must be equipped with an emergency hydraulic pump that is electrically driven from the truck batteries.

W. The emergency power unit must be capable of limited ladder functions to stow the unit in case of a prime mover failure.

X. A momentary control switch for the emergency pump must be installed at the lower (stabilizer) control panel and at the turntable control console. The control must be a spring loaded momentary switch. A red indicator light must be located adjacent to each switch to indicate activation of the emergency power unit.

Y. The pump must be capable of continuous operation for 30 minutes.

Z. The aerial ladder must be equipped with a three (3) port, high pressure hydraulic swivel which must connect the hydraulic lines from the hydraulic pump and reservoir through the rotation point to the aerial control bank. The hydraulic swivel must allow for 360 degree continuous rotation of the aerial.

AA. The ladder must be equipped with an electric swivel to allow 360 degrees rotation of the aerial while connecting all electrical circuits through the rotation point.

BB. A minimum of 16 collector rings must be provided that are capable of supplying 20 amp continuous service. All collector rings must be enclosed and protected with dessicant plugs against condensation and corrosion. No oil or silicone must be used.

6.20.42. Breathing Air System

A. A breathing air system must be provided from the base section of the platform to the tip of the platform basket. The system must be installed to comply with all applicable sections of NFPA #1901 standards. The cylinders are to be shipped fully pressurized with breathing air.

B. The breathing air system service and operation must be covered in the manuals provided with the apparatus on delivery. In addition, the manufacturer must supply a certificate of air quality on delivery of the apparatus.

C. The installation must include the following equipment:

One (1) 4500 PSI 444 Cubic Foot DOT air cylinder

One (1) pressure gauge on the cylinder

One (1) air pressure regulator with downstream pressure gauge

One (1) Grade D air filter

Two (2) air outlets in platform basket compatible with existing CFD breathing equipment .

D. A breathing air quarter-turn refill valve must be mounted between the breathing air regulator and the air cylinder and is to be used for refilling the base section air cylinder(s).

6.20.43. Water-Way System

A. The aerial waterway system must be capable of being supplied externally from an inlets located at the front and at the rear of the apparatus.

B. The piping for the aerial inlet to the turntable swivel must be 5" aluminum pipe or stainless steel. A 5" water swivel must be located in the riser pipe from the tee permitting 360-degree continuous rotation of the ladder.

C. A 5" swivel piped waterway connection between the ladder waterway and the turntable rotation swivel permitting water tower operations through full aerial elevation range.

D. A 1-1/2" relief valve preset at 250 psi must be located beneath the turntable to protect the water system from excessive pressures.

E. The apparatus must be equipped with a Class 1 Flow gauge at the aerial discharge waterway to give the aerial operator an indication of actual volume of water (in gallons per minute) being discharged through the line. It must also be capable of showing total flow at the touch of a button.

F. Each Flowminder system or equivalent must consist of:

A flow gauge to show waterway discharge flow. The gauge must be installed at the platform pedestal.

A flow transmitter mounted in the discharge line piping above the junction of the front and rear intake piping. The transmitter must consist of a weather resistant black composite housing with a stainless steel, durable paddle wheel. The only part inserted into the water flow path must be the paddle wheel.

G. The flow gauge must be checked and calibrated prior to delivery of the apparatus.

- H. An anodized aluminum telescopic waterway must be mounted beneath the center of the aerial ladder. The waterway must have a 5.0" base section tube, 4.5" mid section tube and 4.0" fly section tube.
- I. An automatic drain must be provided in aerial waterway to automatically drain the system for freezing conditions. This valve must also act as a vacuum relief valve for the waterway when extending the aerial device with the discharges in the closed position.
- J. A 1-1/2" drain valve must be installed and operated from the side of the apparatus.
- K. A minimum 5" water swivel must connect from the base waterway to the platform waterway. The water swivel must permit full operation at any elevation of the aerial device. One (1) 4" pipe must be provided to transfer water from the swivel to the deck gun. The platform waterway pipes must be designed to reduce friction loss in the waterway.
- L. All platform waterway piping must be completely removable for service or replacement. Platform designs in which the waterway is welded or utilized for structural integrity of the platform must not be acceptable.
- M. A 100 GPM shower nozzle must be located beneath the platform for heat protection for platform personnel. A direct linkage control must be provided inside the platform.
- N. One Task Force Tips Monsoon or equivalent manually controlled monitor must be provided.
- O. The monitor must have the following capabilities: full horizontal rotation with 360 degree travel, 135 degrees of vertical travel with field changeable stops at 90 degrees above horizontal and 45 degrees below horizontal, field changeable rotation stops must be provided at 45, 90 and 135 degrees left and right of center, flow capability of 2000 GPM, maximum operating pressure of 200 PSI.
- P. For resistance to corrosion the monitor must be constructed from hardcoat anodized aluminum with a silver powder coat interior and exterior finish. A threaded port for an optional pressure gauge must be provided.
- Q. Task Force Tips Master Stream 2000 or equivalent automatic master stream nozzle must be provided. The nozzle must be designed for use on monitors, ladder pipes, deluge guns and aerial platforms. For corrosion resistance the nozzle must be constructed for lightweight hardcoat anodized aluminum.
- R. The nozzle must have a flow capability of 300 to 2000 GPM at a user adjustable pressure rating of 80 PSI to 120 PSI. A UV resistant rubber bumper with integral teeth designed to produce a finger free fog pattern must be included. A halo ring must be included to assist with stream shape control. The nozzle must be suitable for foam solution application. The nozzle must be configured with a swivel rocker lug coupling.
- S. There must be two (2) 2-1/2" auxiliary discharge connections provided below the platform monitor.
- T. Each discharge connection must utilize a 2 1/2" valve with a 'swing-type' lever directly attached to the valve. The lever must operate just over 90 degrees of travel to provide full open / full closed positioning of the valve.
- U. Each platform connection must terminate 2 1/2" Chicago FD male with a 2 1/2" Chicago FD female by 1 1/2" Chicago FD male adapter and a 1 1/2" Chicago FD cap which must be secured by a provided chain or cable.

6.20.44. Aerial Device Inspection

A. A third party inspection certificate for the aerial device must be furnished upon delivery of the aerial device. The certificate must be Underwriters Laboratories, Type-1, indicating the aerial device has been inspected on the production line and after final assembly.

B. The following test will be performed:

Magnetic particle inspection must be conducted on every weld to assure the integrity of the weldments and to detect any flaws or weaknesses. Magnets must be placed on each side of the weld while graphite powder is placed on the weld itself. The powder must detect any crack that may exist. This test must be performed prior to assembly of the aerial device.

Ultrasonic inspection must be used to detect any flaws in pins, bolts and other critical mounting components.

Functional tests, load tests, stability tests and visual structural examinations must be performed. These tests must determine any unusual deflection, noise, vibration or instability characteristics of the unit.

6.20.45. Ground Ladder, Pike Poles and Etc.

A. The following Alco - lite ladders or equivalent must be furnished and must meet or exceed the latest edition of NFPA 1931 standards.

1 - 50' three (3) section truss, series TEL50 w/ poles and heel plates

2 - 35' two (2) section truss, series TEL35 w/ heel plates

1 - 28' two (2) section truss, series TEL 28

1 - 20' straight frame wall ladder, series PRL20

1 - 14' roof ladder, series PRL14

1 - 12' roof ladder, series PRL12

1 - 10' roof ladder, series PRL10

1 - 10' folding ladder, series FL10

1 - 8' roof ladder, series PRL8

B. The ground ladders are stored within the torque box and are removable from the rear with exception to a 14' to be banked horizontally on the street side or approved alternate while providing the detailed storage compartment requirements.

C. Ladders must be fully enclosed to prevent road dirt and debris from fouling or damaging the ladders.

D. The ladders to rest in full length stainless steel slides and are arranged in such a manner that any one ladder can be removed without having to move or remove any other ladder.

E. Pike pole mounting bracket must be mounted on the aerial ladder, position to be approved at the pre- construction meeting.

F. Mounting brackets must be provide on the aerial ladder for mounting of Chicago supplied 10' roof ladder. 12' and 14' roof ladders with brackets are to be mounted to the base section of the ladder, position to be approved upon pre-construction meeting.

- G. A stokes basket mounting bracket must be provided, position to be approved at the pre-construction meeting.
- H. An aluminum tread plate circular blade saw storage box must be installed on the left side of the ladder turntable forward of the ladder control console. The storage box must include a hinged lid with latch and louvered sidewalls for ventilation of fuel fumes.
- I. An aluminum treadplate water tight storage box must be installed on the top of the left side of the apparatus body.
- J. Mounting brackets must be provide on the aerial ladder for mounting of Chicago supplied 10' roof ladder. A 12' & 14' roof ladder with bracket is to be mounted to the base section of the ladder, position to be approved upon pre-construction meeting.
- K. There must be Two (2) Mount brackets for a Chicago Style hand pump mounted.
- L. One (1) Self Contained Breathing Apparatus (SCBA) tank holder must be provided and mounted in an outside compartment. Location to be determined at the pre-construction meeting.

6.20.46. Chassis Lubrication System

- A. Apparatus to be provided with two Robert Shaw centralized lubrication systems.
- B. The systems must provide automatic lubrication of Kingpins, Tie Rods, S cams, Slack adjusters, Drag links and Steering miter box. The system or auxiliary system must lubricate the aerial ladder lube points.
- C. The systems are to be fully automatic.

6.20.47. Painting and Marking

- A. The exterior custom cab and body painting procedure must consist of a six (6) step finishing process as follows:
 - 1. Manual Surface Preparation - All exposed metal surfaces on the custom cab and body must be thoroughly cleaned and prepared for painting. Surfaces that must not be painted include all chrome plated, polished stainless steel, anodized aluminum and bright aluminum tread plate. Each imperfection on the exterior metal surface must be removed or filled and then sanded smooth for a smooth appearance. All seams must be sealed before painting.
 - 2. Chemical Cleaning and Treatment - The metal surfaces must be properly cleaned using a high pressure and high temperature acid etching system. Surfaces are chemically cleaned to remove all dirt, oil, grease and metal oxides to ensure the subsequent coatings bond well. An ultra pure water final rinse must be applied to all metal surfaces, excluding undercarriage components, at the conclusion of the metal treatment process.
 - 3. Primer/Surface Coats - A two (2) component urethane primer/surface must be hand applied to the chemically treated metal surfaces to provide a strong corrosion protective base coat and to smooth out the surface
 - 4. Hand Sanding - The primer/surface coat must be lightly sanded to an ultra smooth finish.

5. Sealer Primer Coat - A two (2) component sealer primer coat must be applied over the sanded primer.
6. Topcoat Paint - Two (2) coats of an automotive grade, two (2) component acrylic urethane paint, must also be applied.
 - B. All removable items such as brackets, compartment doors, door hinges, trim, etc. must be removed and painted separately to insure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly must be finish painted before assembly.
 - C. Contractor must meet or exceed all current State (his) regulations concerning paint operations. Pollution control must include measures to protect the atmosphere, water and soil.
 - D. The upper portion of the cab must be painted black. The body, wheels, doors and the lower portion of the cab must be painted with DuPont "Imron Elite" 3.5 VOC paint, Red. Color to be approved at pre construction meeting.
 - E. The chassis frame assembly must be painted black before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components that are included with the chassis frame assembly that must be painted black are frame rails, cross members, all axles, suspension, the steering gear, fuel tank, body substructure, supports, miscellaneous mounting brackets, etc.
 - F. Interior of compartmentation must be painted with a gray rhino liner type material.
 - G. All aerial device structural components above the rotation point that are not chrome plated or stainless steel must be painted.
 - H. All components, such as monitor, nozzle, gauges, etc. must be supplied as received from the vendor.
 - I. All areas to be painted must be sanded to remove any metal flakes and smooth any rough surfaces.
 - J. All ladder surfaces to be painted must be phosphatized to remove metal impurities, aid paint adhesion and inhibit rust.
 - K. The components must be prime painted with an epoxy primer and finish painted with a durable, high quality gray paint. Color to be approved at the pre-construction meeting.
 - L. The support structure, components below the rotation point, and the stabilizers must be painted high gloss black
 - M. The tip of the ladder must be painted a contrasting color for high visibility.
 - N. Chevron reflective stripes must be provided on the vertical and horizontal members of the stabilizers.
 - O. A 6" White #3930 3M "High Intensity Grade Prismatic" reflective stripe must be applied across the lower portion of the front, sides and rear of the apparatus. Additional bands of 6" white #3930 3M "High Intensity Grade Prismatic" reflective stripe must be applied to the rear body panel to meet the requirements of NFPA 1901. Stripes must be free of DOT markings.

P. Printed lettering and decals must be totally encapsulated between two layers of clear vinyl to prevent fading.

Q. Apparatus front doors must be lettered and decaled as follows:

Top: 3M "680-64" gold flexible reflective sheeting: "ENGINE CO.", "TRUCK CO.", or "TOWER LADDER", as applicable, 3" letters, Military Block True Type Font, with a black shadow down and to the right,

Middle: 3M "680-10" white reflective engineer grade, 11" Company Number, Helvetica Medium True Type font.

Bottom: 3M "680-64" gold flexible reflective sheeting: "We're There When You Need Us", 2.5" height, Brush Connected True Type Font, superimposed on the 6" reflective stripe.

Apparatus crew cab doors must be lettered and decaled as follows:

3M "680-64" gold flexible reflective sheeting: "CHICAGO FIRE DEPT." 3.5" initial letters, others 2.5", Military Block True Type font, with a black shadow down and to the right, above a CFD Scramble Design, 3M "680-64" gold flexible reflective sheeting, 11", with black border.

R. Apparatus right front corner must be lettered with a 3M "680-10" white reflective engineer grade, 6" Company Number, Helvetica Medium True Type font.

S. Apparatus left front corner must be decaled with a 3M "680-64" gold flexible reflective sheeting, CFD Scramble Design, 6", with a black border.

T. Apparatus rear must be lettered with a 3M "680-10" white reflective engineer grade, 11" Company Number, Helvetica Medium True Type font, superimposed on a red metal plate.

U. The rear compartment door on each side must be decaled with a 8" x 12" American Flag, on 3M "680-10" reflective sheeting, with field towards front of apparatus.

V. If the apparatus is so equipped, "PARAMEDIC EQUIPPED" must be lettered in 3M "680-64" gold flexible reflective sheeting onto a side compartment door, right and left, with 3" letters, Helvetica Medium Font.

6.20.48. BID LINE #4: Communications Systems for Aerial Tower Ladder Trucks

A. The Contractor will supply and install various mobile communications equipment for mounting in the proposed vehicle included in price. Contractor must supply all accessories necessary to install the communications equipment and must install the communications equipment in accordance with the direction of OEMC and Chicago Fire Department.

B. All wiring must be rated to carry twice the maximum expected amperage load. All connections must be soldered and protected with heat-shrink insulation. Mounting location and methods must be approved by OEMC prior to installation. All wiring must be in continuous lengths – butt splices are unacceptable.

C. Battery circuits must be connected to a constant-hot source of twelve-volt DC power and must not be switched 20 amp fused lead connects to the radio chassis.

Ignition circuits must be connected to a source of twelve-volt DC 5 amp fused power that is switched with a master on/off switch for the vehicle that must be enabled before the engine can be started. This lead connects to

the control head. If it is an Engine Pumper the same wiring must be in the rear by the pumper panel. Along with a 30ft control cable between the control heads.. Ground circuits must be connected to a battery-ground circuit or to a solid chassis ground.

D. For each piece of equipment, all of its manufacturer's recommendations for installation must be followed except where they conflict with the above directions regarding ignition and battery circuits.

E. Each positive twelve-volt connection must be independently fused near its source. In-line fuses provided with communications equipment may be used if present; or spare slots in chassis fuse panels may be used if present; or a Cooper Busman "15600-xx-20" fuse panel must be provided.

F. The routing of all wiring must be approved by OEMC prior to installation. Antenna layout, lead routing location and mounting methods must be approved by OEMC prior to installation. Each antenna and associated lead must be tested for reflected power and must exhibit a signal-to-wave ratio of no greater than 1.5:1.

G. One dash-mount/all-in-one mobile radio Motorola APX7500 radio must be installed in the front cab area. . Radio will be a single-piece dash-mounted model with the "O5" control head. Dashboard or center console must be provided with sufficient space to allow for the radio to be mounted within the reach of the seated front-seat officer. Radio must be mounted in an appropriate bracket specific to the radio make and model, such as one provided by a console manufacturer.

H. One In-Vehicle router/modem Cradle point IBR1100) must be mounted in the vehicle located so as to be protected from vehicle passengers and associated debris. All 5 in 1 antenna leads from roof will be connected to the router. All connectors are SMA type. Two are male SMA for cell, one SMA male GPS and 2 SMA male reverse gender for the wifi. The 12 volt power must have a 3 amp battery hot lead

I. One Panasonic CF-31 computer dock must be installed. All must be mounted with other bracket required to mount the dock within reach of the seated front-seat officer in a manner approved by the Chicago Fire Department – including extensions, swivels and other hardware that may be required to furnish a fully functional and approved installation – must be provided by the vendor.

J. Two data cables of the necessary length must be installed by the vendor. One serial data cable must be connected to the In-Vehicle router/modem and the computer dock The serial cable is wired straight thru with a DB9 male on one end and a DB9 female on the other. The second other Ethernet cat6 data cable must be connected to the modem and the computer dock. The Ethernet cat6 must be a crossover type cable.

K. One GPS/Cellular/ Wi-Fi (5 in 1) antenna must be installed on the vehicle's roof. Antenna lead must be routed to the Cradle point IBR1100 In-Vehicle router/modem.

L. Contractor must install three (3) antenna mounts on the vehicle roof in the locations and manner specified by OEMC. Antenna leads must be of the proper length for the routing specified. One NMO antenna lead must be routed to the mobile radio and fitted with a crimp-on mini-UHF connector. One GPS/Cellular/ WiFi (5 in 1) antenna lead must be routed to the In-Vehicle router/modem and fitted with the

appropriate crimp-on connector. One additional Motorola style NMO antenna lead will be routed to the cab console area with 18" of coax slack for future use. Vendor will supply the proper antenna for each device.

6.21. Bid Line #2: Crew Cab Chassis 100 Foot Aerial Ladder Truck

6.21.1. Overall Design

A. It is the intent of these specifications to procure an 100' Aerial Ladder Truck with an approximate overall length of 500". The vehicle must provide the required cubic feet of compartment space with the required dimensions as described

B. "It is the intent of these specifications to procure an apparatus with an overall travel height of 116 inches".

C. It is the intent of these specifications to procure an apparatus with a maximum overall width of 101", excluding the outside rear view mirrors.

D. Design of the apparatus must embody the latest approved automotive engineering practices. The workmanship must be of the highest quality in its respective field. Construction must be rugged, and ample safety factors must be provided to carry the loads specified and to meet both on and off road requirements and speed conditions. Welding must not be employed in the assembly of the apparatus in a manner that will prevent the ready removal of any component part for service or repair. All steel welding must follow American Welding Society D 1.1 - 96, recommendations for structural steel welding. All aluminum welding must follow American Welding Society and ANSI D1.2-96, requirements for structural welding of aluminum. Flux core arc welding must use alloy rods, type 7000, American Welding Society standards A5.20-E70T1. The manufacturer must have an American Welding Society certified welding inspector in plant during working hours to monitor weld quality.

6.21.2. Chassis

A. The vehicle chassis complete with crew cab, front-wheel steering, diesel engine driven. Parts and accessories necessary for the safe operation of the vehicle must be provided as required by, and must conform to, NFPA, Federal, State and local regulations that may be applicable for this type of apparatus at the time of its manufacture.

6.21.3. Wheelbase

A. The wheelbase must be the optimum engineered for the proper weight distribution and performance of the apparatus.

6.21.4. Frame, Bumpers and Tow Hooks

A. The minimum frame is to consist of double channel side rails and cross members forming a ladder style frame. The sides of the rails must be constructed of "C" channel, 10.25 inches high X 3.5 inches deep X .38 inches thick with an inner channel of 9.44 inches high X 3.13 inches deep and .38 inches thick, 110,000 psi minimum yield high strength low alloy steel

B. The frame must be of bolted construction using Grade 8 fasteners and must be provided with adequate cross members, exclusive of engine supports, designed and constructed to support the gross weight of the body and load, engine, pump, filled agent tanks, and all other equipment under the specified operating conditions.

C. The apparatus must be equipped with a heavy duty front frame extension designed to support the front bumper and associated equipment to be mounted to the front bumper area of the unit.

- D. The apparatus must be equipped with a heavy duty "Chicago Style" front bumper.
- E. The bumper must be a one piece, minimum 3/16" thick steel bumper, with a minimum 10" height.
- F. The bumper must be supported by a steel support structure which is bolted to the front frame extension.
- G. The bumper must extend a full 20" from the front of the cab structure.
- H. The bumper must be complete with a full width and depth gravel panel.
- I. The bumper must be capable of supporting and mounting of sirens and air horns as needed. Design and construction must be approved prior to installation.
- J. The bumper must be equipped with 3 seatbelt type straps to secure hose to front bumper. Design and construction must be approved prior to installation.
- K. Tow loops must be "Chicago Style", fabricated from 1" inch thick steel. Two tow loops must be supplied on the front of the apparatus, protruding out the face of the front bumper.
- L. The tow loops must have an inside diameter opening of 3".
- M. The tow loops must be positioned to allow the vehicle to be moved without damage to cab body metal work.
- N. The apparatus must be equipped with "Chicago Style" rear tow loops, directly bolted to the rear frame of the apparatus.
- O. The rear tow loops must be accessible for lifting of the apparatus from the rear.
- P. Each unit must be equipped with a pair of tow fixtures to allow the use of an underlift towing apparatus to transport the vehicle when towing is needed. Design and construction must be approved prior to installation.

6.21.5. Engine

- A. The chassis must be powered by an current production, on road commercial Truck certified Electronic Diesel engine.
- B. The engine must be a minimum of 11.5 L, six cylinder turbo charged engine.
- C. The engine must produce a minimum 450 HP @ 2100 rpm.
- D. The engine must produce a minimum of 1650 foot pounds of torque @ 1200 RPM.
- E. The engine must be equipped with a speed governor which will limit the engine to 2100 RPM maximum.
- F. The engine must be current EPA compliant for on highway use.
- G. The engine must be equipped with a Donaldson dry type air cleaner element system, resistant to flaming embers and easily accessible for replacement by tilting the cab.
- H. The air intake must be protected by a chrome grille with ember separator mesh screen. The system must be sealed to prevent water entering the inlet pipe or air cleaner. A moisture evacuator must be provided to allow discharge of condensation from the intake system.

- I. Engine oil filters must be approved by the engine manufacturer, spin on, full flow and bypass lube oil filters.
- J. A dash mounted air restriction gauge must be provided.
- K. The engine must be equipped with a Kysor Fan system or equivalent with a Kysor K-22RA or equivalent spring on / air disengage fan clutch. The automatic fan control must engage the fan when the air conditioning system is operating, or on firefighting use demand.
- L. The engine starter must be a Delco Remy 12 V model # 39MT or equivalent, with over crank protection and thermal protection controlled by a dash mount rocker switch.
- M. The engine must be provided with a Niehoff model alternator or equivalent with a rated output of 320 A as measured by SAE method J56. The alternator must meet NFPA 1901, current edition requirements for performance.

6.21.6. Exhaust System

- A. The exhaust system must be constructed from minimum 5" diameter stainless steel.
- B. The exhaust must exit on the curb side ahead of the rear wheels.
- C. A heat deflector shield must be provided where the tail pipe is routed under any side compartmentation.
- D. Units must comply with any and all Federal, State and Local Emissions regulations at the time of production.
- E. The exhaust system is to include a diesel particulate filter (DPF), a diesel oxidation catalyst, and a selective catalytic reduction catalyst (SCR) to meet current EPA standards.
- F. The selective catalytic reduction catalyst is to utilize a diesel exhaust fluid solution consisting of urea and purified water to convert nitrogen oxide into nitrogen, water, and trace amounts of carbon dioxide. The solution must be injected into the system through the decomposition tube between the DPF and SCR.
- G. The system must utilize 0.065 inch thick stainless steel exhaust tubing between the engine turbo and the DPF.
- H. The DPF, the decomposition tube, and the SCR canister through the end of the tailpipe must all be connected with zero leak gasket clamps. The discharge must terminate horizontally on the right side of the vehicle ahead of the rear tires with an exhaust gas diffuser.
- I. The diffuser must lower exhaust gas temperatures during the regeneration cycle.
- J. There must be a molded cross linked polyethylene tank for the Diesel Exhaust Fluid (DEF). The tank must have a capacity of not less than ten (10) usable gallons and must be mounted on the left hand side of the chassis frame in front of the batteries below the frame. Design and placement to be approved at the pre-construction conference.

- K. The Diesel Exhaust Fluid (DEF) tank must be designed with capacity for expansion in case of fluid freezing. Engine coolant, which is to be thermostatically controlled, must be run through lines in the tank to help prevent the DEF from freezing and to provide a means of thawing the fluid if it should become

6.21.7. Idle Control

- A. A high idle switch must be provided inside the cab, on the instrument panel, which will automatically maintain a preset engine RPM. A switch must be installed at the cab instrument panel for activation/deactivation.
- B. The high idle must be operational only when the parking brake is on and the truck transmission is in neutral.
- C. A green indicator light must be provided adjacent to the switch. The light must illuminate when the above conditions are met. The light must be labeled "OK to Engage High Idle".

6.21.8. Engine Cooling System

- A. The engine cooling system must be of the circulating liquid type, with a thermostatic control to maintain a coolant temperature consistent with the engine manufacturer's recommendations, when operating under the intended service conditions. System must be designed so that upon failure of the thermostatic controls, the engine continues normal operation without overheating due to restricted engine coolant circulation.
- B. A bypass must be provided to permit coolant circulation in the engine block, with the thermostat closed, until normal operating temperature is reached.
- C. Drain Locks must be installed at the low point of the cooling system, and at any other points necessary to drain the system completely.
- D. A coolant temperature gauge must be provided on the cab instrument panel.
- E. All the coolant and the heater hoses must be made of silicone material, installed with pressure-compensating clamps.
- F. A low level engine coolant indicator light and buzzer must be provided in the cab.
- G. A high engine coolant temperature indicator light and buzzer must be provided in the cab.

6.21.9. Fuel System

- A. System must include, but not be limited to, injectors, fuel pumps, (1) electrical and (1) mechanical, fuel strainers, all necessary piping, valves, fittings, fuel lines, and all other necessary accessories to make up a complete and reliable system.
- B. The fuel tank must be equipped with an accessible drain plug. The filler pipe opening must be in an accessible location outside of the cab.
- C. The fuel tank must have a minimum capacity of 65 gallons and must be mounted so that it will not be damaged by distortion of the chassis, and must not be affected by external heat, or heat from the engine or exhaust.
- D. A fuel water separator/filter with a thermostatically controlled heating element must be provided to effectively filter any fuel contamination encountered.

6.21.10. Transmission

- A. An electronic transmission with six forward speeds and one reverse speed.
- B. The transmission control must be electric, push button type with digital read-out screen indicating gear selection, located within easy reach of the operator.
- C. The transmission must include an air to oil cooler integrated into the lower portion of cooling package. The transmission cooling system must meet all transmission manufacturer requirements.
- D. A hot shift PTO must power one hydraulic pump to supply hydraulic power for all boom functions. Hydraulic power for all operations must be supplied by one hydraulic pump flange mounted to one power take off installed on the road transmission with engagement control in cab. Hot shift PTO must be powered when chassis has an Allison automatic transmission. A flow control valve is to be installed in the system to prevent overspeeding of the elevating platform during water pump operation.
- E. An Allison transmission retarder system or equivalent must be provided and installed.
- F. The Allison transmission retarder control or equivalent to be modulated by one-third at 0% throttle a two-thirds of the brake pedal actuation and must include a rocker switch mounted on the dash. A retarder system activation indicator light must be provided on the dash to show when the system is enabled. The activation of the retarder must activate the brake lights. The retarder must be inactive during pump mode.
- G. The transmission retarder application must feature a separate water to oil cooling system. The cooler will be installed into the transmission hydraulic circuit providing cooling for the retarder. The tube bundle cooler must be mounted to the chassis, connected to the engine cooling system plumbing.

6.21.11. Front And Rear Axles

- A. Front and rear axles furnished must be certified as being suited for use in this vehicle by the axle manufacturer. Axle manufacturer's published rating must not be raised to conform to the requirements of this specification.
- B. The front axle must be a Meritor Easy Steer Non drive front axle or equivalent. The axle must include a conventional style hub with a standard knuckle. The weight capacity for the axle must be rated to 110 % of front gear.
- C. There must be a protective strap installed over each axle oil seal fill cap.
- D. The rear axles must be a tandem axle assembly meeting 110 % of the GAWR. The axles must include single reduction gearing and must have a fire service rated capacity.
- E. Automatic traction control must be installed on the single rear axle. The automatic traction control system must apply the anti-lock braking system when the drive wheels loose traction. The system must scale the electronic engine throttle back to prevent wheel spin while accelerating on ice or wet surfaces.
- F. A momentary rocker style switch must be provided and properly labeled "mud/snow". When the switch is pressed once, the system must allow a momentary wheel slip to obtain traction

under extreme mud and snow conditions. During this condition the ATC light and the light on the rocker switch must blink continuously notifying the driver of activation. Pressing the switch again must deactivate the mud/snow feature.

6.21.12. Front and Rear Suspension

- A. The front suspension must be heavy duty, semi elliptical, taper leaf design with a rated capacity to meet GVWR + 10% safety factor.
- B. Two inert, nitrogen gas filled shock absorbers must be provided and installed as part of the front suspension system.
- C. The rear suspension must be heavy duty Hendrickson " Firemaax " or equivalent, regular production air ride type suspension to meet GVWR + 10 % safety factor.
- D. Four inert, nitrogen gas filled shock absorbers must be provided and installed as part of the rear suspension system.
- E. Suspension must be designed with provisions for reduced maintenance, by providing "lubed for life" components where available, and incorporating maximum parts commonality between axle / suspension components.

6.21.13. Air Brake System

- A. A rapid build-up air brake system must be provided. The air brakes must include a two (2) air tank, three (3) reservoir system with a total of 4152 cubic inch of air capacity. A floor mounted treadle valve must be mounted inside the cab for graduated control of applying and releasing the brakes. An inversion valve must be installed to provide a service brake application in the unlikely event of primary air supply loss.
- B. The rear axle spring brakes must automatically apply in any situation when the air pressure loss below 25 PSI with a mechanical means for releasing the spring brake chambers exists. An audible alarm must designate when system air pressure is below 60 PSI.
- C. The front brakes must be Meritor EX225 Disc Plus disc brakes or equivalent with 17.00 inch vented rotors.
- D. The rear brakes must be Meritor EX225 Disc Plus disc brakes or equivalent with 17.00 inch vented rotors.
- E. Upon application of the push-pull valve in the cab, the rear brakes will engage via mechanical spring force. This is accomplished by dual chamber rear brakes, satisfying the FMVSS parking brake requirements.
- F. A Meritor-Wasco or equivalent manual hand control push-pull style valve must operate the parking brake system. The control must be yellow in color.
- G. The parking brake actuation valve must be mounted on the center of the tunnel within easy access of both the driver and officer positions. The control must include a protective bar which must prevent accidental activation of the parking brake and still

allow proper actuation of the control. No holes or lines in tunnel, lines to run to center panel, under tunnel.

H. Front brake automatic slack adjusters must be an integral part of the brake assembly and be supplied by the brake manufacturer.

I. Rear brake automatic slack adjusters must be an integral part of the brake assembly and be supplied by the brake manufacturer.

J. The brake system must include a Wasco System Saver 1200 or equivalent air dryer. The air dryer incorporates an internal turbo cutoff valve that closes the path between the air compressor and air dryer purge valve during the compressor "unload" cycle. The turbo cutoff valve allows purging of moisture and contaminants without the loss of turbo boost pressure. The air dryer must be located on the right frame rail behind the officer step.

K. The air compressor provided for the engine must be a two (2) cylinder reciprocating Wabco SS318 or equivalent pass-through drive type compressor which must be capable of producing 18.7 CFM at 1200 engine RPMs.

L. An air governor which must cut-in and cut-out pressures on the vehicle must be provided and must be adjusted so that the maximum pressure in the air system and the minimum cut-in pressure.

M. One (1) auxiliary air tank, 2084 cubic inch reservoir, must be installed on the chassis to act as an additional reserve supply to the air system for air horn, air tool, or other non-service brake use. The reservoir must be isolated with a 90 PSI pressure protection valve on the reservoir supply side to prevent depletion of the air to the air brake system.

N. Manual drain valves must be installed on all reservoirs of the air supply system.

O. Brass compression type fittings must be used on the nylon tubing. All drop hoses must include fiber reinforced neoprene covered hoses.

P. A quick release outside air inlet male connector for the shoreline air inlet must be provided on the driver side of the cab, located in the driver's step in the forward position.

Q. A gast dual piston, on board 110V, air compressor, with appropriate pressure switch, filter and check valves must be furnished and installed in a protected, adequately ventilated area. The compressor must be wired to the auto eject shoreline. Location and install to be approved at the pre-construction meeting.

6.21.14. Anti-Lock and Stability Control Systems

A. A six sensor, six modulator anti-lock braking system (ABS) must be installed on the front and rear axles in order to prevent the brakes from locking or skidding while braking during hard stops or on icy or wet surfaces. This in turn must allow the driver to maintain steering control under heavy braking and in most instances, shorten the braking distance. The electronic monitoring system must incorporate diagonal circuitry which must monitor wheel speed during braking through a sensor and tone ring on each wheel.

B. A dash mounted ABS lamp must be provided to notify the driver of a system malfunction. The ABS system must automatically disengage the auxiliary braking system device when required. The speedometer screen must be capable of reporting all active defaults using PID/SID and FMI standards.

C. Additional handling capabilities must include roll stability control which must monitor the vehicles rollover threshold based on the lateral acceleration. The system must activate a computerized device which will slow the vehicle when the threshold is exceeded in either direction. Normal vehicle operation must resume once the problematic conditions cease. Roll stability control must be integral with the ABS and ATC systems.

D. The electronic stability control unit (ESC) is a functional extension of the electronic braking system. It is able to detect any skidding of the vehicle about its vertical axis as well as any rollover tendency. The control unit comprises an angular-speed sensor that measures the vehicle's motion about the vertical axis, caused, for instance, by cornering or by skidding on a slippery road surface. An acceleration sensor measures the vehicle's lateral acceleration. The CAN bus provides information on the steering angle. On the basis of lateral acceleration and steering angle, an integrated microcontroller calculates a theoretical angular speed for the stable vehicle condition.

6.21.15. Steering System

A. The chassis must be equipped with power assisted steering. The steering mechanism must be designed to permit sufficient manual steering to bring the fully loaded vehicle to a safe stop in the event of failure of the power assist.

B. The power assisted steering must have sufficient capacity so that no more than 15 lbs. of pull is required on the steering wheel in order to turn the steering wheel from lock to lock with the stationary vehicle wheels on dry, level pavement and the engine idling.

C. Stops must be provided which will accurately limit the turning angle to the maximum intended.

D. The steering gear must be per the NFPA standards.

E. The cab must include steering column which will capable to be a seven (7) position tilt and 2.25 inch telescopic type with an 18.00 inch steering wheel located on the left side of the cab designating the driver's position. The steering wheel must be covered with black padding.

6.21.16. Tires and Wheels

A. The wheels must be hub piloted steel wheels. The hub piloted mounting system must provide easy installation and must include two-piece flange nuts. Rim contours and sizes must conform to the current recommended practices of the Tire and Rim Association, Inc., for the type of vehicle and the intended service.

B. The front tires must be Goodyear highway tread or equivalent meeting the GAWR and meeting NFPA 1901.

C. The rear tires must be Goodyear traction tread or equivalent meeting the GAWR and meeting NFPA1901.

D. There must be a tire pressure indicator at each tire's valve stem on the vehicle that must indicate if there is insufficient pressure in the specific tire.

6.21.17. Electrical

A. Circuits must be provided with properly rated low voltage over-current protective devices. Such devices must be readily accessible and protected against heat in excess of the components rating, mechanical damage, and water spray. Circuit protection must be accomplished by utilizing fuses, circuit breakers, and / or fusible links that conform to SAE J156, SAE J553, SAE J2077, SAE J554 and/or SAE J1888. All wiring must meet or exceed SAE J1127, SAE J1128, or SAE J1560.

- B. All wiring must be individually color coded and must be labeled at three to four inch intervals (measured center to center) on the insulation as to its function as follows.
- C. Within 24 inches of each termination toward the termination,
- D. Within 12 inches of the breakout point from the main harness on the branch connectors toward the main harness,
- E. Minimum of one code fully exposed and easily readable at each termination.
- F. Wiring installed by the body builder must be run in a plastic protective automotive loom, held in place with a rubber coated bracket that must be fastened in place with stainless steel screws.
- G. The loom must run under the apparatus from the front to the rear. A plastic protective loom must be utilized inside the body. All looms passing through any flanges or flat surfaces must be properly grommet.
- H. All wire connections must be protected with a marine "soft seal" to promote a lasting corrosion free connection. All terminal points must be protected with a hard rubber shield. All wire harnesses must be easily accessible and replaceable. All wires must be protected by automatic circuit breakers that must reset. All electrical equipment switches must be mounted on a switch panel in the cab, located for driver convenience. All exterior connectors must be weatherpac type.
- I. The exterior housing of lamps, electronic devices, and fixtures must be corrosion resistant and waterproofed. Electrical fixtures attached to the sides of the apparatus below the 75" level must be near flush mounted. Fixtures must not protrude more than 2", except for such items as spotlights.
- J. The entire system must have an "Amperage Load Analysis" completed on the apparatus prior to delivery. A copy of the analysis must be supplied with the apparatus at the time of delivery.
- K. At the time of delivery a detailed electrical schematic must be furnished. It must be supplied on a full size print for easy review.
- L. All electrical equipment installed by the apparatus builder must conform to the latest requirements as outlined in NFPA 1901.
- M. All electrical wiring installed by the apparatus builder must utilize stranded copper or copper alloy conductors of a gauge rated to carry 125% of the maximum current for which the circuit is protected.
- N. Voltage drops in all wiring from the power source to the using device must not exceed 10%. The use of star washers for circuit ground connections must not be permitted. All wiring must be highly resistant to grease, oil, acids, brake fluid and abrasion. All circuits must be wired in conformance with SAE J1292.
- O. The battery system must be a single system consisting a minimum of six group 31, 12 VDC heavy duty, high cycle automotive batteries each with a minimum of 1000 CCA.
- P. The battery group must be mounted in a protected, readily accessible location on the vehicle
- Q. Batteries must be placed on non-corrosive mats and must be stored in well-ventilated compartments located under the crew area of the cab. The compartment must provide for weatherproof protection of the electrical components mounted within the battery area.
- R. Heavy-duty battery cables must be used to provide maximum power to the electrical system. Cables must be color coded.

S. Battery terminal connections must be coated with anti-corrosion compound. Battery solenoid terminal connections must be encapsulated with semi-permanent rubberized compound.

T. One set of battery jumper studs with plastic color coded covers must be installed on the front side of battery box, on the street side. Placement must allow sufficient room for easy jumper cable access. A tag must be provided for positive/negative terminals.

U. The chassis must be equipped with a Kussmaul "Auto Charge" 1200 battery charger or equivalent. The charger output must be rated for 40 A at 12 VDC for fast battery recharge.

V. A Kussmaul "Super Auto Eject" 20 A shore line receptacle or equivalent must be provided. The auto eject receptacle must be completely sealed from road dirt contamination and must be mounted on the left side of the cab. The electrical shore line must be automatically ejected when the engine starter circuit is engaged. A yellow spring-loaded weatherproof cover must protect each receptacle.

W. Two bright finish Grover Stuttertone 24" air horns or equivalent must be mounted below the front bumper. A horn/air-horn selector switch must be installed on the central dash panel for selecting either the dual electric horns or the air horns. All horns must be activated by the steering wheel horn button.

X. The front turn signals must be Weldon 4 x 6 LED type or equivalent, rectangular amber sequencing lamps mounted in a polished aluminum housing positioned below the front windshield.

Y. The rear FMVSS lights must be a pair of Weldon or equivalent, 3 light LED modules. Each module must include a stop/tail light, Directional light and Backup light, all mounted in a polished aluminum housing.

Z. The cab roof must be equipped with two Federal Signal View Point Model # 535NFPA6P7CFD lights or equivalent. The light assemblies must be wired to barrel type "Deutsch" connectors.

AA. Two pair of Federal Signal Model # QL64SFC-R LED lights or equivalent must be mounted in the front lower zone. Each pair of warning lights must be housed in a common bezel located above the headlight assemblies.

BB. The front grille must include one Federal Signal model TCLF-BM Traffic Clearing light or equivalent.

CC. The front corners of the unit must be equipped with two Federal Signal Model # QL64XFC-R LED lights or equivalent, one each side of the cab corner radius.

DD. The unit must be equipped with two Federal Signal model # QL64XR LED lights upper body side warn lights or equivalent, position to be approved at the preconstruction meeting

EE. The unit must be equipped with three Federal Signal Model # QL64XFC-R LED lights or equivalent lower mounted on the vehicle; one on the cab, one on the vehicle's midpoint and a third on the rear body.

FF. The rear of the unit must be equipped with 8 Federal Signal Model # QL64XFC-R LED lights or equivalent, one each side of the rear upper body and six rear body mounted in the manufacturer's standard mounting locations.

GG. A Federal E2QB siren or equivalent must be mounted in the cab, and must be provided with one foot switch on the driver's side, and one foot switch on the officer's side. Foot switches are to be mounted on wedge blocks on the floor positioned at the preconstruction meeting

HH. One Federal BP200-EF siren speaker with 200-watt driver or equivalent must be installed, wired to the electronic siren.

II. A 110 volt duplex outlet must be mounted in the cab area of the apparatus. Location to be provided at the Pre-Construction conference. The duplex must be wired to the existing Kussmaul or equivalent auto eject plug.

JJ. The chassis must have a Vehicle Data Recorder system installed. The system must be designed to meet NFPA 1901. The following information must be recorded:

Vehicle Speed

Acceleration

Deceleration

Engine Speed

Engine Throttle Position

ABS Event

Seat Occupied Status

Seat Belt Status

Master Optical Warning Device Switch Position

Time

Date

KK. A seatbelt warning system integrated with the Vehicle Data Recorder system must be installed for each seat within the chassis. The system must provide visual and audible warning when any seat is occupied (sixty pounds minimum), the corresponding seat belt remains unfastened, and the park brake is released. Once activated, the visual and audible indicators must remain active until all occupied seats have the seat belts fastened. The dash must include an indicator panel display indicating the occupation of seats.

LL. The front headliner of the cab must include a red LED light, located in the center for greatest visibility. The light must be minimum 5 inches long X 2 inches wide must be clearly labeled "Do Not Move Apparatus". In addition to the flashing red light, an audible alarm must be included which must sound when a door is open and the parking brake is released. The light and alarm must be interlocked for activation when a cab door is not firmly closed, an apparatus cabinet door is not closed and the parking brake is released.

MM. The officer position must include a 12-volt Optronics KB-4003 or equivalent hand-held spotlight which will be mounted to the right of the engine tunnel. The Optronics or equivalent spot light must offer 400,000 candle power. It must have a 10.00 foot coiled cord and a momentary push button switch.

NN. The apparatus must be equipped with a Total System Manager for performing electrical load management. The TSM must have sixteen programmable outputs to supply warning and load switching requirements. The TSM must be protected against reverse polarity and shorted outputs and be enclosed in a metal enclosure to enhance EMI/RFI protection.

