

**CITY COUNCIL AGENDA**  
**City Hall, 833 South Spruce Street**  
**7:00 p.m. January 25, 2018**

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**CALL TO ORDER:**

Mayor Sexton  
Council Members: Aslett, J. DeGloria, R. DeGloria, Edmundson, Loving, Montgomery, and Stavig  
Staff: Berner, Blaine, Dempsey, Erickson, Hampton, Harrison, Hawes, Brad Johnson, Brittany Johnson, L. Johnson, Jongsma, Luvera, Morrison, Moser, Peterson, Pulst, Rabenstein, Schwetz, Sinclair, Toth, Ward, Yengoyan

**MINUTES:**

City Council Meeting January 11, 2018

**AUDIT OF BILLS:**

**PUBLIC COMMENTS:**

**COUNCIL COMMENTS:**

**MAYOR'S UPDATE:**

**PROCLAMATION:**

**SPECIAL PRESENTATION:**

**OFFICERS REPORTS:**

**TBD**

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**UNFINISHED BUSINESS:**

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**CONSENT AGENDA:**

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**NEW BUSINESS:**

- 1) ARC Architect Building Assessments
- 2) 2018 Council Committee Assignments and Recommendations
- 3) Purchase of Aerial Apparatus
- 4) Ordinance Amending the Budget for the Purchase of Aerial Apparatus
- 5) Early Learning Public Libraries Partnership Termination
- 6) Early Learning Public Libraries Partnership Request to Board of Directors Concerning Disbursement of Funds
- 7) Memorandum of Understanding Between the City of Burlington and Teamsters Local Union #231

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**FUTURE WORKSHOP:**

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**EXECUTIVE SESSION:**

- An Executive Session may be held to discuss Personnel, Litigation, and/or Land Acquisition.

**ADJOURNMENT:**

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**MEETINGS:**

- 1) DOWNTOWN BURLINGTON ASSOCIATION: Monday **January 24, 2018** 9:00 a.m.  
Chamber of Commerce, 520 E Fairhaven Ave
- 2) AUDIT & FINANCE COMMITTEE: Thursday **January 25, 2018** 4:00 p.m.  
City Hall, 833 S Spruce St
- 3) PARKS & RECREATION BOARD: Monday **February 5, 2018** 5:30 p.m.  
Parks & Recreation, 900 E Fairhaven Ave
- 4) LIBRARY BOARD: Tuesday **February 6, 2018** 6:00 p.m.  
Burlington Public Library, 820 E Washington Ave

# January 2018

January 2018

February 2018