6.21.18. Cab

- A. The cab must be constructed of aluminum to minimize weight and provide protection against corrosion.
- B. The cab must be driver and front passenger, cockpit style, with a rear crew cab area designed specifically for the fire service and manufactured by the chassis builder.
- C. The cab must be constructed at minimum of 5052-H32 Marine Grade, one hundred percent primary aluminum plate. A single formed, one piece extrusion, manufactured from 6061-T6 100 The cab must be constructed of 5052-H32 Marine Grade, one hundred percent primary aluminum plate. A single formed, one piece extrusion, manufactured from 6061-T6 100 percent primary one- quarter inch thick aluminum must be used for the "A" pillar adding strength and rigidity to the cab as well as additional roll-over protection. The cab side wall and roof skins and must be 0.125 inch thick, the rear wall skin must be 0.19 inch thick, the front skin must be 0.125 inch thick.
- D. The cab must be approximately 96" wide, with an approximate interior width of 90".
- E. The overall travel height must be approximately 99".
- F. The floor to ceiling height inside the full crew cab must be a minimum of 53.75".
- G. The crew cab floor must measure a minimum of 66" @ from the rear wall to the back side of engine tunnel.
- H. The cab must be full tilt style.
- I. The engine must be easily accessible and capable of being removed with the cab tilted.
- J. A hydraulic cab lift system must be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves.
- K. A remote control must be provided for raising and lowering the cab. The remote control must be mounted in the curb side front body area or door step well. Design and construction must be approved prior to installation.
- L. Cab must be locked down by a two-point, automatic, spring-loaded hook mechanism that actuates after the cab has been lowered.
- M. The hydraulic cylinders must be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position.
- N. A redundant mechanical stay arm must automatically be engaged once the cab has been fully raised. Before lowering the cab, this device must be disengaged using the stay arm control located adjacent to the cab raise/lower switch. The arm and release must be curb side mounted to keep operators safe with curb side operation.
- O. In the event of electrical failure, a manual hydraulic override must be provided.
- P. The cab lift must be interlocked to the parking brake. The cab tilt mechanism must be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism must be disabled.
- Q. A one or two piece tinted, curved safety glass windshield must be provided
- R. The cab windshield must have trim inserts in the rubber molding to hold the glass in place.
- S. All cab glass must be tinted.
- T. Padded vinyl sun visors must be provided above the windshield, right and left.
- U. Two electric windshield wipers with washer must be provided, meeting FMVSS and SAE requirements.

- V. The washer reservoir must be able to be filled without raising the cab. . Must be mounted in a protected location outside the crew step area.
- W. The cab dash fascia must be wraparound design to provide easy access of controls.
- X. The engine tunnel must be severe duty with padding and treadplate overlay or approved equal.
- Y. Engine hood side walls must be constructed of .50" aluminum. Top must be constructed of .19" aluminum, and must be tapered at the top to allow for maximum driver and passenger elbow room.
- Z. The engine hood must be insulated for protection from heat and sound. The noise insulation must maintain a DBA level within the limits stated in the current NFPA series 1901 pamphlet.
- AA. The headliner must be installed in both forward and rear cab sections. Headliner material must be vinyl. A sound barrier must be part of its composition. Material must be installed on aluminum sheet, securely fastened to the interior cab ceiling.
- BB. Forward portion of cab headliner must provide easy access for servicing electrical wiring or for other maintenance needs without removing the entire unit.
- CC. The cab interior upholstery must be black or gray.
- DD. The cab exposed interior metal surfaces must be "Rhino Liner" type urethane coated.
- EE. The cab flooring must be constructed with NFPA step surface type bright aluminum tread plate.
- FF. All cab entry doors must be equipped with manual roll up or sliding windows. Roll up windows to be equipped with metal conventional gear driven regulators and actuators. To be approved at the pre-construction meeting.
- GG. The cab access steps must be 26" wide X 8.5" deep
- HH. The inside cab steps must not exceed 16.6" high.
- II. A 20", Knurled aluminum slip resistant handrail must be provided adjacent to all door openings to assist entrance into the cab.
- JJ. A cast aluminum grab handle must be provided on the inside of each rear crew door. The handle must extend horizontally the width of the window just above the windowsill. The handle must assist with entry and egress from the crew area of the vehicle.
- KK. The cab doors must be barrier type approximately 43" wide x 69" high.
- LL. All cab entry doors must be constructed of extruded aluminum, with a nominal material thickness of .125". The exterior skins must be constructed from .090" aluminum.
- MM. Flush mounted, paddle type door handles must be provided on the exterior and interior of the cab doors.
- NN. The door hinge must be stainless steel piano type, with a .25" pin.
- OO. There must be double automotive type rubber seals around the perimeter of the door framing and door edges to ensure a weather tight fit.
- PP. Polished stainless steel scuff plates must be installed on the inside of all cab doors, extending from the bottom of the door up to the window sill.
- QQ. The crew cab area doors must be barrier type with sliding or rollup type windows.roll up type windows must be equipped with a mechanical steel window regulator approved at pre-construction.
- RR. Cab door panels must be removable without disconnecting door and window mechanisms.

- SS. An "H. O. Bostrom" or equivalent high back air-ride style driver's seat must be installed in the cab.
- TT. An "H. O. Bostrom" SCBA Seat or equivalent must be installed in the cab, curb side, for the officer. The SCBA cavity must be adjustable front to rear in 0.50 " increments to accommodate different size SCBA bottles.
- UU. Three "H. O. Bostrom" SCBA Seats or equivalent must be installed in the crew cab area, one rear facing and two forward facing. The SCBA cavity must be adjustable front to rear in 0.50 " increments to accommodate different size SCBA bottles.
- VV. Moving the SCBA cavity must be accomplished by unbolting, relocating and rebolting in the desired location. All brackets are to be fitted to the bottles in use by the Fire Department at time of delivery.
- WW. Seats must be furnished with integral three-point shoulder type seat belts. The seat belts must be furnished with automatic retractors. Extensions must be provided with the seat belts so the male end can be easily grasped and the female end easily located while sitting in a normal position. All belts to be bright orange. Design and construction must be approved prior to installation.
- XX. All seat upholstery must be "Dura Wear" cloth resistant to oil, grease and mildew.
- YY. All SCBA type seats in the cab area must be equipped with positive locking, mechanically-releasing SCBA holders, mounted in each backrest. The brackets must be adjustable up and down by unbolting, relocating and rambolting in the desired position. SCBA make and model will be determined at the pre-construction meeting and adjusted before final delivery
- ZZ. A radio compartment must be provided under the officer's seat. Design and construction must be approved prior to installation.
- AAA. The minimum inside compartment dimensions must be 14.13" deep x 15.75" across x 5.25" high.
- BBB. A drop down door with a lift and turn latch must be provided for access.
- CCC. The compartment must be constructed of smooth aluminum and painted to match the cab interior.
- DDD. Interior of the compartment must have a DA sanded finish. There must be a switch to activate a light inside the compartment and the open compartment warning light in the cab in the event the door is left ajar.
- EEE. There must be three LED dome lights installed to illuminate the interior rear compartment on the left and right side of the crew cab.
- FFF. The steering column must feature an 18", four spoke steering wheel located at the driver's position; a seven (7) position tilt and 2.25" telescopic adjustment.
- GGG. The cab must be equipped with an exterior access compartment on the left and right side of the cab behind the crew door below the floor line. The compartment interior dimensions must be minimum 12 inches wide X 31 inches high x 12 inches wide.
- HHH. Deluxe, full length west coast stainless steel mirrors with a 6 " x 16" flat section must be mounted on the cab doors, one on each side. A Chicago style hand pump bracket must be mounted in the compartment.
- III. Mirrors must be mounted on spring loaded retractable loops on the cab doors.
- JJJ. Mirrors must be heated and lighted.
- KKK. The mirror clearance lights must be illuminated when the apparatus ICC lighting is on. A red light must be mounted on the left side mirror head and a green light on the right mirror head.

- LLL. A separate switch must be provided for the mirror heaters, labeled accordingly.
- MMM. The wiring to the mirror heads must have a weatherproof electrical connector outside of the cab to facilitate easy replacement of the mirror heads.
- NNN. A 6" diameter round convex mirror must be installed below each west coast mirror head.
- OOO. A rollover occupant protection system (ROPS) must be integrated in the cab design. ROPS must secure occupants, increase the survivable space within the cab and protect against head / neck injuries in the event of a rollover accident.
- PPP. The system must function using a microprocessor- controlled, solid state sensing device which, when the system detects a side roll will provide instantaneous occupant protection by automatically initiating the following sequence:
- QQQ. Seat belts must tighten around the occupant on all seats excluding theatre flip-up style seats.
- RRR. The air suspension on each seat must be reduced to its lowest position, belt must tighten around occupant, and seat must locking in this position, thereby providing more survivable space and minimizing head contact with the interior roof.
- SSS. An inflatable curtain must deploy which includes an air filled bag across the driver's and passenger's side windows which will protect and cushion the head and neck of the occupants thereby reducing movement and chance of head contact with the side of the vehicle. The inflatable curtain must be applicable on all seats adjacent to the cab side excluding theatre flip-up seating.
- TTT. The rear facing outer seat position must be equipped with the rollover occupant protection system which must secure occupants, increase the survivable space within the cab and protect against head/neck injuries in the event of a rollover accident.
- UUU. The system must function using a microprocessor-controlled, solid-state sensing device which, when the system detects a side roll must provide instantaneous occupant protection
- VVV. An Integrated Roll Sensor IRS - detects an imminent rollover, activates protective devices and records crash events.
- WWW. An engine compartment light must be installed under the engine hood equipped with an integrated switch.
- XXX. One clear LED type six inch dome light must be mounted in the center of the cab ceiling area with a door actuated control switch.
- YYY. Each step well area must be equipped with a round LED step well light.
- ZZZ. An EMS compartment, full floor to ceiling high x 20" wide x 23" deep, must be installed.
- AAAA. A ROM roll-up door with lock must be installed on the compartment.
- BBBB. The compartment must be located on the right outboard, rear-facing seat riser. The compartment must be constructed of aluminum and painted to match the cab interior.
- CCCC. The compartment must be equipped with strip light lighting. The lights must be controlled by an automatic door switch.
- DDDD. The storage compartment must be compliant with NFPA 1901 Standard for Automotive Fire Apparatus, 2003 Edition.
- EEEE. There must be two shelves provided in the EMS compartment.
- FFFF. The shelves must be constructed of .090" aluminum with a 1.25" up-turned lip. Shelving must be infinitely adjustable by means of a threaded tightener sliding in a track.

GGGG. The compartment must be provided with a 110 V Duplex power source wired to the shoreline system.

HHHH. Inner fender liners, located in the wheel wells, must be provided.

IIII. Rubber fender crowns must be installed at the cab wheel openings.

6.21.19. Cab Instrumentation

A. An ergonomically designed instrument panel is to be provided. The gauges must be backlit with red LED lamps. All gauges must be driven by stepper motor movements. The instrumentation system must be multiplexed and must receive engine and transmission information over the J1939 data bus to reduce redundant sensors.

B. The instrument panel must contain the following gauges:

One electronic tachometer.

One electronic speedometer with an integral LCD odometer/ trip odometer and hour meter.

Air pressure gauges which must read from 0 to 140 pounds per square inch (PSI).

Fuel gauge with a yellow indicator light must indicate low fuel at the quarter tank level.

One engine oil pressure gauge. The scale on the engine oil pressure gauge must read from 0 to 140 pounds per square inch (PSI). A red indicator light in the gauge must indicate low engine oil pressure.

One coolant temperature gauge which must read from 160 to 250 degrees Fahrenheit (F). A red indicator light in the gauge must indicate high coolant temperature.

One transmission oil temperature gauge which must read from 100 to 300 degrees Fahrenheit (F). *A red indicator light in the gauge must indicate high transmission oil temperature.

One voltmeter which must read from 8 to 16 volts. A red indicator light must indicate high or low system voltage.

C. The instrument panel must contain the following red indicator lights. All indicator lights must contain LED lamps:

Stop Engine - indicates critical engine fault.

Park Brake - indicates park brake is set.

Volts - indicates high or low system voltage.

Low Oil Press - indicates low engine oil pressure.

High Coolant Temp - indicates excessive engine coolant temperature.

High Trans Temp - indicates excessive transmission oil temperature.

Low Air - indicates low air pressure in either system one or system two.

Low Coolant Level - indicates low engine coolant level.

Air Filter - indicates excessive engine air intake restriction.

Seat Belt Indicator – indicates when a seat is occupied and corresponding seat belt remains unfastened.

D. The instrument panel must contain the following yellow indicator lights. All indicator lights must contain LED lamps.

Check Engine - indicates engine fault.

Check Trans - indicates transmission fault.

Wait to Start - indicates active engine air preheat cycle.

ABS - indicates anti-lock brake system fault.

Water in Fuel - indicates presence of water in fuel filter.

Check Message Center – indicates there is a fault message present in the LCD digital display.

SRS – indicates a problem in the RollTek supplemental restraint system.

DPF – indicates a restriction of the diesel particulate filter.

HEST – indicates a high exhaust system temperature.

MIL – indicates an engine emission control system fault.

E. The instrument panel must contain the following green indicator lights. All indicator lights must contain LED lamps.

Left and Right turn signal indicators.

Aux Brake Active - indicates secondary braking device is active.

High Idle - indicates engine high idle is active.

ATC – indicates low wheel traction for automatic tractions control equipped vehicles, also indicates mud/snow mode is active for ATC system.

The instrument panel must contain the high beam green LED indicator light.

F. The instrumentation system to provide a constant audible alarm for the following situations:

Low air pressure.

Low engine oil pressure.

High engine coolant temperature.

High transmission oil temperature.

Low coolant level.

High or low system voltage.

Critical engine fault.

G. The Check Message Center icon will illuminate and a message will be displayed in the LCD screen for the following situations:

Low Oil Level

Door Ajar

Engine Communication Error

Transmission Communication Error

ABS Communication Error

High Coolant Temp

Turn Signal Reminder

Low Fuel

Low Oil Pressure

Low Coolant Level

Low Battery Voltage

High Battery Voltage

Low Primary Air Pressure

Low Secondary Air Pressure

High Transmission Temperature

An aerial pump engaged indicator light.

H. The officers dash must have a display providing for the vehicle speedometer, transmission retarder status, occupant secured display and with touch button functionality for emergency lighting, climate control functions

I. The driver's side dash must be equipped with one two-speed windshield wiper control with intermittent feature.

J. Right of the driver position must be a display and touch button functionality for Emergency lighting, Climate controls and other driver operated functions as needed.

K. The vehicle must be equipped with a keyless ignition and master, with an "Off/ On" and a two switch for "Off/ Start".

6.21.20. Heating and Air Conditioning

A. The cab must include a 57,600 BTU @ 425 CFM front air conditioning /heater/defroster system installed. Controls are to be dash mounted with in the climate control screen of the multiplex system.

B. The air conditioning system must be capable of lowering the cab interior temperature from 100 degrees to 70 degrees within thirty minutes, with a relative humidity of sixty percent.

C. A roof mounted A/C condenser must be installed on driver's side of the cab, mid-roof.

D. The air-conditioning compressor must be a belt driven, engine mounted, open type Seltec model TM-16 or equivalent. The compressor must be compatible with R-134A refrigerant and PAG oil.

E. The air conditioning system must have adjustable air outlets incorporated into the cab at both the engineer and officer positions. The evaporator unit in the crew cab must have adjustable air outlets located directly on the evaporator unit.

F. The evaporators must be provided with a gravity drain to drain all water from the drain pan automatically.

G. The cab and crew area walls must be insulated with 2" insulation where space permits, and the roof with 1" insulation to aid in cooling.

H. The crew area must be equipped with a heater mounted below the rear facing seat riser.

I. Two, six inch diameter, two speed, individually controlled, windshield defroster fans mounted overhead in the driver area must be supplied.

6.21.21. Apparatus Body

A. The apparatus body and framework must be constructed entirely of 304 grade low carbon stainless steel material. The complete apparatus body must be constructed of a combination of structural tubing and formed sheet metal. The framework of the body substructure and compartmentation must be engineered

with structural tubing for ultimate durability. These components must be welded together utilizing an A.W.S. Certified welding procedure. This process will ensure the quality of structural stability of the apparatus body.

B. 2" x 2" square and 2" x 1" rectangular tubing must be used at minimum throughout the construction of the body module. The tubular construction must form a framework which provides the structural integrity for the entire body module. Sheet metal panels must complete the structure by forming the compartmentation specified. A minimum 12 gauge 304 sheeting is to be used, 12 or 10 gauge sheet must be used in extreme loadbearing applications.

C. Absolutely no dissimilar metals must be used in the body and its supporting substructure without being separated by a sufficient corrosion and electrolysis inhibitor.

D. A Torsion Mounting System must be used to allow the body to "float" above the chassis frame rails on vibration and torsion isolator assemblies. The body substructure will NOT come into direct contact with the chassis frame rails. The body substructure will be mounted to the assemblies which provide a space above the frame rails and allow independent flexing to occur between the body and the chassis.

E. Each assembly must have a two-part rubber vibration isolator. The isolator must be designed to carry the necessary loads of the apparatus, including items such as the body, equipment, etc..

F. There must be no welding to the chassis frame rail sides, web or flanges, or drilling of holes in the top or bottom frame flanges between axles. All body to chassis connections must be bolted so that in the event of an accident, the body must be easily removable from the truck chassis for repair or replacement.

G. Because of the constant vibration and twisting action that occurs in chassis frame rails and suspension, the torsion mounting system is required to minimize the possibility of premature body structural failures. The Torsion Mounting System must have a lifetime warranty on all of its components.

H. All horizontal surfaces, rear steps, running boards, walkways, and rear body surface must be aluminum fire apparatus quality bright finish tread rite. Must meet NFPA standard.

I. Each rear wheel well of the body must have a one piece full width wraparound wheel well liner. The liner must be bolted to the body to permit easy removal for service and maintenance. The liner is to be stainless steel or of a City approved poly- type material.

J. All aluminum tread plate installed on the apparatus body must be A bright finish@ with a minimum 0.125" thickness. For corrosion resistance, aluminum tread plate must not be installed prior to paint as described in the following paint section.

K. All overlay materials must be coated with 3M adhesive sealant on the back portion to provide an insulating barrier between dissimilar metals.

6.21.22. Body Compartments

A. All compartment floors must be constructed of stainless steel material welded in place. All compartment seams must be sealed by using a permanent pliable silicone caulking. Wherever this sheet metal serves as a load-bearing component, it must be reinforced with structural tubular supports to ensure sound construction for lasting service. Body compartment floors must be 'sweep-out' in design to aid in regular cleaning and maintenance..

B. All compartments must be provided with a flow through type filtered ventilation system designed to prevent the entry of dirt, dust, excessive moisture and road splash. This ventilation system must not be through the compartment doors.

C. All compartment dimensions will be dictated upon the required placement of the stabilizers on each manufacturer's chassis for safe weight distribution. Total cubic volume of storage must be met at

minimum. Dependent upon stabilizer designs alternate compartment dimensions will be accepted if the total storage volume as specified is met at minimum.

D. Street side compartment one and curb side forward compartment S1 & C1, interior dimensions must be a minimum of 36" wide by 69" high. The lower 21" of the compartment must be 22.5" deep and the upper area must be transverse.

E. The transverse section of the compartment must be 24.40 wide. There must be a provision for a Stokes basket (85"L X 24.25"W X 7.75"H).

F. There is to be a compartment S2 located above the front stabilizer utilizing the most width and height usable. Size to be approved at the pre-construction meeting.

G. There must be one full height compartment S3, ahead of the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 35" wide by 69" high with a depth of 22.5"..

H. There must be one compartment S4, located above the rear wheels on the left side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 65" wide by 40" high with a depth of 22.5".

I. There must be one compartment S5, located above the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 53" wide by 30" high with a depth of 22.5".

J. There must be one compartment S6, located rear of the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 30" wide by 57" high with a depth of 20".

K. There must be one compartment S7, located behind the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment Must be a minimum of 30" wide by 56" high with a depth of 20".

L. There is to be a compartment C2 located above the front stabilizer utilizing the most width and height usable. Size to be approved at the pre-construction meeting.

M. There must be one full height compartment C3, ahead of the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 35" wide by 69" high with a depth of 22.5".

N. There must be one compartment C4, located above the rear wheels on the left side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 53" wide by 40" high with a depth of 22.5".

O. There must be one compartment C5, located above the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 53" wide by 30" high with a depth of 22.5".

P. There must be one compartment C6, located rear of the rear wheels on the street side of the apparatus. The approximate interior dimensions of this compartment must be a minimum of 50" wide by 40" high with a depth of 20".

Q. All compartments and adjustable shelves are to have custom fitted black floor tile installed on the interior floors to help in protecting the entire surface of the compartment floor and shelving from equipment damage.

R. A total of six air bottle compartments must be provided. Compartments to be three each side located at the rear wheels area. The air bottle compartment must be in the form of a round tube (7.63" diameter minimum) and of adequate depth to accommodate different size air bottles. Flooring must be rubber lined and have a drain hole. A stainless steel or aluminum door with a chrome plated latch must be provided to contain the air bottle. A dielectric barrier must be provided between the door hinge, hinge fasteners and the body sheet metal.

S. There must be a rear load compartment traveling through the torque box for ground ladder storage to horizontally store the below listed ground ladders.

One Alco lite 3 section 50 foot with poles and heel plate or equivalent

Two Alco lite 2 section 35 foot with heel plate or equivalent

One 28 foot 2 section with heel plate

One 20 foot roof ladder

One 10 foot folding ladder

T. The ground ladders are stored within the torque box and are removable from the rear with exception to a 14' to be banked horizontally on the street side. Ladders must be fully enclosed to prevent road dirt and debris from fouling or damaging the ladders or approved alternate while providing the detailed storage compartment requirements.

U. The ladders to rest in full length stainless steel slides and are arranged in such a manner that any one ladder can be removed without having to move or remove any other ladder.

V. A stainless steel plate with a two bend flange and a stainless steel hinge must be provided to secure the ground ladder complement. The plate assembly must be mounted to the bottom of the entrance of the torque box ladder storage area.

W. When the plate is vertical, it must secure the ladders and prevent them from migrating to the rear of the apparatus. When the plate is down and not securing the ladders, the roll - up door can not close , which must activate the A Open Door Indicator Light@ within the cab. The roll - up door together with the hinge friction must secure the plate in place during driving operations.

X. A brushed anodized aluminum roll - up door must be provided to secure the ground ladder complement. The door must have extruded aluminum construction. The latching mechanism must consist of a full length lift bar lock with latches on the outer extrusion of the door frame.

Y. The following pike pole tubular holders are to be furnished and located in the ground ladder storage compartment to hold:

2 - six (6) foot

4 - eight (8) foot

2 - ten (10) foot

2 - twelve (12) foot

1 - fourteen (14) foot

1 - sixteen (16) foot

Z. The storage area for the ground ladders is critical. A certified drawing of the storage area and capacity must be provided with bid submittal.

An open storage area must be provided in the center of the upper apparatus body inboard of the compartments. The floor of the storage area must be constructed of aluminum tread plate with 2" drain holes in each of the (4) four corners.

6.21.23. Compartment Doors

A. All body compartments must be fitted with ROM double faced aluminum roll up doors. The doors must be painted red to match body color.

B. Lath sections must be a driven ball and socket design and individually replaceable without complete disassembly of door.

C. Between each lath at the pivoting joint must be a fitted flexible seal for weather resistance. Seals must allow door to operate in extreme temperatures ranging from plus 212 to minus 40 degrees Fahrenheit. Synthetic rubber side, top and bottom seals must be provided to resist ingress of dirt and weather.

D. All hinges, barrel clips and end pieces must be type -6 nylon. End pieces must be riveted to each lath. Hardened plastic will not be acceptable.

E. A lift bar must be provided for opening door. It is to be located at the bottom of door and have latches on the outer extrusion of the door frame. A ledge must be supplied over lift bar for additional area to aid in closing the door.

F. Doors must be constructed from an aluminum box section with a wall thickness of .03937" an depth of 1.30". Inside surfaces must be smooth to prevent loose equipment from jamming on the inside.

G. A heavy duty magnetic switch must be used for control of open compartment door warning lights. Install to be approved at the Pre-Construction meeting.

6.21.24. Trays, Shelves and Accessories

A. There must be three (3) slide-out trays, one (1) full transverse and (2) half width with 2.00" sides and a minimum capacity of 500 pounds provided in C1 compartment. Capacity rating must be in the extended position.

B. Compartment S3 and C3 each must be equipped with three adjustable shelves with 2" sides and a minimum capacity of 250 lbs.

C. There must be two (2) slide-out trays with 2.00" sides and a minimum capacity of 250 pounds provided one each in S3 and C3. Capacity rating must be in the extended position.

D. There must be two (2) slide-out trays with 2.00" sides and a minimum capacity of 250 pounds provided one each in S4 and C4. Capacity rating must be in the extended position.

E. There must be two (2) slide-out trays with 2.00" sides and a minimum capacity of 500 pounds provided one each in S6 and C6. Capacity rating must be in the extended position.

- F. The shelf construction must consist of .125" pan - shaped aluminum with 2.00" sides. Each shelf must be infinitely adjustable by means of a threaded fastener, which slides in a track.
- G. The tray corners must be welded for strength and rigidity.
- H. There must be black Turtle Tile matting provided in all compartments and tray floors.
- I. All tray slides must be ball bearing guide type for ease of operation and years of dependable service.
- J. All slide trays must be equipped with automatic locks for both the "in" and "out" positions. The trip mechanism for it must be located at the front of the tray for ease of use with a gloved hand.

6.21.25. Rub Rails, Hand Rails, Steps and Etc.

- A. The body must have a minimum 1 ½" wide x 1" thick solid aluminum Bolt-On rub rail along each side below the compartments, front of body, to rear and across the entire rear step. There must be a nylon spacer to insure and insulate any electrolysis interaction.
- B. The bottom edge of the compartments must be trimmed with rub rails to absorb minor damage while protecting the body. The rub rails must be fabricated of brightly anodized aluminum channel. The rub rails must be bolted in place with stainless steel bolts and locking nuts, and must be spaced away from the body with ½" nylon spacers to help prevent the collection of water and debris. Each rub rail section must be easily removable and replaced should it become damaged.
- C. The rear step must be minimum 3" square tube fabricated of stainless steel material. The step must be an independent assembly welded to the rear body structural framing to provide body protection and a solid rear stepping platform. The rear step must be designed to incorporate "crush zone" technology
- D. Rubber fender crowns must be provided around the rear wheel openings.
- E. The hand rails must be constructed of 1 1/4" diameter heavy duty knurled extruded aluminum tubing with polished chrome plated brass mounting brackets.
- F. Four (4) approximately 12" inch long straight handrails must be installed , one mounted on each cab/crew area door inner panel.
- G. Four (4) approximately 20" inch long straight handrails must be installed , one mounted on each cab/crew area door out board cab panel.
- H. Two (2) - 24" long straight handrails must be installed forward of the A-frame type stairways at the rear of the apparatus body, one (1) per side. The rails must be recessed to not protrude past the body side.
- I. Two (2) 36" long straight handrails must be installed at the A- Frame type stairways at the rear of the apparatus body, one (1) per side. The rails must be recessed to not protrude past the body side.
- J. Two (2) - 22" semi circular handrails must be installed on the top rear surface of the apparatus, one (1) per side.
- K. All exterior surfaces designated as stepping, standing and walking areas must comply with the required average slip resistance of NFPA section 13- 7.3 .
- L. Access to the turntable must be provided by a total of five (5) steps, a combination of fixed and swing down, at the rear of the apparatus.
- M. The access steps must be located on each side, just behind the compartmentation.
- N. All steps must have a height not greater than 14.00" from top surface to top surface.
- O. The fixed steps must be constructed of bright aluminum tread plate furnished with Morton Cass inserts.

P. The steps must also have bright aluminum tread plate furnished on each side of the steps to act as scuff plates.

Q. The bottom step on each side must have a step height not exceeding 24.00" from the ground to the top surface of the step at any time.

R. All cab and crew doors must be equipped with full width interior handrails.

S. Two (2) pair of folding Ziamatic SAC-44 or equivalent aluminum alloy Quick Choc wheel blocks with SQCH-44-H horizontal mounting brackets must be provided. Mounting location to be approved at pre-construction meeting.

6.21.26. Aerial Ladder

A. The ladder must be constructed to meet the requirements as described in NFPA 1901-2003 edition. The ladder must be designed and tested with a safety factor of two to one (2:1) based on the rated load, and a stability factor of one and one half to one (1.5 : 1). These capabilities must be established in an unsupported configuration. All welding must be in compliance with the American Welding Society standards. All welding personnel must be certified, as qualified under AWS welding codes.

B. The ladder is comprised of four sections and must extend to a nominal height of 95 to 100 feet above the ground at 75 degrees.

C. The ladder must have the capability to support a minimum of 500 pounds at the tip in the unsupported configuration, based upon 360 degree rotation, up to full extension and from -5 degrees to +80 degrees.

D. The ladder must be constructed of high strength aluminum, minimum 70,000 pounds per square inch yield, with full traceability on all structural members.

E. Each section must be trussed diagonally, vertically and horizontally using aluminum tubing. All critical points are reinforced for extra rigidity and to provide a high strength-to-weight ratio. All ladder rungs are round and welded to each section utilizing "K" bracing for torsional rigidity.

F. The inside width dimensions of the ladder must be:

Base Section	35" to 43"
Lower Mid Section	28" to 36"
Upper Mid Section	24" to 29"
Fly Section	19" to 23"

G. Each rung must be covered with a secure, heavy duty, deep serrated, rubber sheathing or NFPA approved grip built into the rungs. The sheathing is easily replaceable if the rubber becomes worn.

H. It must have a Morton Cass nonskid aluminum surface with a lip around the perimeter covering the framework underneath.

I. The turntable is lighted for nighttime operation with three work lights activated by the aerial master switch. 42.00" high rubber covered handrails must be provided, one on each side and one at the rear.

J. One set of folding steps with locks must be supplied to provide sufficient footing at the tip of the ladder.

K. Extension markings and corresponding numerical indicators must be provided along each inside and outside top rail of the base section of the aerial every ten (10) feet. They must indicate various positions of extension up to full. Markings and indicators must be clearly visible to the control operator. To aid in visibility during hours of darkness, the markings and numerical indicators must be of a red reflective material.

6.21.27. Elevation System

A. Two double acting lift cylinders must be utilized to provide smooth precise elevation from 10 degrees below horizontal to 75 degrees above horizontal.

B. The lift cylinders must be equipped with integral holding valves located on the cylinder to prevent the unit from falling should the charged lines be severed at any point within the hydraulic system.

C. They also must have spherical bushings at each end to reduce pin wear.

D. Both raising and lowering functions are influenced by flow compensation which maintains ladder tip speed within approximately 10% regardless of load, angle or extension.

6.21.28. Extension / Retraction System

A. A full hydraulic powered extension and retraction system must be provided using two hydraulic cylinders and cables. Each set is capable of operating the ladder in the event of a failure to the other.

B. Extension and retraction must be internally limited within the cylinders, eliminating excess strain on cables, sheaves and the ladder structure.

C. Each of the cylinders, cables and the sheave assemblies must be completely independent of the other, so as to provide a safety factor wherein a failure of one assembly must not affect the function and operation of the other.

D. The extension cylinders are equipped with counter balance valves to synchronize the cylinders for smoother operation and prevent the unit from retracting should the charged lines be severed at any point within the hydraulic system.

E. The reeling of the cable must be such as to provide synchronized, simultaneous movement of all sections to full extension.

F. UHMW wear pads to be used between the telescoping sections for maximum weight distribution, strength and the smoothness of operation. Adjustment screws to be provided on the wear pads to permit proper side alignment. Or Two roller assisted slide pads per ladder section consisting of nylatron lubrication free rollers and pads.

6.21.29. Rotation System

A. A minimum 40.00" diameter, external tooth, swing circle bearing to be used for the rotation system.

B. The bearing race must have approximately 118 sealed 1.00" ball bearings. The bearing must provide 360 degree continuous rotation.

C. The turntable base and the torque box bearing plate must be machined to fit the bearing thereby providing even distribution of forces.

D. A dual hydraulically driven, planetary gear box with a drive speed reducer must be used to provide infinite and minute rotation control throughout the entire rotational travel. The gearbox must have a torque rating of 100,000 pounds per square inch. A spring applied, hydraulically released disc type swing brake must be furnished to provide positive braking of the turntable assembly.

E. Provisions must be made for auxiliary operation of the system in case of prime mover failure. The hydraulic system is equipped with pressure relief valves which will limit the rotational torque to a non-destructive power.

6.21.30. Rotation Interlock

A. A permanently installed prevention mechanism must be provided as part of the rotation system to prevent the rotation of the aerial device to the side in which the stabilizers have not been fully deployed.

B. The mechanism must allow full and unrestricted use of the aerial in the 180 degree area on the side(s) where the stabilizers have been fully deployed.

C. The system must also have a manual override to comply with NFPA 1901. This must consist of a switch located in the lower control station so that activation must require two (2) persons (one at an aerial device control location and one at the lower control station).

THAT PERMIT THE AERIAL TO ROTATE TO THE " SHORT JACK " SIDE WITHOUT AUTOMATICALLY STOPPING THE ROTATION AND / OR WITHOUT ACTUATION OF THE " MANUAL OVERRIDE " WILL NOT BE ACCEPTED. SYSTEMS THAT ONLY INCLUDE AN ALARM ARE NOT CONSIDERED AN INTERLOCK AND MUST NOT BE ACCEPTED.

6.21.31. Torque Box

A. A "torsion box" sub frame must be installed on the chassis frame rails or integral to the rails, integral with the stabilizers. If not integral the torque box must be constructed of minimum .188" steel plate with steel tubing overlapped on each side of the box in the turntable area.

B. The torque box sub frame assembly to be capable of withstanding all torsional and horizontal loads when the unit is on the stabilizers.

6.21.32. Boom Support

A. A heavy duty boom support must be provided for support of the ladder in the travel position.

B. On the base section of the ladder, a stainless steel scuff plate must be provided where the ladder comes into contact with the boom support.

C. The boom support must be located just to the rear of the chassis cab, recessed into the engineer compartment.

6.21.33. Aerial Electrical and Controls

A. Four (4) Collins, model FX-12 or equivalent, 750,000 candle power, 12 - volt spot / floodlights must be furnished. The two (2) "tracking lights" must be mounted on the base section of the ladder, one (1) each side. The two (2) "tip lights" must be mounted on the tip of the ladder, one (1) on each side. The tip lights are to be up fitted with guards to protect the lights from possible obstruction damage. The lights must mounted below the handrail height so

as not to increase the overall height of the unit. An individual master switch with appropriate identification labels must be provided for the "tracking lights" and "tip lights" in addition to the on/off switch located on the light itself.

- B. A control station must be located at the rear of the apparatus in an easily accessible area.
- C. Controls and indicator lights are clearly identified and conveniently located for ease of operation and viewing.

6.21.34. Stabilizer Controls

- A. Two (2) illuminated electronic stabilizer control stations must be provided, one (1) on each side of the rear of the vehicle.
- B. The stabilizer control switches must be enclosed in a recessed compartment to protect each control from damage or accidental movement.
- C. The controls must be located such that the operator can see the stabilizer he is operating. Body designs that block the view of the stabilizers from the control station will not be acceptable.
- D. The stabilizer control functions must be operated independently, so that the vehicle may be set up in restricted areas or on uneven terrain.
- E. The left stabilizer control station must incorporate the following:
 - Stabilizer set indicator lights
 - Rotation interlock system override
 - Fast idle switch
 - Emergency pump control button
 - Panel light switch
 - Warning decals
 - Hydraulic test ports
- F. The right stabilizer control station must incorporate the following:
 - Stabilizer set indicator lights
 - Rotation interlock system override
 - Fast idle switch
 - Emergency pump control button
 - light switch
 - Warning decals
 - Hydraulic test ports

- G. A water tight compartment must be provided behind the control panel and contains the aerial circuit breakers , interlock components and control circuit distribution terminals.
Design to be approved at the pre-construction meeting.

6.21.35. Turn Table Control Station

A. The turntable control station must be located on the left side of the turntable such that the operator can easily observe the ladder tip while operating the controls. The lower part of the console must be angled away from the operator, to provide as much foot room as possible for the operator.

B. An access panel door must be provided on the front of the console and an access door at the rear of the console to provide complete access to the electrical and hydraulic components mounted inside the console.

C. The console must be illuminated for night operations, and must have the following controls and indicators clearly marked:

Three (3) hydraulic ladder control levers.

A foot operated "dead man switch" that electrically opens the aerial control valve must protect against accidental movement of the control handles.

Rung alignment indicator light for ladder climbing operations.

Cradle alignment indicator light.

Engine high idle control switch.

Emergency pump power switch.

Intercom controls

Bubble type angle indicator on base section near console.

illuminated load chart on front of console.

Protected console cover over controls

D. An Atkinson communication system or equivalent must be furnished between the aerial tip and the turntable operators position. The communication system must be a two - way system with the communications speaker at the tip requiring no operator attention to transmit or receive. The transmitting and receiving volume controls must be located at the turntable operator's position.

6.21.36. Stabilizers

A. Four Telescoping/downward penetrating jacking stabilizers must be located two rear of cab and two aft of the rear wheels to provide vehicle stability during aerial operation. This must provide maximum jack penetration and truck leveling capability in a reduced setup envelope.

B. The jack cylinders must be equipped with integral holding valves which must hold the cylinder either in the stowed position or the working position should a charged line be severed at any point within the hydraulic system.

C. The jack cylinders must be equipped with integral (on the cylinder) holding valves, which must hold the jack cylinder in either the stowed position or the deployed position should a hydraulic line be severed at any point within the hydraulic system.

- D. Each jack cylinder must also have a thermal relief system that must prevent the cylinder fluid pressures from rising due to fluid temperature increase.
- E. To aid in leveling the unit, a bubble type gauge must be provided adjacent to the stabilizer controls.
- F. A stabilizer deployment warning alarm must be provided at each side of the body, activated by the stabilizer mode. The warning alarm deactivates only when all the stabilizers are placed in the load supporting configuration.
- G. A "Stabilizers Not Stowed" indicator light must be provided in the driver's compartment. It must illuminate automatically whenever the stabilizers are not fully stowed, to prevent damage to the apparatus if moved. The stabilizer system must also be wired to the "Do Not Move Indicator Light", which must flash whenever the apparatus parking brake is not fully engaged and the stabilizers are not fully stowed.
- H. A set of auxiliary pads are provided for additional load distribution on soft surfaces. The pads are 24.00" square and constructed of 6061 - T6 .38" high strength aluminum. One auxiliary pad must be stored adjacent to each stabilizer.

6.21.37. Cradle Interlock System

- A. A cradle interlock system must be provided to prevent the lifting of the aerial from the nested position until the operator has positioned all the stabilizers in a load supporting configuration.
- B. A switch must be installed at the cradle to prevent operation of the stabilizers once the aerial has been elevated from the nested position.
- C. The aerial must be capable of being operated with full rated capabilities in any plane up to 5 degrees out of level with the turntable leveled as much as possible by placement of the stabilizers. Operation beyond this limit must be at the operator's discretion.
- D. Ladder Cradle Alignment Light
- E. Two amber LED indicator lights, left rotation disabled and right rotation disabled, will be supplied on the control console to indicate to the operator when the aerial is aligned with the travel bed support and can be lowered into the travel support.
- F. A limit switch on the base section must signal by means of an amber indicator light when the aerial rungs are in alignment.

6.21.38. Stability Alarms

- A. An audible alarm, with a 100 DBA level must be provided at the control console to alert the operator should the stability limitations of the ladder be exceeded.
- B. The alarm must only notify the operator of the condition but in no way restrict the further operation of the ladder.
- C. Two (2) Ecco or equivalent amber strobe lights must be located at the tip of the base section, one each side, wired to the stability gauge to indicate an unsafe condition.
- D. An electronic warning device must be provided at each stabilizer to warn personnel that the stabilizers are being deployed.

- E. Each alarm must produce a fast pulsing 90 DBA signal and must cancel only when the stabilizer is put into a load bearing configuration.
- F. A 4.00" clear floodlight must be provided on each stabilizer to illuminate the surrounding area. The light must be actuated by the aerial master switch
- G. One (1) Code 3 LED 45 BZR warning light must be mounted on each stabilizer cover panel. These warning lights must be activated by the "NFPA SIDE" switch.
- H. One (1) 6.00" diameter, double-faced, red flashing LED light must be mounted on each stabilizer facing to the front and rear of the truck. These warning lights must also be activated with the aerial master switch.

6.21.39. Hydraulic System

- A. The apparatus must be equipped with a power takeoff driven by the chassis transmission and actuated by an electric shift, located inside the cab.
- B. The power takeoff which drives the hydraulic pump must meet all the requirements for the aerial unit operations.
- C. The hydraulic system must operate at a nominal 32 gallons per minute at flows up to 3,000 pounds per square inch.
- D. An amber indicator light must be installed on the cab instrument panel to notify the operator that the power takeoff is engaged.
- E. An interlock must be provided that allows operation of the aerial power takeoff shift only after the chassis spring brake has been set and the chassis transmission has either been placed in the neutral position or drive position after the driveline has been disengaged from the rear axle.
- F. The tubing used in the hydraulic system must have a high pressure rating, with the tubing having a minimum burst pressure of 9,000 pounds per square inch.
- G. High pressure hose must have a working pressure rating of 4000 pounds per square inch and a burst pressure rating of 16,000 pounds per square inch.
- H. The hydraulic oil tank to have minimum capacity of 38 gallons.
- I. A dipstick or sight gauge must be provided to check the oil level.
- J. The oil fill is in an easily accessible area and must be conspicuously marked "HYDRAULIC OIL".
- K. The oil fill must be furnished with a cap that will act as a ventilator to provide clean fresh air into the oil tank and a 40 micron filter to provide positive protection from contaminates.
- L. A magnet must be provided in a low point of the oil tank.
- M. The hydraulic tank fill must terminate with a quarter turn valve and plug.
- N. An easily accessible 10 micron replaceable return oil filter must be provided. A micron high pressure oil filter must be installed between the hydraulic pump and gear diverter valve.
- O. The hydraulic oil tank to be furnished with two pick-up tubes, one pick-up tube being used for normal operation and the other is reserved for emergency operations. The emergency pick - up tube

extends further down into the oil tank to provide for some reserve oil in case a hydraulic line is broken. Normal operation pick-up tube must have a 200 mesh filter.

P. The tank must be supplied with a 1/4 turn ball valve in the suction line.

Q. The hydraulic system to be supplied by a loading sensing piston type pump. The pump must provide adequate fluid volume to allow all ladder functions to operate simultaneously, without loss of speed. The aerial is operable (at reduced speed) at engine idle. The pump supplies oil only when the ladder is in motion, thereby preventing overheating of the hydraulic oil. When the hydraulic pressure reaches a preset level the pressure compensating feature of the pump discontinues any flow into the system.

R. A high pressure manifold block with test ports must be located at the turntable to allow testing of any and all aerial functions.

S. The hydraulic system must be protected from possible any hydraulic pump malfunctions by a relief valve which must route the excess oil into the oil tank when the pressure in the hydraulic system exceeds 3,150 pounds per square inch.

T. The hydraulic control valves are to be protected by being plumbed to a pressure relief valve to protect them from high pressure.

U. There must be two pressure gauges at the control console, one showing the system hydraulic pressure and one to indicate the stability load. The gauge indicating the load must provide the operator with a continuous "read-out" of the load relative to the maximum rated capacity.

V. The apparatus must be equipped with an emergency hydraulic pump that is electrically driven from the truck batteries.

W. The emergency power unit must be capable of limited ladder functions to stow the unit in case of a prime mover failure.

X. A momentary control switch for the emergency pump must be installed at the lower (stabilizer) control panel and at the turntable control console. The control must be a spring loaded momentary switch. A red indicator light must be located adjacent to each switch to indicate activation of the emergency power unit.

Y. The pump must be capable of continuous operation for 30 minutes.

Z. The aerial ladder must be equipped with a three (3) port, high pressure hydraulic swivel which must connect the hydraulic lines from the hydraulic pump and reservoir through the rotation point to the aerial control bank. The hydraulic swivel must allow for 360 degree continuous rotation of the aerial.

AA. The ladder must be equipped with an electric swivel to allow 360 degrees rotation of the aerial while connecting all electrical circuits through the rotation point.

BB. A minimum of 16 collector rings must be provided that are capable of supplying 20 amp continuous service. All collector rings must be enclosed and protected with dessicant plugs against condensation and corrosion. No oil or silicone must be used.

6.21.40. Aerial Device Inspection

A. A third party inspection certificate for the aerial device must be furnished upon delivery of the aerial device. The certificate must be Underwriters Laboratories, Type-1, indicating the aerial device has been inspected on the production line and after final assembly.

B. The following tests must be conducted:

Magnetic particle inspection must be conducted on every weld to assure the integrity of the weldments and to detect any flaws or weaknesses. Magnets must be placed on each side of the weld while graphite powder is placed on the weld itself. The powder must detect any crack that may exist. This test must be performed prior to assembly of the aerial device.

Ultrasonic inspection must be used to detect any flaws in pins, bolts and other critical mounting components.

Functional tests, load tests, stability tests and visual structural examinations must be performed. These tests must determine any unusual deflection, noise, vibration or instability characteristics of the unit.

6.21.41. Ground Ladders Pike Poles and Etc.

A. The following Alco or equivalent - lite ladders must be furnished and must meet or exceed the latest edition of NFPA 1931 standards.

1 - 50' three (3) section truss, series TEL50 w/ poles and heel plates

2 - 35' two (2) section truss, series TEL35 w/ heel plates

1 - 28' two (2) section truss, series TEL 28

1 - 20' straight frame wall ladder, series PRL20

1 - 20' roof ladder, series PRL20

1 - 12' roof ladder, series PRL12

1 - 10' roof ladder, series PRL10

1 - 10' folding ladder, series FL10

1 - 8' roof ladder, series PRL8

B. The ground ladders are stored within the torque box and are removable from the rear with exception to a 14' to be banked horizontally on the street side. Ladders must be fully enclosed to prevent road dirt and debris from fouling or damaging the ladders.

C. The ladders to rest in full length stainless steel slides and are arranged in such a manner that any one ladder can be removed without having to move or remove any other ladder.

D. A pike pole mounting bracket must be mounted on the aerial ladder, position to be approved at the pre- construction meeting

E. Mounting brackets must be provide on the aerial ladder for mounting of Chicago supplied 10' roof ladder. A 12' roof ladder with bracket is to be mounted to the base section of the ladder , position to be approved upon pre-construction meeting.

F. A stokes basket mounting bracket must be provided, position to be approved at the pre-construction meeting.

G. An aluminum tread plate circular blade saw storage box must be installed on the left side of the ladder turntable forward of the ladder control console. The storage box must include a hinged lid with latch and louvered sidewalls for ventilation of fuel fumes.

H. An aluminum tread plate water tight storage box must be installed on the top of the left side of the apparatus body:

I. Two (2) Mount brackets for a Chicago Style hand pump mounted.

J. One (1) SCBA tank holder must be provided and mounted in a outside compartment. Location to be determined at the pre-construction meeting.

6.21.42. Chassis Lubrication System

A. Apparatus to be provided with two Robert Shaw or equivalent centralized lubrication systems. The systems must provide automatic lubrication of Kingpins, Tie Rods, S cams, Slack adjusters, Drag links and Steering miter box along with the aerial ladder.

B. The systems is to be fully automatic.

6.21.43. Painting and Markings

A. The exterior custom cab and body painting procedure must consist of a six (6) step finishing process as follows:

B. Manual Surface Preparation - All exposed metal surfaces on the custom cab and body must be thoroughly cleaned and prepared for painting. Surfaces that must not be painted include all chrome plated, polished stainless steel, anodized aluminum and bright aluminum treadplate. Each imperfection on the exterior metal surface must be removed or filled and then sanded smooth for a smooth appearance. All seams must be sealed before painting.

C. Chemical Cleaning and Treatment - The metal surfaces must be properly cleaned using a high pressure and high temperature acid etching system. Surfaces are chemically cleaned to remove all dirt, oil, grease and metal oxides to ensure the subsequent coatings bond well. An ultra pure water final rinse must be applied to all metal surfaces, excluding undercarriage components, at the conclusion of the metal treatment process.

D. Primer/Surface Coats - A two (2) component urethane primer/surfacer must be hand applied to the chemically treated metal surfaces to provide a strong corrosion protective base coat and to smooth out the surface

E. Hand Sanding - The primer/surface coat must be lightly sanded to an ultra smooth finish.

F. Sealer Primer Coat - A two (2) component sealer primer coat must be applied over the sanded primer.

G. Topcoat Paint - Two (2) coats of an automotive grade, two (2) component acrylic urethane paint, must also be applied.

H. All removable items such as brackets, compartment doors, door hinges, trim, etc. must be removed and painted separately to insure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly must be finish painted before assembly.

- I. Contractor must meet or exceed all current State regulations concerning paint operations. Pollution control must include measures to protect the atmosphere, water and soil.
- J. The upper portion of the cab must be painted black. The body, wheels and the lower portion of the cab must be painted with DuPont "Imron Elite" 3.5 VOC paint, Red #N4
- K. The chassis frame assembly must be painted black before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components that are included with the chassis frame assembly that must be painted black are frame rails, cross members, all axles, suspension, the steering gear, fuel tank, body substructure, supports, miscellaneous mounting brackets, etc.
- L. Interior of compartmentation must be painted with a gray rhino liner type material.
- M. All aerial device structural components above the rotation point that are not chrome plated or stainless steel must be painted.
- N. All components, such as monitor, nozzle, gauges, etc. must be supplied as received from the vendor.
- O. All areas to be painted must be sanded to remove any metal flakes and smooth any rough surfaces.
- P. All ladder surfaces to be painted must be phosphatized to remove metal impurities, aid paint adhesion and inhibit rust.
- Q. The components must be prime painted with an epoxy primer and finished painted with a durable, high quality white paint (manufacturer's standard brand).
- R. The support structure, components below the rotation point, and the stabilizers must be painted high gloss black
- S. The tip of the ladder must be painted a contrasting color for high visibility.
- T. A yellow reflective stripe must be provided on the vertical and horizontal members of the stabilizers.
- U. The upper portion of the cab must be painted black. The body, wheels and the lower portion of the cab must be painted with DuPont "Imron Elite" 3.5 VOC paint, Red #N4
- V. A 6" White #3930 3M "High Intensity Grade Prismatic" reflective stripe must be applied across the lower portion of the front, sides and rear of the apparatus. Additional bands of 6" white #3930 3M "High Intensity Grade Prismatic" reflective stripe must be applied to the rear body panel to meet the requirements of NFPA 1901. Stripes must be free of DOT markings.
- W. Printed lettering and decals must be totally encapsulated between two layers of clear vinyl to prevent fading.
- X. Apparatus front doors must be lettered and decaled as follows:
 - Y. Top: 3M "680-64" gold flexible reflective sheeting: "ENGINE CO.", "TRUCK CO.", or "TOWER LADDER", as applicable, 3" letters, Military Block True Type Font, with a black shadow down and to the right,
 - Z. Middle: 3M "680-10" white reflective engineer grade, 11" Company Number, Helvetica Medium True Type font.

AA. Bottom: 3M "680-64" gold flexible reflective sheeting: "We're There When You Need Us", 2.5" height, Brush Connected True Type Font, superimposed on the 6" reflective stripe.

BB. Apparatus crew cab doors must be lettered and decaled as follows:

3M "680-64" gold flexible reflective sheeting: "CHICAGO FIRE DEPT." 3.5" initial letters, others 2.5", Military Block True Type font, with a black shadow down and to the right, above a CFD Scramble Design, 3M "680-64" gold flexible reflective sheeting, 11", with black border.

CC. Apparatus right front corner must be lettered with a 3M "680-10" white reflective engineer grade, 6" Company Number, Helvetica Medium True Type font.

DD. Apparatus left front corner must be decaled with a 3M "680-64" gold flexible reflective sheeting, CFD Scramble Design, 6", with a black border.

EE. Apparatus rear must be lettered with a 3M "680-10" white reflective engineer grade, 11" Company Number, Helvetica Medium True Type font, superimposed on a red metal plate.

FF. The rear compartment door on each side must be decaled with a 8" x 12" American Flag, on 3M "680-10" reflective sheeting, with field towards front of apparatus.

GG. If the apparatus is so equipped, "PARAMEDIC EQUIPPED" must be lettered in 3M "680-64" gold flexible reflective sheeting onto a side compartment door, right and left, with 3" letters, Helvetica Medium Font.

6.21.44. BID LINE #5: Communications Systems for 100 Foot Aerial Ladder Truck

A. The Contractor will supply and install various mobile communications equipment for mounting in the proposed vehicle included in price. Contractor must supply all accessories necessary to install the communications equipment and must install the communications equipment in accordance with the direction of OEMC and Chicago Fire Department.

B. All wiring must be rated to carry twice the maximum expected amperage load. All connections must be soldered and protected with heat-shrink insulation. Mounting location and methods must be approved by OEMC prior to installation. All wiring must be in continuous lengths – butt splices are unacceptable.

C. Battery circuits must be connected to a constant-hot source of twelve-volt DC power and must not be switched 20 amp fused lead connects to the radio chassis.

D. Ignition circuits must be connected to a source of twelve-volt DC 5 amp fused power that is switched with a master on/off switch for the vehicle that must be enabled before the engine can be started. This lead connects to the control head. If it is an Engine Pumper the same wiring must be in the rear by the pumper panel. Along with a 30ft control cable between the control heads.. Ground circuits must be connected to a battery-ground circuit or to a solid chassis ground.

E. For each piece of equipment, all of its manufacturer's recommendations for installation must be followed except where they conflict with the above directions regarding ignition and battery circuits.

F. Each positive twelve-volt connection must be independently fused near its source. In-line fuses provided with communications equipment may be used if present; or spare slots in chassis fuse panels may be used if present; or a Cooper Bussmann "15600-xx-20" fuse panel must be provided.

G. The routing of all wiring must be approved by OEMC prior to installation. Antenna layout, lead routing location and mounting methods must be approved by OEMC prior to installation. Each antenna and associated lead must be tested for reflected power and must exhibit a signal-to-wave ratio of no greater than 1.5:1.

H. One dash-mount/all-in-one mobile radio Motorola APX7500 radio must be installed in the front cab area. . Radio will be a single-piece dash-mounted model with the "O5" control head. Dashboard or center console must be provided with sufficient space to allow for the radio to be mounted within the reach of the seated front-seat officer. Radio must be mounted in an appropriate bracket specific to the radio make and model, such as one provided by a console manufacturer.

I. One Panasonic CF-31 computer dock must be installed. All 5 in 1 antenna leads from roof will be connected to the router. All connectors are SMA type. Two are male SMA for cell, one SMA male GPS and 2 SMA male reverse gender for the wifil. The 12 volt power must have a 3 amp battery hot lead

J. One computer dock (Havis CF-31 compatable) must be installed. Computer dock will be supplied with only the basic mounting functionality. All must be mounted with other bracket required to mount the dock within reach of the seated front-seat officer in a manner approved by the Chicago Fire Department – including extensions, swivels and other hardware that may be required to furnish a fully functional and approved installation – must be provided by the vendor.

K. Two data cables of the necessary length must be installed by the vendor. One serial data cable must be connected to the In-Vehicle router/modem and the computer dock. The serial cable is wired straight thru with a DB9 male on one end and a DB9 female on the other. The second other Ethernet cat6 data cable must be connected to the modem and the computer dock. The Ethernet cat6 must be a crossover type cable.

L. One GPS/Cellular/ WiFi (5 in 1) antenna must be installed on the vehicle's roof. Antenna lead must be routed to the Cradlepoint In-Vehicle router/modem.

M. Contractor must install three (3) antenna mounts on the vehicle roof in the locations and manner specified by OEMC. Antenna leads must be of the proper length for the routing specified. One NMO antenna lead must be routed to the mobile radio and fitted with a crimp-on mini-UHF connector. One GPS/Cellular/ WiFi (5 in 1) antenna lead must be routed to the In-Vehicle router/modem and fitted with the appropriate crimp-on connector. One additional Motorola style NMO antenna lead will be routed to the cab console area with 18" of coax slack for future use. Vendor will supply the proper antenna for each device.

6.22. Bid Line #3: Crew Cab Chassis With Triple Combination Pumper Body

6.22.1. Overall Design

A. It is the intent of these specifications to procure Triple Combination Pumpers with an approximate overall length of 360". The vehicle must provide the required cubic feet of compartment space with the required dimensions as described.

B. It is the intent of these specifications to procure an apparatus with a overall unloaded travel height of ".

C. It is the intent of these specifications to procure an apparatus with a maximum overall width of 101", excluding the outside rear view mirrors.

D. Design of the apparatus must embody the latest approved automotive engineering practices. The workmanship must be of the highest quality in its respective field. Construction must be rugged, and ample safety factors must be provided to carry the loads specified and to meet both on and off road

requirements and speed conditions. Welding must not be employed in the assembly of the apparatus in a manner that will prevent the ready removal of any component part for service or repair. All steel welding must follow American Welding Society D 1.1 - 96, recommendations for structural steel welding. All aluminum welding must follow American Welding Society and ANSI D1.2-96, requirements for structural welding of aluminum. Flux core arc welding must use alloy rods, type 7000, American Welding Society standards A5.20-E70T1. The manufacturer must have an American Welding Society certified welding inspector in plant during working hours to monitor weld quality.

6.22.2. Chassis

A. The vehicle chassis, complete with crew cab, front-wheel steering, diesel engine driven. Parts and accessories necessary for the safe operation of the vehicle must be provided as required by, and must conform to, NFPA, Federal, State and local regulations that may be applicable for this type of apparatus at the time of its manufacture.

6.22.3. Wheelbase

A. The wheelbase must be the optimum engineered for the proper weight distribution and performance of the apparatus.

6.22.4. Frame Bumpers and Tow Hooks

A. The minimum frame is to consist of double channel side rails and cross members forming a ladder style frame. The sides of the rails must be constructed of "C" channel, 10.25 inches high X 3.5 inches deep X .38 inches thick with an inner channel of 9.44 inches high X 3.13 inches deep and .38 inches thick, 110,000 psi minimum yield high strength low alloy steel

B. The frame must be of bolted construction using Grade 8 fasteners and must be provided with adequate cross members, exclusive of engine supports, designed and constructed to support the gross weight of the body and load, engine, pump, filled agent tanks, and all other equipment under the specified operating conditions.

C. The apparatus must be equipped with a heavy duty front frame extension designed to support the front bumper and associated equipment to be mounted to the front bumper area of the unit.

D. The apparatus must be equipped with a heavy duty "Chicago Style" front bumper.

E. The bumper must be a one piece, minimum 3/16" thick steel bumper, with a minimum 10" height.

F. The bumper must be supported by a steel support structure which is bolted to the front frame extension.

G. The bumper must extend a full 24" from the front of the cab structure.

H. The bumper must be complete with a full width and depth gravel panel.

I. The bumper must be capable of supporting and mounting of sirens and air horns as needed. Design and construction must be approved prior to installation.

J. The bumper must be equipped with 3 seatbelt type straps to secure hose to front bumper. Design and construction must be approved prior to installation.

K. Tow loops must be "Chicago Style", fabricated from 1" inch thick steel. Two tow loops must be supplied on the front of the apparatus, protruding out the face of the front bumper.

L. The tow loops must be bolted and welded to the frame rails, and must extend to the back side of the steel facing of the front bumper.

- M. The tow loops must have an inside diameter opening of 3".
- N. The tow loops must be positioned to allow the vehicle to be lifted without damage to cab body metal work.
- O. The apparatus must be equipped with "Chicago Style" rear tow loops, directly bolted to the rear frame of the apparatus.
- P. The rear tow loops must be accessible for lifting of the apparatus from the rear.
- Q. Each unit must be equipped with a pair of tow fixtures to allow the use of an under lift towing apparatus to transport the vehicle when towing is needed. Design and construction must be approved prior to installation.

6.22.5. Engine

- A. The chassis must be powered by an current production Electronic Diesel engine .
- B. The engine must be a minimum of 11.5 L, six cylinder turbo charged engine.
- C. The engine must produce a minimum 400 HP @ 2100 rpm.
- D. The engine must produce a minimum of 1650 foot pounds of torque @ 1200 RPM.
- E. The engine must be equipped with a speed governor which will limit the engine to 2100 RPM maximum.
- F. The engine must be current 2013 EPA compliant or most current for on highway use.
- G. The engine must be equipped with a Donaldson dry type air cleaner element system, resistant to flaming embers and easily accessible for replacement by tilting the cab.
- H. The air intake must be protected by a chrome grille with ember separator mesh screen. The system must be sealed to prevent water entering the inlet pipe or air cleaner. A moisture evacuator must be provided to allow discharge of condensation from the intake system.
- I. Engine oil filters must be approved by the engine manufacturer, spin on, full flow and bypass lube oil filters.
- J. A dash mounted air restriction gauge must be provided.
- K. The engine must be equipped with a Kysor Fan system with a Kysor K-22RA or equivalent spring on / air disengage fan clutch. The automatic fan control must engage the fan when the air conditioning system is operating, or on firefighting use demand.
- L. The engine starter must be a Delco Remy 12 V model # 39MT or equivalent, with over crank . protection and thermal protection controlled by a dash mount rocker switch.
- M. The engine must be provided with a Niehoff model alternator or equivalent with a rated output of 320 A as measured by SAE method J56. The alternator must meet NFPA 1901, current edition requirements for performance.

6.22.6. Exhaust System

- A. The exhaust system must be constructed from minimum 5" diameter stainless steel.
- B. The exhaust must exit on the curb side ahead of the rear wheels.
- C. A heat deflector shield must be provided where the tail pipe is routed under any side compartmentation.

D. Units must comply with any and all Federal, State and Local Emissions regulations at the time of production.

E. The exhaust system is to include a diesel particulate filter (DPF), a diesel oxidation catalyst, and a selective catalytic reduction catalyst (SCR) to meet current EPA standards.

F. The selective catalytic reduction catalyst is to utilize a diesel exhaust fluid solution consisting of urea and purified water to convert nitrogen oxide into nitrogen, water, and trace amounts of carbon dioxide. The solution must be injected into the system through the decomposition tube between the DPF and SCR.

G. The system must utilize 0.065 inch thick stainless steel exhaust tubing between the engine turbo and the DPF.

H. The DPF, the decomposition tube, and the SCR canister through the end of the tailpipe must all be connected with zero leak gasket clamps. The discharge must terminate horizontally on the right side of the vehicle ahead of the rear tires with an exhaust gas diffuser.

I. The diffuser must lower exhaust gas temperatures during the regeneration cycle.

J. There must be a molded cross linked polyethylene tank for the Diesel Exhaust Fluid (DEF). The tank must have a capacity of not less than ten (10) usable gallons and must be mounted on the left hand side of the chassis frame in front of the batteries below the frame. Design and placement to be approved at the pre-construction conference.

K. The DEF tank must be designed with capacity for expansion in case of fluid freezing. Engine coolant, which is to be thermostatically controlled, must be run through lines in the tank to help prevent the DEF from freezing and to provide a means of thawing the fluid if it should become.

6.22.7. Idle Control

A. A high idle switch must be provided inside the cab, on the instrument panel, which will automatically maintain a preset engine RPM. A switch must be installed at the cab instrument panel for activation/deactivation.

B. The high idle must be operational only when the parking brake is on and the truck transmission is in neutral.

C. A green indicator light must be provided adjacent to the switch. The light must illuminate when the above conditions are met. The light must be labeled "OK to Engage High Idle".

6.22.8. Engine Cooling System

A. The engine cooling system must be of the circulating liquid type, with a thermostatic control to maintain a coolant temperature consistent with the engine manufacturer's recommendations, when operating under the intended service conditions. System must be designed so that upon failure of the thermostatic controls, the engine continues normal operation without overheating due to restricted engine coolant circulation.

B. A bypass must be provided to permit coolant circulation in the engine block, with the thermostat closed, until normal operating temperature is reached.

C. Drain locks must be installed at the low point of the cooling system, and at any other points necessary to drain the system completely.

D. A coolant temperature gauge must be provided on the cab instrument panel.

- E. All the coolant and the heater hoses must be made of silicone material, installed with pressure-compensating clamps.
- F. A low level engine coolant indicator light and buzzer must be provided in the cab.
- G. A high engine coolant temperature indicator light and buzzer must be provided in the cab.
- H. An auxiliary engine cooler must be utilized to lower the engine coolant temperature during prolonged pumping operations. Cooler must be controlled at the pump operator's panel. Engine cooler must be installed in line with the engine coolant in the upper radiator hose line in such a manner as to allow cool pump water to circulate around the engine coolant, thus providing true heat exchanger action. Cooler inlet and outlet must be continuous, preventing intermixing of the engine coolant and pump water. Cooler design and construction must be Chicago Fire Department approved prior to installation.

6.22.9. Fuel System

- A. System must include, but not be limited to, injectors, fuel pumps, (1) electrical and (1) mechanical, fuel strainers, all necessary piping, valves, fittings, fuel lines, and all other necessary accessories to make up a complete and reliable system.
- B. The fuel tank must be equipped with an accessible drain plug. The filler pipe opening must be in an accessible location outside of the cab.
- C. The fuel tank must have a minimum capacity of 65 gallons and must be mounted so that it will not be damaged by distortion of the chassis, and must not be affected by external heat, or heat from the engine or exhaust.
- D. A fuel water separator/filter with a thermostatically controlled heating element must be provided to effectively filter any fuel contamination encountered.

6.22.10. Transmission

- A. An electronic transmission with six forward speeds and one reverse speed.
- B. The transmission control must be electric, push button type with digital read-out screen indicating gear selection, located within easy reach of the operator.
- C. The transmission must include an air to oil cooler integrated into the lower portion of cooling package. The transmission cooling system must meet all transmission manufacturer requirements.
- D. A hot shift PTO must power one hydraulic pump to supply hydraulic power for all boom functions. Hydraulic power for all operations must be supplied by one hydraulic pump flange mounted to one power take off installed on the road transmission with engagement control in cab. Hot shift PTO must be powered when chassis has an Allison automatic transmission. A flow control valve is to be installed in the system to prevent over speeding of the elevating platform during water pump operation.
- E. An Allison transmission or equivalent retarder system must be provided and installed.
- F. The Allison transmission or equivalent retarder control to be modulated by one-third at 0% throttle a two-thirds of the brake pedal actuation and must include a rocker switch mounted on the dash. A retarder system activation indicator light must be provided on the dash to show when the system is enabled. The activation of the retarder must activate the brake lights. The retarder must be inactive during pump mode.

G. The transmission retarder application must feature a separate water to oil cooling system. The cooler will be installed into the transmission hydraulic circuit providing cooling for the retarder. The tube bundle cooler must be mounted to the chassis, connected to the engine cooling system plumbing.

6.22.11. Front and Rear Axles

- A. Front and rear axles furnished must be certified as being suited for use in this vehicle by the axle manufacturer. Axle manufacturer's published rating must not be raised to conform to the requirements of this specification.
- B. The front axle must be a Meritor Easy Steer Non drive or equivalent front axle. The axle must include a conventional style hub with a standard knuckle. The weight capacity for the axle must be rated to 110 % of front GAWR.
- C. There must be a protective strap installed over each axle oil seal fill cap.
- D. The rear axles must be a single axle assembly meeting 110 % of the GAWR. The axles must include single reduction gearing and must have a fire service rated capacity.
- E. Automatic traction control must be installed on the single rear axle. The automatic traction control system must apply the anti-lock braking system when the drive wheels loose traction. The system must scale the electronic engine throttle back to prevent wheel spin while accelerating on ice or wet surfaces.
- F. A momentary rocker style switch must be provided and properly labeled "mud/snow". When the switch is pressed once, the system must allow a momentary wheel slip to obtain traction under extreme mud and snow conditions. During this condition the ATC light and the light on the rocker switch must blink continuously notifying the driver of activation. Pressing the switch again must deactivate the mud/snow feature.

6.22.12. Front and Rear Suspension

- A. The front suspension must be heavy duty, semi elliptical, taper leaf design with a rated capacity to meet GVWR + 10% safety factor.
- B. Two inert, nitrogen gas filled shock absorbers must be provided and installed as part of the front suspension system.
- C. The rear suspension must be heavy duty Hendrickson "Fireman," regular production air ride type suspension to meet GVWR + 10 % safety factor.
- D. Four inert, nitrogen gas filled shock absorbers must be provided and installed as part of the rear suspension system.
- E. Suspension must be designed with provisions for reduced maintenance, by providing "lubed for life" components where available, and incorporating maximum parts commonality between axle / suspension components.

6.22.13. Air Brake System

- A. A rapid build-up air brake system must be provided. The air brakes must include a two (2) air tank, three (3) reservoir system with a total of 4152 cubic inch of air capacity. A floor mounted treadle valve must be mounted inside the cab for graduated control of applying and releasing the brakes. An inversion valve must be installed to provide a service brake application in the unlikely event of primary air supply loss.

B. The rear axle spring brakes must automatically apply in any situation when the air pressure loss below 25 PSI with a mechanical means for releasing the spring brake chambers exists. An audible alarm must designate when system air pressure is below 60 PSI.

C. The front brakes must be Meritor EX225 or equivalent Disc Plus disc brakes with 17.00 inch vented rotors.

D. The rear brakes must be Meritor EX225 or equivalent Disc Plus disc brakes with 17.00 inch vented rotors.

E. Upon application of the push-pull valve in the cab, the rear brakes will engage via mechanical spring force. This is accomplished by dual chamber rear brakes, satisfying the FMVSS parking brake requirements.

F. A Meritor-Wabco or equivalent manual hand control push-pull style valve must operate the parking brake system. The control must be yellow in color.

G. The parking brake actuation valve must be mounted on the center of the tunnel within easy access of both the driver and officer positions. The control must include a protective bar which must prevent accidental activation of the parking brake and still allow proper actuation of the control. No holes or lines in tunnel, lines to run to center panel, under tunnel.

H. Front brake automatic slack adjusters must be an integral part of the brake assembly and be supplied by the brake manufacturer.

I. Rear brake automatic slack adjusters must be an integral part of the brake assembly and be supplied by the brake manufacturer.

J. The brake system must include a Wabco System Saver 1200 or equivalent air dryer. The air dryer incorporates an internal turbo cutoff valve that closes the path between the air compressor and air dryer purge valve during the compressor "unload" cycle. The turbo cutoff valve allows purging of moisture and contaminants without the loss of turbo boost pressure. The air dryer must be located on the right frame rail behind the officer step.

K. The air compressor provided for the engine must be a two (2) cylinder reciprocating Wabco SS318 or equivalent pass-through drive type compressor which must be capable of producing 18.7 CFM at 1200 engine RPMs.

L. An air governor which must cut-in and cut-out pressures on the vehicle must be provided and must be adjusted so that the maximum pressure in the air system and the minimum cut-in pressure.

M. One (1) auxiliary air tank, 2084 cubic inch reservoir, must be installed on the chassis to act as an additional reserve supply to the air system for air horn, air tool, or other non-service brake use. The reservoir must be isolated with a 90 PSI pressure protection valve on the reservoir supply side to prevent depletion of the air to the air brake system.

N. Manual drain valves must be installed on all reservoirs of the air supply system.

O. Brass compression type fittings must be used on the nylon tubing. All drop hoses must include fiber reinforced neoprene covered hoses.

P. A quick release outside air inlet male connector for the shoreline air inlet must be provided on the driver side of the cab, located in the driver's step in the forward position.

Q. A Gast, dual piston, on board 110V. air compressor, with appropriate pressure switch, filter and check valves must be furnished and installed in a protected, adequately ventilated area. The compressor must be wired to the auto eject shoreline. Location and install to be approved at the pre-construction meeting.

6.22.14. Anti - Lock and Stability Control Systems

- A. A six sensor, six modulator anti-lock braking system (ABS) must be installed on the front and rear axles in order to prevent the brakes from locking or skidding while braking during hard stops or on icy or wet surfaces. This in turn must allow the driver to maintain steering control under heavy braking and in most instances, shorten the braking distance. The electronic monitoring system must incorporate diagonal circuitry which must monitor wheel speed during braking through a sensor and tone ring on each wheel.
- B. A dash mounted ABS lamp must be provided to notify the driver of a system malfunction. The ABS system must automatically disengage the auxiliary braking system device when required. The speedometer screen must be capable of reporting all active defaults using PID/SID and FMI standards.
- C. Additional handling capabilities must include roll stability control which must monitor the vehicles rollover threshold based on the lateral acceleration. The system must activate a computerized device which will slow the vehicle when the threshold is exceeded in either direction. Normal vehicle operation must resume once the problematic conditions cease. Roll stability control must be integral with the ABS and ATC systems.
- D. The electronic stability control unit (ESC) is a functional extension of the electronic braking system. It is able to detect any skidding of the vehicle about its vertical axis as well as any rollover tendency. The control unit comprises an angular-speed sensor that measures the vehicle's motion about the vertical axis, caused, for instance, by cornering or by skidding on a slippery road surface. An acceleration sensor measures the vehicle's lateral acceleration. The CAN bus provides information on the steering angle. On the basis of lateral acceleration and steering angle, an integrated microcontroller calculates a theoretical angular speed for the stable vehicle condition.

6.22.15. Steering System

- A. The chassis must be equipped with power assisted steering. The steering mechanism must be designed to permit sufficient manual steering to bring the fully loaded vehicle to a safe stop in the event of failure of the power assist.
- B. The power assisted steering must have sufficient capacity so that no more than 15 lbs. of pull is required on the steering wheel in order to turn the steering wheel from lock to lock with the stationary vehicle wheels on dry, level pavement and the engine idling.
- C. Stops must be provided which will accurately limit the turning angle to the maximum intended.
- D. The steering gear must be per the NFPA standards.
- E. The cab must include steering column which will capable to be a seven (7) position tilt and 2.25 inch telescopic type with an 18.00 inch steering wheel located on the left side of the cab designating the driver's position. The steering wheel must be covered with black padding.

6.22.16. Tire and Wheels

- A. The wheels must be hub piloted steel wheels. The hub piloted mounting system must provide easy installation and must include two-piece flange nuts. Rim contours and sizes must conform to the current recommended practices of the Tire and Rim Association, Inc., for the type of vehicle and the intended service.
- B. The front tires must be Goodyear or equivalent highway tread meeting the GAWR and meeting NFPA 1901.
- C. The rear tires must be Goodyear or equivalent traction tread meeting the GAWR and meeting NFPA1901.

D. There must be a tire pressure indicator at each tire's valve stem on the vehicle that must indicate if there is insufficient pressure in the specific tire.

6.22.17. Electrical

A. Circuits must be provided with properly rated low voltage over-current protective devices. Such devices must be readily accessible and protected against heat in excess of the components rating, mechanical damage, and water spray. Circuit protection must be accomplished by utilizing fuses, circuit breakers, and / or fusible links that conform to SAE J156, SAE J553, SAE J2077, SAE J554 and/or SAE J1888. All wiring must meet or exceed SAE J1127, SAE J1128, or SAE J1560.

B. All wiring must be individually color coded and must be labeled at three to four inch intervals (measured center to center) on the insulation as to its function as follows.

C. Within 24 inches of each termination toward the termination,

D. Within 12 inches of the breakout point from the main harness on the branch connectors toward the main harness,

E. Minimum of one code fully exposed and easily readable at each termination.

F. Wiring installed by the body builder must be run in a plastic protective automotive loom, held in place with a rubber coated bracket that must be fastened in place with stainless steel screws.

G. The loom must run under the apparatus from the front to the rear. A plastic protective loom must be utilized inside the body. All looms passing through any flanges or flat surfaces must be properly grommeted.

H. All wire connections must be protected with a marine "soft seal" to promote a lasting corrosion free connection. All terminal points must be protected with a hard rubber shield. All wire harnesses must be easily accessible and replaceable. All wires must be protected by automatic circuit breakers that must reset. All electrical equipment switches must be mounted on a switch panel in the cab, located for driver convenience. All exterior connectors must be weatherpac type.

I. The exterior housing of lamps, electronic devices, and fixtures must be corrosion resistant and waterproofed. Electrical fixtures attached to the sides of the apparatus below the 75" level must be near flush mounted. Fixtures must not protrude more than 2", except for such items as spotlights.

J. The entire system must have an "Amperage Load Analysis" completed on the apparatus prior to delivery. A copy of the analysis must be supplied with the apparatus at the time of delivery.

K. At the time of delivery a detailed electrical schematic must be furnished. It must be supplied on a full size print for easy review.

L. All electrical equipment installed by the apparatus builder must conform to the latest requirements as outlined in NFPA 1901.

M. All electrical wiring installed by the apparatus builder must utilize stranded copper or copper alloy conductors of a gauge rated to carry 125% of the maximum current for which the circuit is protected.

N. Voltage drops in all wiring from the power source to the using device must not exceed 10%. The use of star washers for circuit ground connections must not be permitted. All wiring must be highly resistant to grease, oil, acids, brake fluid and abrasion. All circuits must be wired in conformance with SAE J1292.

O. The battery system must be a single system consisting a minimum of six group 31, 12 VDC heavy duty, high cycle automotive batteries each with a minimum of 1000 CCA.

P. The battery group must be mounted in a protected, readily accessible location on the vehicle

- Q. Batteries must be placed on non-corrosive mats and must be stored in well-ventilated compartments located under the crew area of the cab. The compartment must provide for weatherproof protection of the electrical components mounted within the battery area.
- R. Heavy-duty battery cables must be used to provide maximum power to the electrical system. Cables must be color coded.
- S. Battery terminal connections must be coated with anti-corrosion compound. Battery solenoid terminal connections must be encapsulated with semi-permanent rubberized compound.
- T. One set of battery jumper studs with plastic color coded covers must be installed on the front side of battery box, on the street side. Placement must allow sufficient room for easy jumper cable access. A tag must be provided for positive/negative terminals.
- U. The chassis must be equipped with a Kussmaul or equivalent "Auto Charge" 1200 battery charger. The charger output must be rated for 40 A at 12 VDC for fast battery recharge.
- V. A Kussmaul "Super Auto Eject" 20 A shore line receptacle or equivalent must be provided. The auto eject receptacle must be completely sealed from road dirt contamination and must be mounted on the left side of the cab. The electrical shore line must be automatically ejected when the engine starter circuit is engaged. A yellow spring-loaded weatherproof cover must protect each receptacle.
- W. Two bright finish Grover Stuttertone 24" air horns or equivalent must be mounted below the front bumper. A horn/air-horn selector switch must be installed on the central dash panel for selecting either the dual electric horns or the air horns. All horns must be activated by the steering wheel horn button.
- X. The front turn signals must be Weldon 4 x 6 LED type, rectangular amber sequencing lamps mounted in a polished aluminum housing positioned below the front windshield.
- Y. The rear FMVSS lights must be a pair of Weldon or equivalent, 3 light LED modules. Each module must include a stop/tail light, Directional light and Backup light, all mounted in a polished aluminum housing.
- Z. The cab roof must be equipped with two Federal Signal View Point Model # 535NFP6P7CFD lights or equivalent. The light assemblies must be wired to barrel type "Deutsch" connectors.
- AA. Two pair of Federal Signal Model # QL64SFC-R LED lights or equivalent must be mounted in the front lower zone. Each pair of warning lights must be housed in a common bezel located above the headlight assemblies.
- BB. The front grille must include one Federal Signal model TCLF Traffic Clearing light or equivalent.
- CC. The front corners of the unit must be equipped with two Federal Signal Model # QL64XFC-R LED lights or equivalent, one each side of the cab corner radius.
- DD. The unit must be equipped with three Federal Signal Model # QL64XFC-R LED lights or equivalent lower mounted on the vehicle; one on the cab, one on the vehicle's midpoint and a third on the rear body.
- EE. The rear of the unit must be equipped with 8 Federal Signal Model # QL64XFC-R LED lights or equivalent, one each side of the rear upper body and six rear body mounted in the manufacturer's standard mounting locations.
- FF. A Federal E2QB siren or equivalent must be mounted in the cab, and must be provided with one foot switch on the driver's side, and one foot switch on the officer's side. Foot switches are to be mounted on wedge blocks on the floor positioned at the preconstruction meeting.
- GG. One Federal BP200-EF siren speaker with 200-watt driver or equivalent must be installed, wired to the electronic siren.

HH. A 110 volt duplex outlet must be mounted in the cab area of the apparatus. Location to be provided at the Pre-Construction conference. The duplex must be wired to the existing Kussmaul or equivalent auto eject plug.

II. The chassis must have a Vehicle Data Recorder system installed. The system must be designed to meet NFPA 1901. The following information must be recorded:

Vehicle Speed

Acceleration

Deceleration

Engine Speed

Engine Throttle Position

ABS Event

Seat Occupied Status

Seat Belt Status

Master Optical Warning Device Switch Position

Time

Date

JJ. A seatbelt warning system integrated with the Vehicle Data Recorder system must be installed for each seat within the chassis. The system must provide visual and audible warning when any seat is occupied (sixty pounds minimum), the corresponding seat belt remains unfastened, and the park brake is released. Once activated, the visual and audible indicators must remain active until all occupied seats have the seat belts fastened. The dash must include an indicator panel display indicating the occupation of seats.

KK. The front headliner of the cab must include a red LED light, located in the center for greatest visibility. The light must be minimum 5 inches long X 2 inches wide must be clearly labeled "Do Not Move Apparatus". In addition to the flashing red light, an audible alarm must be included which must sound when a door is open and the parking brake is released. The light and alarm must be interlocked for activation when a cab door is not firmly closed, an apparatus cabinet door is not closed and the parking brake is released.

LL. The officer position must include a 12-volt Optronics KB-4003 or equivalent hand-held spotlight which will be mounted to the right of the engine tunnel. The Optronics spot light or equivalent must offer 400,000 candle power. It must have a 10.00 foot coiled cord and a momentary push button switch.

MM. The apparatus must be equipped with a Total System Manager for performing electrical load management. The TSM must have sixteen programmable outputs to supply warning and load switching requirements. The TSM must be protected against reverse polarity and shorted outputs and be enclosed in a metal enclosure to enhance EMI/RFI protection.

6.22.18. Cab

A. The cab must be constructed of aluminum to minimize weight and provide protection against corrosion.

B. The cab must be a driver and front passenger, cockpit style, with a rear crewcab area designed specifically for the fire service and manufactured by the chassis builder.

C. The cab must be constructed at minimum of 5052-H32 Marine Grade, one hundred percent primary aluminum plate. A single formed, one piece extrusion, manufactured from 6061-T6 100. The cab must be constructed of 5052-H32 Marine Grade, one hundred percent primary aluminum plate. A single

formed, one piece extrusion, manufactured from 6061-T6 100 percent primary one- quarter inch thick aluminum must be used for the "A" pillar adding strength and rigidity to the cab as well as additional roll-over protection. The cab side wall and roof skins and must be 0.125 inch thick, the rear wall skin must be 0.19 inch thick, the front skin must be 0.125 inch thick.

- D. The cab must be approximately 96" wide, with an approximate interior width of 90".
- E. The overall travel height must be approximately 99".
- F. The floor to ceiling height inside the full crew cab must be a minimum of 53.75".
- G. The crew cab floor must measure a minimum of 43.75@ from the rear wall to the back side of engine tunnel.
- H. The cab must be full tilt style.
- I. The engine must be easily accessible and capable of being removed with the cab tilted.
- J. A hydraulic cab lift system must be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves.
- K. A remote control must be provided for raising and lowering the cab. The remote control must be mounted in the curb side front body area or door step well. Design and construction must be approved prior Eto installation.
- L. Cab must be locked down by a two-point, automatic, spring-loaded hook mechanism that actuates after the cab has been lowered.
- M. The hydraulic cylinders must be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position.
- N. A redundant mechanical stay arm must automatically be engaged once the cab has been fully raised. Before lowering the cab, this device must be disengaged using the stay arm control located adjacent to the cab raise/lower switch. The arm and release must be curb side mounted to keep operators safe with curb side operation.
- O. In the event of electrical failure, a manual hydraulic override must be provided.
- P. The cab lift must be interlocked to the parking brake. The cab tilt mechanism must be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism must be disabled.
- Q. A curved safety glass windshield must be provided, with over 2,750 square inches of clear viewing area
- R. The cab windshield must have trim inserts in the rubber molding to hold the glass in place.
- S. All cab glass must be tinted.
- T. Padded vinyl sun visors must be provided above the windshield, right and left.
- U. Two electric windshield wipers with washer must be provided, meeting FMVSS and SAE requirements.
- V. The washer reservoir must be able to be filled without raising the cab.
- W. The cab dash fascia must be wraparound design to provide easy access of controls.

- X. The engine tunnel must be severe duty with padding and treadplate overlay or approved equal.
- Y. Engine hood side walls must be constructed of .50" aluminum. Top must be constructed of .19" aluminum, and must be tapered at the top to allow for maximum driver and passenger elbow room.
- Z. The engine hood must be insulated for protection from heat and sound. The noise insulation must maintain a DBA level within the limits stated in the current NFPA series 1901 pamphlet.
- AA. The headliner must be installed in both forward and rear cab sections. Headliner material must be vinyl. A sound barrier must be part of its composition. Material must be installed on aluminum sheet, securely fastened to the interior cab ceiling.
- BB. Forward portion of cab headliner must provide easy access for servicing electrical wiring or for other maintenance needs without removing the entire unit.
- CC. The cab interior upholstery must be black or gray.
- DD. The cab exposed interior metal surfaces must be "Zolotone" or equivalent painted.
- EE. The cab flooring must be constructed with NFPA step surface type bright aluminum treadplate.
- FF. All cab entry doors must be equipped with manual roll up or sliding windows. Roll up windows to be equipped with metal conventional gear driven regulators and actuators. To be approved at the pre-construction meeting.
- GG. The cab access steps must be 26" wide X 8.5" deep
- HH. The inside cab steps must not exceed 16.6" high.
- II. A 20", slip resistant handrail must be provided adjacent to all door openings to assist entrance into the cab.
- JJ. A cast aluminum grab handle must be provided on the inside of each rear crew door. The handle must extend horizontally the width of the window just above the windowsill. The handle must assist with entry and egress from the crew area of the vehicle.
- KK. The cab doors must be barrier type approximately 43" wide x 69" high.
- LL. All cab entry doors must be constructed of extruded aluminum, with a nominal material thickness of .125". The exterior skins must be constructed from .090" aluminum.
- MM. Flush mounted, paddle type door handles must be provided on the exterior and interior of the cab doors.
- NN. The door hinge must be stainless steel piano type, with a .25" pin.
- OO. There must be double automotive type rubber seals around the perimeter of the door framing and door edges to ensure a weather tight fit.
- PP. Polished stainless steel or aluminum scuff plates must be installed on the inside of all cab doors, extending from the bottom of the door up to the window sill.
- QQ. The crew cab area doors must be barrier type with sliding or rollup type windows. Roll up type windows must be equipped with a metal conventional gear driven regulators and actuators to be approved at pre-construction.

- RR. Cab door panels must be removable without disconnecting door and window mechanisms.
- SS. An "H. O. Bostrom" or equivalent high back air-ride style driver's seat must be installed in the cab.
- TT. An "H. O. Bostrom" SCBA Seat or equivalent must be installed in the cab, curb side, for the officer. The SCBA cavity must be adjustable front to rear in 0.50 " increments to accommodate different size SCBA bottles.
- UU. Three "H. O. Bostrom" SCBA Seats or equivalent must be installed in the crew cab area, one rear facing and two forward facing. The SCBA cavity must be adjustable front to rear in 0.50 " increments to accommodate different size SCBA bottles.
- VV. Moving the SCBA cavity must be accomplished by unbolting, relocating and rebolting in the desired location. All brackets are to be fitted to the bottles in use by the Fire Department at time of delivery.
- WW. Seats must be furnished with integral three-point shoulder type seat belts. The seat belts must be furnished with automatic retractors. Extensions must be provided with the seat belts so the male end can be easily grasped and the female end easily located while sitting in a normal position. All belts to be bright orange. Design and construction must be approved prior to installation.
- XX. All seat upholstery must be "Dura Wear" cloth resistant to oil, grease and mildew.
- YY. All SCBA type seats in the cab area must be equipped with positive locking, mechanically-releasing SCBA holders, mounted in each backrest. The brackets must be adjustable up and down by unbolting, relocating and rebolting in the desired position. SCBA make and model will be determined at the pre-construction meeting and adjusted before final delivery
- ZZ. A radio compartment must be provided under the officer's seat. Design and construction must be approved prior to installation.
- AAA. The minimum inside compartment dimensions must be 14.13" deep x 15.75" across x 5.25" high.
- BBB. A drop down door with a lift and turn latch must be provided for access.
- CCC. The compartment must be constructed of smooth aluminum and painted to match the cab interior.
- DDD. interior of the compartment must have a DA sanded finish. There must be a switch to activate a light inside the compartment and the open compartment warning light in the cab in the event the door is left ajar.
- EEE. There must be three LED dome lights installed to illuminate the interior rear compartment on the left and right side of the crewcab.
- FFF. The steering column must feature an 18", four spoke steering wheel located at the driver's position; a seven (7) position tilt and 2.25" telescopic adjustment.
- GGG. Mirrors must be mounted on spring loaded retractable loops on the cab doors.
- HHH. Mirrors must be heated and lighted.
- III. The mirror clearance lights must be illuminated when the apparatus ICC lighting is on. A red light must be mounted on the left side mirror head and a green light on the right mirror head.

- JJJ. A separate switch must be provided for the mirror heaters, labeled accordingly.
- KKK. The wiring to the mirror heads must have a weatherproof electrical connector outside of the cab to facilitate easy replacement of the mirror heads.
- LLL. A 6" diameter round convex mirror must be installed below each west coast mirror head.
- MMM. A rollover occupant protection system (ROPS) must be integrated in the cab design. ROPS must secure occupants, increase the survivable space within the cab and protect against head / neck injuries in the event of a rollover accident.
- NNN. The system must function using a microprocessor- controlled, solid state sensing device which, when the system detects a side roll will provide instantaneous occupant protection by automatically initiating the following sequence:
- OOO. Seat belts must tighten around the occupant on all seats excluding theatre flip-up style seats.
- PPP. The air suspension on each seat must be reduced to its lowest position, belt must tighten around occupant, and seat must locking in this position, thereby providing more survivable space and minimizing head contact with the interior roof.
- QQQ. An inflatable curtain must deploy which includes an air filled bag across the driver's and passenger's side windows which will protect and cushion the head and neck of the occupants thereby reducing movement and chance of head contact with the side of the vehicle. The inflatable curtain must be applicable on all seats adjacent to the cab side excluding theatre flip-up seating.
- RRR. The rear facing outer seat position must be equipped with the rollover occupant protection system which must secure occupants, increase the survivable space within the cab and protect against head/neck injuries in the event of a rollover accident.
- SSS. The system must function using a microprocessor-controlled, solid-state sensing device which, when the system detects a side roll must provide instantaneous occupant protection
- TTT. An Integrated Roll Sensor IRS - detects an imminent rollover, activates protective devices and records crash events.
- UUU. An engine compartment light must be installed under the engine hood equipped with an integrated switch.
- VVV. One clear LED type six inch dome light must be mounted in the center of the cab ceiling area with a door actuated control switch.
- WWW. Each step well area must be equipped with a round LED step well light.
- XXX. An EMS compartment, approximately floor to ceiling high x 20" wide x 23" deep, must be installed.
- YYY. A ROM roll-up door with lock must be installed on the compartment.
- ZZZ. The compartment must be located on the right outboard, rear-facing seat riser. The compartment must be constructed of aluminum and painted to match the cab interior.
- AAAA. The compartment must be equipped with strip light lighting. The lights must be controlled by an automatic door switch.

BBBB. The storage compartment must be compliant with NFPA 1901 Standard for Automotive Fire Apparatus, 2003 Edition.

CCCC. There must be two shelves provided in the EMS compartment.

DDDD. The shelves must be constructed of .090" aluminum with a 1.25" up-turned lip. Shelving must be infinitely adjustable by means of a threaded tightener sliding in a track.

EEEE. The compartment must be provided with a 110 V Duplex power source wired to the shoreline system.

FFFF. Inner fender liners, located in the wheel wells, must be provided.

GGGG. Rubber fender crowns must be installed at the cab wheel openings.

6.22.19. Cab Instrumentation

A. An ergonomically designed instrument panel is to be provided. The gauges must be backlit with red LED lamps. All gauges must be driven by stepper motor movements. The instrumentation system must be multiplexed and must receive engine and transmission information over the J1939 data bus to reduce redundant sensors.

B. The instrument panel must contain the following gauges:

One electronic tachometer.

One electronic speedometer with an integral LCD odometer/ trip odometer and hour meter.

Air pressure gauges which must read from 0 to 140 pounds per square inch (PSI).

Fuel gauge with a yellow indicator light must indicate low fuel at the quarter tank level.

One engine oil pressure The scale on the engine oil pressure gauge must read from 0 to 140 pounds per square inch (PSI). A red indicator light in the gauge must indicate low engine oil pressure.

One coolant temperature gauge which must read from 160 to 250 degrees Fahrenheit (F). A red indicator light in the gauge must indicate high coolant temperature.

One transmission oil temperature gauge which must read from 100 to 300 degrees Fahrenheit (F). *A red indicator light in the gauge must indicate high transmission oil temperature.

One voltmeter which must read from 8 to 16 volts. A red indicator light must indicate high or low system voltage.

C. The instrument panel must contain the following red indicator lights. All indicator lights must contain LED lamps:

Stop Engine - indicates critical engine fault.

Park Brake - indicates park brake is set.

Volts - indicates high or low system voltage.

Low Oil Press - indicates low engine oil pressure.

High Coolant Temp - indicates excessive engine coolant temperature.

High Trans Temp - indicates excessive transmission oil temperature.

Low Air - indicates low air pressure in either system one or system two.

Low Coolant Level - indicates low engine coolant level.

Air Filter - indicates excessive engine air intake restriction.

Seat Belt Indicator – indicates when a seat is occupied and corresponding seat belt remains unfastened.

D. The instrument panel must contain the following yellow indicator lights. All indicator lights must contain LED lamps.

Check Engine - indicates engine fault.

Check Trans - indicates transmission fault.

Wait to Start - indicates active engine air preheat cycle.

ABS - indicates anti-lock brake system fault.

Water in Fuel - indicates presence of water in fuel filter.

Check Message Center – indicates there is a fault message present in the LCD digital display.

SRS – indicates a problem in the RollTek supplemental restraint system.

DPF – indicates a restriction of the diesel particulate filter.

HEST – indicates a high exhaust system temperature.

MIL – indicates an engine emission control system fault.

E. The instrument panel must contain the following green indicator lights. All indicator lights must contain LED lamps.

Left and Right turn signal indicators.

Aux Brake Active - indicates secondary braking device is active.

High Idle - indicates engine high idle is active.

ATC – indicates low wheel traction for automatic traction control equipped vehicles, also indicates mud/snow mode is active for ATC system.

The instrument panel must contain the high beam green LED indicator light.

The instrumentation system to provide a constant audible alarm for the following situations:

Low air pressure.

Low engine oil pressure.

High engine coolant temperature.

High transmission oil temperature.

Low coolant level.

High or low system voltage.

Critical engine fault.

F. The Check Message Center icon will illuminate and a message will be displayed in the LCD screen for the following situations:

Low Oil Level

Door Ajar

Engine Communication Error

Transmission Communication Error

ABS Communication Error

High Coolant Temp

Turn Signal Reminder

Low Fuel

Low Oil Pressure

Low Coolant Level

Low Battery Voltage

High Battery Voltage

Low Primary Air Pressure

Low Secondary Air Pressure

High Transmission Temperature

An aerial pump engaged indicator light.

G. The officer dash must have a display providing for the vehicle speedometer, transmission retarder status, occupant secured display and display and with touch button functionality for emergency lighting, climate control function.

H. Right of the driver position must be a display and touch button functionality for Emergency lighting, Climate controls and other driver operated functions as needed.

I. An emergency light switch console must be located either overhead or top the right of the driver.

J. The vehicle must be equipped with a keyless ignition and master, with an "Off/ On" and a two switch for "Off/ Start".

6.22.20. Heating and Air Conditioning

A. The cab must include a 57,600 BTU @ 425 CFM front air conditioning /heater/defroster system installed. Controls are to be dash mounted with in the climate control screen of the multiplex system.

B. The air conditioning system must be capable of lowering the cab interior temperature from 100 degrees to 70 degrees within thirty minutes, with a relative humidity of sixty percent.

C. The heating and air conditioning controls must be located on the climate control unit.

D. A roof mounted A/C condenser must be installed on driver's side of the cab, mid-roof.

- E. The air-conditioning compressor must be a belt driven, engine mounted, open type Seltec model TM-16 or equivalent. The compressor must be compatible with R-134A refrigerant and PAG oil.
- F. The air conditioning system must have adjustable air outlets incorporated into the cab at both the engineer and officer positions. The evaporator unit in the crew cab must have adjustable air outlets located directly on the evaporator unit.
- G. The evaporators must be provided with a gravity drain to drain all water from the drain pan automatically.
- H. The cab and crew area walls must be insulated with 2" insulation where space permits, and the roof with 1" insulation to aid in cooling.
- I. The crew area must be equipped with a heater mounted below the rear facing seat riser.
- J. Two, six inch diameter, two speed, individually controlled, windshield defroster fans mounted overhead in the driver area must be supplied.

6.22.21. Apparatus Body

- A. The apparatus body and framework must be entirely constructed entirely of 304 grade low carbon stainless steel material. The complete apparatus body must be constructed of a combination of structural tubing and formed sheet metal. The framework of the body substructure and compartmentation must be engineered with structural tubing for ultimate durability. The framework must be electrically seam welded both internally and externally at each joint, using compatible welding wire.
- B. It is the intent of these specifications to procure an apparatus with a overall travel height of 116 inches.
- C. The apparatus body and pump compartment must be constructed on a one piece sub frame that is bolted to the chassis frame.
- D. A Torsion Mounting System must be used to allow the body to "float" above the chassis frame rails on vibration and torsion isolator assemblies. The body substructure will NOT come into direct contact with the chassis frame rails. The body substructure will be mounted to the assemblies which provide a space above the frame rails and allow independent flexing to occur between the body and the chassis.
- E. A minimum of five assemblies must be installed on each side of the body. The number and placement of the assemblies utilized must correspond directly to the engineered weight distribution of the body. Each assembly must be mounted to the chassis frame rails with gusseted mounting brackets fabricated of steel. Each bracket must be powder coated for corrosion resistance. Each bracket must be mounted to the side chassis frame flange with two 5/8"-UNC Grade 5 Hex bolts.
- F. Each assembly must have a two-part rubber vibration isolator. The isolator must be designed to carry the necessary loads of the apparatus, including items such as the body, equipment, tank, water, hose, etc.
- G. Certain assemblies must also incorporate a torsion spring. Helical coil springs must be incorporated into specific mounts in tandem with the rubber isolators to minimize the stress absorbed by the body caused from chassis frame rail flexing. There must be a spacer made of either 1/4" thick UHMW polymer bearing or of like body material between the body structure and each torsion mount. The spacers must also act as wear pads due to its low wear material properties.

H. All horizontal surfaces, rear steps, running boards and walkways must be aluminum, fire apparatus quality, bright finish "Tread Brite", meeting NFPA standards.

I. The body must have a minimum 1.5" wide x 1" thick, solid aluminum bolt-on rub rail along each side below the compartments, front of pump house, to rear and across the entire rear step. There must be a nylon spacer to insulate the materials from any electrolysis interaction. Each rail must be bolted in place with stainless steel bolts and nuts and easily removable if damaged.

J. Running boards must be approximately 13" deep to provide ample space for carrying accessory equipment.

K. Rear step must be constructed and supported by the same material as the running boards. Rear step must have a section of grip strut or open grate material installed in the center to provide adequate footing for firefighters under adverse climatic conditions.

L. Step must be a minimum of body width and 15" deep. Rear step must be properly reinforced so that no damage occurs when the apparatus is being pushed from the rear. Rear step must be completely removable and replaceable without welding.

M. The rear wall of the body above the rear step must have a warning sign indicating safety precautions regarding personnel riding on the rear step.

6.22.22. Compartments

A. All compartment floors must be constructed of stainless steel material welded in place. All compartment seams must be sealed by using a permanent pliable silicone caulking.

B. The external compartment tops must be constructed from minimum 1/8" (.125) fire apparatus quality aluminum treadplate and must be formed outward to deflect water.

C. The front forward faces of the compartments must be covered with fire apparatus quality unpainted tread plate, bent to provide an "edge" of tread plate around the outside corner.

D. All compartments must be provided with a flow through type filtered ventilation system designed to prevent the entry of dirt, dust, excessive moisture and road splash. This ventilation system must not be through the compartment doors.

E. The compartments must be equipped with painted "ROM" aluminum roll up type doors.

F. All dimensions shown for all compartments are minimum. Compartment dimension shown are predicated on size and type of equipment to be carried on the apparatus. These compartments will be used to store standard Chicago Fire Department equipment. There must be no change in compartment configuration or minimum dimensions without written approval of the Fire Commissioner.

G. A single roll up door compartment ahead of rear wheels on the officer's side must be provided with interior dimensions of approximately 27" wide X 23" deep X 30" high.

H. A single roll up door compartment ahead of the rear wheels on the engineer's side must be provided with interior dimensions of approximately 27" wide x 23" deep x 60" high.

I. A single roll up door compartment above the rear wheels on the engineers side must be provided with interior dimensions of approximately 62" wide x 23" deep x 30" high.

J. A single door compartment behind the rear wheels on the officer's side must be provided with interior dimensions of approximately 38" wide X 23" deep X 30" high.

- K. A single door compartment behind rear wheels on the engineer's side must be provided with interior dimensions of approximately 38" wide x 23" deep top half, 60" bottom half x 60" high.
- L. An ALS equipment shelf system must be installed in the engineer's side rear compartment as per Exhibit 2, attached.
- M. A single swing door compartment must be located below the hose bed, above the compartment described in the section above, forward of the step bumper. Interior compartment dimensions must be approximately 23" wide x 43" deep x 10" high, with a heavy duty 3 sided slide out tray.
- N. The compartments, Engineer 1, Engineer 3 and Officers 2 must be equipped with one adjustable shelf each.
- O. Hose fittings must be stored in the engineers front high side compartment and over rear wheel compartment. "Sensible Products" mounting brackets must be provided, mounted on a recycled plastic board with a minimum of 36 brackets to hold standard issue CFD pumper fittings. Holders and brackets must be approved by the Chicago Fire Department prior to delivery.
- P. All compartment floors and adjustable shelves must have removable, rectangular, Turtle Tile vinyl full floors.
- Q. Compartments above the rear wheels must be provided to hold two air bottles per side of the apparatus body. Compartments must have hinged doors.
- R. A red painted smooth aluminum plate approximately 23" wide x 20A high must be applied over the exterior of the lower rear body area to provide a surface for the Chicago Fire Department Engine number. The top and bottom of this plate must be trimmed with 1" wide white reflective tape.
- S. Fenders must be bolt on rubber federates mount on the side body compartments. Fender wells must be equipped with stainless steel full inner liners for ease of maintenance. Inner liners must be installed and sealed as to prevent water from accumulating between liner and fender.
- T. The rear face of body must be covered with tread plate aluminum overlaid with reflective chevron vinyl material.
- U. Drip moldings must be installed above all compartment door openings. A tread plate walkway must be constructed over the fender side compartments. A rear intermediate step must be formed to provide drip protection.
- V. The top of the extended side compartments must be covered with aluminum tread plate, with rolled over edges. The fronts of the compartments must be overlaid with aluminum tread plate. At the pump house area, the tread plate overlay must be broken around the corner of the compartment so as to protect painted surfaces from damage by the hose.
- W. The complete apparatus body structure must be free from nuts, bolts and other fasteners. Upon completion of the weldment, the body must be completely sanded and deburred for removal of all sharp edges. Deburring must include all tread plate edges. "Pop Rivets" must not be used in any fashion to secure any portion of the apparatus, in construction or in attaching name plates or any similar device.
- X. At all points where there is bi-metallic contact (e.g. compartment hinges and mounting brackets, etc.), proper insulation and non-conductive fasteners must be incorporated to eliminate electrolytic reactions and rust. Painted surfaces are not considered adequate protection barrier for dissimilar metals.
- Y. The apparatus body, where it is fastened to the chassis, must have isolation material installed between the chassis frame rails and the body / pump sub frame. The isolated mounted apparatus body must be secured to the chassis frame rails with 1/2" bolts (Grade 5 minimum).
- Z. Bright finish drip rails must be installed over the compartment doors as required.

AA. All fasteners utilized throughout the apparatus must be high grade stainless steel. All threaded fasteners terminating on the interior of a compartment must be equipped with an "acorn" or "cap" nut. With each apparatus ordered, a supply of every type of fastener utilized on the apparatus must be provided.

BB. In areas where vibration may cause fasteners to loosen, removable type "Loctite" material must be applied to the fasteners.

6.22.23. Compartment Doors

A. All body compartments must be fitted with ROM double faced aluminum roll up doors. The doors must be painted red to match body color.

B. Lath sections must be a driven ball and socket design and individually replaceable without complete disassembly of door.

C. Between each lath at the pivoting joint must be a fitted flexible seal for weather resistance. Seals must allow door to operate in extreme temperatures ranging from plus 212 to minus 40 degrees Fahrenheit. Synthetic rubber side, top and bottom seals must be provided to resist ingress of dirt and weather.

D. All hinges, barrel clips and end pieces must be type -6 nylon. End pieces must be riveted to each lath. Hardened plastic will not be acceptable.

E. A lift bar must be provided for opening door. It is to be located at the bottom of door and have latches on the outer extrusion of the door frame. A ledge must be supplied over lift bar for additional area to aid in closing the door.

F. Doors must be constructed from an aluminum box section with a wall thickness of .03937" and depth of 1.30". Inside surfaces must be smooth to prevent loose equipment from jamming on the inside.

G. A heavy duty magnetic switch must be used for control of open compartment door warning lights. Install to be approved at the Pre-Construction meeting.

6.22.24. Steps, Handrails and Accessories

A. The apparatus must be equipped with two NFPA compliant fold up grip type steps each side, on the rear of the apparatus.

B. The apparatus pump area must be equipped with a total of Four NFPA compliant grip type fold up steps. Three steps must be located on the engineer side of the apparatus at the pump house and one on the officers side. Grab handles as may be required for safe access must be provided.

C. The running boards must be made of a structural tubular framework. The tubular frame support all loads by transmitting the loads through the pump compartment structure directly to the chassis frame rails. The running boards must be independent of the apparatus body and must be tied only to the pump compartment structure, thereby eliminating any pump compartment to body interference. This is essential in keeping a truly 'modular' configuration. Slip-resistant abrasive must be applied to the top surface of the running board framework to provide a suitable stepping surface.

D. The left side running board must have an aluminum "Diamondback" grip surface insert installed. The grip surface area must be as large as possible by extending to the perimeter of the inside of the structural running board framework. This ventilated grip material must allow debris and water to pass through to eliminate build-up, thereby retaining a suitable stepping surface.

E. The right side running board must have an aluminum "Diamondback" grip surface insert installed. The grip surface area must be as large as possible by extending to the perimeter of the inside of the structural running board framework. This ventilated grip material must allow debris and water to pass through to eliminate buildup, thereby retaining a suitable stepping surface.

F. Both running board and rear step edges must be flanged both down and in to provide added strength and rigidity and to prevent sharp edges from being exposed. All edges must be mechanically deburred.

G. There must be provision above the left side operator's pump panel for the installation of a remote radio control group and speaker. This must be a protected weatherproof area of sufficient size to hold rear radio control group, speaker and microphone.

H. The area above the pump must be so designed as a dunnage compartment well to allow for the storage of five (5) gallon foam containers. This area must be constructed out of bright finish aluminum tread plate.

6.22.25. Grab Handles

A. Two 36" minimum handrails, constructed of 1.25" diameter knurled aluminum and chrome end stanchions, must be installed on each rear side. Stainless steel bolts, capped nuts and dielectric barrier must be utilized for attachment to the body assembly.

B. Two 10" hand rails, constructed of 1.25" diameter knurled aluminum and chrome end stanchions, must be mounted on top of the beaver tails.

C. There must be one single hand rail of the same construction mounted horizontally, below the hose bed.

D. Two 10" hand rails must be provided at the pump operators panel location in order to assist in climbing to the deck gun / dunnage area.

E. The body must have a minimum 1 ½" wide x 1" thick solid aluminum Bolt-On rub rail along each side below the compartments, front of body, to rear and across the entire rear step. There must be a nylon spacer to insure and insulate any electrolysis interaction.

6.22.26. Hose Bed

A. The hose bed must be located directly above the water tank, and must be completely removable for access to the water tank. Partitions must be readily adjustable without drilling or tapping. Removable slotted metal flooring to be furnished in the hose bed. Top surfaces of the hose bed flooring must be corrugated or ribbed to aid in hose aeration.

B. The hose bed floor must not exceed 46" above the rear step.

C. The hose bed must have a usable area of a minimum of 98" depth and 68" width.

D. Three hose bed dividers must be supplied. A "Uni-Strut" or similar channel, securely attached to the body framing, must be provided. Channel must be flush with the bottom of the hosebed, and at the front and rear must be full body width. Channel must be used to bolt the hose dividers securely in place. The purpose of the channel is to simplify moving the hose dividers for various amounts of hose in each section without cutting, welding or major rework.

E. The main hose body must accommodate a minimum of the following standard issue CFD type hose: 700' of 4" hose, 700' of 2.5" hose in each of two beds, for a total of 1400' of 2.5" hose. A slide in tray compartment must be mounted above the 2.5" hose storage area, on the engineer's side, to hold 100' of 1.75" hose.

F. One hose tray (dimension of 27.5"W x 72"L x 5"H) must be designed to rest inside the center portion of the hose bed dividers and be made of the same material as the hose bed floor. The tray will rest on angles welded to the hose bed dividers, one each side. The rear must be open with a stop on the front. There must be two (2) ¼" x 2" long retainer pins installed on each side to keep the tray in place.

G. The final approval of hose bed layout must be made by the Chicago Fire Department Commissioner.

H. The rear horizontal hand rail, below the hose bed and between the end stanchions, must be located so as to not interfere with the hose or hose butts when being led out from the hose bed.

I. There must be a hose bed cover furnished that is made of vinyl coated nylon. The cover must be held in place by extruded aluminum channel on the front and an elastic shock cord sewn into the tarp with brass grommets where the shock cord passes through the hose bed cover on the sides. Hooks must be provided on the sides to provide a means of attaching the cover to the apparatus. The hooks must be made of cast aluminum. The cover must have a flap that extends down over the rear of the hose bed which must be described below. The cover must have a flap that extends down over the rear of the hose bed which must be fastened by an elastic shock cord sewn into the tarp with brass grommets where the shock cord passes through the hose bed cover. Hooks must be provided on the lower corners to provide a means of attaching the cover to the apparatus. The hooks must be made of cast aluminum. Design and materials must be approved by the Fire Commissioner and Department of Fleet Management prior to installation.

6.22.27. Pre-Connected Hose Bed Piping

A. Provisions must be made for two, 200' lengths of 1.75" cross lay hose, bedded in a split open end box equipped with bottom and side rollers, above the pump at the front end of the body. Beds must be constructed of pipe of sufficient size to provide flow of 200 GPM with a maximum loss of 10 PSI, and must be provided with a ball valve and control handle on the Engineer's panel, with a corresponding pressure gauge. The pre connected hose bed piping must have an automatic drain valve. The piping must terminate with a 1.5", 90° Elkhart Swivel so that hose may be removed left or right without fouling or kinking.

The cross lay hose bed area must have a hinged 1/8" embossed aluminum tread plate cover and reinforced to support a minimum of 300 pounds. The cover must be installed to provide a solid surface over all bays and have a mechanical butterfly latched holding the cover in the closed position. The side area where the hose is deployed must be covered with a vinyl cover. The top of the vinyl cover must be hard fastened the tread plate cover, the sides must be fastened by an elastic shock cord sewn into the tarp with brass grommets. When opened, the tread plate cover must rest upon rubber bumpers or an equivalent type protective to eliminate marring or scratching of other apparatus body work. This cover must support a continuing platform for firefighting operations utilizing the deck gun, nearby.

B. A trash line trough must be provided above the right side compartments, with a 2" lip, below the ladders, for 100' of 1.75" hose. A 2.5" to 1.5" reducer must be provided on the officer's side pump panel discharge to pre connect this line. Three quick release straps must be provided to secure the hose in the trough.

6.22.28. Ground Ladder, Suction Hose and Tool Storage

A. Storage for two ground ladders, a 24' extension and 14' roof, must be provided on the right side of the apparatus. Two quick release safety straps must be provided for the ladders. The latching mechanism must be capable of allowing one ladder to be removed with the capability of still locking the second ladder in place. Stainless steel trim must be provided in areas where ladders may scratch painted surfaces. Ladders must be positioned as close to the top of the lower compartments as possible. The ladder hangers must be fitted with a up turned outer lip to protect the ladders from sliding of the perch when not secured.

B. Two spring clips for storing a Chicago Fire Department supplied pike pole must be provided below the hose bed.

C. A storage trough must be provided on the officer's side, above the ladders, for the storage of one 10' length of 6" hard suction hose and attached fittings. A separate storage trough must be provided on

the engineer's side above the compartments for one 10' length of 6" hard suction hose and attached fittings. Each trough must be provided with 3 quick release hold down straps.

D. A storage area for a Chicago Fire Department supplied Shepherd hook must be provided below the hose bed.

E. A storage area must be provided for a 10' attic ladder, below the hose bed.

6.22.29. Fire Pump and Associated Equipment

A. Pump must be a Hale "Model Q 1500" or equivalent two-stage, mishap mounted, centrifugal type, 1500 GPM.

B. The pump assembly must be mounted to allow for ease of service and be removable as a unit with the apparatus body and pump compartment.

C. All cross members of chassis, body sub frame or body must be positioned to allow removal of gear case without removal of cross members or disassembly of pump.

D. The pump must be the class "A" type and must deliver the percentage of rated capacities at pressures as required.

E. Pump, when dry, must be capable of taking suction and discharging water with a lift of 10' in not more than 30 seconds through 20' of 6" diameter suction hose.

F. The entire pump body must be cast iron and must be horizontally split into two sections. The lower section containing the impeller assembly, wear rings, and bearings must be removable without disturbing piping or the main pump body mounting. All moving parts in contact with water must be of high quality bronze or stainless steel. The pump shaft must be ground, heat-treated stainless steel and must be supported close to the impeller to minimize deflection and whip. The pump impeller must be hard, fine grain bronze of the mixed flow design and must be individually ground and hand balanced. Impeller clearance rings must be bronze and of wrap-around double design for maximum efficiency. The pump must have a mechanical pump seal located on the inlet side of the pump to eliminate the need for conventional packing. The pump drive shaft must be ground heat-treated chrome nickel steel with a 2" x 10" spline. A 3" clapper check valve must be installed between the suction side of the pump and the tank-to-pump valve. This 3" clapper valve must eliminate the possibility of a pressure surge expanding the water tank.

G. PUMP GEAR CASE - Drive must be accomplished through a chain assembly or gear assembly. Housing must be high tensile strength gray iron, two-piece or three-piece, horizontally split at top. Gears must be constant mesh, helical, cut from carbonized, hardened alloy steel. Gear drive shafts must be a minimum of 1.75" diameter, hardened and ground alloy steel. All shafts must be ball bearing supported. Pump shift engagement must be made by a two-position sliding collar controlled by compressed air valve and cylinder from the cab. Gear case must be designed to eliminate the need of water cooling.

H. The pump must be equipped with an automatic pressure control device. A bronze variable pressure setting relief valve must be provided. Valve must be of ample capacity to prevent an undue pressure rise as per NFPA Pamphlet No. 1901. The relief valve must be normally closed and must open against pump pressure. A relief valve control wheel and indicator light must be mounted on the operator's pump panel. The entire pump, both suction and discharge passages, must be hydrostatically tested to a pressure of 600 PSI.

I. All auxiliary suction and discharge plumbing related fittings, waterways, and manifolds must be fabricated with stainless steel pipe, brass or high pressure flexible piping with stainless steel couplings. Galvanized components and/or iron pipe will not be accepted, in order to ensure long life of the plumbing system without corrosion or deterioration of the waterway system. Where waterway transitions are critical (elbows, tees etc.), no threaded fittings are allowed, in order to promote the smooth transition of water flow

and minimize friction loss and turbulence. All piping components and valving must be non-painted. All piping welds must be wire brushed and cleaned for inspection and appearance.

J. The high pressure flexible piping must be black SBR synthetic rubber hose with 300 PSI working pressure and 1200 PSI burst pressure for flexible piping sizes 1.5" through 4". Hose sizes of .75", 1" and 5" must be rated at 250 PSI working pressure and 1000 PSI burst pressure. All sizes must be rated at 30" Hg vacuum. Reinforcement must consist of two plies of high tensile strength tire cord for all sizes, and helix wire installed in sizes 1" through 5" for maximum performance in tight bend applications. The material must be approved for temperatures ranging from -40°F to +210°F.

K. The stainless steel full flow couplings must be precision machined from high tensile strength stainless steel. All female couplings must be brass. Mechanical grooved and male 3/4" and 1" couplings must be brass. A high tensile strength stainless steel ferrule with serrations on the interior diameter must be utilized to assure maximum holding power when fastening couplings to the hose.

L. The manifold system and piping must be designed for side panel operations. The relief valve control and other control mechanisms must be located on the left side of the body.

M. All suction and discharge lines of 2.5" or larger must be heavy-duty Schedule 40 threaded and/or welded pipe. Sweat soldered copper tubing is not acceptable. Where vibration or chassis flexing may damage or loosen piping, the pipe must be equipped with "Victaulic" couplings. All lines must either drain through the master drain valve, or must be equipped with individual drain valves. All individual drain lines must be extended to drain below the chassis frame, with identifying plates on the running board or lower body flange.

N. A suction-dump-valve with a minimum range of pressure adjustment from 75 PSI to 250 PSI must be furnished and installed. Dump valve must be of the pre-set bypass design, to allow for maximum 125 PSI suction inlet pressure. Relief valve must be installed inside pump compartment, easily accessible for future adjustment of bypass pressure. The unloader pipe must be plumbed to the atmosphere and must dump on the right side of the apparatus. Relief valve must not be capped, and must be equipped with 2.5" CFD threads. There must be a sign stating "DO NOT CAP" installed.

O. A positive displacement electric vane type priming pump must be provided, with sufficient capacity to fill a dry pump, through 20' of 6" suction hose, at a 10' lift, develop a vacuum of 25" of mercury at altitudes up to 1000 feet, and deliver water in not over 30 seconds. The primer must be designed to operate without lubricant. It must be supplied by the same manufacturer of the pump. Primer must be grounded directly to frame of chassis through a separate ground cable.

P. The primer must be operated by a single control which must open both the priming valve and start the primer motor.

Q. There must be two green warning lights in the cab. One green indicator light must be energized when the pump shift has been completed and must be labeled "Pump Engaged". A second green indicator light in the cab must be energized when both the pump shift has been completed and the chassis transmission has been engaged in the designated pump gear. This indicator light must be labeled "OK to Pump". A third green indicator light must be installed on the pump operator's panel located adjacent to throttle control and must be energized when both the pump shift has been completed and the chassis transmission have been placed in the designated pump gear. The indicator light on the pump operator's panel must be labeled "Warning: Do Not Open Throttle Unless Light Is On."

R. The pump must be equipped with a mechanical thermal relief valve to protect the pump from overheating. It must be fully automatic and must not require operator monitoring. It must be preset at 120°F.

S. All inlets must be provided with removable conical type bronze or stainless steel strainers.

T. There must be one 5" suction port on the apparatus front, swivel mounted. The valve for the front suction must be an air operated inline valve, controlled from the pump operator's panel. Valve must be as close to the pump as possible to keep water out of the front suction piping during adverse climatic conditions.

U. A 5" NST chrome adapter and long handle cap must be provided for suction, located in the front the of cab.

V. Piping for the front suction must be as direct as possible without unnecessary bends or trap effect. A minimum of two 3/4" drains must be installed to ensure removal of moisture both before and after the valve and to ensure proper drainage. Drain valves must be labeled along the side of the apparatus. Interference with front headlights by the front suction swivel must be kept to an absolute minimum. Piping locations must be approved by the Fire Commissioner prior to installation.

W. There must be two 6" intake ports, one on each side of the apparatus. Each port must have an external mounted, NFPA approved, piston intake valve, with a long ear type cap provided for each valve. All threads must be NST.

X. All pump control valves, both intake and discharge, must be clearly identified by permanent, color coded identification plates. For uniformity in the fleet the color code must match the existing newest CFD pumpers. Identification must not be covered or confused by other pump functions.

Y. There must be one 4" suction port located on the rear right side of the apparatus, below the hose bed. There must also be a drain control furnished at the low point of the line, controlled from the rear of the truck.

Z. The valve for the rear suction must be an air operated valve controlled from the operator's panel. The valve must be as close to the pump as possible so as to keep water out of the rear suction piping during adverse climate conditions.

AA. The piping for the rear suction must be as direct as possible without unnecessary bends or trap effect, and must be connected to the rear of the main pump casting at the location provided by the pump manufacturer. A 3/4" drain must be provided to ensure proper drainage of the suction piping. Drain must be controlled from the rear of the truck.

BB. All piping must be rubber mounted. All pipe routing must be approved by the Fire Department and Department of Fleet and Facility Management prior to installation.

CC. The rear suction port must be equipped with a 4" NST chrome adapter and a 4" Harrington "Storz" elbow and cap.

DD. All discharge ports less than 4" must be provided with NST female to CFD thread male adapters, with chrome cap. Caps must be secured to the apparatus panels with stainless steel cable. All valves over 3" must be equipped with a Slow Close device. Valve handle arrangement and type must be approved by the Fire Commissioner prior to installation.

EE. Three 2.5" outlets with quarter turn valves must be installed behind the panels, two on the Engineer's side and one on the Officer's side, with a 30° (Droop Snoot) male discharge installed in front of the panel on both sides.

FF. One 2.5" rear discharge outlet must be installed on the right rear of the apparatus, with a "Droop Snoot" male discharge and 2.5" x 1.5" chrome reducing adapter, with 1.5" chrome cap and stainless steel cable lanyard.

GG. Two 4" discharges must be provided and piped with a minimum of 4" pipe, one on the officer's side of the apparatus and one at the driver's rear below the hose bed. Minimum size of discharge valves must be 3.5". Discharge ports must be NST male fittings with 4" "Storz" adapters and blind caps. Caps must be secured with protected wire cable / swivel stainless steel hardware. All discharge gates must be

controlled from the Engineer's panel with a hand crank type control. Valve handles must not infringe on pressure gauges or interfere with easy reading of gauges.

Note: All flow for discharges must show no more than 10 PSI loss between the pump and discharge connection at 1000 GPM.

HH. All discharge piping must have individual drain valves, 3/4" minimum, 1/4 turn, controlled from the Engineer's panel. Drains must completely drain each discharge piping segment. No "pocketing" or trap effect will be allowed. Drains must be appropriately labeled.

II. Immediately to the rear of the front Cross lay Hose Bed must be a Water Gun Deck with an "TFT" type deck gun with Lever type control for operation. The Deck Gun must be piped directly to the discharge side of the pump. The gun must be equipped with an TFT discharge pipe and an TFT Deluge tip, stream shaper or barrel and the following size tips: 1.375", 1.5", 1.75" and 2", plus a protected pressure gauge. The piping must be adequately sized to flow 800 GPM with a maximum loss of 10 PSI between the pump and the discharge orifice of the deck gun. A 3" ball valve and hand control must be located at the base of the turret for ease of access to the turret operator of the gun. A second control for the deck gun must be provided on the pump panel. The deck gun control linkage must be connected to allow the deck gun valve to be operated at either the top or the pump panel location with a push pull control. Piping must contain an automatic drain to prohibit moisture from remaining in the piping when not in use. Deck gun and installation must be approved by the Fire Commissioner.

JJ. A travel support cradle must be provided for the tip of the turret gun to be lowered as far as possible to the rear. There must be a quick release hold down device provided.

KK. There must be an air "blow-out" system furnished for the pump and plumbing. The air blow out system must be connected to the chassis air brake system. There must be a check valve furnished between the chassis system and the air blow out system. There must be a manual control valve furnished on the pump operators panel for the air blow out system. A sign indicating full operational instructions of air blow out system must be furnished and installed.

6.22.30. FOAM SYSTEM

A. There must be a Hale "Foam Logix" or equivalent foam proportioning system furnished and installed on the apparatus. The foam proportioning system must be based on an electric motor driven, rotary gear foam concentrate pump, rated at 3.3 GPM foam concentrate flow rate with maximum operating pressure of 400 PSI. The electric motor must be powered by 12 VDC with a .75 HP rating. The system must be installed in accordance with the manufacturer's recommendations.

B. The system must be equipped with a digital electronic control display. The electronic control unit must permit the pump operator to perform the following control and operation functions for the foam proportioning system:

Provide push-button ON/OFF control of foam proportioning system.

Provide push-button control of foam proportioning rates from 0.1% to 10.0%, in 0.1% increments.

Show real time flow rate of water or foam solution.

Show total volume of water or foam solution discharged during and after foam operations.

Show foam concentrate injection rate.

Show total amount of foam concentrate consumed.

Permit resetting of totalized values for water and foam concentrate.

Simulate water flow rates for manual operation, calibration and testing of foam system.

Enable system setup and full range system diagnostic functions.

Indicate on LED bar graph foam concentrate being injected and the foam system capacity.

Indicate on LED bar graph when system capacity is not within design parameters.

Store independent default values for Class A and Class B foam concentrate injection.

Flash a "low concentrate" warning when the foam concentrate tank runs low.

Flash a "no concentrate" warning and shut the system off when the foam tank is empty.

Flash a "low battery" warning when battery voltage is low enough to affect system operation.

Flash a "hot" warning when system is running hot due to low voltage or radiant heat.

Read out calibration valves to allow setting up a replacement unit.

C. The system must be supplied by a single foam tank integrated with the water tank. Tank must be 30 gallon capacity, plumbed with non-corrosive piping to the foam system. There must be a square fill tower with a hinged lid equipped with a hold down device. The fill tower must be approximately 10" x 10". A label that reads "Foam Tank Fill" must be placed on the foam tank fill tower lid.

D. Each foam tank must be separate from the water tank and be considered 'external' hereafter.

E. Each foam tank must be located in the hose bed area of the apparatus next to the water fill tower.

F. There must be a 1" quarter turn drain valve furnished for drainage of the foam tank. The valve must be installed in the pump house with a drain line extended to the side running board.

G. A foam tank level gauge must be furnished and installed. The gauge must utilize a pressure transducer that mounts on the outside of the tank. Probes must not be used. The readout must show foam levels in increments of 1/20th of the tank capacity. At 1/4 tank capacity, a visual warning must be visible. The readout must be mounted on the pump operator's panel.

H. The foam system must supply the right rear discharge and the front cross lay.

6.22.31. Operator's Control Panel

A. All pump controls and gauges must be located at the left side of the apparatus, properly marked. Pump panel controls and gauges must be illuminated by non-glare incandescent lights equipped with a full length, brushed finish, with a stainless steel hood, to allow easy identification of controls and gauges. All controls and handle configurations must be Chicago Fire Department approved prior to installation.

B. The pump operator's panel must be located on the left upper side of the apparatus pump compartment, and must be angled from the top for better visibility and reduced glare. The panel must be split into upper and lower sections. The left upper panel must house all gauges and controls, and be hinged to allow easy access to those components. The door must have a stainless steel hinge, a dual point chrome push button latch and a rubber seal to prevent excessive moisture from entering or leaving the pump house.

C. A tubular structure must be laid underneath the removable panels on each side of the compartment. Structure must be made of brushed stainless steel.

D. Valve controls must be immediately adjacent to their respective gauges. The valve controls must be properly labeled and color coded for ease of use. All markings must be permanent in nature. The tubular structures must be laid on each side of the pump compartment underneath the access panels. Each must be made of brushed stainless steel.

E. There must be two side pump panels on the right side of the pump compartment, one upper and one lower. The left, upper side panel must be the pump operator's panel. Upper panel must be

accessible by a quick-release type latch, closing against a door seal. Lower panel must be easily removed for a large access to the pump for service. All panels must be manufactured from heavy duty brushed stainless steel, capable of withstanding the effects of extreme weather and temperature.

F. Pump panels on both sides must be easily removable with a minimum amount of fasteners. Guides for remote discharge controls must have "Nylatron" bushings for smooth operation. Remote control discharge rods must be equipped with universal joints to eliminate binding. Discharge gauges must be located directly over the valve control handle. Controls and gauges must be grouped for convenient operation as follows:

Water tank gauge, Class 1, TLW

Auxiliary air intake or supply with shut-off valve to the 1st or wet air tank. This intake must be equipped with a "Milton" type air chuck.

All discharge controls.

Electronic pressure controller, DDEC

Relief valve control with indicator lights

Primer control, "T", Push/Pull

Auxiliary cooler controls

Pump pressure gauge, -30" - 0 - 600 PSI, 6" diameter

Pump vacuum gauge, -30" - 0 600 PSI, 6" diameter

Engine oil pressure gauge (Stewart Warner) with audible alarm

Engine water temperature gauge (Stewart Warner) with audible alarm

Tachometer and Pump Hour Meter

Underwriter's half engine speed outlet (tach. drive)

Master pump drain control

Deck gun pressure gauge

Deck gun drain, automatically operated

Individual liquid filled pressure gauges for all discharges, -30" - 0 - 600 PSI 3.5" minimum

Individual drains for each discharge

MC Gauge Heater Controls

G. All pressure and compound gauges must be NFPA approved, guaranteed to -40°F. All gauges must have white face with black lettering. Discharge gauges must be 3.5" face diameter minimum with accuracy of 1% of scale. There must be polished stainless steel trim rings furnished and installed around the specified suction and/or discharge openings on the side pump panels. No apparatus manufacturer's logos may be on the gauges.

H. An "MC Electric" heater must be provided with each gauge, line etc.

I. The pump compartment module must be 44" long .

J. Left and right side pump panels must be constructed of 14 GA or thicker stainless steel and must have a brushed satin non-glare finish for lasting appearance and ease of maintenance. The left and right side pump panels must be approximately 40" wide x 60" high. The operator controls and gauges must be located at the forward most portion of the body, on the left side pump panel.

K. Both side pump panels must be completely removable without dismantling pump accessories or plumbing. Panels must be easily removable with a minimum amount of fasteners. Self tapping screws are not acceptable.

L. Pump inspection doors must be constructed of stainless steel or aluminum, approximately 22" wide x 14" high. Edges on side panels must have double breaks for rigidity. Pump inspection doors must be hinged for easy and rapid access to the interior of the pump house. Left side door must be hinged at the front and right side door must be hinged at the rear.

M. Pump panel configuration must follow the layout shown in Exhibit 3, attached.

6.22.32. Water Tank

A. The water tank must be an N.F.P.A compliant tank with a usable capacity of 500 gallons.

B. The tank must be constructed of .5" thick polypropylene sheet stock, non-corrosive, stress relieved thermoplastic. The tank must be designed to be completely independent of the body and compartments. All joints and seams must be extrusion welded and / or must contain the "Bent Edge", and must be tested for maximum strength and integrity. The top of the booster tank must be fitted with lifting eyes designed with a 3 to 1 safety factor to facilitate tank removal.

C. The tank cover must be constructed of .5" thick polypropylene and must be recessed. A minimum of two lifting dowels must be drilled and tapped .5" x 2" to accommodate the lifting eyes.

D. The swash partitions and baffles must be manufactured of .5" polypropylene. All partitions must be equipped with vent and air holes to permit movement of air and water between compartments and to provide maximum water flow. All swash partitions must interlock and must be welded to one another as well as to the walls of the tank.

E. The tank must rest on the sub-frame cross members with an unsupported area of 530 square inches maximum on tanks up to 40" in height. On tanks over 40" in height, an unsupported area of not more than 400 square inches must be maintained. All tanks must be isolated from those cross members with a minimum of 2" x .25" hard rubber strips that are 60 durometer in hardness. The tank must sit cradle mounted in the under body sub-frame and must be completely removable without disturbing the body side panels. The sub-frame must consist of 3" x 1.5" channel cross members and 3" x 1.5" channel which must extend around the entire perimeter of the tank and must be welded to the cross-members. The channels must keep the tank from shifting front to back or side to side.

F. The tank outlet must be located in the sump, located at the lowest portion of the tank. The tank to pump line must be a direct straight line to permit maximum water flow. Swash partitions and baffles must be installed as specified in NFPA #1901. An anti-whirlpooling plate must also be installed. Tank must pump a minimum of 500 GPM. Flow capacity must be certified maintainable to 100% of tank contents.

G. The tank cover must be removable for inspection and service.

H. The tank must have an approximate 9" X 10" combination surge tower, with manual fill and overflow located at the forward left-hand side of the hose bed. The tank overflow must be 4" in diameter and must dump behind the rear wheels to permit maximum traction. The surge tower must have a hinged cover with a removable mesh screen.

I. A single foam tank integrated with the water tank. Tank must be 30 gallon capacity, plumbed with non-corrosive piping to the foam system. There must be a square fill tower with a hinged lid equipped

with a hold down device. The fill tower must be approximately 10" x 10". A label that reads "Foam Tank Fill" must be placed on the foam tank fill tower lid.

J. The water tank must be completely removable without disturbing or dismounting the apparatus body structure.

K. Tank must be connected to the intake side of the pump with one 4" minimum heavy-duty, non conductive pipe and provided with 1/4 turn full flow line valve(s) with a remote control on the pump panel. Tank must have a pump transfer capability to 500 GPM minimum. Victaulic couplings must be installed in these lines. Tank outlet must be equipped with an anti-swirl device. A clapper valve must be provided in the tank to pump line to prevent pump water from backing up into tank.

L. A 1.5" pump bypass, or tank fill valve line must also be provided with the control on the pump panel.

M. All tank drains, overflows and other discharges of water must be to the bottom of the vehicle and in all cases must be directed or piped so as not to discharge onto wheels, drive train, brakes, pump transfer case or any unit that could suffer damage from water discharge.

N. A separate tank dump or drain valve must be provided to permit rapid draining of tank water for servicing or in freezing weather. This valve must drain directly to the ground, approximately two feet behind the rear axle. Control for this valve does not have to be on operator's panel, but does need to be remotod to a convenient location. Size of the valve should be a minimum of 2.5". This drain must be properly labeled.

O. Water level gauge must be Class 1 TLW. Water level gauge must be located on pump panel. Water level sensor must be accessible for routine service without removal of hose or hose bed. Water level gauge must not be proprietary of the apparatus manufacturer.

6.22.33. Misc. Equipment

A. All suction hose and hose fittings furnished must be light-weight metal Pyrolite. Fittings must be tested and certified.

B. A mounting bracket must be provided for one "Chicago style" hand pump.

C. One "Stream Lite" light with 12V charger mount system must be installed in the cab area. Location must be approved prior to installation.

D. All intake and discharge ports 1.5" to 3" in diameter must be terminated with a fitting converting the thread from NST to Chicago Fire Department thread.

E. All hose fittings from 4" to 6" must be National Standard threads with the exception of Storz connections.

F. Two 10' lengths of 6" smooth bore hard suction hose with light weight long handle female swivel couplings must be provided, with a 6" NST pin lug male coupling to the other end. Hose and couplings must meet NFPA standards for Suction Hose, and must be approved by the Chicago Fire Department.

G. One (1) SCBA tank holder must be provided and mounted in an outside compartment. Location to be determined at the pre-construction meeting.

6.22.34. Chassis Lubrication System

A. Apparatus to be provided with a Robert Shaw centralized lubrication system or equivalent.

- B. These system must provide automatic lubrication of King Pins, Tie Rods, S cams, Slack adjusters, Drag links and Steering miter box along with pump lube points.
- C. The systems are to be fully automatic.

6.22.35. Painting and Marking

- A. The exterior custom cab and body painting procedure must consist of a six (6) step finishing process as follows.
 - B. Manual Surface Preparation - All exposed metal surfaces on the custom cab and body must be thoroughly cleaned and prepared for painting. Surfaces that must not be painted include all chrome plated, polished stainless steel, anodized aluminum and bright aluminum tread plate. Each imperfection on the exterior metal surface must be removed or filled and then sanded smooth for a smooth appearance. All seams must be sealed before painting.
 - C. Chemical Cleaning and Treatment - The metal surfaces must be properly cleaned using a high pressure and high temperature acid etching system. Surfaces are chemically cleaned to remove all dirt, oil, grease and metal oxides to ensure the subsequent coatings bond well. An ultra pure water final rinse must be applied to all metal surfaces, excluding undercarriage components, at the conclusion of the metal treatment process.
 - D. Primer/Surface Coats - A two (2) component urethane primer/surface must be hand applied to the chemically treated metal surfaces to provide a strong corrosion protective base coat and to smooth out the surface
 - E. Hand Sanding - The primer/surface coat must be lightly sanded to an ultra smooth finish.
 - F. Sealer Primer Coat - A two (2) component sealer primer coat must be applied over the sanded primer.
 - F. Topcoat Paint - Two (2) coats of an automotive grade, two (2) component acrylic urethane paint, must also be applied.
 - G. All removable items such as brackets, compartment doors, door hinges, trim, etc. must be removed and painted separately to insure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly must be finish painted before assembly.
 - H. Contractor must meet or exceed all current State regulations concerning paint operations. Pollution control must include measures to protect the atmosphere, water and soil.
 - I. The upper portion of the cab must be painted black. The body, wheels and the lower portion of the cab must be painted with DuPont "Imran Elite" 3.5 VOC paint, Red #N4
 - J. The chassis frame assembly must be painted black before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components that are included with the chassis frame assembly that must be painted black are frame rails, cross members, all axles, suspension, the steering gear, fuel tank, body substructure, supports, miscellaneous mounting brackets, etc.
 - K. Interior of compartmentation must be painted with a gray rhino liner type material.
 - L. All aerial device structural components above the rotation point that are not chrome plated or stainless steel must be painted.

- M. All components, such as monitor, nozzle, gauges, etc. must be supplied as received from the vendor.
- N. All areas to be painted must be sanded to remove any metal flakes and smooth any rough surfaces.
- O. The upper portion of the cab must be painted black. The body, wheels and the lower portion of the cab must be painted with DuPont "Imran Elite" 3.5 VOC paint, Red #N4
- P. A 6" White #3930 3M "High Intensity Grade Prismatic" reflective stripe must be applied across the lower portion of the front, sides and rear of the apparatus. Additional bands of 6" white #3930 3M "High Intensity Grade Prismatic" reflective stripe must be applied to the rear body panel to meet the requirements of NFPA 1901. Stripes must be free of DOT markings.
- Q. Printed lettering and decals must be totally encapsulated between two layers of clear vinyl to prevent fading.
- R. Apparatus front doors must be lettered and decaled as follows:
1. Top: 3M "680-64" gold flexible reflective sheeting: "ENGINE CO.", "TRUCK CO.", or "TOWER LADDER", as applicable, 3" letters, Military Block True Type Font, with a black shadow down and to the right,
 2. Middle: 3M "680-10" white reflective engineer grade, 11" Company Number, Helvetica Medium True Type font.
 3. Bottom: 3M "680-64" gold flexible reflective sheeting: "We're There When You Need Us", 2.5" height, Brush Connected True Type Font, superimposed on the 6" reflective stripe.
- S. Apparatus crew cab doors must be lettered and decaled as follows:
1. 3M "680-64" gold flexible reflective sheeting: "CHICAGO FIRE DEPT." 3.5" initial letters, others 2.5", Military Block True Type font, with a black shadow down and to the right, above a CFD Scramble Design, 3M "680-64" gold flexible reflective sheeting, 11", with black border.
- T. Apparatus right front corner must be lettered with a 3M "680-10" white reflective engineer grade, 6" Company Number, Helvetica Medium True Type font.
- U. Apparatus left front corner must be decaled with a 3M "680-64" gold flexible reflective sheeting, CFD Scramble Design, 6", with a black border.
- V. Apparatus rear must be lettered with a 3M "680-10" white reflective engineer grade, 11" Company Number, Helvetica Medium True Type font, superimposed on a red metal plate.
- W. The rear compartment door on each side must be decaled with a 8" x 12" American Flag, on 3M "680-10" reflective sheeting, with field towards front of apparatus.
- X. If the apparatus is so equipped, "PARAMEDIC EQUIPPED" must be lettered in 3M "680-64" gold flexible reflective sheeting onto a side compartment door, right and left, with 3" letters, Helvetica Medium Font.

6.22.36. Bid Line#6: Communications Systems for Triple Combination Pumper Body Truck

A. The Contractor will supply and install various mobile communications equipment for mounting in the proposed vehicle included in price. Contractor must supply all accessories necessary to install the communications equipment and must install the communications equipment in accordance with the direction of OEMC and Chicago Fire Department.

B. All wiring must be rated to carry twice the maximum expected amperage load. All connections must be soldered and protected with heat-shrink insulation. Mounting location and methods must be approved by OEMC prior to installation. All wiring must be in continuous lengths – butt splices are unacceptable.

C. Battery circuits must be connected to a constant-hot source of twelve-volt DC power and must not be switched 20 amp fused lead connects to the radio chassis.

D. Ignition circuits must be connected to a source of twelve-volt DC 5 amp fused power that is switched with a master on/off switch for the vehicle that must be enabled before the engine can be started. This lead connects to the control head. If it is an Engine Pumper the same wiring must be in the rear by the pumper panel. Along with a 30ft control cable between the control heads. Ground circuits must be connected to a battery-ground circuit or to a solid chassis ground.

E. For each piece of equipment, all of its manufacturer's recommendations for installation must be followed except where they conflict with the above directions regarding ignition and battery circuits.

F. Each positive twelve-volt connection must be independently fused near its source. In-line fuses provided with communications equipment may be used if present; or spare slots in chassis fuse panels may be used if present; or a Cooper Busman "15600-xx-20" fuse panel must be provided.

G. One dash-mount/all-in-one mobile radio Motorola APX8500 radio must be installed in the front cab area. Radio will be a single-piece dash-mounted model with the "O5" control head. Dashboard or center console must be provided with sufficient space to allow for the radio to be mounted within the reach of the seated front-seat officer. Radio must be mounted in an appropriate bracket specific to the radio make and model, such as one provided by a console manufacturer.

There must be provision above the left side operator's pump panel for the installation of a remote radio control group and speaker. This must be a protected weatherproof area of sufficient size to hold rear radio control group, speaker and microphone.

H. One dash-mount/all-in-one mobile radio (Motorola APX 7500) radio must be installed in the front cab area. . Radio will be a single-piece dash-mounted model with the "O5" control head. Dashboard or center console must be provided with sufficient space to allow for the radio to be mounted within the reach of the seated front-seat officer. Radio must be mounted in an appropriate bracket specific to the radio make and model, such as one provided by a console manufacturer.

I. One Panasonic CF-31 computer dock must be installed. All 5 in 1 antenna leads from roof will be connected to the router. All connectors are SMA type. Two are male SMA for cell, one SMA male GPS and 2 SMA male reverse gender for the wifi. The 12 volt power must have a 3 amp battery hot lead

J. One computer dock (Havis CF-31 compatible) must be installed. Computer dock will be supplied with only the basic mounting functionality. All must be mounted with other bracket required to mount the dock within reach of the seated front-seat officer in a manner approved by the Chicago Fire Department – including extensions, swivels and other hardware that may be required to furnish a fully functional and approved installation – must be provided by the vendor.

K. Two data cables of the necessary length must be installed by the vendor. One serial data cable must be connected to the In-Vehicle router/modem and the computer dock. The serial cable is wired straight thru with a DB9 male on one end and a DB9 female on the other. The second other Ethernet cat6 data cable must be connected to the modem and the computer dock. The Ethernet cat6 must be a crossover type cable.

L. One GPS/Cellular/ WiFi (5 in 1) antenna must be installed on the vehicle's roof. Antenna lead must be routed to the Cradle point In-Vehicle router/modem.

M. Contractor must install three (3) antenna mounts on the vehicle roof in the locations and manner specified by OEMC. Antenna leads must be of the proper length for the routing specified. One NMO antenna lead must be routed to the mobile radio and fitted with a crimp-on mini-UHF connector. One GPS/Cellular/ WiFi (5 in 1) antenna lead must be routed to the In-Vehicle router/modem and fitted with the appropriate crimp-on connector. One additional Motorola style NMO antenna lead will be routed to the cab console area with 18" of coax slack for future use. Vendor will supply the proper antenna for each device.

6.23. Bid Line #7: Chassis OEM Options

Orderable options selected at the time of the vehicle order and supplied by the Original Equipment Manufacturer (OEM) of the truck chassis, including models within the model series proposed and all available option codes, will be furnished and billed at the mark-up rate not to exceed 10% or discount applied to the manufacturer's published dealer invoice price. The Contractor must furnish documentation (manufacturer's invoice price list, manufacturer's invoice or printout of the vehicle order, etc.) of the manufacturer's dealer invoice price at time of order to substantiate the charges; this documentation will accompany all invoices.

Where the presence of a selected OEM option increases or decreases the amount of fleet discount or options-package discount offered by the manufacturer, any difference in discount will be counted as part of the manufacturer's invoice pricing for purposes of computing the billable cost of the OEM option. The Contractor must furnish manufacturer's documentation of fleet discount and options-package discount at time of order to substantiate the charges; this documentation will accompany all invoices.

Where an OEM package is available that contains the selected OEM options at a price lower than that of the individual selected OEM options, the OEM package must be furnished and billed, with all equipment/accessory items within that OEM package furnished and included in the billed package price.

The orderable options and accessories are indicated on the proposal page as a maximum dollar amount allowable through the term of the contract and any subsequent contraction extensions. Bidders must be able to meet the pre-determined allowable amount for the designated bid line.

The provisions of this subsection apply to Proposal Page Bid Line Items entitled "Parts and Accessories, Chassis OEM Options" and are stated as an allowable amount.

Where "mark-up" is indicated, the City of Chicago will consider a "discounted from list" price from the bidder, provided that the discount is clearly annotated, and that the Chief Procurement Officer determines that doing so is in the best interests of the City.

6.24. Bid Line #8: Body OEM Optional

Orderable options selected at the time of the vehicle order and supplied by the Original Equipment Manufacturer (OEM) of the truck body or aerial device, including models within the model series proposed and all available option codes, will be furnished and billed at the mark-up rate not to exceed 10%, or discount, applied to the manufacturer's published dealer invoice price. The Contractor must furnish documentation (manufacturer's invoice price list, manufacturer's invoice or printout of the vehicle order, etc.) of the manufacturer's dealer invoice price at time of order to substantiate the charges; this documentation will accompany all invoices.

Where the presence of a selected OEM option increases or decreases the amount of fleet discount or options-package discount offered by the manufacturer, any difference in discount will be counted as part of the manufacturer's invoice pricing for purposes of computing the billable cost of the OEM option. The Contractor must furnish manufacturer's documentation of fleet discount and options-package discount at time of order to substantiate the charges; this documentation will accompany all invoices.

Where an OEM package is available that contains the selected OEM options at a price lower than that of the individual selected OEM options, the OEM package must be furnished and billed, with all equipment/accessory items within that OEM package furnished and included in the billed package price.

Options and accessories must be furnished and billed at a markup rate not to exceed 10%. The Contractor must furnish documentation (manufacturer's invoice price list, manufacturer's invoice and/or printout of the vehicle order, etc.) of the manufacturer's dealer invoice price at time of order to substantiate the charges; this documentation must accompany all invoices.

The orderable options and accessories are indicated on the proposal page as a maximum dollar amount allowable through the term of the contract and any subsequent contraction extensions. Bidders must be able to meet the pre-determined allowable amount for the designated bid line.

The provisions of this subsection apply to Proposal Page Bid Line Items entitled "Parts and Accessories, Body OEM Options" and are stated as an allowable amount.

Where "mark-up" is indicated, the City of Chicago will consider a "discounted from list" price from the bidder, provided that the discount is clearly annotated, and that the Chief Procurement Officer determines that doing so is in the best interests of the City.

6.25. Bid Line #9: Mechanical and Electrical Repair Parts

The City has various contracts for parts and service; the City may purchase any parts under this contract that are to be used for the vehicles purchased hereunder ("Parts") to the extent that the City is unable to purchase them under those other parts and service contracts.

Repair parts supplied by the Original Equipment Manufacturer (OEM) of the Fire Apparatus. Examples of repair parts include but are not limited to engines, transmissions, starters, brake pad, rotors.

Parts to be furnished under this contract are new OEM parts, and must carry original product warranty. Parts, accessories, assemblies and components furnished under this contract must be compatible and interchangeable with vehicles purchased under this Contract. Contractor must be capable of obtaining wholesale pricing for readily available stock parts.

The City will pay an amount for such Parts equal to the then-current manufacturer's price list for dealers plus the mark-up or discount bid by the contractor on the proposal pages hereof. When submitting an invoice, contractor must provide such information as the Commissioner requests substantiating the calculation of pricing, which may include a copy of the catalog page showing the manufacturer's catalog price.

As part of the proposal pages, the City has included a Mechanical and Electrical Parts worksheet, which must be filled out by the bidder, and which will enable the bidder to complete its bid on the proposal page. The worksheet requests pricing for what the City believes is a representative sample of the Parts that may be purchased under the Contract. The purpose of the worksheet is to enable the City to compare bids for Parts; it will only be used for canvassing purposes. The City is not limited to purchasing only the Parts designated on the worksheet, and the prices that the bidders fill in for those Parts on the worksheet will not control the price that the contractor will bill the City at during the term of the contract. As noted above, the price paid by the City will be based upon the then-current manufacturer's price list and the mark-up or discount bid by the contractor. Percentage mark-up or discount will be fixed at the amount bid for the term of this Agreement, without any adjustments. The mark-up or discount will be inclusive of all costs associated with the Parts purchased under this contract, including without limitation any and all peripheral costs (such as transportation, pick up and delivery, guarantees and warranties, restock charges, testing, inspection, reports, insurance, etc.).

Bidders must follow the instructions on the worksheet. Failure to complete the worksheet, or failure to accurately transcribe these key figures from the worksheet on to the proposal pages, will result in rejection of that bidder's bid.

Where "mark-up" is indicated, the City of Chicago will consider a "discounted from list" price from the bidder, provided that the discount is clearly annotated, and that the Chief Procurement Officer determines that doing so is in the best interests of the City.

6.26. Bid Line#10 Labor To Perform Mechanical and Electrical Repair Services in Contractor's Shop, Regular Business Hours, Group

The unit cost for regular repair service labor performed at the location(s) specified by the Contractor will be billed as regular time, hourly rate, Monday through Friday, 7:00 a.m. to 3:00 pm., excluding Holidays, as quoted on the Proposal Page(s), unless the Contractor or Authorized Subcontractor's regular service hours are longer, then the Contractor or Authorized Subcontractor's regular service hours will apply.

6.27. Bid Line #11: Transportation of Equipment for Service

The cost for transporting a vehicle purchased under this contract each way for service between a City of Chicago location and a Contractor's (or authorized Subcontractor's) location must include all peripheral costs, including but not limited to, providing a properly licensed driver or operator, any necessary tow or transport.

6.28. Exceptions

Any deviations from these specifications must be noted on the Proposal Page or Pages attached thereto, with the exact nature of the change outlined in sufficient detail. The reason for which deviations were made must be submitted with the bid if not self-explanatory. Failure of a bidder to comply with the terms of this paragraph may be cause for rejection.

ARTICLE 7. MECHANICAL AND ELECTRICAL PARTS WORKSHEET

7.1. Crew Cab Chassis Aerial Tower Ladder Truck, Bid Line# 9

This Worksheet must be filled out by the bidder, and must be used to generate three numbers that the bidder must enter into the proposal pages for the Mechanical and Electrical Parts line item (line #9): Price, Mark-up or Discount over Manufacturer's Catalog Price, and the Extended Price.

A. OEM part/assembly/component Fire Apparatus	B. Manufacturer's Catalog Price	C. UOM	D. Estimated 5 Year Quantity	E. Extended Manufacturer's Catalog Price
Engine	\$	Ea	3	
Transmission	\$	Ea	3	
Starter	\$	Ea	125	
Left-front brake pad	\$	Ea	412	
Left-front brake rotor	\$	Ea	155	
Left-front headlight bulb	\$	Ea	874	
Left-front wheel	\$	Ea	20	
Left-front tire	\$	Ea	256	
Starting battery	\$	Ea	875	
Driver's seat	\$	Ea	18	
Side view mirror	\$	Ea	98	
Rear bumper	\$	Ea	16	
F. Sum of Column E: (Bidders must transfer to the box marked Price on the Proposal pages for this Group)				
G. Bidder's proposed mark-up or discount over manufacturer's Catalog Price: (Bidder must transfer to the box marked <i>Mark-Up or Discount</i> for Parts, Mechanical and Electric on the Proposal Pages for this Group)				%
H. Box F multiplied by Box G: (Bidder must transfer to the box marked <i>Extended Price</i> for Parts, Mechanical and Electric on the Proposal Pages for this Group)				\$

The following are descriptions of headings in the worksheet:

A: OEM part/assembly/component: a representative sample of parts that the City may order from the Contractor during the term of the Contract with respect to the vehicles purchased under the Contract. During the term of the Contract, however, the City may order any parts, assemblies or components included in the Manufacturer's catalog (see "Mechanical and Electrical Parts" in the Detailed Specifications).

B. Manufacturer's Catalog Price: The cost for each item charged by the manufacturer to the bidder, derived from the most current manufacturer's parts price list for dealers. The City has the right to audit the prices quoted on this page, by requesting from the bidder, copies of the manufacturer's

catalog pages substantiating the price set out in the worksheet. Bidder must provide the requested information within 2 business days of the request.

D. Estimated Quantity: The City's estimated quantity of its usage of the listed part, based on the estimated number of vehicles to be procured under the Contract, during the term of the Contract.

E. Extended Manufacturer's Catalog Price: The product, for each part/assembly/component, of the Manufacturer's Catalog Price multiplied by the unit of measure multiplied by the Estimated Quantity.

F. Sum of Column E

G. Proposed Mark-Up or Discount: The bidder's proposed mark-up or discount of the manufacturer's catalog price. This mark-up or discount will apply to all parts ordered during the term of the Contract and shall be inclusive of all rebates. This figure must also be carried over by the bidder in the mark-up/discount column on the Mechanical and Electrical Parts line item (line# 9) on the proposal pages.

H. Total/Extended Price: The total result of performing the calculation of the formula, which bidder must include both in the worksheet and as the extended price for the Mechanical and Electrical Parts line (Line Item# 9) on the proposal pages.



CITY OF CHICAGO
Department of Procurement Services
Jamie L. Rhee, Chief Procurement Officer
121 North LaSalle Street, Room 806
Chicago, Illinois 60602-1284
Fax: 312-744-3281

MBE & WBE SPECIAL CONDITIONS FOR COMMODITIES OR SERVICES CONTRACTS

ARTICLE 8. SPECIAL CONDITIONS REGARDING MINORITY BUSINESS ENTERPRISE COMMITMENT AND WOMEN BUSINESS ENTERPRISE COMMITMENT FOR COMMODITIES OR SERVICES

8.1. Policy and Terms

It is the policy of the City of Chicago that Local Businesses certified as Minority Owned Business Enterprises (MBE) and Women Owned Business Enterprises (WBE) in accordance with Section 2-92-420 et seq. of the Municipal Code of Chicago and Regulations Governing Certification of Minority and Women-owned Businesses and all other Regulations promulgated under the aforementioned sections of the Municipal Code, as well as MBEs and WBEs certified by Cook County, Illinois, will have full and fair opportunities to participate fully in the performance of this contract. Therefore, the Contractor will not discriminate against any person or business on the basis of race, color, sex, gender identity, age, religion, disability, national origin, ancestry, sexual orientation, marital status, parental status, military discharge status or source of income and will take affirmative action to ensure that women and minority businesses will have the maximum opportunity to compete for and perform subcontracts for supplies or services.

Pursuant to Section 2-92-430 of the Municipal Code of Chicago, the Chief Procurement Officer has established a goal of awarding not less than 25% of the annual dollar value of all non-construction contracts to certified MBEs and 5% of the annual dollar value of all non-construction contracts to certified WBEs.

Accordingly, the Contractor commits to make Good Faith Efforts to expend at least the following percentages of the total contract price (inclusive of any and all modifications and amendments), if awarded, for contract participation by MBEs and WBEs:

MBE Percentage	WBE Percentage
0 %	0 %

(See Form "Bidders Commitment to Utilize MBE and WBE Firms on No Stated Goals Contract" for Contract Specific Goals in the case of a contract subject to a bid preference pursuant to MCC 2-92-525.)

This commitment is met by the Contractor's status as a MBE or WBE, or by a joint venture with one or more MBEs or WBEs as prime contractor (to the extent of the MBE or WBE participation in such joint venture), or by subcontracting a portion of the work to one or more MBEs or WBEs, or by the purchase of materials used in the performance of the contract from one or more MBEs or WBEs, or by any combination of the foregoing.

Note: MBE/WBE participation goals are separate and those businesses certified with the City of Chicago as both MBE and WBE may only be listed on a bidder's compliance plan as either a MBE or a WBE, but not both to demonstrate compliance with the Contract Specific Goals.

The Contractor also may meet all or part of this commitment through credits received pursuant to Section 2-92-530 of the Municipal Code of Chicago for the voluntary use of MBEs or WBEs in private sector contracts.

Pursuant to MCC 2-92-535, the prime contractor may apply be awarded an additional 0.5 percent credit, up to a maximum of a total of 5 percent additional credit, for every 1 percent of the value of a contract self-performed by MBEs or WBEs, or combination thereof, that have entered into a mentoring agreement with the contractor or subcontractor-to-subcontractor mentoring agreement. This up to 5% may be applied to the Contract Specific Goals, or it may be in addition to the Contract Specific Goals.

8.2. Definitions

"Area of Specialty" means the description of an MBE or WBE firm's business which has been determined by the Chief Procurement Officer to be most reflective of the MBE or WBE firm's claimed specialty or expertise. Each MBE/WBE letter of certification contains a description of the firm's Area of Specialty. This information is also contained in the Directory (defined below). Credit toward this Contract's MBE and WBE participation goals shall be limited to the participation of firms performing within their Area of Specialty.

NOTICE: *The City of Chicago does not make any representation concerning the ability of any MBE/WBE to perform work within their Area of Specialty. It is the responsibility of all contractors to determine the capability and capacity of MBEs/WBEs to satisfactorily perform the work proposed.*

"Bid" means a bid, proposal, or submittal detailing a description of the services or work to be provided by the contractor in response to a bid solicitation, request for proposal, request for qualification of task order request (issued in accordance with the Master Consulting Agreement) that is issued by the City.

"Bidder" means any person or business entity that submits a bid, proposal, qualification or submittal that seeks to enter into a contract with the City, and includes all partners, affiliates and joint ventures of such person or entity.

"Broker" means a person or entity that fills orders by purchasing or receiving supplies from a third party supplier rather than out of its own existing inventory and provides no commercially useful function other than acting as a conduit between his or her supplier and his or her customer.

"Chief Procurement Officer" or "CPO" means the Chief Procurement Officer of the City of Chicago or her designee.

"Commercially Useful Function" means responsibility for the execution of a distinct element of the work of the contract, which is carried out by actually performing, managing, and supervising the work involved, evidencing the responsibilities and risks of a business owner such as negotiating the terms of (sub)contracts, taking on a financial risk commensurate with the contract or its subcontract, responsibility for acquiring the appropriate lines of credit and/or loans, or fulfilling responsibilities as a joint venture partner as described in the joint venture agreement.

"Contract Specific Goals" means the subcontracting goals for MBE and WBE participation established for a particular contract. In the case of a contract subject to the bid incentive set forth in MCC 2-92-525, "Contract Specific Goals" means the utilization percentage for MBEs or WBEs to which contractor committed with its bid.

"Contractor" means any person or business entity that has entered into a contract with the City as described herein, and includes all partners, affiliates, and joint ventures of such person or entity.

"Direct Participation" the value of payments made to MBE or WBE firms for work that is performed in their Area of Specialty directly related to the performance of the subject matter of the Contract will count as Direct Participation toward the Contract Specific Goals.

"Directory" means the Directory of Certified "Minority Business Enterprises" and "Women Business Enterprises" maintained and published by the City of Chicago. The Directory identifies firms that have been certified as MBEs and WBEs, and includes both the date of their last certification and the area of specialty in which they have been certified. Contractors are responsible for verifying the current certification status of all proposed MBE, and WBE firms.

"Good Faith Efforts" means actions undertaken by a bidder or contractor to achieve a Contract Specific Goal that the CPO or her designee has determined, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program's requirements.

"Indirect Participation" refers to the value of payments made to MBE or WBE firms for work that is done in their Area of Specialty related to other aspects of the Contractor's business. (Note: no dollar of such indirect MBE or WBE participation shall be considered in a Good Faith Efforts determination more than once against a contractor's MBE or WBE commitment with respect to all government contracts held by that contractor.)

"Joint venture" means an association of a MBE or WBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which each joint venture partner contributes property, capital, efforts, skills and knowledge, and in which the MBE or WBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

"Mentor-Protégé Agreement" means an agreement between a prime and MBE or WBE subcontractor ("Mentoring Agreement"), or an agreement between a prime's subcontractor and MBE or WBE subcontractor ("Subcontractor-to-Subcontractor Mentoring Agreement"), pursuant to MCC 2-92-535, that is approved by the City of Chicago and complies with all requirements of MCC 2-92-535 and any rules and regulations promulgated by the Chief Procurement Officer.

"Minority Owned Business Enterprise" or "MBE" means a firm awarded certification as a minority owned and controlled business in accordance with City Ordinances and Regulations as well as a firm awarded certification as a minority owned and controlled business by Cook County, Illinois. However, it does not mean a firm that has been found ineligible or which has been decertified by the City or Cook County.

"Municipal Code of Chicago" or "MCC" means the Municipal Code of the City of Chicago.

"Supplier" or "Distributor" refers to a company that owns, operates, or maintains a store, warehouse or other establishment in which materials, supplies, articles or equipment are bought, kept in stock and regularly sold or leased to the public in the usual course of business. A regular distributor or supplier is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for performance of a contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular distributor the firm must engage in, as its principal business and in its own name, the purchase and sale of the products in question. A regular distributor in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock if it owns or operates distribution equipment.

"Women Owned Business Enterprise" or "WBE" means a firm awarded certification as a women owned and controlled business in accordance with City Ordinances and Regulations as well as a firm awarded certification as a women owned business by Cook County, Illinois. However, it does not mean a firm that has been found ineligible or which has been decertified by the City or Cook County.

8.3. Joint Ventures

The formation of joint ventures to provide MBEs and WBEs with capacity and experience at the prime contracting level, and thereby meet Contract Specific Goals (in whole or in part) is encouraged. A joint venture may consist of any combination of MBEs, WBEs, and non-certified firms as long as one member is an MBE or WBE.

- a. The joint venture may be eligible for credit towards the Contract Specific Goals only if:
 - i. The MBE or WBE joint venture partner's share in the capital contribution, control, management, risks and profits of the joint venture is equal to its ownership interest;
 - ii. The MBE or WBE joint venture partner is responsible for a distinct, clearly defined portion of the requirements of the contract for which it is at risk;
 - iii. Each joint venture partner executes the bid to the City; and

- iv. The joint venture partners have entered into a written agreement specifying the terms and conditions of the relationship between the partners and their relationship and responsibilities to the contract, and all such terms and conditions are in accordance with the conditions set forth in Items i, ii, and iii above in this Paragraph a.
- b. The Chief Procurement Officer shall evaluate the proposed joint venture agreement, the Schedule B submitted on behalf of the proposed joint venture, and all related documents to determine whether these requirements have been satisfied. The Chief Procurement Officer shall also consider the record of the joint venture partners on other City of Chicago contracts. The decision of the Chief Procurement Officer regarding the eligibility of the joint venture for credit towards meeting the Contract Specific Goals, and the portion of those goals met by the joint venture, shall be final.

The joint venture may receive MBE or WBE credit for work performed by the MBE or WBE joint venture partner(s) equal to the value of work performed by the MBE or WBE with its own forces for a distinct, clearly defined portion of the work.

Additionally, if employees of the joint venture entity itself (as opposed to employees of the MBE or WBE partner) perform the work, then the value of the work may be counted toward the Contract Specific Goals at a rate equal to the MBE or WBE firm's percentage of participation in the joint venture as described in Schedule B.

The Chief Procurement Officer may also count the dollar value of work subcontracted to other MBEs and WBEs. Work performed by the forces of a non-certified joint venture partner shall not be counted toward the Contract Specific Goals.

c. **Schedule B: MBE/WBE Affidavit of Joint Venture**

Where the bidder's Compliance Plan includes the participation of any MBE or WBE as a joint venture partner, the bidder must submit with its bid a Schedule B and the proposed joint venture agreement. These documents must both clearly evidence that the MBE or WBE joint venture partner(s) will be responsible for a clearly defined portion of the work to be performed, and that the MBE's or WBE's responsibilities and risks are proportionate to its ownership percentage. The proposed joint venture agreement must include specific details related to:

- i. The parties' contributions of capital, personnel, and equipment and share of the costs of insurance and bonding;
- ii. Work items to be performed by the MBE's or WBE's own forces and/or work to be performed by employees of the newly formed joint venture entity;
- iii. Work items to be performed under the supervision of the MBE or WBE joint venture partner; and
- iv. The MBE's or WBE's commitment of management, supervisory, and operative personnel to the performance of the contract.

NOTE: Vague, general descriptions of the responsibilities of the MBE or WBE joint venture partner do not provide any basis for awarding credit. For example, descriptions such as "participate in the budgeting process," "assist with hiring," or "work with managers to improve customer service" do not identify distinct, clearly defined portions of the work. Roles assigned should require activities that are performed on a regular, recurring basis rather than as needed. The roles must also be pertinent to the nature of the business for which credit is being sought. For instance, if the scope of work required by the City entails the delivery of goods or services to various sites in the City, stating that the MBE or WBE joint venture partner will be responsible for the performance of all routine maintenance and all repairs required to the vehicles used to deliver such goods or services is pertinent to the nature of the business for which credit is being sought.

8.4. Counting MBE/WBE Participation Toward the Contract Specific Goals

Refer to this section when preparing the MBE/WBE compliance plan and completing Schedule D-1 for guidance on what value of the participation by MBEs and WBEs will be counted toward the stated Contract Specific Goals. The "Percent Amount of Participation" depends on whether and with whom a MBE or WBE subcontracts out any portion of its work and other factors.

Firms that are certified as both MBE and WBE may only be listed on a bidder's compliance plan as either a MBE or a WBE to demonstrate compliance with the Contract Specific Goals. For example, a firm that is certified as both a MBE and a WBE may only be listed on the bidder's compliance plan under one of the categories, but not both. Except as provided in MCC 2-92-525(b)(2), only Payments made to MBE and WBE firms that meet BOTH the Commercially Useful Function and Area of Specialty requirements above will be counted toward the Contract Specific Goals.

- a. Only expenditures to firms that perform a Commercially Useful Function as defined above may count toward the Contract Specific Goals.
 - i. The CPO will determine whether a firm is performing a commercially useful function by evaluating the amount of work subcontracted, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the credit claimed for its performance of the work, industry practices, and other relevant factors.
 - ii. A MBE or WBE does not perform a commercially useful function if its participation is only required to receive payments in order to obtain the appearance of MBE or WBE participation. The CPO may examine similar commercial transactions, particularly those in which MBEs or WBEs do not participate, to determine whether non MBE and non WBE firms perform the same function in the marketplace to make a determination.
 - iii. Indications that a subcontractor is not performing a commercially useful function include, but are not limited to, labor shifting and equipment sharing or leasing arrangements with the prime contractor or a first tier subcontractor.
- b. Only the value of the dollars paid to the MBE or WBE firm for work that it performs in its Area of Specialty in which it is certified counts toward the Contract Specific Goals, except as provided in MCC 2-92-525(b)(2).
- c. For maintenance, installation, repairs or inspection, or professional services, if the MBE or WBE performs the work itself: 100% of the value of work actually performed by the MBE's or WBE's own forces shall be counted toward the Contract Specific Goals, including the cost of supplies and materials purchased or equipment leased by the MBE or WBE from third parties or second tier subcontractors in order to perform its (sub)contract with its own forces (except supplies and equipment the MBE or WBE subcontractor purchases or leases from the prime contractor or its affiliate). 0% of the value of work at the project site that a MBE or WBE subcontracts to a non-certified firm counts toward the Contract Specific Goals.
- d. If the MBE or WBE is a manufacturer: 100% of expenditures to a MBE or WBE manufacturer for items needed for the Contract shall be counted toward the Contract Specific Goals. A manufacturer is a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the bidder or contractor.
- e. If the MBE or WBE is a distributor or supplier: 60% of expenditures for materials and supplies purchased from a MBE or WBE that is certified as a regular dealer or supplier shall be counted toward the Contract Specific Goals.
- f. If the MBE or WBE is a broker:
 - i. Zero percent (0%) of expenditures paid to brokers will be counted toward the Contract Specific Goals.

- ii. As defined above, Brokers provide no commercially useful function.
- g. If the MBE or WBE is a member of the joint venture contractor/bidder:
 - i. A joint venture may count the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the MBE or WBE performs with its own forces toward the Contract Specific Goals; or
 - ii. If employees of this distinct joint venture entity perform the work then the value of the work may be counted toward the Contract Specific Goals at a rate equal to the MBE or WBE firm's percentage of participation in the joint venture as described in the Schedule B.
 - iii. A joint venture may also count the dollar value of work subcontracted to other MBEs and WBEs.
- h. If the MBE or WBE subcontracts out any of its work:
 - i. 100% of the value of the work subcontracted to other MBEs or WBEs performing work in its Area of Specialty may be counted toward the Contract Specific Goals.
 - ii. 0% of the value of work that a MBE or WBE subcontracts to a non-certified firm counts toward the Contract Specific Goals (except as allowed by (c) above).
 - iii. The fees or commissions charged for providing a bona fide service, such as professional, technical, consulting or managerial services or for providing bonds or insurance and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for performance of the Contract, provided that the fee or commission is determined by the Chief Procurement Officer to be reasonable and not excessive as compared with fees customarily allowed for similar services.
 - iv. The fees charged for delivery of materials and supplies required on a job site (but not the cost of the materials and supplies themselves) when the hauler, trucker, or delivery service is not also the manufacturer of or a regular dealer in the materials and supplies, provided that the fee is determined by the Chief Procurement Officer to be reasonable and not excessive as compared with fees customarily allowed for similar services.
 - v. The fees or commissions charged for providing any bonds or insurance, but not the cost of the premium itself, specifically required for the performance of the Contract, provided that the fee or commission is determined by the Chief Procurement Officer to be reasonable and not excessive as compared with fees customarily allowed for similar services.

8.5. Regulations Governing Reductions to or Waiver of MBE/WBE Goals

The following Regulations set forth the standards to be used in determining whether or not a reduction or waiver of the MBE/WBE commitment goals of a particular contract is appropriate. If a bidder determines that it is unable to meet the MBE and/or WBE Contract-Specific Goals on a City of Chicago contract, a written request for the reduction or waiver of the commitment must be included in the bid or proposal.

The written request for reduction or waiver from the commitment must be in the form of a signed petition for grant of relief from the MBE/WBE percentages submitted on the bidder's letterhead, and must demonstrate that all required efforts as set forth in this document were taken to secure eligible Minority and Women Business Enterprises to meet the commitments. The Chief Procurement Officer or designee shall determine whether the request for the reduction or waiver will be granted.

A bidder will be considered responsive to the terms and conditions of these Regulations if, at the time of bid, it submits a waiver request and all supporting documentation that adequately addresses the conditions for waiver of MBE/WBE goals, including proof of notification to assist agencies except:

- Bidders responding to Request for Proposals (RFPs) who have been identified as a short listed candidate and/or a prospective awardee will be given a designated time allowance, but no more than fourteen (14) calendar days to submit to the Department of Procurement Services complete documentation that adequately addresses the conditions for waiver described herein; and
- Bidders responding to Request for Information and or Qualifications (RFI/RFQs) deemed by the Chief Procurement Officer or authorized designee to be the most responsive and responsible shall submit documentation that adequately addresses the conditions for waiver described herein during negotiations.

Failure to submit documentation sufficient to support the waiver request will cause the bid/proposal to be found non-responsive by the Chief Procurement Officer, and the bid/proposal will be rejected. In such cases the remedies to be taken by the Chief Procurement Officer, in her discretion, may include, but are not limited to, forfeiture of bid deposit; negotiating with the next lowest bidder; or re-advertising the bid/proposal. All bidders must submit all required documents at the time of bid opening to expedite the contract award.

8.5.1. Direct Participation

Each of the following elements must be present in order to determine whether or not such a reduction or waiver is appropriate.

- a. The bidder has documented the unsuccessful solicitation for either subcontractors or joint venture partners of at least 50% (or at least five when there are more than eleven certified firms in the commodity area) of the appropriate certified MBE/WBE firms to perform any direct work identified or related to the advertised bid/proposal. Documentation must include but is not necessarily limited to:
 1. A detailed statement of efforts to identify and select portions of work identified in the bid solicitation for subcontracting to certified MBE/WBE firms;
 2. A listing of all MBE/WBE firms contacted that includes:
 - Name, address, telephone number and email of MBE/WBE firms solicited;
 - Date and time of contact;
 - Method of contact (written, telephone, transmittal of facsimile documents, email, etc.)
 3. Copies of letters or any other evidence of mailing that substantiates outreach to MBE/WBE vendors that includes:
 - Project identification and location;
 - Classification/commodity of work items for which quotations were sought;
 - Date, item and location for acceptance of subcontractor bid proposals;
 - Detailed statement which summarizes direct negotiations with appropriate MBE/WBE firms for specific portions of the work and indicates why negotiations were unsuccessful;
 - Affirmation that Good Faith Efforts have been demonstrated by:
 - choosing subcontracting opportunities likely to achieve MBE/WBE goals; and
 - not imposing any limiting conditions which were not mandatory for all subcontractors; and

- providing notice of subcontracting opportunities to M/WBE firms and assist agencies at least five (5) business days in advance of the initial bid due date; and
- documented efforts or actual commitment to the indirect participation of MBE/WBE firms.

OR

- b. Subcontractor participation will be deemed excessively costly when the MBE/WBE subcontractor proposal exceeds the average price quoted by more than twenty percent (20%). In order to establish that a subcontractor's quote is excessively costly, the bidder must provide the following information:
1. A detailed statement of the work identified for MBE/WBE participation for which the bidder asserts the MBE/WBE quote(s) were excessively costly (in excess of 20% higher).
 - A listing of all potential subcontractors contacted for a quotation on that work item;
 - Prices quoted for the subcontract in question by all such potential subcontractors for that work item.
 2. Other documentation which demonstrates to the satisfaction of the Chief Procurement Officer that the MBE/WBE proposals are excessively costly, even though not in excess of 20% higher than the average price quoted. This determination will be based on factors that include, but are not limited to the following:
 - The City's estimate for the work under a specific subcontract;
 - The bidder's own estimate for the work under the subcontract;
 - An average of the bona fide prices quoted for the subcontract;
 - Demonstrated increase in other contract costs as a result of subcontracting to the M/WBE or other firm.

8.5.2. Assist Agency Participation in waiver/reduction requests

Every waiver and/or reduction request must include evidence that the bidder has provided timely notice of the need for subcontractors to an appropriate association/assist agency representative of the MBE/WBE business community. This notice must be given at least five (5) business days in advance of the initial bid due date.

The notice requirement of this Section will be satisfied if a bidder contacts at least one of the associations on Attachment A to these Regulations when the prime contractor seeks a waiver or reduction in the utilization goals. Attachment B to these Regulations provides the letter format that a prime contractor may use. Proof of notification prior to bid submittal (e.g. certified mail receipt or facsimile transmittal receipt) will be required to be submitted with the bid for any bid/proposal to be deemed responsive. If deemed appropriate, the Contract Compliance Officer may contact the assist agency for verification of notification.

8.5.3. Impracticability

If the Chief Procurement Officer determines that a lesser MBE and/or WBE percentage standard is appropriate with respect to a particular contract subject to competitive bidding prior to the bid solicitations for such contract, bid specifications shall include a statement of such revised standard.

The requirements set forth in these Regulations (this subsection 7.5 "Regulations Governing Reductions to or Waiver of MBE/WBE Goals") shall not apply where the Chief Procurement Officer determines prior to the bid solicitations that MBE/WBE subcontractor participation is impracticable.

This may occur whenever the Chief Procurement Officer determines that for reasons of time, need, industry practices or standards not previously known by the Chief Procurement Officer, or such other extreme circumstances as may be deemed appropriate, such a Waiver is in the best interests of the City. This determination may be made in connection with a particular contract, whether before the contract is let for bid, during the bid or award process, before or during negotiation of the contract, or during the performance of the contract.

For all notifications required to be made by bidders, in situations where the Chief Procurement Officer has determined that time is of the essence, documented telephone contact may be substituted for letter contact.

8.6. Procedure to Determine Bid Compliance

A bid may be rejected as non-responsive if it fails to submit one or more of the following with its bid demonstrating its Good Faith Efforts to meet the Contract Specific Goals by reaching out to MBEs and WBEs to perform work on the contract:

- An MBE/WBE compliance plan demonstrating how the bidder plans to meet the Contract Specific Goals; and/or
- A request for reduction or waiver of the Contract Specific Goals in accordance with Section 2-92-450 of the MCC.

In the case of a bid utilizing the "Bid Incentive to Encourage MBE and WBE Utilization" pursuant to MCC 2-92-525(b)(2), failure to submit an MBE/WBE compliance plan demonstrating how the bidder plans to meet the Contract Specific Goal to which the bidder has committed will not result in rejection of the bid, but the bidder may be found ineligible for the bid incentive.

Except as provided in MCC 2-92-525(b)(2), only compliance plans utilizing MBE and WBE firms that meet BOTH the Commercially Useful Function and Area of Specialty requirements will be counted toward the Contract Specific Goals.

The following Schedules and described documents constitute the bidder's MBE/WBE proposal, and must be submitted in accordance with the guidelines stated:

(1) Schedule C-1: Letter of Intent from MBE/WBE to Perform as Subcontractor, Supplier and/or Consultant.

The bidder must submit the appropriate Schedule C-1 with the bid for each MBE and WBE included on the Schedule D-1. Suppliers must submit the Schedule C-1 for Suppliers, first tier subcontractors must submit a Schedule C-1 for Subcontractors to the Prime Contractor and second or lower tier subcontractors must submit a Schedule C-1 for second tier Subcontractors. The City encourages subcontractors to utilize the electronic fillable format Schedule C-1, which is available at the Department of Procurement Services website, <http://cityofchicago.org/forms>. Each Schedule C-1 must be executed by each MBE and WBE and accurately detail the work to be performed by the MBE or WBE and the agreed upon rates/prices. Each Schedule C must also include a separate sheet as an attachment on which the MBE or WBE fully describes its proposed scope of work, including a description of the commercially useful function being performed by the MBE or WBE in its Area of Specialty. If a facsimile copy of the Schedule C-1 has been submitted with the bid, an executed original Schedule C-1 must be submitted by the bidder for each MBE and WBE included on the Schedule D-1 within five business days after the date of the bid opening.

Failure to submit a completed Schedule C-1 in accordance with this section shall entitle the City to deem the bid/proposal non-responsive and therefore reject the bid/proposal.

(2) **Letters of Certification.**

A copy of each proposed MBE/WBE firm's current Letter of Certification from the City of Chicago or Cook County Illinois, must be submitted with the bid/proposal. All Letters of Certification issued by the City of Chicago and Cook County include a statement of the MBE/WBE firm's Area of Specialty. The MBE/WBE firm's scope of work, as detailed by their Schedule C-1, must conform to their stated Area of Specialty. Letters of Certification for firms that the City or Cook County has found ineligible or has decertified will not be accepted.

(3) **Schedule B: Affidavit of Joint Venture, and Joint Venture Agreements (if applicable).**

If the bidder's MBE/WBE proposal includes the participation of a MBE/WBE as joint venture on any tier (either as the bidder or as a subcontractor), the bidder must provide a copy of the joint venture agreement and a Schedule B along with all other requirements listed in Section 7.3, "Joint Ventures," above. In order to demonstrate the MBE/WBE partner's share in the ownership, control, management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details related to: (1) contributions of capital and equipment; (2) work responsibilities or other performance to be undertaken by the MBE/WBE; and (3) the commitment of management, supervisory and operative personnel employed by the MBE/WBE to be dedicated to the performance of the contract. The joint venture agreement must also clearly define each partner's authority to contractually obligate the joint venture and each partner's authority to expend joint venture funds (e.g., check signing authority).

(4) **Schedule D-1: Required Schedules Regarding MBE/WBE Utilization**

Bidders must submit, together with the bid, a completed Schedule D-1 committing them to the utilization of each listed MBE/WBE firm. The City encourages bidders to utilize the electronic fillable format Schedule D-1, which is available at the Department of Procurement Services website, <http://cityofchicago.org/forms>. Except in cases where the bidder has submitted a request for a complete waiver of or variance from the MBE/WBE commitment in accordance with Section 7.5 "Regulations Governing Reductions to or Waiver of MBE/WBE Goals" herein, the bidder must commit to the expenditure of a specific dollar amount of participation by each MBE/WBE firm included on their Schedule D-1. The total dollar commitment to proposed MBEs must at least equal the MBE goal, and the total dollar commitment to proposed WBEs must at least equal the WBE goal. Bidders are responsible for calculating the dollar equivalent of the MBE and WBE goals as percentages of their total base bids or in the case of Term Agreements, depends upon requirements agreements and blanket agreements, as percentages of the total estimated usage. All commitments made by the bidder's Schedule D-1 must conform to those presented in the submitted Schedule C-1. If Schedule C-1 is submitted after the opening, the bidder may submit a revised Schedule D-1 (executed and notarized to conform with the Schedules C-1). Bidders shall not be permitted to add MBEs or WBEs after bid opening to meet the Contract Specific Goals, however, contractors are encouraged to add additional MBE/WBE vendors to their approved compliance plan during the performance of the contract when additional opportunities for participation are identified. Except in cases where substantial and documented justification is provided, bidders will not be allowed to reduce the dollar commitment made to any MBE or WBE in order to achieve conformity between the Schedules C-1 and D-1.

All commitments for joint venture agreements must be delineated in the Schedule B.

(5) **Application for Approval of Mentor Protégé Agreement**

Any applications for City approval of a Mentor Protégé agreement must be included with the bid. If the application is not approved, the bidder must show that it has made good faith efforts to meet the contract specific goals.

8.7. Reporting Requirements During the Term of the Contract

- a. The Contractor will, not later than thirty (30) calendar days from the award of a contract by the City, execute formal contracts or purchase orders with the MBEs and WBEs included in their approved MBE/WBE Utilization Plan. These written agreements will be made available to the Chief Procurement Officer upon request.
- b. The Contractor will be responsible for reporting payments to all subcontractors on a monthly basis in the form of an electronic report. Upon the first payment issued by the City of Chicago to the contractor for services performed, on the first day of each month and every month thereafter, email and or fax audit notifications will be sent out to the Contractor with instructions to report payments that have been made in the prior month to each subcontractor. The reporting of payments to all subcontractors must be entered into the Certification and Compliance Monitoring System (C2), or whatever reporting system is currently in place, on or before the fifteenth (15th) day of each month.
- c. Once the prime Contractor has reported payments made to each subcontractor, including zero dollar amount payments, the subcontractor will receive an email and or fax notification requesting them to log into the system and confirm payments received. All monthly confirmations must be reported on or before the 20th day of each month. Contractor and subcontractor reporting to the C2 system must be completed by the 25th of each month or payments may be withheld.
- d. All subcontract agreements between the contractor and MBE/WBE firms or any first tier non-certified firm and lower tier MBE/WBE firms must contain language requiring the MBE/WBE to respond to email and/or fax notifications from the City of Chicago requiring them to report payments received for the prime or the non-certified firm.

Access to the Certification and Compliance Monitoring System (C2), which is a web based reporting system, can be found at: <https://chicago.mwdbe.com>
- e. The Chief Procurement Officer or any party designated by the Chief Procurement Officer, shall have access to the contractor's books and records, including without limitation payroll records, tax returns and records and books of account, to determine the contractor's compliance with its commitment to MBE and WBE participation and the status of any MBE or WBE performing any portion of the contract. This provision shall be in addition to, and not a substitute for, any other provision allowing inspection of the contractor's records by any officer or official of the City for any purpose.
- f. The Contractor shall maintain records of all relevant data with respect to the utilization of MBEs and WBEs, retaining these records for a period of at least five years after project closeout. Full access to these records shall be granted to City, federal or state authorities or other authorized persons.

8.8. Changes to Compliance Plan

8.8.1. Permissible Basis for Change Required

No changes to the Compliance Plan or contractual MBE and WBE commitments or substitution of MBE or WBE subcontractors may be made without the prior written approval of the Contract Compliance Officer. Unauthorized changes or substitutions, including performing the work designated for a subcontractor with the contractor's own forces, shall be a violation of these Special Conditions and a breach of the contract with the City, and may cause termination of the executed Contract for breach, and/or subject the bidder or contractor to contract remedies or other sanctions. The facts supporting the request for changes must not have been known nor reasonably could have been known by the parties prior to entering into the subcontract. Bid shopping is prohibited. The bidder or contractor must negotiate with the subcontractor to resolve the problem. If requested by either party, the Department of Procurement Services shall facilitate such a meeting. Where there has been a mistake or disagreement about the scope

of work, the MBE or WBE can be substituted only where an agreement cannot be reached for a reasonable price for the correct scope of work.

Substitutions of a MBE or WBE subcontractor shall be permitted only on the following basis:

- a) Unavailability after receipt of reasonable notice to proceed;
- b) Failure of performance;
- c) Financial incapacity;
- d) Refusal by the subcontractor to honor the bid or proposal price or scope;
- e) Mistake of fact or law about the elements of the scope of work of a solicitation where a reasonable price cannot be agreed;
- f) Failure of the subcontractor to meet insurance, licensing or bonding requirements;
- g) The subcontractor's withdrawal of its bid or proposal; or
- h) De-certification of the subcontractor as a MBE or WBE (graduation from the MBE/WBE program does not constitute de-certification).
- i) Termination of a Mentor Protégé Agreement.

8.8.2. Procedure for Requesting Approval

If it becomes necessary to substitute a MBE or WBE or otherwise change the Compliance Plan, the procedure will be as follows:

- a) The bidder or contractor must notify the Contract Compliance Officer and Chief Procurement Officer in writing of the request to substitute a MBE or WBE or otherwise change the Compliance Plan. The request must state specific reasons for the substitution or change. A letter from the MBE or WBE to be substituted or affected by the change stating that it cannot perform on the contract or that it agrees with the change in its scope of work must be submitted with the request.
- b) The City will approve or deny a request for substitution or other change within 15 business days of receipt of the written request.
- c) Where the bidder or contractor has established the basis for the substitution to the satisfaction of the Chief Procurement Officer, it must make Good Faith Efforts to meet the Contract Specific Goal by substituting a MBE or WBE subcontractor. Documentation of a replacement MBE or WBE, or of Good Faith Efforts, must meet the requirements in section 5. If the MBE or WBE Contract Specific Goal cannot be reached and Good Faith Efforts have been made, as determined by the Chief Procurement Officer, the bidder or contractor may substitute with a non-MBE or non-WBE.
- d) If a bidder or contractor plans to hire a subcontractor for any scope of work that was not previously disclosed in the Compliance Plan, the bidder or contractor must obtain the approval of the Chief Procurement Officer to modify the Compliance Plan and must make Good Faith Efforts to ensure that MBEs or WBEs have a fair opportunity to bid on the new scope of work.
- e) A new subcontract must be executed and submitted to the Contract Compliance Officer within five business days of the bidder's or contractor's receipt of City approval for the substitution or other change.

The City shall not be required to approve extra payment for escalated costs incurred by the contractor when a substitution of subcontractors becomes necessary to comply with MBE/WBE contract requirements.

8.9. Non-Compliance and Damages

Without limitation, the following shall constitute a material breach of this contract and entitle the City to declare a default, terminate the contract, and exercise those remedies provided for in the contract, at law or in equity: (1) failure to demonstrate Good Faith Efforts, except in the case of a contract where a bid incentive under MCC 2-92-525 was taken into consideration in the award; and (2) disqualification as a MBE or WBE of the contractor or any joint venture partner, subcontractor or supplier if its status as an MBE or WBE was a factor in the award of the contract and such status was misrepresented by the contractor.

Payments due to the contractor may be withheld until corrective action is taken.

Pursuant to MCC 2-92-445 or 2-92-740, as applicable, remedies or sanctions may include a penalty in the amount of the discrepancy between the amount of the commitment in the Compliance Plan, as such amount may be amended through change orders or otherwise over the term of the contract, and the amount paid to MBEs or WBEs, and disqualification from contracting or subcontracting on additional City contracts for up to three years. The consequences provided herein shall be in addition to any other criminal or civil liability to which such entities may be subject.

The contractor shall have the right to protest the final determination of non-compliance and the imposition of any penalty by the Chief Procurement Officer pursuant to MCC 2-92-445 or 2-92-740, within 15 business days of the final determination.

In the case of a in the case of a contract for which a bid incentive under MCC 2-92-525 was taken into consideration in the award, any contractor that has failed to retain the percentage of MBE or WBE subcontractor committed to in order for the bid incentive to be allocated will be fined an amount equal to three times the amount of the bid incentive allocated, unless the contractor can demonstrate that due to circumstances beyond the contractor's control, the contractor for good cause was unable to retain the percentage of MBE or WBE subcontractors throughout the duration of the contract period.

8.10. Arbitration

- a) In the event a contractor has not complied with the contractual MBE/WBE percentages in its Schedule D, underutilization of MBEs/WBEs shall entitle the affected MBE/WBE to recover from the contractor damages suffered by such entity as a result of being underutilized; provided, however, that this provision shall not apply to the extent such underutilization occurs pursuant to a waiver or substitution approved by the City. The Ordinance and contracts subject thereto provide that any disputes between the contractor and such affected MBEs/WBEs regarding damages shall be resolved by binding arbitration before an independent arbitrator other than the City, with reasonable expenses, including attorney's fees, being recoverable by a prevailing MBE/WBE in accordance with these regulations. This provision is intended for the benefit of any MBE/WBE affected by underutilization and grants such entity specific third party beneficiary rights. Any rights conferred by this regulation are non-waivable and take precedence over any agreement to the contrary, including but not limited to those contained in a subcontract, suborder, or communicated orally between a contractor and a MBE/WBE.
- b) An MBE/WBE desiring to arbitrate shall contact the contractor in writing to initiate the arbitative process. Except as otherwise agreed to in writing by the affected parties subject to the limitation contained in the last sentence of the previous paragraph, within ten (10) calendar days of the contractor receiving notification of the intent to arbitrate from the MBE/WBE the above-described disputes shall be arbitrated in accordance with the Commercial Arbitration Rules of the American Arbitration Association (AAA), a not-for-profit agency, with an office at 225 North Michigan Avenue, Suite 2527, Chicago, Illinois 60601-7601 [Phone: (312) 616-6560; Fax: (312) 819-0404]. All such arbitrations shall be initiated by the MBE/WBE filing a demand for arbitration with the AAA; shall be conducted by the AAA; and held in Chicago, Illinois.
- c) All arbitration fees are to be paid pro rata by the parties, however, that the arbitrator is authorized to award reasonable expenses, including attorney and arbitrator fees, as damages to a prevailing MBE/WBE.

- d) The MBE/WBE must send the City a copy of the Demand for Arbitration within ten (10) calendar days after it is filed with the AAA. The MBE/WBE also must send the City a copy of the decision of the arbitrator within ten (10) calendar days of receiving such decision. Judgment upon the award rendered by the arbitrator may be entered in any court of competent jurisdiction.

8.11. Equal Employment Opportunity

Compliance with MBE and WBE requirements will not diminish or supplant equal employment opportunity and civil rights provisions as required by law.

8.12. Attachments and Schedules

The following attachments and schedules follow, they may also be downloaded from the Internet at:
<http://www.cityofchicago.org/forms>

- Attachment A: Assist Agencies
- Attachment B: Sample Format for Requesting Assist Agency Comments on Bidder's Request for Reduction or Waiver of MBE/WBE Goals
- Schedule B: Affidavit of Joint Venture (MBE/WBE)
- Schedule C-1: Letter of Intent From MBE/WBE To Perform As Subcontractor, Supplier and/or Consultant
- Schedule D-1: Compliance Plan Regarding MBE/WBE Utilization



Attachment A -- Assist Agency List (Rev. Sept 2016)

Assist Agencies are comprised of not-for-profit agencies and/or chamber of commerce agencies that represent the interest of small, minority and/or women owned businesses.

**Prime Contractors should contact with subcontracting opportunities to connect certified firms.*

<p>51st Street Business Association * 220 E. 51st Street Chicago, IL 60615 Phone: 773-285-3401 Fax: 773-285-3407 Email: the51streetbusinessassociation@yahoo.com Web: www.51stStreetChicago.com</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>Association of Asian Construction Enterprises * 5677 W. Howard Niles, IL 60714 Phone: 847-673-7377 Fax: 847-673-2358 Email: nakmancorp@aol.com</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>Austin African American Business Networking Assoc. 5820 W. Chicago Ave., Chicago, IL 60651 Phone: 773-626-4497 Email: aaabna@yahoo.com Web: www.aaabna.org</p> <p>Maintains list of certified firms: No Provides training for businesses: Yes</p>	<p>Black Contractors United * 12000 S. Marshfield Ave. Calumet Park, IL 60827 Phone: 708-389-5730 Fax: 708-389-5735 Email: valerie@blackcontractorsunited.com Web: www.blackcontractorsunited.com</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>LGBT Chamber of Commerce of Illinois * 3179 N. Clark St., 2nd Floor Chicago, IL 60657 Phone: 773-303-0167 Fax: 773-303-0168 Email: grodriguez@lgbtcc.com Web: www.lgbtcc.com</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>Chatham Business Association Small Business Dev. * 800 E. 78th Street Chicago, IL 60619 Phone: 773-994-5006 Fax: 773-855-8905 Email: melindakelly@cbaworks.org Web: www.cbaworks.org</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>



<p>Chicago Minority Supplier Development Council Inc. * 105 W. Adams, Suite 2300 Chicago, IL 60603-6233 Phone: 312-755-2550 Fax: 312-755-8890 Email: pbarreda@chicagomsgdc.org Web: www.chicagomsgdc.org</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>Chicago Urban League * 4510 S. Michigan Ave. Chicago, IL 60653 Phone: 773-624-8810 Fax: 773-451-3579 Email: sbrinston@thechicagourbanleague.org Web: www.cul-chicago.org</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>Chicago Women in Trades (CWIT) 2444 W. 16th Street Chicago, IL 60608 Phone: 773-942-1444 Fax: 312-942-1599 Email: jvellinga@cwit2.org Web: www.chicagowomenintrades2.org</p> <p>Maintains list of certified firms: No Provides training for businesses: Yes</p>	<p>Contractor Advisors Business Development Corp. * 1507 E. 53rd Street, Suite 906 Chicago, IL. 60615 Phone: 312-436-0301 Email: info@contractoradvisors.us Web: www.contractoradvisors.us</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>Do For Self Community Development Co. * 7447 S South Shore Drive, Unit 22B Chicago, IL 60649 Phone: 773-356-7661 Email: dennisdoforself@hotmail.com Web: www.doforself.org</p> <p>Maintains list of certified firms: No Provides training for businesses: Yes</p>	<p>Far South Community Development Corporation 9923 S. Halsted Street, Suite D Chicago, IL 60628 Phone: 773-941-4833 Fax: 773-941-5252 Email: lacy@farsouth.org Web: www.farsouthcdc.org</p> <p>Maintains list of certified firms: No Provides training for businesses: Yes</p>



<p>Federation of Women Contractors * 216 W. Jackson Blvd. #625 Chicago, IL 60606 Phone: 312-360-1122 Fax: 312-750-1203 Email: fwcchicago@aol.com Web: www.fwcchicago.com</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>Greater Englewood Community Development Corp. * 815 W. 63rd Street Chicago, IL 60621 Phone: 773-651-2400 Fax: 773-651-2400 Email: jharbin@greaterenglewoodcdc.org Web: www.greaterenglewoodcdc.org</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>Greater Pilsen Economic Development Assoc. * 1801 S. Ashland Chicago, IL 60608 Phone: 312-698-8898 Email: greaterpilsen@gmail.com Web: www.greaterpilsen.org</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>Greater Far South Halsted Chamber of Commerce * 10615 S. Halsted Street Chicago, IL 60628 Phone: 518-556-1641 Fax: 773-941-4019 Email: halstedchamberevents@gmail.com Web: www.greaterfarsouthhalstedchamber.org</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>Hispanic American Construction Industry Association (HACIA) * 650 W. Lake St., Unit 415 Chicago, IL 60661 Phone: 312-575-0389 Fax: 312-575-0544 Email: jperez@haciaworks.org Web: www.haciaworks.org</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>Illinois Hispanic Chamber of Commerce * 222 Merchandise Mart Plaza, Suite 1212 c/o 1871 Chicago, IL 60654 Phone: 312-425-9500 Email: aalcantar@ihccbbusiness.net Web: www.ihccbbusiness.net</p> <p>Maintains list of certified firms: Yes Provides training for businesses: Yes</p>



<p>Illinois State Black Chamber of Commerce * 411 Hamilton Blvd., Suite 1404 Peoria, Illinois 61602 Phone: 309-740-4430 / 773-294-8038 Fax: 309-672-1379 Email: Larrylvory@IllinoisBlackChamber.org / vgilb66709@yahoo.com www.illinoisblackchamberofcommerce.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>Latin American Chamber of Commerce * 3512 W. Fullerton Avenue Chicago, IL 60647 Phone: 773-252-5211 Fax: 773-252-7065 Email: d.lorenzopadron@LACCUSA.com Web: www.LACCUSA.com Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>National Association of Women Business Owners * 500 Davis Street, Ste 812 Evanston, IL 60201 Phone: 773-410-2484 Fax: 847-328-2018 Email: wjaehn@nawbochicago.org Web: www.nawbochicago.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>National Organization of Minority Engineers (NOME) * 33 W. Monroe, Suite 1540 Chicago, IL 60603 Phone: 312-960-1239 Email: grandevents1@sbcglobal.net Web: www.nomeonline.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>Rainbow/PUSH Coalition * 930 E. 50th Street Chicago, IL 60615 Phone: 773-256-2768 Fax: 773-373-4103 Email: jmitchell@rainbowpush.org Web: www.rainbowpush.org Maintains list of certified firms: Yes Provides training for businesses: No</p>	<p>South Shore Chamber, Inc. * 1750 E. 71st Street, Suite 208 Chicago, IL 60649-2000 Phone: 773-955- 9508 Email: twertz@southshorechamberinc.org Web: www.southshorechamberinc.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p>

<p>The Monroe Foundation</p> <p>1547 South Wolf Road Hillside, Illinois 60162 Phone: 773-315-9720 Email: omonroe@themonroefoundation.org Web: www.themonroefoundation.org Maintains list of certified firms: No Provides training for businesses: Yes</p>	<p>US Minority Contractors Association, Inc. *</p> <p>1250 Grove Ave. Suite 200 Barrington, IL 60010 Phone: 847-708-1597 Fax: 847-382-1787 Email: admin@usminoritycontractors.org Web: USMinorityContractors.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p>
<p>Women's Business Development Center *</p> <p>8 S. Michigan Ave., 4th Floor Chicago, IL 60603 Phone: 312-853-3477 Fax: 312-853-0145 Email: fcurry@wbdc.org Web: www.wbdc.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p>	<p>Women Construction Owners & Executives (WCOE) *</p> <p>Chicago Caucus 308 Circle Avenue Forest Park, IL 60130 Phone: 708-366-1250 Email: mkm@mkmservices.com Web: www.wcoeusa.org Maintains list of certified firms: Yes Provides training for businesses: No</p>
<p>Your Community Consultants Foundation</p> <p>9301 S. Parnell Ave., Chicago, IL 60620 Phone: 773-224-9299 Fax: 773-371-0032 Email: allen81354@aol.com Maintains list of certified firms: No Provides training for businesses: Yes</p>	

Attachment B - Sample Format for Requesting Assist Agency Comments on Bidder's Request for Reduction or Waiver of MBE/WBE Goals

On Bidder/Proposer's Letterhead – SEND TO THE ASSIST AGENCIES – DO NOT SEND TO THE CITY

RETURN RECEIPT REQUESTED

(Date)

Specification No.: 410835
Project Description: Fire Apparatuses

(Assist Agency Name and Address – **SEND TO THE ASSIST AGENCIES – DO NOT SEND TO THE CITY**)

Dear _____:

_____ (Bidder/Proposer) intends to submit a bid/proposal in response to the above referenced specification with the City of Chicago. Bids are due _____ advertised specification with the City of Chicago.

The following areas have been identified for subcontracting opportunities on both a direct and indirect basis:

Our efforts to identify potential subcontractors have not been successful in order to meet the Disadvantaged/Minority/Women Business Enterprise contract goal. **Due to the inability to identify an appropriate DBE/MBE/WBE firm certified by the City of Chicago to participate as a subcontractor or joint venture partner, a request for the waiver of the contract goals will be submitted.** If you are aware of such a firm, please contact

Name of Company Representative at Address/Phone

within (10) ten business days of receipt of this letter.

Under the City of Chicago's MBE/WBE/DBE Ordinance, your agency is entitled to comment upon this waiver request to the City of Chicago. Written comments may be directed within ten (10) working days of your receipt of this letter to:

Monica Jimenez, Deputy Procurement Officer
Department of Procurement Services
City of Chicago
121 North La Salle Street, Room 806
Chicago, Illinois 60602

If you wish to discuss this matter, please contact the undersigned at _____.

Sincerely,

Schedule B – Affidavit of Joint Venture

SCHEDULE B: Affidavit of Joint Venture (MBE/WBE)

This form need not be submitted if all joint venturers are MBEs and/or WBEs. In such a case, however, a written joint venture agreement among the MBE and WBE venturers must be submitted. In all proposed joint ventures, each MBE and/or WBE venturer must submit a copy of their current Letter of Certification.

All Information Requested by this Schedule must Be Answered in the Spaces Provided. Do Not Refer to Your Joint Venture Agreement Except to Expand on Answers Provided on this Form. If Additional Space Is Required, Additional Sheets May Be Attached.

- I. Name of joint venture: _____
Address of joint venture: _____
Phone number of joint venture: _____
- II. Identify each non-MBE/WBE venturer(s):
Name of Firm: _____
Address: _____
Phone: _____
Contact person for matters concerning MBE/WBE compliance: _____
- III. Identify each MBE/WBE venturer(s):
Name of Firm: _____
Address: _____
Phone: _____
Contact person for matters concerning MBE/WBE compliance: _____
- IV. Describe the role(s) of the MBE and/or WBE venturer(s) in the joint venture: _____

- V. Attach a copy of the joint venture agreement. In order to demonstrate the MBE and/or WBE venturer's share in the ownership, control, management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details related to: (1) the contributions of capital and equipment; (2) work items to be performed by the MBE/WBE's own forces; (3) work items to be performed under the supervision of the MBE/WBE venturer; and (4) the commitment of management, supervisory and operative personnel employed by the MBE/WBE to be dedicated to the performance of the project.
- VI. Ownership of the Joint Venture.
 - A. What are the percentage(s) of MBE/WBE ownership of the joint venture?
MBE/WBE ownership percentage(s) _____
Non-MBE/WBE ownership percentage(s) _____
 - B. Specify MBE/WBE percentages for each of the following (provide narrative descriptions and other detail as applicable):
 1. Profit and loss sharing: _____
 2. Capital contributions:
 - (a) Dollar amounts of initial contribution: _____

Schedule B: Affidavit of Joint Venture (MBE/WBE)

(b) Dollar amounts of anticipated on-going contributions: _____

3. Contributions of equipment (Specify types, quality and quantities of equipment to be provided by each venturer): _____

4. Other applicable ownership interests, including ownership options or other agreements which restrict or limit ownership and/or control: _____

5. Provide copies of all written agreements between venturers concerning this project.

6. Identify each current City of Chicago contract (and each contract completed during the past two (2) years) by a joint venture of two or more firms participating in this joint venture:

VII. Control of and Participation in the Joint Venture. Identify by name and firm those individuals who are, or will be, responsible for, and have the authority to engage in the following management functions and policy decisions. (Indicate any limitations to their authority such as dollar limits and co-signatory requirements.):

A. Joint venture check signing:

B. Authority to enter contracts on behalf of the joint venture:

C. Signing, co-signing and/or collateralizing loans:

D. Acquisition of lines of credit:

Schedule B: Affidavit of Joint Venture (MBE/WBE)

E. Acquisition and indemnification of payment and performance bonds:

F. Negotiating and signing labor agreements:

G. Management of contract performance. (Identify by name and firm only):

1. Supervision of field operations: _____
2. Major purchases: _____
3. Estimating: _____
4. Engineering: _____

VIII. Financial Controls of joint venture:

A. Which firm and/or individual will be responsible for keeping the books of account?

B. Identify the managing partner, if any, and describe the means and measure of their compensation:

C. What authority does each venturer have to commit or obligate the other to insurance and bonding companies, financing institutions, suppliers, subcontractors, and/or other parties participating in the performance of this contract or the work of this project?

IX. State the approximate number of operative personnel (by trade) needed to perform the joint venture's work under this contract. Indicate whether they will be employees of the non-MBE/WBE firm, the MBE/WBE firm, or the joint venture.

Schedule B: Affidavit of Joint Venture (MBE/WBE)

The undersigned affirms that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our joint venture and the intended participation of each venturer in the undertaking. Further, the undersigned covenant and agree to provide to the City current, complete and accurate information regarding actual joint venture work and the payment therefore, and any proposed changes in any provision of the joint venture agreement, and to permit the audit and examination of the books, records and files of the joint venture, or those of each venturer relevant to the joint venture by authorized representatives of the City or the Federal funding agency.

Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under federal or state laws concerning false statements.

Note: If, after filing this Schedule B and before the completion on the joint venture's work on the project, there is any change in the information submitted, the joint venture must inform the City of Chicago, either directly or through the prime contractor if the joint venture is a subcontractor.

_____ Name of MBE/WBE Partner Firm	_____ Name of Non-MBE/WBE Partner Firm
_____ Signature of Affiant	_____ Signature of Affiant
_____ Name and Title of Affiant	_____ Name and Title of Affiant
_____ Date	_____ Date

On this _____ day of _____, 20____, the above-signed officers

(names of affiants)

personally appeared and, known to me be the persons described in the foregoing Affidavit, acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Signature of Notary Public

My Commission Expires: _____

(SEAL)

Schedule C-1: Letter of Intent From MBE/WBE To Perform As Subcontractor, Supplier and/or Consultant



FOR
NON-CONSTRUCTION
PROJECTS ONLY

SCHEDULE C-1
MBE/WBE Letter of Intent to Perform as a
Subcontractor, Supplier, or Consultant

Project Name: _____ Specification No.: _____

From: _____
(Name of MBE/WBE Firm)

To: _____ and the City of Chicago.
(Name of Prime Contractor)

The MBE or WBE status of the undersigned is confirmed by the attached City of Chicago or Cook County, Illinois Certification Letter. 100% MBE or WBE participation is credited for the use of a MBE or WBE "manufacturer." 60% participation is credited for the use of a MBE or WBE "regular dealer."

The undersigned is prepared to perform the following services in connection with the above named project/contract. If more space is required to fully describe the MBE or WBE proposed scope of work and/or payment schedule, including a description of the commercially useful function being performed. Attach additional sheets as necessary:

The above described performance is offered for the following price and described terms of payment:

SUB-SUBCONTRACTING LEVELS

A zero (0) must be shown in each blank if the MBE or WBE will not be subcontracting any of the work listed or attached to this schedule.

_____ % of the dollar value of the MBE or WBE subcontract that will be subcontracted to non MBE/WBE contractors.

_____ % of the dollar value of the MBE or WBE subcontract that will be subcontracted to MBE or WBE contractors.

NOTICE: If any of the MBE or WBE scope of work will be subcontracted, list the name of the vendor and attach a brief explanation, description and pay item number of the work that will be subcontracted. MBE/WBE credit will not be given for work subcontracted to Non-MBE/WBE contractors, except for as allowed in the Special Conditions Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment.

The undersigned will enter into a formal written agreement for the above work with you as a Prime Contractor, conditioned upon your execution of a contract with the City of Chicago, within three (3) business days of your receipt of a signed contract from the City of Chicago.

The undersigned has entered into a formal written mentor protégé agreement as a subcontractor/protégé with you as a Prime Contractor/mentor: () Yes () No

NOTICE: THIS SCHEDULE AND ATTACHMENTS REQUIRE ORIGINAL SIGNATURES.

(Signature of President/Owner/CEO or Authorized Agent of MBE/WBE) (Date)

(Name/Title-Please Print)

(Email & Phone Number)

Schedule D-1: Affidavit of Implementation of MBE/WBE Goals and Participation Plan



SCHEDULE D-1
Compliance Plan Regarding MBE/WBE Utilization
Affidavit of Prime Contractor

**FOR
NON-CONSTRUCTION
PROJECTS ONLY**

**MUST BE SUBMITTED WITH THE BID. FAILURE TO SUBMIT THE SCHEDULE D-1 WILL CAUSE THE
BID TO BE REJECTED. DUPLICATE AS NEEDED.**

Project Name: _____

Specification No.: _____

In connection with the above captioned contract, I HEREBY DECLARE AND AFFIRM that I am a duly authorized representative of _____
(Name of Prime Consultant/Contractor)

and that I have personally reviewed the material and facts set forth herein describing our proposed plan to achieve the MBE/WBE goals of this contract.

All MBE/WBE firms included in this plan have been certified as such by the City of Chicago and/or Cook County, Illinois (Letters of Certification Attached).

I. Direct Participation of MBE/WBE Firms:

NOTE: The bidder/proposer shall, in determining the manner of MBE/WBE participation, first consider involvement with MBE/WBE firms as joint venture partners, subcontractors, and suppliers of goods and services directly related to the performance of this contract.

A. If bidder/proposer is a joint venture and one or more joint venture partners are certified MBEs or WBEs, attach copies of Letters of Certification, Schedule B form and a copy of Joint Venture Agreement clearly describing the role of each MBE/WBE firm(s) and its ownership interest in the joint venture.

B. Complete this section for each MBE/WBE Subcontractor/Supplier/Consultant participating on this contract:

1. Name of MBE/WBE: _____

Address: _____

Contact Person: _____

Phone Number: _____

Dollar Value of Participation \$ _____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): () Yes () No Add'l Percentage Claimed:¹ _____%

Total Participation % _____

2. Name of MBE/WBE: _____

Address: _____

Contact Person: _____

¹ The Prime Contractor may claim an additional 0.333 percent participation credit (up to a maximum of five (5) percent) for every one (1) percent of the value of the contract performed by the MBE/WBE protégé firm.

Schedule D-1: Prime Contractor Affidavit-MBE/WBE Compliance Plan

Phone Number: _____

Dollar Value of Participation \$ _____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): () Yes () No Add'l Percentage Claimed: ____%

Total Participation % _____

3. Name of MBE/WBE: _____

Address: _____

Contact Person: _____

Phone Number: _____

Dollar Value of Participation \$ _____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): () Yes () No Add'l Percentage Claimed: ____%

Total Participation % _____

4. Name of MBE/WBE: _____

Address: _____

Contact Person: _____

Phone Number: _____

Dollar Value of Participation \$ _____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): () Yes () No Add'l Percentage Claimed: ____%

Total Participation % _____

5. Attach Additional Sheets as Needed

II. Indirect Participation of MBE/WBE Firms

NOTE: This section need not be completed if the MBE/WBE goals have been met through the direct participation outlined in Section I. If the MBE/WBE goals have not been met through direct participation, Contractor will be expected to demonstrate that the proposed MBE/WBE direct participation represents the maximum achievable under the circumstances. Only after such a demonstration will indirect participation be considered.

MBE/WBE Subcontractors/Suppliers/Consultants proposed to perform work or supply goods or services where such performance does not directly relate to the performance of this contract:

1. Name of MBE/WBE: _____

Address: _____

Contact Person: _____

Schedule D-1: Prime Contractor Affidavit-MBE/WBE Compliance Plan

Phone Number: _____

Dollar Value of Participation \$ _____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): () Yes () No Add'l Percentage Claimed: ____%

Total Participation % _____

2. Name of MBE/WBE: _____

Address: _____

Contact Person: _____

Phone Number: _____

Dollar Value of Participation \$ _____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): () Yes () No Add'l Percentage Claimed: ____%

Total Participation % _____

3. Name of MBE/WBE: _____

Address: _____

Contact Person: _____

Phone Number: _____

Dollar Value of Participation \$ _____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): () Yes () No Add'l Percentage Claimed: ____%

Total Participation % _____

4. Name of MBE/WBE: _____

Address: _____

Contact Person: _____

Phone Number: _____

Dollar Value of Participation \$ _____

Percentage of Participation % _____

Mentor Protégé Agreement (attach executed copy): () Yes () No Add'l Percentage Claimed: ____%

Total Participation % _____

5. Attach Additional Sheets as Needed

Schedule D-1: Prime Contractor Affidavit-MBE/WBE Compliance Plan

III. Summary of MBE/WBE Proposal

A. MBE Proposal (Direct & Indirect)

1. MBE Direct Participation

MBE Firm Name	Dollar Amount Participation (\$)	Percent Amount Participation (%)
Total Direct MBE Participation		

2. MBE Indirect Participation

MBE Firm Name	Dollar Amount Participation (\$)	Percent Amount Participation (%)
Total Indirect MBE Participation		

B. WBE Proposal (Direct & Indirect)

1. WBE Direct Participation

WBE Firm Name	Dollar Amount Participation (\$)	Percent Amount Participation (%)
Total Direct WBE Participation		

2. WBE Indirect Participation

WBE Firm Name	Dollar Amount Participation (\$)	Percent Amount Participation (%)
Total Indirect WBE Participation		

Schedule D-1: Prime Contractor Affidavit-MBE/WBE Compliance Plan

The Prime Contractor designates the following person as its MBE/WBE Liaison Officer:

(Name- Please Print or Type)

(Phone)

I DO SOLEMNLY DECLARE AND AFFIRM UNDER PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, THAT NO MATERIAL FACTS HAVE BEEN OMITTED, AND THAT I AM AUTHORIZED ON BEHALF OF THE PRIME CONTRACTOR TO MAKE THIS AFFIDAVIT.

(Name of Prime Contractor – Print or Type)

State of: _____

(Signature)

County of: _____

(Name/Title of Affiant – Print or Type)

(Date)

On this ____ day of _____, 20____, the above signed officer _____
(Name of Affiant)

personally appeared and, known by me to be the person described in the foregoing Affidavit, acknowledged that (s)he executed the same in the capacity stated therein and for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and seal.

(Notary Public Signature)

SEAL:

Commission Expires: _____

ARTICLE 9. INSURANCE REQUIREMENTS

The Contractor must provide and maintain for the life of this Contract and at Contractor's own expense, until Contract completion and during the time period following final completion if Contractor is required to return and perform any additional work, the insurance coverage and requirements specified below, insuring all operations related to the Contract.

9.1. Insurance to be Provided

9.1.1. Workers Compensation and Employers Liability

Workers Compensation Insurance, as prescribed by applicable law covering all employees who are to provide a service under this Contract and Employers Liability coverage with limits of not less than \$500,000 each accident; \$500,000 disease-policy limit; and \$500,000 disease-each employee, or the full per occurrence limits of the policy, whichever is greater.

Contractor may use a combination of primary and excess/umbrella policy/policies to satisfy the limits of liability required herein. The excess/umbrella policy/policies must provide the same coverages/follow form as the underlying policy/policies.

9.1.2. Commercial General Liability (Primary and Umbrella)

Commercial General Liability Insurance or equivalent must be maintained with limits of not less than \$1,000,000 per occurrence or for the full per occurrence limits of the policy, whichever is greater, for bodily injury, personal injury, and property damage liability. Coverages must include the following: All premises and operations, products/completed operations, separation of insureds, defense, and contractual liability (not to include Endorsement CG 21 39 or equivalent).

The City must be provided additional insured status with respect to liability arising out of Contractor's work, services or operations and completed operations performed on behalf of the City. The City's additional insured status must apply to liability and defense of suits arising out of Contractor's acts or omissions, whether such liability is attributable to the Contractor or to the City on an additional insured endorsement form acceptable to the City. The full policy limits and scope of protection also will apply to the City as an additional insured, even if they exceed the City's minimum limits required herein. Consultant's liability insurance must be primary without right of contribution by any other insurance or self-insurance maintained by or available to the City.

Contractor may use a combination of primary and excess/umbrella policy/policies to satisfy the limits of liability required herein. The excess/umbrella policy/policies must provide the same coverages/follow form as the underlying policy/policies.

9.1.3. Automobile Liability (Primary and Umbrella)

When any motor vehicles (owned, non-owned and hired) are used in connection with work, services or operations to be performed, the Contractor must maintain Automobile Liability Insurance with limits of not less than \$1,000,000 per occurrence, or for the full per occurrence limits of the policy, whichever is greater for bodily injury and property damage. Coverage must include but not be limited to the following: ownership, maintenance, or use of any auto whether owned, leased, non-owned or hired used in the performance of the work, both on and off the City sites including loading and unloading. The City is to be added as an additional insureds on a primary, non-contributory basis.

Contractor may use a combination of primary and excess/umbrella policy/policies to satisfy the limits of liability required herein.

9.1.4. Excess/Umbrella

Excess/Umbrella Liability Insurance must be maintained with limits of not less than \$1,000,000 per occurrence, or the full per occurrence limits of the policy, whichever is greater. The policy/policies must provide the same coverages/follow form as the underlying Commercial General Liability, Automobile Liability, Employers Liability and Completed Operations coverage required herein and expressly provide that the excess or umbrella policy/policies will drop down over reduced and/or exhausted aggregate limit, if any, of the underlying insurance. The Excess/Umbrella policy/policies must be primary without right of contribution by any other insurance or self-insurance maintained by or available to the City.

Contractor may use a combination of primary and excess/umbrella policies to satisfy the limits of liability required in sections 9.1.1, 9.1.2, 9.1.3 and 9.1.4 herein.

9.1.5. Garage Liability

The Contractor must provide Garage Liability Insurance with limits of not less than \$1,000,000 per occurrence, combined single limit, for bodily injury and property damage. Coverage extensions must include Garage Keepers Legal Liability. The City of Chicago is to be named as an additional insured arising directly or indirectly from the work or services.

9.1.6. Property

The Contractor is responsible for all loss or damage to City property including the vehicles or equipment full replacement cost while in Contractor's care, custody and control.

The Contractor is responsible for all loss or damage to personal property (including materials, equipment, tools and supplies) owned, rented or used by Contractor.

9.2. Additional Requirements

The Contractor must furnish the City of Chicago, Department of Procurement Services, City Hall, Room 806, 121 North LaSalle Street, Chicago, Illinois 60602, original Certificates of Insurance, or such similar evidence, to be in force on the date of this Contract, and Renewal Certificates of Insurance, or such similar evidence, if the coverages have an expiration or renewal date occurring during the term of this Contract. The Contractor must submit evidence of insurance on the City of Chicago Insurance Certificate Form (copy attached as an exhibit) or equivalent prior to Contract award. The receipt of any certificate does not constitute agreement by the City that the insurance requirements in the Contract have been fully met or that the insurance policies indicated on the certificate are in compliance with all Contract requirements. The failure of the City to obtain certificates or other insurance evidence from Contractor is not a waiver by the City of any requirements for the Contractor to obtain and maintain the specified coverages. The Contractor must advise all insurers of the Contract provisions regarding insurance. Non-conforming insurance does not relieve Contractor of the obligation to provide insurance as specified herein. No fulfillment of the insurance conditions may constitute a violation of the Contract, and the City retains the right to stop work until proper evidence of insurance is provided, or the Contract may be terminated.

Contractor must furnish Certificates Insurance of Coverage of any or all insurance policies listing the City as an additional insured upon request by the Chief Procurement Officer. All Certificates Insurance of Coverage must be signed, dated and reference the City contract number.

The insurance must provide for sixty (60) days prior written notice to be given to the City in the event coverage is substantially changed, canceled, or non-renewed.

Any deductibles or self-insured retentions on referenced insurance coverages must be borne by Contractor.

The Contractor agrees that insurers waive their rights of subrogation against the City of Chicago, its employees, elected officials, agents, or representatives.

The coverages and limits furnished by Contractor in no way limit the Contractor's liabilities and responsibilities specified within the Contract or by law.

Any insurance or self-insurance programs maintained by the City of Chicago do not contribute with insurance provided by the Contractor under the Contract.

The required insurance to be carried is not limited by any limitations expressed in the indemnification language in this Contract or any limitation placed on the indemnity in this Contract given as a matter of law.

If Contractor is a joint venture or limited liability company, the insurance policies must name the joint venture or limited liability company and each of its separate constituent entities as named insureds.

The Contractor must require all subcontractors to provide the insurance required herein, or Contractor may provide the coverages for subcontractors. All subcontractors are subject to the same insurance requirements of Contractor unless otherwise specified in this Contract.

If Contractor or subcontractor desire additional coverages, the party desiring the additional coverages is responsible for the acquisition and cost.

Notwithstanding any provision in the Contract to the contrary, the City of Chicago Risk Management Department maintains the right to modify, delete, alter or change these requirements.

ARTICLE 10. ECONOMIC DISCLOSURE STATEMENT AND AFFIDAVIT (EDS)

10.1. Online EDS Filing Required Prior To Bid Opening

The Bidder must prepare an online EDS prior to the bid opening date.

A BIDDER THAT DOES NOT PREPARE AN ELECTRONIC EDS PRIOR TO THE BID OPENING WILL BE FOUND NON-RESPONSIVE AND ITS BID WILL BE REJECTED.

NOTE:

- A. Filing an "EDS Information Update" does NOT satisfy the requirement to file an electronic EDS prior to bid opening.
- B. Filing an EDS in a hard copy or paper copy form does NOT satisfy the requirement to file an electronic EDS prior to bid opening.
- C. Filing an EDS for another mater (different bid, contract, etc.) does NOT satisfy the requirement to file an electronic EDS prior to bid opening.
- D. When completing the online EDS, please choose the Department of Procurement Services as the City agency or department that is requesting the EDS.

10.2. Online EDS Web Link

The web link for the Online EDS is <https://webapps.cityofchicago.org/EDSWeb>

10.3. Online EDS Number

Upon completion of the online EDS submission process, the Bidder will be provided an EDS number. Bidders should provide this number here:

EDS Number: _____

10.4. Online EDS Certification of Filing

Upon completion of the online submission process, the Bidder will be able to print a hard copy Certificate of Filing. The Bidder should submit the signed Certificate of Filing with its bid.

Please insert your Certification of Filing following this page.

A Bidder that does not include a signed Certificate of Filing with its bid must provide it upon the request of the Chief Procurement Officer.

Preparation Checklist for Registration

To expedite and ease your registration process, we recommend that you collect the following information prior to registering for an Online EDS user account:

- _____ 1. Invitation number, if you were provided an invitation number.
- _____ 2. EDS document from previous years, if available.
- _____ 3. Email address to correspond with the Online EDS system.
4. Company Information:
 - _____ a. Legal Name
 - _____ b. FEIN/SSN
 - _____ c. City of Chicago Vendor Number, if available.
 - _____ d. Address and phone number information that you would like to appear on your EDS documents.
 - _____ e. EDS Captain. Check for an EDS Captain in your company - this maybe the person that usually submits EDS for your company or the first person that registers for your company.

10.5. Preparation Checklist for EDS Submission

To expedite and ease your EDS submission, we recommend that you collect the following information prior to updating your EDS information online.

Items #1 through #7 are needed for both EDS information updates and contract related EDS documents:

- _____ 1. Invitation number, if you were provided with an invitation number.
- _____ 2. Site address that is specific to this EDS.
- _____ 3. Contact that is responsible for this EDS.
- _____ 4. EDS document from previous years, if available.
- _____ 5. Ownership structure and if applicable, owners' company information:
 - _____ a. % of ownership
 - _____ b. Legal Name
 - _____ c. FEIN/SSN
 - _____ d. City of Chicago Vendor Number, if available.
 - _____ e. Address
- _____ 6. List of directors, officers, titleholders, etc. (if applicable).
- _____ 7. For partnerships/LLC/LLP/Joint ventures, etc.; List of controlling parties (if applicable).

Items #8 and #9 are needed ONLY for contract related EDS documents:

1. Contract related information (if applicable):
 - _____ a. City of Chicago contract package
 - _____ b. Cover page of City of Chicago bid/solicitation package
 - _____ c. If EDS is related to a mod, then cover page of your current contract with the City.
2. List of subcontractors and retained parties:
 - _____ a. Name
 - _____ b. Address
 - _____ c. Fees – Estimated or paid

10.6. EDS Frequently Asked Questions

Q: Where do I file?

A: The web link for the Online EDS is <https://webapps.cityofchicago.org/EDSWeb>

Q: How do I get help?

A: If there is a question mark on a page or next to a field, click on the question mark for help filling out the page or field. You may also consult the User Manual and the Training Videos available on the left menu.

Q: Why do I have to submit an EDS?

A: The Economic Disclosure Statement (EDS) is required of applicants making an application to the City for action requiring City Council, City department or other City agency approval. For example, all bidders seeking a City contract are required to

submit an EDS. Through the EDS, applicants make disclosures required by State law and City ordinances and certify compliance with various laws and ordinances. An EDS is also required of certain parties related to the applicant, such as owners and controlling parties.

Q: Who is the Applicant?

A: "Applicant" means any entity or person making an application to the City for action requiring City Council or other City agency approval. The applicant does not include owners and parent companies.

Q: Who is the Disclosing Party?

A: "Disclosing Party" means any entity or person submitting an EDS. This includes owners and parent companies.

Q: What is an entity or legal entity?

A: "Entity" or "Legal Entity" means a legal entity (for example, a corporation, partnership, joint venture, limited liability company or trust).

Q: What is a person for purposes of the EDS?

A: "Person" means a human being.

Q: Who must submit an EDS?

A. An EDS must be submitted in any of the following three circumstances:

Applicants: An Applicant must always file this EDS. If the Applicant is a legal entity, state the full name of that legal entity. If the Applicant is a person acting on his/her own behalf, state his/her name.

Entities holding an interest: Whenever a legal entity has a beneficial interest (E. G. direct or indirect ownership) of more than 7.5% in the Applicant, each such legal entity must file an EDS on its own behalf.

Controlling entities: Whenever a Disclosing Party is a general partnership, limited partnership, limited liability company, limited liability partnership or joint venture that has a general partner, managing member, manager or other entity that can control the day-to-day management of the Disclosing Party, that entity must also file an EDS on its own behalf. Each entity with a beneficial interest of more than 7.5% in the controlling entity must also file an EDS on its own behalf.

Q: What information is needed to submit an EDS?

A: The information contained in the Preparation Checklist for EDS submission.

Q: I don't have a user ID & password. Can I still submit an Online EDS?

A: No. You must register and create a user ID and password before submitting an Online EDS.

Q: What information is needed to request a user ID & password for Online EDS?

A: The information contained in the Preparation Checklist for Registration is needed to request a login for the Online EDS.

Q: I already have a username and password from another City web site (City Web Portal, Department of Construction and Permits, Department of Consumer Services, etc.). Can I log-in the Online EDS with that account?

A: Usually not. The Online EDS uses a user ID and password system that is shared by the Public Vehicle Advertising and Water Payment web sites. You may use a username and password from those sites by answering "Yes" to "Is this an existing City of Chicago user ID?" when registering. Other usernames and passwords will not be automatically recognized. However, you may choose to create an identical username for the Online EDS if it is not already taken.

Q: I don't have an email address. How do I submit an Online EDS?

A: You cannot get an account to submit an online EDS without an email address. If you need an e-mail address, we suggest that you use a free internet email provider such as www.hotmail.com, www.yahoo.com or rmail.google.com to open an account. The City does not endorse any particular free internet email provider. Public computers are available at all Chicago Public Library branches.

Q: I forgot my user ID. Can I register again?

A: No. If you are the EDS Captain of your organization, please contact the Department of Procurement Services at 312-744-4900. If you are an EDS team member, contact your EDS Captain, who can look up your user ID.

Q: Who is the EDS Captain?

A: The EDS Captain is a person who performs certain administrative functions for an organization which files an EDS. Each organization registered with the Online EDS has at least one EDS Captain. There may be co-captains, who are all equal. EDS Captains approve new users, change contact information for an organization and de-active accounts of employees who have left the organization. Please see the User Manual for more information.

Q: Why do we need EDS Captains?

A: The Online EDS is designed to be a self-service web application which allows those doing or seeking to do business with the City to perform as many routine functions as possible without City intervention. Because many organizations have multiple staff filing an EDS, the EDS Captain role allows those organizations to self-manage the contact information and users.

Q: Who is the EDS team?

A: The EDS team for an organization is everyone who is registered to file an EDS on behalf of the organization.

Q: I forgot my password. What should I do?

A: To retrieve a temporary password, click the "Forgot your password?" link on the login page. Enter your user ID that you provided when you registered your account. The system will automatically generate a temporary password and send it to you. When you log-in with your temporary password, you will be asked to create a new password.

Q: How do I complete an Online EDS?

A: Click on "Create New" after logging in. The Online EDS system will walk you through the EDS questions. Please see the User Manual for details.

Q: How do I fill out a Disclosure of Retained Parties?

A: There is no longer a separate Disclosure of Retained Parties filing. After logging in, click on "Create New". Answer (click) "Contract" to "Is this EDS for a contract or an EDS information update?" Click "Fill out EDS" and click on the "Retained Parties" tab. When finished, click on "Ready to Submit".

Q: How do I attach documents?

A: Attachments are discouraged. If at all possible, please provide a concise explanation in the space provided in the online form. Attachments with pages of officers are not acceptable. Names of officers must be typed into the system. If you must provide an attachment for another reason, please send it to your City of Chicago contact (contract administrator or negotiator for procurements) and they will attach it for you. Documents can be sent in PDF (preferred), Word or paper format.

Q: Who can complete an Economic Disclosure Statement online?

A: Any authorized representative of your business with a user ID and password can complete your EDS online. One person, such as an assistant, can fill in the information and save it and another person can review and electronically sign the Online EDS.

Q: What are the benefits of filing my Economic Disclosure statement electronically?

A: Filing electronically reduces the chance of filing an incomplete EDS and speeds up the processing of contract awards. A certificate of filing can be printed at the completion of the process and inserted into your bid package. The biggest benefit for those who frequently do business with the City is that after the first EDS, each EDS is much easier to fill out because non-contract specific information is pre-filled from the last submitted EDS.

Q: Will my information be secure?

A: Yes. When making your internet connection to our Web Server, you will connect through a Secure Socket Layer (SSL for short) to the "Online EDS" login page. All information you type will be protected using strong encryption. Within the login page, you will provide us with a user ID, password and secret question for user authentication, only you will have knowledge of this unique identification information.

Q: I am filing electronically. How do I sign my EDS?

A: Once you have completed the EDS, you will be prompted to enter your password and answer to your secret question. Together, these will serve as your electronic signature. Although you will also print and physically sign an EDS certification of filing as a notice that your EDS was filed, your EDS is complete as a legal document with only the electronic filing.

Q: My address has changed. How can I update my information?

A: You must be an EDS Captain for your organization to update this. Log-in and click on "Vendor Admin, Site Administration". Select the appropriate site and click edit.

Q: I have more questions. How can I contact the Department of Procurement Services?

A: Please contact the contract administrator or negotiator assigned to your solicitation or contract. You may call DPS at 312-744-4900 between 8:30 AM and 5:00 PM Central Time.

Q: Can I save a partially complete EDS?

A: Yes. Click "Save". To avoid data loss, we recommend you save your work periodically while filling out your EDS.

Q: Do I have to re-type my information each time I submit an EDS?

A: No. The system will remember non-contract specific information from your last submitted EDS for one year. This information will be filled-in for you in your new EDS. You will have an opportunity to correct it if it has changed since your last filing. When you submit your new EDS, the information is saved and the one-year clock begins running anew.

Q: What are the system requirements to use the Online EDS?

A: The following are minimum requirements to use the Online EDS:

- A PDF viewer such as Adobe Reader is installed and your web browser is configured to display PDFs automatically. You may download and install Adobe Reader free at www.adobe.com/products/reader/
- Your web browser is set to permit running of JavaScript.
- Your web browser allows cookies to be set for this site. Please note that while we use cookies in the Online EDS, we do not use them to track personally identifiable information, so your privacy is maintained.
- Your monitor resolution is set to a minimum of 1024 x 768.
- While not required to submit an EDS, if you wish to view the training videos, you must have Adobe Flash Plugin version 9 or higher, speakers and sound. Please note that very old computers may not be able to run Adobe Flash and will not be able to play the training videos. In that case, we encourage you to seek help using the Online EDS Manuals. You may download and install Adobe Flash Plugin free at <http://get.adobe.com/flashplayer>

The Online EDS has been tested on Internet Explorer 6.0, 7.0, Firefox 2.0 and 3.0 on Windows XP and Mac OS X. Although it should work on other browsers and operating systems, the City of Chicago cannot guarantee compatibility.

ARTICLE 11. PROPOSAL PAGES

Proposal page(s) follow.

Remainder of page intentionally blank.

City of Chicago
Catalog RFQ - No Group Lines

PU085I

RFQ Header Information

Please Respond By 4/30/2018

RFQ Number 5409

Ship To Location 160

For More Information Please Contact WILLIAM DOTSON

312-744-4924

RFQ Description FIRE APPARATUSES

Special Instructions

Your Quote is Effective as of 4/30/2018

RFQ Status Active

Bid/Proposal pricing for all commodity and/or service line items must be based on the standard unit of measure indicated below. Pricing on alternate units of measure may not be accepted. Unit costs must be limited to three decimal places. Each quote must be signed and unit price, extended price and total price must be typed or written in ink.

Quotes on "or equal" items must be identified as "alternate" to specified item on the comment line. If quoting an alternate, indicate manufacturer name, model/part/catalog number and attach descriptive literature. Alternate items may not be accepted. Any exceptions to items specified or other terms must be clearly indicated on the bid.

RFQ Header Details

Contract Type VEHICLES/HEAVY EQUIPMENT (CAPITAL)

Target Market NO

Advertise Date 3/9/2018

WEB BID Edit Rules ALL

Specification 410835

Procurement Type BID

Bid Deposit Required NO

Compliance Officer

Compliance Type Description

	Percentage Type Desc	Required %
No Compliance Plan Required	None	0.00 %

City of Chicago
Catalog RFQ - No Group Lines

PU085I

<u>Line No</u>	<u>Line Type</u>	<u>Item</u>	<u>Category</u>	<u>Commodity Desc</u>	<u>UOM</u>	<u>Estimated Usage</u>	<u>Price</u>	<u>Discount or Markup %</u>	<u>Extended Price</u>	<u>Catalog # / ID, Date and Mfr</u>	<u>Comments</u>
1	Goods	0704810012	07048	TRUCKS - AUTOMOTIVE VEHICLES - TRUCKS - AERIAL LADDER & TOWER TRUCKS, CREW CAB CHASSIS AERIAL TOWER LADDER	Each	8	\$	(N/A)	\$	(N/A)	
2	Goods	0704810014	07048	TRUCKS - AUTOMOTIVE VEHICLES - TRUCKS - AERIAL LADDER & TOWER TRUCKS, CREW CAB CHASSIS 100' AERIAL LADDER	Each	45	\$	(N/A)	\$	(N/A)	
3	Goods	0704810016	07048	TRUCKS - AUTOMOTIVE VEHICLES - TRUCKS - AERIAL LADDER & TOWER TRUCKS, CREW CAB CHASSIS TRIPLE COMBINATION PUMPER BODY	Each	90	\$	(N/A)	\$	(N/A)	
4	Goods	0609929015	06099	PARTS & ACCESSORIES - FOR AERIAL TOWER LADDER TRUCKS -COMMUNICATION SYSTEMS	Each	90	\$	(N/A)	\$	(N/A)	
5	Goods	0609929020	00000	PARTS & ACCESSORIES - FOR 100' AERIAL TOWER LADDER TRUCKS -COMMUNICATION SYSTEMS	Each	8	\$	(N/A)	\$	(N/A)	
6	Goods	0609929025	06099	PARTS & ACCESSORIES - FOR TRIPLE COMBINATION FOAM PUMPER BODY TRUCKS -COMMUNICATION SYSTEMS	Each	90	\$	(N/A)	\$	(N/A)	
7	Catalog Line	06099.96	06099.96	PARTS, CAPTIVE OR ACCERSSORY, (OEM) - CHASSIS OPTIONS	Mark Up	\$ 300000	(N/A)		\$		
8	Catalog Line	06099.79	06099.79	PARTS, CAPTIVE OR ACCESSORIES, (OEM) - BODY OPTIONS	Mark Up	\$ 300000	(N/A)		\$		
9	Catalog Line	06099.89	06099.89	PARTS, MECHANICAL AND ELECTRICAL	Mark Up	See worksheet			\$		
10	Work Services	9284757300	92847	VEHICLE REPAIRS - LABOR TO PERFORM MECHANICAL AND ELECTRICAL REPAIR SERVICES IN CONTRACTOR'S SHOP, REGULAR BUSINESS HOURS	Hour	30000	\$	(N/A)	\$	(N/A)	
11	Work Services	9689093105	96890	VEHICLE TOWING - DRIVE, TOW OR TRANSPORT VEHICLES OR EQUIPMENT BETWEEN CITY FACILITY AND CONTRACTOR'S SHOP (EACH WAY)	Each	600	\$	(N/A)	\$	(N/A)	

Total Price \$

ARTICLE 12. BIDDER CONTACT INFORMATION AND ADDITIONAL BID DATA

Person to contact regarding bid:

Name: _____ Phone: _____

Address: _____

Like Manufacturer Makes And Models Proposed:

Provide for each line item and goods, work or services proposed. Attach additional sheets as needed.

Bid Line#1- Crew Cab Chassis Aerial Tower Ladder: _____

Bid Line#2- Crew Cab Chassis with 100' Aerial Ladder: _____

Bid Line#3- Crew Cab Chassis with Triple Combination Pumper: _____

Manufacturer, Manufacturer's Authorized Distributor/Service Representative

INDICATE IF YOU ARE:

MANUFACTURER	YES: _____	NO: _____
MANUFACTURER'S EXCLUSIVE DISTRIBUTOR*	YES: _____	NO: _____
MANUFACTURER'S AUTHORIZED DISTRIBUTOR*	YES: _____	NO: _____
MANUFACTURER'S AUTHORIZED SERVICE REPRESENTATIVE*	YES: _____	NO: _____

* If an exclusive or authorized manufacturer's distributor, manufacturer's service representative or manufacturer's authorized service representative; bidder is to provide the name, address and phone number of manufacturer and written documentation from the manufacturer verifying status, with the bid.

Licensed New Vehicle Dealer

Indicate if you are:

Licensed New Vehicle Dealer** YES: _____ NO: _____

* If a licensed new vehicle dealer, bidder is to provide a copy of their current Registration for Authority to Deal in Vehicles, as Issued by the Illinois Secretary of State, with the bid.

WARRANTY FOR BID LINE#1 – CREW CAB AERIAL TOWER LADDER

At a minimum the specified unit(s) and all mounted /furnished equipment must be warranted against defective design, material or workmanship to the full extent of the respective Equipment warranties as outlined below. Warranties are to be non-prorated warranties and must not require any action or participation of the Chicago Fire Department or Department of Fleet & Facility Management.

The bidder will indicate, below, the length of warranty coverage offered for each item and/or components furnished under this specification. In the event of conflict between the warranty information specified by the Contractor and the respective Original Equipment Manufacturers standard warranty, the warranties deemed most advantageous to the City will control.

NOTE: WHERE ITEM IS NOT APPLICABLE, INDICATE WITH "N/A".

Component/Feature	Minimum Acceptable Coverage	Proposed Coverage
Complete base unit	Full 1 year complete parts & labor	
Corrosion complete unit	Full 5 years complete parts & labor	
Complete unit paint	Full 5 years complete parts & labor	
Frame	Full life time complete parts & labor	
Engine	Full 5 years complete parts & Labor	
Emissions	Full 5 years complete parts & labor	
Transmission	Full 5 years complete parts & labor	
Non OEM accessories	Full 1 years complete parts & labor	
Aerial device structures	Full 20 years complete parts & labor	
Water Pump System	Full 5 years complete parts & labor	

Location of Repair and Maintenance Shop(s)

TECHNICAL DATA (BID LINE #1 – CREW CAB CHASSIS AERIAL TOWER LADDER)

Bidders must complete and submit with bid.

Overall Design

Actual total overall length of apparatus _____

Actual overall unloaded travel height of apparatus _____

Actual overall width of apparatus excluding outside _____

Mirrors _____

Actual wheelbase of apparatus _____

Frame

GENERAL:

A) SIDERAIL TYPE _____

B) SIDERAIL SECTION _____ X _____ X _____

C) REINFORCEMENT TYPE _____

D) REINFORCEMENT SECTION _____ X _____ X _____

RATINGS:

A) SECTION MODULUS _____

B) YIELD STRENGTH (PSI) _____

C) RBM _____

Engine

GENERAL:

A) MAKE _____

B) MODEL _____

C) CYLINDERS _____

D) DISPLACEMENT (CID/L) _____

E) ASPIRATION TYPE _____

RATINGS (MFG'S. PUBLISHED):

A) MAX SAE GROSS HP _____ @ _____ RPM

B) MAX SAE NET HP _____ @ _____ RPM

C) MAX SAE GROSS TORQUE _____ @ _____ RPM

D) MAX SAE NET TORQUE _____ @ _____ RPM

E) GOVERNED SPEED _____ RPM

Filtration:

- A) AIR FILTER TYPE _____ W/RESTRICTION GAGE? _____
- B) FUEL FILTER QTY/TYPE _____
- C) OIL FILTER TYPE/CAPACITY _____
- D) BYPASS FILTER TYPE _____

Cooling:

- A) SYSTEM CAPACITY (GAL) _____
- B) RADIATOR FRONTAL AREA (in²) _____
- C) RADIATOR FINS/INCH _____

Exhaust (Check One):

- A) HORIZONTAL _____
- B) VERTICAL, SHIELDED _____
- C) VERTICAL, UNSHIELDED _____

Transmission

GENERAL:

- A) MAKE _____
- B) MODEL _____
- C) SPEEDS _____
- D) MAX. INPUT TORQUE RATING _____
- E) MAX. INPUT HP RATING _____

RATIOS:

- 1ST GEAR _____ :1
- 2ND GEAR _____ :1
- 3RD GEAR _____ :1
- 4TH GEAR _____ :1
- 5TH GEAR _____ :1
- 6TH GEAR _____ :1
- 7TH GEAR _____ :1

REVERSE _____ :

CLUTCH

GENERAL:

- A) MAKE _____
- B) MODEL _____
- C) SIZE _____

- D) DISC MATERIAL _____
- E) NO. OF PLATES _____
- F) PUSH OR PULL TYPE? _____

AXLES

GENERAL (FRONT):

- A) MAKE _____
- B) MODEL _____
- C) PUBLISHED WT. RATING @ GRD. _____
- D) SPEED(S) _____ (IF APPLICABLE)
- E) RATIO(S) _____ (IF APPLICABLE)
- F) REDUCTION (SGL. OR DBL.) _____ (IF APPLICABLE)

GENERAL (REAR):

- A) MAKE _____
- B) PUBLISHED WT. RATING @ GRD. _____
- C) SPEED(S) _____ (IF APPLICABLE)
- E) RATIO(S) _____ (IF APPLICABLE)
- F) REDUCTION (SGL. OR DBL.) _____ (IF APPLICABLE)

Brakes

SYSTEM: (CHECK ONE):

- A) AIR _____
- B) HYDRAULIC _____

GENERAL (AIR):

- A) MAKE/TYPE, FRONT _____
- B) MAKE/TYPE, REAR _____
- C) BRAKE SIZE, FRONT _____
- D) BRAKE SIZE, REAR _____
- E) COMPRESSOR MAKE/MODEL _____
- F) COMPRESSOR DISPLACEMENT _____
- G) AIR DRYER MAKE/MODEL _____

GENERAL (HYDRAULIC):

- A) MAKE/TYPE, FRONT _____
- B) MAKE/TYPE, REAR _____

- C) BRAKE SIZE, FRONT _____
- D) BRAKE, REAR _____

GENERAL (PARKING BRAKE):

- A) MAKE _____
- B) TYPE _____
- C) SIZE _____

Springs/Suspension

GENERAL (FRONT):

- A) SPRING TYPE _____
- B) SPRING CAPACITY RATING @ GROUND _____ P/SPRING

GENERAL (REAR):

- A) SUSPENSION MAKE _____
- B) SUSPENSION TYPE _____
- C) SPRING TYPE _____
- D) SPRING CAPACITY RATING @ GROUND _____ P/SPRING
- E) AUX. SPRING CAPACITY RATING @ PAD _____ P/SPRING

Tires/Wheels

WHEELS (FRONT):

- A) MAKE _____
- B) TYPE _____
- C) WEIGHT CAPACITY _____

RIMS (FRONT):

- A) MAKE _____
- B) TYPE _____
- C) NO. OF PIECES _____
- D) BEAD SEAT (DEGREES) _____
- E) WEIGHT CAPACITY _____

TIRES (FRONT):

- A) MAKE _____
- B) MODEL _____
- C) SIZE & PLY RATING _____
- D) REV'S PER MILE _____
- E) WEIGHT CAPACITY _____ @ _____ PSI

WHEELS (REAR):

- A) MAKE _____
- B) MODEL _____
- E) WEIGHT CAPACITY _____

RIMS (REAR):

- A) MAKE _____
- B) TYPE _____
- C) NO. OF PIECES _____
- D) BEAD SEAT (DEGREES) _____
- E) WEIGHT CAPACITY _____

TIRES (REAR):

- A) MAKE _____
- B) MODEL _____
- C) SIZE & PLY RATING _____
- D) REV'S PER MILE _____
- E) WEIGHT CAPACITY _____ @ _____ PSI

Electrical

BATTERIES:

- A) MAKE _____
- B) MODEL _____
- C) QUANTITY _____
- D) VOLTAGE _____
- E) CCA (COMBINED) _____
- F) RESERVE CAPACITY _____

ALTERNATOR:

- A) MAKE _____
- B) MODEL _____
- C) CAPACITY (AMPERES) _____
- D) AMPS @ IDLE _____

STARTER:

- A) MAKE _____
- B) MODEL _____
- C) VOLTAGE _____

CIRCUIT PROTECTION: (CHECK ONE)

- A) REPLACEABLE FUSES _____
- B) CIRCUIT BREAKERS _____

SYSTEM POLARITY: (CHECK ONE)

- A) POSITIVE _____
- B) NEGATIVE _____

Equipment/Accessories

NOTE: WHERE ITEM IS NOT APPLICABLE, INDICATE WITH "N/A".

BLOCK HEATER:

- A) MAKE/MODEL _____
- B) WATTS _____

ENGINE SHUT-DOWN SYSTEM:

- A) MAKE/MODEL _____
- B) OVER-RIDE? _____

FRAME EXTENSION:

- A) INTEGRAL OR BOLT-ON? _____
- B) DIMENSIONS _____
- C) RBM _____

FUEL TANK(S):

- A) QUANTITY _____
- B) CAPACITY _____
- C) LOCATION _____
- D) TYPE OF SIPHON PROTECTION _____

Gauges:

LIST ALL GAUGES PROVIDED

Heater/Protection:

- A) BTU RATING _____

Hood/Fenders:

- A) HOOD CONFIGURATION _____
- B) HOOD MATERIAL _____
- C) FENDER MATERIAL _____
- D) BUTTERFLY/ACCESS HATCHES (Y/N) _____

Hour meter (Engine):

- A) MAKE/MODEL _____
- B) ELECTRIC OR OIL PRESSURE ACTUATED? _____

Mirrors:

- A) TYPE _____
- B) SIZE _____
- C) QUANTITY _____
- D) HEATED (Y/N) _____

Power Take-Off:

- A) MAKE/MODEL _____
- B) HP OF OUTPUT SHAFT @1,000 RPM _____
- C) RIGHT OR LEFT MOUNT? _____
- D) RATIO _____

Seating:

FRONT:

- A) CAPACITY _____
- B) BENCH OR BUCKETS? _____
- C) DRIVER'S SEAT MAKE _____

REAR:

- A) CAPACITY _____
- B) BENCH OR BUCKETS? _____

Shock Absorbers:

- A) FRONT (Y/N)? _____ REAR (Y/N)? _____
- B) MAKE _____
- C) PISTON DIAMETER _____
- D) SINGLE OR DOUBLE ACTING? _____

Shutters:

- A) AIR OR ELECTRIC? _____
- B) MAKE/MODEL _____

Starting Aid:

- A) TYPE _____
- B) MAKE/MODEL _____
- C) ACTIVATED HOW? _____

Steering:

- A) WEIGHT CAPACITY _____
- B) MANUAL OR POWER? _____
- C) STEERING GEAR RATIO _____

Body And Mounted Equipment

BODY:

- A) TYPE _____
- B) MAKE/MODEL _____
- C) DIMENSIONS _____
- D) CAPACITY _____
- E) WEIGHT _____
- F) MATERIAL(S) _____
- G) LITERATURE FURNISHED (Y/N)? _____

HOIST:

- A) MAKE/MODEL _____
- B) NUMBER OF CYLINDERS _____
- C) CYLINDER BORE/STROKE _____
- D) CYLINDER DIAMETER _____
- E) CAPACITY @ 45° _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

AERIAL DEVICE:

- A) MAKE/MODEL _____
- B) TELESCOPIC OR ARTICULATED? _____
- C) VERTICAL REACH (MAX.) _____
- D) HORIZONTAL REACH (MAX.) _____
- E) LIFTING CAPACITY (MAX.) _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

LIFT GATE:

- A) MAKE/MODEL _____
- B) WEIGHT CAPACITY _____
- C) PLATFORM SIZE _____
- D) NUMBER OF CYLINDERS _____
- E) CYLINDER DIAMETER _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

FIFTH WHEEL:

- A) MAKE/MODEL _____
- B) MOUNTING HEIGHT _____
- C) MANUALLY OR AIR OPERATED? _____
- D) WEIGHT _____
- E) LITERATURE FURNISHED (Y/N)? _____

SNOW PLOW/HITCH:

- A) PLOW MAKE/MODEL _____
- B) PLOW LENGTH _____
- C) REVERSIBLE (Y/N)? _____

SALT SPREADERS:

- A) MAKE/MODEL _____
- B) HOPPER CAPACITY _____
- C) DIMENSIONS _____
- D) HOPPER MATERIAL _____
- E) SPINNER MATERIAL _____
- F) CONVEYOR WIDTH _____
- G) WEIGHT _____
- H) LITERATURE FURNISHED (Y/N)? _____

Performance Data

MAXIMUM GEARED SPEED _____

GRADEABILITY _____

WEIGHT DISTRIBUTION

	FRONT	REAR	TOTAL
A) CAB/CHASSIS	_____	_____	_____
B) DRIVER	_____	_____	_____
C) FUEL	_____	_____	_____
D) BODY	_____	_____	_____
E) _____	_____	_____	_____
F) _____	_____	_____	_____
G) _____	_____	_____	_____
H) _____	_____	_____	_____
I) SUB-TOTALS	_____	_____	_____
J) PAYLOAD (MAX.)	_____	_____	_____
K) TOTALS	_____	_____	_____

EXCEPTIONS, IF ANY TO THE PROVISIONS OF THE DETAILED SPECIFICATIONS

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

WARRANTY FOR BID LINE# 2 – CREW CAB CHASSIS 100’ AERIAL LADDER

At a minimum the specified unit(s) and all mounted /furnished equipment must be warranted against defective design, material or workmanship to the full extent of the respective Equipment warranties as outlined below. Warranties are to be non prorated warranties and must not require any action or participation of the Chicago Fire Department or Department of Fleet & Facility Management.

The bidder will indicate, below, the length of warranty coverage offered for each item and/or components furnished under this specification. In the event of conflict between the warranty information specified by the Contractor and the respective Original Equipment Manufacturers standard warranty, the warranties deemed most advantageous to the City will control.

NOTE: WHERE ITEM IS NOT APPLICABLE, INDICATE WITH "N/A".

Component/Feature	Minimum Acceptable Coverage	Proposed Coverage
Complete base unit	Full 1 year complete parts & labor	
Corrosion complete unit	Full 5 years complete parts & labor	
Complete unit paint	Full 5 years complete parts & labor	
Frame	Full life time complete parts & labor	
Engine	Full 5 years complete parts & Labor	
Emissions	Full 5 years complete parts & labor	
Transmission	Full 5 years complete parts & labor	
Non OEM accessories	Full 1 years complete parts & labor	
Aerial device structures	Full 20 years complete parts & labor	
Water Pump System	Full 5 years complete parts & labor	

Location of Repair and Maintenance Shop(s)

TECHNICAL DATA (BID LINE#2 – CREW CAB CHASSIS 100’ AERAL LADDER)

Bidders must complete and submit with bid.

Overall Design

Actual total overall length of apparatus _____

Actual overall unloaded travel height of apparatus _____

Actual overall width of apparatus excluding outside _____

Mirrors _____

Actual wheelbase of apparatus _____

Frame

GENERAL:

A) SIDERAIL TYPE _____

B) SIDERAIL SECTION _____ X _____ X _____

C) REINFORCEMENT TYPE _____

D) REINFORCEMENT SECTION _____ X _____ X _____

RATINGS:

A) SECTION MODULUS _____

B) YIELD STRENGTH (PSI) _____

C) RBM _____

Engine

GENERAL:

A) MAKE _____

B) MODEL _____

C) CYLINDERS _____

D) DISPLACEMENT (CID/L) _____

E) ASPIRATION TYPE _____

RATINGS (MFG'S. PUBLISHED):

A) MAX SAE GROSS HP _____ @ _____ RPM

B) MAX SAE NET HP _____ @ _____ RPM

C) MAX SAE GROSS TORQUE _____ @ _____ RPM

D) MAX SAE NET TORQUE _____ @ _____ RPM

E) GOVERNED SPEED _____ RPM

Filtration:

- A) AIR FILTER TYPE _____ W/RESTRICTION GAGE? _____
- B) FUEL FILTER QTY/TYPE _____
- C) OIL FILTER TYPE/CAPACITY _____
- D) BYPASS FILTER TYPE _____

Cooling:

- A) SYSTEM CAPACITY (GAL) _____
- B) RADIATOR FRONTAL AREA (in2) _____
- C) RADIATOR FINS/INCH _____

Exhaust (Check One):

- A) HORIZONTAL _____
- B) VERTICAL, SHIELDED _____
- C) VERTICAL, UNSHIELDED _____

Transmission

GENERAL:

- A) MAKE _____
- B) MODEL _____
- C) SPEEDS _____
- D) MAX. INPUT TORQUE RATING _____
- E) MAX. INPUT HP RATING _____

RATIOS:

- 1ST GEAR _____ :1
- 2ND GEAR _____ :1
- 3RD GEAR _____ :1
- 4TH GEAR _____ :1
- 5TH GEAR _____ :1
- 6TH GEAR _____ :1
- 7TH GEAR _____ :1
- REVERSE _____ :1

CLUTCH

GENERAL:

- A) MAKE _____
- B) MODEL _____
- C) SIZE _____
- D) DISC MATERIAL _____
- E) NO. OF PLATES _____
- F) PUSH OR PULL TYPE? _____

AXLES

GENERAL (FRONT):

- A) MAKE _____
- B) MODEL _____
- C) PUBLISHED WT. RATING @ GRD. _____
- D) SPEED(S) _____ (IF APPLICABLE)
- E) RATIO(S) _____ (IF APPLICABLE)
- F) REDUCTION (SGL. OR DBL.) _____ (IF APPLICABLE)

GENERAL (REAR):

- A) MAKE _____
- B) PUBLISHED WT. RATING @ GRD. _____
- C) SPEED(S) _____ (IF APPLICABLE)
- E) RATIO(S) _____ (IF APPLICABLE)
- F) REDUCTION (SGL. OR DBL.) _____ (IF APPLICABLE)

Brakes

SYSTEM: (CHECK ONE):

- A) AIR _____
- B) HYDRAULIC _____

GENERAL (AIR):

- A) MAKE/TYPE, FRONT _____
- B) MAKE/TYPE, REAR _____
- C) BRAKE SIZE, FRONT _____
- D) BRAKE SIZE, REAR _____
- E) COMPRESSOR MAKE/MODEL _____
- F) COMPRESSOR DISPLACEMENT _____
- G) AIR DRYER MAKE/MODEL _____

GENERAL (HYDRAULIC):

- A) MAKE/TYPE, FRONT _____
- B) MAKE/TYPE, REAR _____
- C) BRAKE SIZE, FRONT _____
- D) BRAKE, REAR _____

GENERAL (PARKING BRAKE):

- A) MAKE _____
- B) TYPE _____
- C) SIZE _____

Springs/Suspension

GENERAL (FRONT):

- A) SPRING TYPE _____
- B) SPRING CAPACITY RATING @ GROUND _____ P/SPRING

GENERAL (REAR):

- A) SUSPENSION MAKE _____
- B) SUSPENSION TYPE _____
- C) SPRING TYPE _____
- D) SPRING CAPACITY RATING @ GROUND _____ P/SPRING
- E) AUX. SPRING CAPACITY RATING @ PAD _____ P/SPRING

Tires/Wheels

WHEELS (FRONT):

- A) MAKE _____
- B) TYPE _____
- C) WEIGHT CAPACITY _____

RIMS (FRONT):

- A) MAKE _____
- B) TYPE _____
- C) NO. OF PIECES _____
- D) BEAD SEAT (DEGREES) _____
- E) WEIGHT CAPACITY _____

TIRES (FRONT):

- A) MAKE _____
- B) MODEL _____
- C) SIZE & PLY RATING _____
- D) REV'S PER MILE _____
- E) WEIGHT CAPACITY _____ @ _____ PSI

WHEELS (REAR):

- A) MAKE _____
- B) MODEL _____
- E) WEIGHT CAPACITY _____

RIMS (REAR):

- A) MAKE _____
- B) TYPE _____
- C) NO. OF PIECES _____
- D) BEAD SEAT (DEGREES) _____
- E) WEIGHT CAPACITY _____

TIRES (REAR):

- A) MAKE _____
- B) MODEL _____
- C) SIZE & PLY RATING _____
- D) REV'S PER MILE _____
- E) WEIGHT CAPACITY _____ @ _____ PSI

Electrical

BATTERIES:

- A) MAKE _____
- B) MODEL _____
- C) QUANTITY _____
- D) VOLTAGE _____
- E) CCA (COMBINED) _____
- F) RESERVE CAPACITY _____

ALTERNATOR:

- A) MAKE _____
- B) MODEL _____
- C) CAPACITY (AMPERES) _____
- D) AMPS @ IDLE _____

STARTER:

- A) MAKE _____
- B) MODEL _____
- C) VOLTAGE _____

CIRCUIT PROTECTION: (CHECK ONE)

- A) REPLACEABLE FUSES _____
- B) CIRCUIT BREAKERS _____

SYSTEM POLARITY: (CHECK ONE)

- A) POSITIVE _____
- B) NEGATIVE _____

Equipment/Accessories

NOTE: WHERE ITEM IS NOT APPLICABLE, INDICATE WITH "N/A".

BLOCK HEATER:

- A) MAKE/MODEL _____
- B) WATTS _____

ENGINE SHUT-DOWN SYSTEM:

- A) MAKE/MODEL _____
- B) OVER-RIDE? _____

FRAME EXTENSION:

- A) INTEGRAL OR BOLT-ON? _____
- B) DIMENSIONS _____
- C) RBM _____

FUEL TANK(S):

- A) QUANTITY _____
- B) CAPACITY _____
- C) LOCATION _____
- D) TYPE OF SIPHON PROTECTION _____

Gauges:

LIST ALL GAUGES PROVIDED

Heater/Protection:

- A) BTU RATING _____

Hood/Fenders:

- A) HOOD CONFIGURATION _____
- B) HOOD MATERIAL _____
- C) FENDER MATERIAL _____
- D) BUTTERFLY/ACCESS HATCHES (Y/N) _____

Hour meter (Engine):

- A) MAKE/MODEL _____
- B) ELECTRIC OR OIL PRESSURE ACTUATED? _____

Mirrors:

- A) TYPE _____
- B) SIZE _____
- C) QUANTITY _____
- D) HEATED (Y/N) _____

Power Take-Off:

- A) MAKE/MODEL _____
- B) HP OF OUTPUT SHAFT @1,000 RPM _____
- C) RIGHT OR LEFT MOUNT? _____
- D) RATIO _____

Seating:

FRONT:

- A) CAPACITY _____
- B) BENCH OR BUCKETS? _____
- C) DRIVER'S SEAT MAKE _____

REAR:

- A) CAPACITY _____
- B) BENCH OR BUCKETS? _____

Shock Absorbers:

- A) FRONT (Y/N)? _____ REAR (Y/N)? _____
- B) MAKE _____
- C) PISTON DIAMETER _____
- D) SINGLE OR DOUBLE ACTING? _____

Shutters:

- A) AIR OR ELECTRIC? _____
- B) MAKE/MODEL _____

Starting Aid:

- A) TYPE _____
- B) MAKE/MODEL _____
- C) ACTIVATED HOW? _____

Steering:

- A) WEIGHT CAPACITY _____
- B) MANUAL OR POWER? _____
- C) STEERING GEAR RATIO _____

Body And Mounted Equipment

BODY:

- A) TYPE _____
- B) MAKE/MODEL _____
- C) DIMENSIONS _____
- D) CAPACITY _____
- E) WEIGHT _____
- F) MATERIAL(S) _____
- G) LITERATURE FURNISHED (Y/N)? _____

HOIST:

- A) MAKE/MODEL _____
- B) NUMBER OF CYLINDERS _____
- C) CYLINDER BORE/STROKE _____
- D) CYLINDER DIAMETER _____
- E) CAPACITY @ 45° _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

AERIAL DEVICE:

- A) MAKE/MODEL _____
- B) TELESCOPIC OR ARTICULATED? _____
- C) VERTICAL REACH (MAX.) _____
- D) HORIZONTAL REACH (MAX.) _____
- E) LIFTING CAPACITY (MAX.) _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

LIFT GATE:

- A) MAKE/MODEL _____
- B) WEIGHT CAPACITY _____
- C) PLATFORM SIZE _____
- D) NUMBER OF CYLINDERS _____
- E) CYLINDER DIAMETER _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

FIFTH WHEEL:

- A) MAKE/MODEL _____
- B) MOUNTING HEIGHT _____
- C) MANUALLY OR AIR OPERATED? _____
- D) WEIGHT _____
- E) LITERATURE FURNISHED (Y/N)? _____

SNOW PLOW/HITCH:

- A) PLOW MAKE/MODEL _____
- B) PLOW LENGTH _____
- C) REVERSIBLE (Y/N)? _____

SALT SPREADERS:

- A) MAKE/MODEL _____
- B) HOPPER CAPACITY _____
- C) DIMENSIONS _____
- D) HOPPER MATERIAL _____
- E) SPINNER MATERIAL _____
- F) CONVEYOR WIDTH _____
- G) WEIGHT _____
- H) LITERATURE FURNISHED (Y/N)? _____

Performance Data

MAXIMUM GEARED SPEED _____

GRADEABILITY _____

WEIGHT DISTRIBUTION

	FRONT	REAR	TOTAL
A) CAB/CHASSIS	_____	_____	_____
B) DRIVER	_____	_____	_____
C) FUEL	_____	_____	_____
D) BODY	_____	_____	_____
E) _____	_____	_____	_____
F) _____	_____	_____	_____
G) _____	_____	_____	_____
H) _____	_____	_____	_____
I) SUB-TOTALS	_____	_____	_____
J) PAYLOAD (MAX.)	_____	_____	_____
K) TOTALS	_____	_____	_____

EXCEPTIONS, IF ANY TO THE PROVISIONS OF THE DETAILED SPECIFICATIONS

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

WARRANTY FOR BID LINE#3 – CREW CAB CHASSIS WITH TRIPLE COMBINATION PUMPER

At a minimum the specified unit(s) and all mounted /furnished equipment must be warranted against defective design, material or workmanship to the full extent of the respective Equipment warranties as outlined below. Warranties are to be non prorated warranties and must not require any action or participation of the Chicago Fire Department or Department of Fleet & Facility Management.

The bidder will indicate, below, the length of warranty coverage offered for each item and/or components furnished under this specification. In the event of conflict between the warranty information specified by the Contractor and the respective Original Equipment Manufacturers standard warranty, the warranties deemed most advantageous to the City will control.

NOTE: WHERE ITEM IS NOT APPLICABLE, INDICATE WITH "N/A".

Component/Feature	Minimum Acceptable Coverage	Proposed Coverage
Complete base unit	Full 1 year complete parts & labor	_____
Corrosion complete unit	Full 5 years complete parts & labor	_____
Complete unit paint	Full 5 years complete parts & labor	_____
Frame	Full life time complete parts & labor	_____
Engine	Full 5 years complete parts & Labor	_____
Emissions	Full 5 years complete parts & labor	_____
Transmission	Full 5 years complete parts & labor	_____
Non OEM accessories	Full 1 years complete parts & labor	_____
Aerial device structures	Full 20 years complete parts & labor	_____
Water Pump System	Full 5 years complete parts & labor	_____

Location of Repair and Maintenance Shop(s)

TECHNICAL DATA (BID LINE #3 – CREW CAB CHASSIS WITH TRIPLE COMBINATION FOARM PUMPER)

Bidders must complete and submit with bid.

Overall Design

Actual total overall length of apparatus _____

Actual overall unloaded travel height of apparatus _____

Actual overall width of apparatus excluding outside _____

Mirrors _____

Actual wheelbase of apparatus _____

Frame

GENERAL:

A) SIDERAIL TYPE _____

B) SIDERAIL SECTION _____ X _____ X _____

C) REINFORCEMENT TYPE _____

D) REINFORCEMENT SECTION _____ X _____ X _____

RATINGS:

A) SECTION MODULUS _____

B) YIELD STRENGTH (PSI) _____

C) RBM _____

Engine

GENERAL:

A) MAKE _____

B) MODEL _____

C) CYLINDERS _____

D) DISPLACEMENT (CID/L) _____

E) ASPIRATION TYPE _____

RATINGS (MFG'S. PUBLISHED):

A) MAX SAE GROSS HP _____ @ _____ RPM

B) MAX SAE NET HP _____ @ _____ RPM

C) MAX SAE GROSS TORQUE _____ @ _____ RPM

D) MAX SAE NET TORQUE _____ @ _____ RPM

E) GOVERNED SPEED _____ RPM

Filtration:

- A) AIR FILTER TYPE _____ W/RESTRICTION GAGE? _____
- B) FUEL FILTER QTY/TYPE _____
- C) OIL FILTER TYPE/CAPACITY _____
- D) BYPASS FILTER TYPE _____

Cooling:

- A) SYSTEM CAPACITY (GAL) _____
- B) RADIATOR FRONTAL AREA (in2) _____
- C) RADIATOR FINS/INCH _____

Exhaust (Check One):

- A) HORIZONTAL _____
- B) VERTICAL, SHIELDED _____
- C) VERTICAL, UNSHIELDED _____

Transmission

GENERAL:

- A) MAKE _____
- B) MODEL _____
- C) SPEEDS _____
- D) MAX. INPUT TORQUE RATING _____
- E) MAX. INPUT HP RATING _____

RATIOS:

- 1ST GEAR _____ :1
- 2ND GEAR _____ :1
- 3RD GEAR _____ :1
- 4TH GEAR _____ :1
- 5TH GEAR _____ :1
- 6TH GEAR _____ :1
- 7TH GEAR _____ :1
- REVERSE _____ :1

CLUTCH

GENERAL:

- A) MAKE _____
- B) MODEL _____
- C) SIZE _____
- D) DISC MATERIAL _____
- E) NO. OF PLATES _____
- F) PUSH OR PULL TYPE? _____

AXLES

GENERAL (FRONT):

- A) MAKE _____
- B) MODEL _____
- C) PUBLISHED WT. RATING @ GRD. _____
- D) SPEED(S) _____ (IF APPLICABLE)
- E) RATIO(S) _____ (IF APPLICABLE)
- F) REDUCTION (SGL. OR DBL.) _____ (IF APPLICABLE)

GENERAL (REAR):

- A) MAKE _____
- B) PUBLISHED WT. RATING @ GRD. _____
- C) SPEED(S) _____ (IF APPLICABLE)
- E) RATIO(S) _____ (IF APPLICABLE)
- F) REDUCTION (SGL. OR DBL.) _____ (IF APPLICABLE)

Brakes

SYSTEM: (CHECK ONE):

- A) AIR _____
- B) HYDRAULIC _____

GENERAL (AIR):

- A) MAKE/TYPE, FRONT _____
- B) MAKE/TYPE, REAR _____
- C) BRAKE SIZE, FRONT _____
- D) BRAKE SIZE, REAR _____

- E) COMPRESSOR MAKE/MODEL _____
- F) COMPRESSOR DISPLACEMENT _____
- G) AIR DRYER MAKE/MODEL _____

GENERAL (HYDRAULIC):

- A) MAKE/TYPE, FRONT _____
- B) MAKE/TYPE, REAR _____
- C) BRAKE SIZE, FRONT _____
- D) BRAKE, REAR _____

GENERAL (PARKING BRAKE):

- A) MAKE _____
- B) TYPE _____
- C) SIZE _____

Springs/Suspension

GENERAL (FRONT):

- A) SPRING TYPE _____
- B) SPRING CAPACITY RATING @ GROUND _____ P/SPRING

GENERAL (REAR):

- A) SUSPENSION MAKE _____
- B) SUSPENSION TYPE _____
- C) SPRING TYPE _____
- D) SPRING CAPACITY RATING @ GROUND _____ P/SPRING
- E) AUX. SPRING CAPACITY RATING @ PAD _____ P/SPRING

Tires/Wheels

WHEELS (FRONT):

- A) MAKE _____
- B) TYPE _____
- C) WEIGHT CAPACITY _____

RIMS (FRONT):

- A) MAKE _____
- B) TYPE _____
- C) NO. OF PIECES _____
- D) BEAD SEAT (DEGREES) _____
- E) WEIGHT CAPACITY _____

TIRES (FRONT):

- A) MAKE _____
- B) MODEL _____
- C) SIZE & PLY RATING _____
- D) REV'S PER MILE _____
- E) WEIGHT CAPACITY _____ @ _____ PSI

WHEELS (REAR):

- A) MAKE _____
- B) MODEL _____
- E) WEIGHT CAPACITY _____

RIMS (REAR):

- A) MAKE _____
- B) TYPE _____
- C) NO. OF PIECES _____
- D) BEAD SEAT (DEGREES) _____
- E) WEIGHT CAPACITY _____

TIRES (REAR):

- A) MAKE _____
- B) MODEL _____
- C) SIZE & PLY RATING _____
- D) REV'S PER MILE _____
- E) WEIGHT CAPACITY _____ @ _____ PSI

Electrical

BATTERIES:

- A) MAKE _____
- B) MODEL _____
- C) QUANTITY _____
- D) VOLTAGE _____
- E) CCA (COMBINED) _____
- F) RESERVE CAPACITY _____

ALTERNATOR:

- A) MAKE _____
- B) MODEL _____
- C) CAPACITY (AMPERES) _____
- D) AMPS @ IDLE _____

STARTER:

- A) MAKE _____
- B) MODEL _____
- C) VOLTAGE _____

CIRCUIT PROTECTION: (CHECK ONE)

- A) REPLACEABLE FUSES _____
- B) CIRCUIT BREAKERS _____

SYSTEM POLARITY: (CHECK ONE)

- A) POSITIVE _____
- B) NEGATIVE _____

Equipment/Accessories

NOTE: WHERE ITEM IS NOT APPLICABLE, INDICATE WITH "N/A".

BLOCK HEATER:

- A) MAKE/MODEL _____
- B) WATTS _____

ENGINE SHUT-DOWN SYSTEM:

- A) MAKE/MODEL _____
- B) OVER-RIDE? _____

FRAME EXTENSION:

- A) INTEGRAL OR BOLT-ON? _____
- B) DIMENSIONS _____
- C) RBM _____

FUEL TANK(S):

- A) QUANTITY _____
- B) CAPACITY _____
- C) LOCATION _____
- D) TYPE OF SIPHON PROTECTION _____

Gauges:

LIST ALL GAUGES PROVIDED

Heater/Protection:

- A) BTU RATING _____

Hood/Fenders:

- A) HOOD CONFIGURATION _____
- B) HOOD MATERIAL _____
- C) FENDER MATERIAL _____
- D) BUTTERFLY/ACCESS HATCHES (Y/N) _____

Hour meter (Engine):

- A) MAKE/MODEL _____
- B) ELECTRIC OR OIL PRESSURE ACTUATED? _____

Mirrors:

- A) TYPE _____
- B) SIZE _____
- C) QUANTITY _____
- D) HEATED (Y/N) _____

Power Take-Off:

- A) MAKE/MODEL _____
- B) HP OF OUTPUT SHAFT @1,000 RPM _____
- C) RIGHT OR LEFT MOUNT? _____
- D) RATIO _____

Seating:

FRONT:

- A) CAPACITY _____
- B) BENCH OR BUCKETS? _____
- C) DRIVER'S SEAT MAKE _____

REAR:

- A) CAPACITY _____
- B) BENCH OR BUCKETS? _____

Shock Absorbers:

- A) FRONT (Y/N)? _____ REAR (Y/N)? _____
- B) MAKE _____
- C) PISTON DIAMETER _____
- D) SINGLE OR DOUBLE ACTING? _____

Shutters:

- A) AIR OR ELECTRIC? _____
- B) MAKE/MODEL _____

Starting Aid:

- A) TYPE _____
- B) MAKE/MODEL _____
- C) ACTIVATED HOW? _____

Steering:

- A) WEIGHT CAPACITY _____
- B) MANUAL OR POWER? _____
- C) STEERING GEAR RATIO _____

Body And Mounted Equipment

BODY:

- A) TYPE _____
- B) MAKE/MODEL _____
- C) DIMENSIONS _____
- D) CAPACITY _____
- E) WEIGHT _____
- F) MATERIAL(S) _____
- G) LITERATURE FURNISHED (Y/N)? _____

HOIST:

- A) MAKE/MODEL _____
- B) NUMBER OF CYLINDERS _____
- C) CYLINDER BORE/STROKE _____
- D) CYLINDER DIAMETER _____
- E) CAPACITY @ 45° _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

AERIAL DEVICE:

- A) MAKE/MODEL _____
- B) TELESCOPIC OR ARTICULATED? _____
- C) VERTICAL REACH (MAX.) _____
- D) HORIZONTAL REACH (MAX.) _____
- E) LIFTING CAPACITY (MAX.) _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

LIFT GATE:

- A) MAKE/MODEL _____
- B) WEIGHT CAPACITY _____
- C) PLATFORM SIZE _____
- D) NUMBER OF CYLINDERS _____
- E) CYLINDER DIAMETER _____
- F) WEIGHT _____
- G) LITERATURE FURNISHED (Y/N)? _____

FIFTH WHEEL:

- A) MAKE/MODEL _____
- B) MOUNTING HEIGHT _____
- C) MANUALLY OR AIR OPERATED? _____
- D) WEIGHT _____
- E) LITERATURE FURNISHED (Y/N)? _____

SNOW PLOW/HITCH:

- A) PLOW MAKE/MODEL _____
- B) PLOW LENGTH _____
- C) REVERSIBLE (Y/N)? _____

SALT SPREADERS:

- A) MAKE/MODEL _____
- B) HOPPER CAPACITY _____
- C) DIMENSIONS _____
- D) HOPPER MATERIAL _____
- E) SPINNER MATERIAL _____
- F) CONVEYOR WIDTH _____
- G) WEIGHT _____
- H) LITERATURE FURNISHED (Y/N)? _____

Performance Data

MAXIMUM GEARED SPEED _____

GRADEABILITY _____

WEIGHT DISTRIBUTION

		FRONT	REAR	TOTAL
A)	CAB/CHASSIS	_____	_____	_____
B)	DRIVER	_____	_____	_____
C)	FUEL	_____	_____	_____
D)	BODY	_____	_____	_____
E)	_____	_____	_____	_____
F)	_____	_____	_____	_____
G)	_____	_____	_____	_____
H)	_____	_____	_____	_____
I)	SUB-TOTALS	_____	_____	_____
J)	PAYLOAD (MAX.)	_____	_____	_____
K)	TOTALS	_____	_____	_____

EXCEPTIONS, IF ANY TO THE PROVISIONS OF THE DETAILED SPECIFICATIONS

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

SECTION NO: _____

DESCRIBE EXCEPTION: _____

ARTICLE 13. AFFIDAVITS

13.1. BIDDERS COMMITMENT TO UTILIZE MBE AND WBE FIRMS ON NO STATED GOALS CONTRACT

If this is a competitively bid Contract funded in whole by City funds, and the Chief Procurement Officer has determined there will be no stated goals for MBE/WBE participation in this Contract, pursuant to MCC 2-92-525 a bid incentive for the utilization of MBE and WBE firms on the contract may be applicable. Bidder must complete this form if it desires to be considered for this preference. Bidders who do not complete and submit this form with their bid will be deemed to be ineligible for the preference on this contract.

Accordingly, the Bidder commits to expend at least the following percentage of the total contract price (inclusive of any and all modifications and amendments), if awarded, for contract participation by MBEs and WBEs.

Combined MBE and WBE Percentage:

- () At least 5%: 0.75% bid incentive
- () At least 10%: 1.00% bid incentive
- () At least 15%: 1.25% bid incentive
- () At least 20%: 1.50% bid incentive
- () At least 25%: 1.75% bid incentive
- () At least 30%: 2.00% bid incentive

Bidder additionally must submit with its bid Schedules C-1 and D-1 reflecting at least the above combined amount of MBE and WBE participation in order for the bid incentive to be allocated. Bidder may retain the committed percentage as all MBE, all WBE, or any combination.

Bidder understands that if it fails to retain the committed percentage of MBEs or WBEs it may be fined in an amount equal to three times the amount of bid incentive allocated, unless the Bidder can demonstrate that due to circumstances beyond the Bidder's control, the Bidder for good cause was unable to retain the percentage of MBE or WBE subcontractors throughout the duration of the contract period.

Bidder understands that it may be required to produce records to the Chief Procurement Officer to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder:

(Print or Type)

Signature of Authorized Officer:

(Signature)

Title of Signatory:

(Print or Type)

State of _____ County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

13.2. City-Based Business Affidavit

The City-Based Business bid preference of 2%, 4%, or 6%, as described in Section 2-92-412 of the Municipal Code of Chicago ("MCC"), is applicable to competitively bid Contracts funded in whole by City funds. Bidder must complete this form, and provide a copy of its Chicago business license(s) if applicable, if it desires to be considered for this preference. Bidders that do not complete this page will not be regarded as City-Based Businesses. Bidder understands that it may be required to produce records to the Chief Procurement Officer to verify the information provided. If bidder's operations are at multiple locations in the City of Chicago, use additional sheets if necessary. If this preference is allocated, the Local Goods Incentive described in MCC 2-92-410 will not be allocated to the same bid.

- 1. Of the three following bid preference options from 2-92-412, check the one option that Bidder qualifies for and wishes to apply to this Bid:
 2% Bidder is a City-based business.
 4% Bidder meets 2% requirements and majority of Prime Contractor's employees are City resident employees and if applicable are not counted towards work hours required by Section 2-92-330.
 6% Bidder meets 4% requirements and majority of Prime Contractor's City resident employees are residents of a socio-economically disadvantaged area and are not counted towards work hours required by Section 2-92-330.
- 2. Is bidder a "City-Based Business" as defined in the Requirements for Bidding and Instructions for Bidders portion of this bid solicitation and in MCC 2-92-412? Yes No
- 3. Does the bidder report to the Internal Revenue Service that the place of employment for the majority (more than 50%) of its regular, full-time workforce is a facility within the City of Chicago? Yes No
- 3. Does the bidder conduct meaningful day-to-day business operations at a facility within the City of Chicago?
 Yes No
- 4. Street address of business location within the City of Chicago (P.O. address not accepted):

- 5. Describe the business activities are carried out at the location listed above: _____

- 6. How many full-time regular employees are currently employed at the location listed above? _____
- 7. How many full-time regular employees at the location listed above are "City resident employees," as that term is defined in this bid solicitation and MCC 2-92-412? _____ (for 4% and 6% preferences only)
- 8. How many of Bidder's full-time City resident employees identified above are residents of a socio-economically disadvantaged area, as that term is defined in this bid solicitation and MCC 2-92-412? _____ (for 6% preference only)
- 9. Total number of full-time regular employees employed at all locations worldwide? _____
- 10. List City of Chicago business license(s) held; attach copies. If none are required, indicate "none required":

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder (Print or Type): _____

Signature of Authorized Officer (Sign): _____ Date: _____

Title of Signatory (Print or Type): _____

State of _____; County of _____; Signed and sworn (or affirmed) to before me on _____ (date) by _____ (name/s of person/s making statement)

(Signature of Notary Public) _____ (seal)

13.3. Bidder's Commitment To Provide Locally Manufactured Goods Affidavit

The Locally Manufactured Goods Incentive as described in Section 2-92-410 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid Contracts funded in whole by City funds. Bidder must submit this form with the bid, as well as a *Manufacturer's Affidavit of Local Manufacturing* for each local manufacturer from which goods will be sourced, if it desires to be considered for this bid incentive. Bidders that do not submit this page with their bid will not be regarded as providing locally manufactured goods. Attach additional sheets if necessary. If this incentive is allocated, the City Based Business Preference described in MCC 2-92-412 will not be allocated to the same bid.

Unless otherwise provided in the applicable bid solicitation, in order for an item to be considered Locally Manufactured Goods, more than 50% of the value of the item must be derived from manufacturing activities that occur within a city-based manufacturer's facility located within the City of Chicago.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract title: _____ Specification #: _____
2. The value of Locally Manufactured Goods (as defined in MCC 2-92-410 and the applicable bid solicitation) that Bidder commits to provide will be what percentage of the total dollar value of the contract?
 25% to 49%-- 1% incentive 50% to 74%-- 1.5% incentive 75% or greater-- 2% incentive
3. Identify the bid lines under which Locally Manufactured Goods will be provided and their value, based on the bid specification's estimated quantities (attach additional sheets if necessary):

Bid Line #	Locally Manufactured Item(s) to be provided	Manufacturer*	Value of Item(s)
			\$
			\$
			\$
TOTAL:			\$

*Bidder must provide *Manufacturer's Affidavit of Local Manufacturing* for each manufacturer listed.

Bidder understands that if it fails to supply the committed percentage of Locally Manufactured Goods, under MCC 2-92-410 it may be fined in an amount equal to three times the amount of the difference between the bid incentive allocated and the bid incentive that would have been allocated to that contractor for the amount of locally manufactured goods actually supplied.

Bidder understands that it may be required to produce records to the Chief Procurement Officer to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____
(Print or Type)

Signature of Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by
_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

13.4. Local MANUFACTURING AFFIDAVIT

The Locally Manufactured Goods Incentive as described in Section 2-92-410 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid Contracts funded in whole by City funds. Bidder must submit this form with the bid, in order to be considered for this bid incentive. Bidders that do not submit this page with their bid will not be regarded as providing locally manufactured goods. If goods will be manufactured by multiple manufacturers or at multiple facilities in the City of Chicago, submit an affidavit for each. Attach additional sheets if necessary. If this incentive is allocated, the City Based Business Preference described in described in MCC 2-92-412 will not be allocated to the same bid.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract Title: _____ Specification #: _____
Bidder/Contractor Name: _____
2. Is manufacturer a "City-Based Manufacturer" as defined in the Requirements for Bidding and Instructions for Bidders portion of this bid solicitation and in MCC 2-92-410? () Yes () No
3. Street address of manufacturing facility location within the City of Chicago (P.O. address not accepted):

4. Describe the manufacturing activities carried out at the location listed above: _____

5. List the goods to be manufactured at this facility manufacturer is prepared to provide to Bidder/Contractor, describe the production steps performed at the facility in the manufacture of each item, and the percentage of the item's value derived from manufacturing activities at this facility, and attach a catalog page, cut sheet, or product specification for each item:
Item: _____ Production steps: _____ % of value
Item: _____ Production steps: _____ % of value
6. List City of Chicago business license(s) held. If none are required, indicate "none required": _____

The undersigned commits to enter into a formal written agreement for supply with Bidder/Contractor, conditioned upon its execution of a contract with the City of Chicago to which the Locally Manufactured Goods Incentive is applied, within three (3) business days of its receipt of a signed contract from the City of Chicago.

The Bidder/Contractor understands that it may be required to produce records to the Chief Procurement Officer to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Manufacturer: _____
(Print or Type)

Signature of Manufacturer Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

State of _____
County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by
_____ (name/s of person/s making statement).

(Signature of Notary Public)
(Seal)

Affidavits

13.5. Eligible Business For Bid Incentive For Alternately Powered Vehicles Affidavit

If this is a competitively bid Contract funded in whole by City funds, an Eligible Business preference for alternately powered vehicles may be applicable. Bidder must complete this form if it desires to be considered for this preference. Bidders who do not complete and submit this form with their bid will be deemed to be non-Eligible Businesses.

1. Is bidder a business located within the counties of Cook, DuPage, Kane, Lake, McHenry or Will in the State of Illinois (the "Six County Region")? () Yes () No

2. Street address of principal place of business: _____

3. How many total vehicles, as defined in the Terms and Conditions, "Bid Incentive for Alternately Powered Vehicles," are currently owned, operated, leased or otherwise controlled by bidder?

Line 3(a): _____

4. How many of bidder's vehicles are located and used within the Six County Region?

Line 4(a): number of vehicles _____

Line 4(b): percentage of fleet (line 4(a) divided by line 3(a)) _____ %

5. How many of bidder's vehicles located and used within the Six County Region are alternately powered vehicles, as defined in the Terms and Conditions, Bid Incentive for Alternately Powered Vehicles?

Line 5(a): number of vehicles _____

Line 5(b): percentage of Six County fleet (line 5(a) divided by line 4(a)) _____ %

Bidder understands that it may be required to produce records to the Chief Procurement Officer to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____

(Print or Type)

Signature of Authorized Officer: _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

13.6. Veteran-Owned Small Local Businesses AND ELIGIBLE JOINT VENTURES Affidavit

Bidder must complete this form if it desires to be considered for the bid incentive as described in Section 2-92-418 of the Municipal Code of Chicago ("MCC") for Veteran-Owned Small Local Businesses and Eligible Joint Ventures. Bidders that do not complete this page will not be regarded as veteran-owned small local businesses or eligible joint ventures. In some circumstances application of this incentive will affect counting MBE or WBE participation when the small local business involved in claiming the incentive is an MBE or WBE, please consult DPS regulations. Please use additional sheets if necessary. Attach all relevant certifications and/or support documents.

1. Is bidder a "veteran-owned small local business" as defined in Section 1.22.4 of this bid solicitation and in MCC 2-92-418?
() Yes () No If Yes, skip to #5 below.
2. Is bidder an "eligible joint venture" as defined in Section 1.22.4 of this bid solicitation and in MCC 2-92-418?
() Yes () No
3. Is at least one member of the eligible joint venture a "small business enterprise" as defined in MCC 2-92-670?
() Yes () No
4. Is at least one member of the eligible joint venture a "veteran-owned business enterprise" as that term is defined in MCC 2-92-670?
() Yes () No
5. Is the veteran-owned business identified in either #1 or #4 above certified by the State of Illinois as a qualified service-disabled veteran-owned small business or a qualified veteran-owned small business pursuant to 30 ILCS 500/45-57? If yes, please provide appropriate documentation.
() Yes () No
6. If the answer to # 5 above is no, is the veteran-owned business an enterprise which is at least 51 percent owned by one or more veterans, or in the case of a publicly held corporation, at least 51 percent of all classes of stock of which are owned by one or more veterans?
() Yes () No
7. If qualifying as a veteran-owned business under the requirements of #6 above, please list all owners, their percentage of ownership interest, and provide appropriate documentation demonstrating status as veteran, as that term is defined in MCC 2-92-418.

8. List City of Chicago business license(s) held. If none are required, indicate "none required": _____

9. Provide address of the veteran-owned business, including the County in which it is located. _____

County: _____

Bidder understands that it may be required to produce records to the Chief Procurement Officer to verify the information provided. Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

BIDDER MUST COMPLETE THE APPLICABLE SIGNATURE LINE(S) ON THE FOLLOWING PAGE.

VETERAN-OWNED SMALL LOCAL BUSINESSES AND ELIGIBLE JOINT VENTURES AFFIDAVIT – SIGNATURE PAGE

Required Signature for All Applicants

Name of Veteran-Owned Business: _____

(Print or Type)

Signature of Authorized Officer for Veteran-Owned Business: _____

(Signature)

Title of Signatory: _____

(Print or Type)

Additional Required Signatures for Eligible Joint Venture Applicants

Name of Joint Venture (for eligible joint ventures only): _____

(Print or Type)

Name of SBE (for eligible joint ventures only): _____

(Print or Type)

Signature of Authorized Officer for SBE (for eligible joint ventures only): _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

13.7. Bidder's Commitment To Utilize Business Enterprises Owned By People With Disabilities (BEPD)

The BEPD Incentive as described in Section 2-92-337 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid contracts funded in whole by City funds. Bidder must submit this form with the bid if it desires to be considered for this bid incentive. Bidders that do not submit this page with their bid will not be eligible for this bid incentive. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract title: _____
Specification #: _____

2. The value of work performed by BEPD prime contractors or subcontractors (as defined in MCC 2-92-586 and the applicable bid solicitation) that Bidder commits to provide will be what percentage of the total dollar value of the contract?
() 2% to 5%-- 1% incentive () 6% to 9%-- 2% incentive
() 10% to 13%-- 3% incentive () 14% or greater-- 4% incentive

Bidder understands that if it fails to utilize the committed percentage of BEPD subcontractors, under MCC 2-92-337 it may be fined in an amount equal to three times the amount of the bid incentive allocated, unless the prime contractor can demonstrate that due to circumstances beyond the prime contractor's control, the prime contractor for good cause was unable to retain the percentage of BEPD subcontractors throughout the duration of the contract period.

Bidder understands that it may be required to produce records to the CPO to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____

(Print or Type)

Signature of Authorized Officer: _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

13.8. MENTORING PROGRAM BID PREFERENCE AFFIDAVIT

The Mentoring Program bid preference as described in Section 2-92-535 of the Municipal Code of Chicago ("MCC") is applicable to contracts having an estimated value of \$100,000 or more.

A bid preference of **1 percent** of the contract base bid is available to qualified bidders that are prime contractors that have entered into a mentoring agreement or whose subcontractor has entered into a subcontractor-to-subcontractor mentoring agreement. The bid preference is used only to calculate an amount to be used in evaluating the bid to determine the low bidder, and it does not affect the contract price.

Bidder must submit this form, and a copy of either its mentoring agreement or a subcontractor-to-subcontractor mentoring agreement, with the bid if it desires to be considered for this bid preference. Bidders that do not submit this page with their bid will not be eligible for this bid preference. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to apply the preference.

Contract title: _____

Specification #: _____

Bidder understands that if it fails to maintain a mentoring agreement or a subcontractor that has a subcontractor-to-subcontractor mentoring agreement, for which this bid preference was taken into consideration in awarding of a contract, Bidder shall be fined in an amount equal to three times the amount of the bid preference allocated, unless the Bidder can demonstrate that due to circumstances beyond the Bidder's control, Bidder for good cause was unable to maintain a mentoring agreement or a subcontractor that has a subcontractor-to-subcontractor mentoring agreement throughout the duration of the contract period.

Bidder understands that it may be required to produce records to the CPO to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____

(Print or Type)

Signature of Authorized Officer: _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

(Signature of Notary Public)

(Seal)

ARTICLE 14. EXECUTION AND ACCEPTANCE PAGES

Bid execution and acceptance pages follow.

Remainder of page intentionally blank.

14.1. Bid Execution By a Corporation

The undersigned, hereby acknowledges having received **Specification Number 410835** containing a full set of Contract Documents, including, but not limited to, 1) Requirements for Bidding and Instructions to Bidders, 2) Standard Terms and Conditions - General Conditions, 3) Special Conditions for Supply Contracts, 4) Contract Plans or Drawings (if applicable) 5) Detailed Specifications, 6) Proposal Pages, 7) Certifications, and 8) Addenda Nos. (none unless indicated here) _____, and affirms that the corporation shall be bound by all the terms and conditions contained in the Contract Documents, regardless of whether a complete set thereof is attached to this proposal or bid, except only to the extent that the corporation has taken express written exception thereto in the sections of this specification designated for that purpose.

Under penalty of perjury, the undersigned: (1) warrants that he/she was authorized to submit an EDS on behalf of the Disclosing Party on-line; (2) warrants that all certifications and statements contained in the EDS are true, accurate and complete as of the date the EDS was submitted on-line; and (3) further warrants that, as of the date of submission of this proposal or bid, there have been no changes in circumstances since the date that the EDS was submitted that would render any certification in the EDS false, inaccurate or incomplete.

Further, the undersigned being duly sworn deposes and says on oath that no disclosures of ownership interests have been withheld and the information provided therein to the best of its knowledge is current and the undersigned has not entered into any agreement with any other Bidder (proposer) or prospective Bidder (proposer) or with any other person, firm or corporation relating to the price named in this proposal or any other proposal, nor any agreement or arrangement under which any act or omission in restraint of freedom of competition among Bidders (proposers) and has not disclosed to any person, firm or corporation the terms of this bid (proposal) or the price named herein.

Proposals must be submitted with original signatures in the space provided. Proposals not properly signed will be rejected.

NAME OF CORPORATION:

(Print or Type)

SIGNATURE OF PRESIDENT*:
(Or Authorized Officer)

(Signature)

TITLE OF SIGNATORY:

(Print or Type)

BUSINESS ADDRESS:

(Print or Type)

*Note: In the event that this bid (proposal) is signed by other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization, such as a resolution by the Board of Directors, which permits the person to sign the offer for the Corporation.

ATTEST:

(Corporate Secretary Signature)

(Affix Corporate Seal)

State of _____

County of _____

This instrument was acknowledged before me on this _____ day of _____, 20__ by _____ as President (or other authorized officer) and _____ as Secretary of _____ (Corporation Name).
(Seal)

Notary Public Signature

Commission Expires: _____

14.2. Bid Execution By A Joint Venture

The undersigned, hereby acknowledges having received **Specification Number 410835** containing a full set of Contract Documents, including, but not limited to, 1) Requirements for Bidding and Instructions to Bidders, 2) Standard Terms and Conditions - General Conditions, 3) Special Conditions for Supply Contracts, 4) Contract Plans or Drawings (if applicable) 5) Detailed Specifications, 6) Proposal Pages, 7) Certifications, and 8) Addenda Nos. (none unless indicated here) _____, and affirms that the Joint Venture shall be bound by all the terms and conditions contained in the Contract Documents, regardless of whether a complete set thereof is attached to this proposal, except only to the extent that the Joint Venture has taken express written exception thereto in the sections of this specification designated for that purpose.

Under penalty of perjury, the undersigned: (1) warrants that he/she was authorized to submit an EDS on behalf of the Disclosing Party on-line; (2) warrants that all certifications and statements contained in the EDS are true, accurate and complete as of the date the EDS was submitted on-line; and (3) further warrants that, as of the date of submission of this proposal or bid, there have been no changes in circumstances since the date that the EDS was submitted that would render any certification in the EDS false, inaccurate or incomplete.

Further, the undersigned being duly sworn deposes and says on oath that no disclosures of ownership interests have been withheld and the information provided therein to the best of its knowledge is current and the undersigned has not entered into any agreement with any other Bidder (proposer) or prospective Bidder (proposer) or with any other person, firm or corporation relating to the price named in this proposal or any other proposal, nor any agreement or arrangement under which any act or omission in restraining of free competition among Bidders (proposers) and has not disclosed to any person, firm or corporation the terms of this bid (proposal) or the price named herein.

Proposals must be submitted with original signatures in the space provided. Proposals not properly signed will be rejected.

JOINT VENTURE NAME: (Print or Type) _____

JOINT VENTURE ADDRESS: (Print or Type) _____

If you are operating under an assumed name, provide County registration number herein under as provided in the Illinois Revised Statutes 1965 Chapter 96 Sec. 4 et seq. Registration Number: _____

SIGNATURES AND ADDRESSES OF ALL MEMBERS OF THE JOINT VENTURE (If all members of the Joint Venture do not sign, indicate authority of signatories by attaching copy of Joint Venture agreement or other authorizing document):

SIGNATURE OF Authorized Party: (Signature) _____

TITLE OF SIGNATORY: (Print or Type) _____

BUSINESS ADDRESS: (Print or Type) _____

ATTEST: (Joint Venture Secretary Signature) _____
(Affix Joint Venture Seal)

OR
Joint Venturer Signature: (Signature) _____

Address: (Print or Type) _____

Joint Venturer Signature: (Signature) _____

Address: (Print or Type) _____

Joint Venturer Signature: (Signature) _____

Address: (Print or Type) _____

State of _____ County of _____

This instrument was acknowledged before me on this _____ day of _____, 20__ by _____ as President (or other authorized officer) and _____ as Secretary of _____ (Corporation Name).

Notary Public Signature: _____

Commission Expires: _____ (Seal)

14.3. Bid Execution By A Partnership

The undersigned, hereby acknowledges having received **Specification Number 410835** containing a full set of Contract Documents, including, but not limited to, 1) Requirements for Bidding and Instructions to Bidders, 2) Standard Terms and Conditions - General Conditions, 3) Special Conditions for Supply Contracts, 4) Contract Plans or Drawings (if applicable) 5) Detailed Specifications, 6) Proposal Pages, 7) Certifications, and 8) Addenda Nos. (none unless indicated here) _____, and affirms that the partnership shall be bound by all the terms and conditions contained in the Contract Documents, regardless of whether a complete set thereof is attached to this proposal, except only to the extent that the partnership has taken express written exception thereto in the sections of this specification designated for that purpose.

Under penalty of perjury, the undersigned: (1) warrants that he/she was authorized to submit an EDS on behalf of the Disclosing Party on-line; (2) warrants that all certifications and statements contained in the EDS are true, accurate and complete as of the date the EDS was submitted on-line; and (3) further warrants that, as of the date of submission of this proposal or bid, there have been no changes in Circumstances since the date that the EDS was submitted that would render any certification in the EDS false, inaccurate or incomplete.

Further, the undersigned being duly sworn deposes and says on oath that no disclosures of ownership interests have been withheld and the information provided therein to the best of its knowledge is current and the undersigned has not entered into any agreement with any other Bidder (proposer) or prospective Bidder (proposer) or with any other person, firm or corporation relating to the price named in this proposal or any other proposal, nor any agreement or arrangement under which any act or omission in restraining of free competition among Bidders (proposers) and has not disclosed to any person, firm or corporation the terms of this bid (proposal) or the price named herein.

Proposals must be submitted with original signatures in the space provided. Proposals not properly signed will be rejected.

BUSINESS NAME: (Print or Type) _____

BUSINESS ADDRESS: (Print or Type) _____

If you are operating under an assumed name, provide County registration number herein under as provided in the Illinois Revised Statutes 1965 Chapter 96 Sec. 4 et seq. Registration Number: _____

SIGNATURES AND ADDRESSES OF ALL MEMBERS OF THE PARTNERSHIP

(If all General Partners do not sign, indicate authority of partner signatories by attaching copy of partnership agreement or other authorizing document):

Partner Signature: (Signature) _____

Address: (Print or Type) _____

Partner Signature: (Signature) _____

Address: (Print or Type) _____

Partner Signature: (Signature) _____

Address: (Print or Type) _____

State of _____; County of _____

This instrument was acknowledged before me on this ____ day of _____, 20__ by _____ as President (or other authorized officer) and _____ as Secretary of _____ (Corporation Name).

Notary Public Signature: _____

Commission Expires: _____ (Seal)

14.4. Bid Execution By a Sole Proprietor

The undersigned, hereby acknowledges having received **Specification Number 410835** containing a full set of Contract Documents, including, but not limited to, 1) Requirements for Bidding and Instructions to Bidders, 2) Standard Terms and Conditions - General Conditions, 3) Special Conditions for Supply Contracts, 4) Contract Plans or Drawings (if applicable) 5) Detailed Specifications, 6) Proposal Pages, 7) Certifications, and 8)) Addenda Nos. (none unless indicated here) _____, and affirms that the sole proprietor shall be bound by all the terms and conditions contained in the Contract Documents, regardless of whether a complete set thereof is attached to this proposal, except only to the extent that the sole proprietor has taken express written exception thereto in the sections of this specification designated for that purpose.

Under penalty of perjury, the undersigned: (1) warrants that he/she was authorized to submit an EDS on behalf of the Disclosing Party on-line; (2) warrants that all certifications and statements contained in the EDS are true, accurate and complete as of the date the EDS was submitted on-line; and (3) further warrants that, as of the date of submission of this proposal or bid, there have been no changes in Circumstances since the date that the EDS was submitted that would render any certification in the EDS false, inaccurate or incomplete.

Further, the undersigned being duly sworn deposes and says on oath that no disclosures of ownership interests have been withheld and the information provided therein to the best of its knowledge is current and the undersigned has not entered into any agreement with any other Bidder (proposer) or prospective Bidder (proposer) or with any other person, firm or corporation relating to the price named in this proposal or any other proposal, nor any agreement or arrangement under which any act or omission in restraining of free competition among Bidders (proposers) and has not disclosed to any person, firm or corporation the terms of this bid (proposal) or the price named herein.

Proposals must be submitted with original signatures in the space provided. Proposals not properly signed will be rejected.

SIGNATURE OF PROPRIETOR: _____
(Signature)

DOING BUSINESS AS: _____
(Print or Type)

Business Address: _____
(Print or Type)

(Print or Type)

If you are operating under an assumed name, provide County registration number herein under as provided in the Illinois Revised Statutes 1965 Chapter 96 Sec. 4 et seq.

Registration Number: _____
(Print or Type)

State of _____; County of _____

This instrument was acknowledged before me on this ____ day of _____, 20__ by _____ as President (or other authorized officer) and _____ as Secretary of _____ (Corporation Name). _____

Notary Public Signature: _____

Commission Expires: _____ (Seal)

14.5. Bid Acceptance by City

Contract No.: _____

Specification No.: 410835

Vendor Name: _____

Total Amount (Value): _____

Fund Chargeable: 01-013-0C42-0382005-5416-220450-0000-54016111 and Various

The undersigned, on behalf of the CITY OF CHICAGO, a municipal corporation of the State of Illinois, hereby accept the foregoing bid items as identified in the proposal.

CITY OF CHICAGO

Mayor Date

Comptroller Date

Chief Procurement Officer Date

EXHIBITS

Exhibits follow this page. Remainder of page intentionally blank.

Exhibit 1: Insurance Certificate of Coverage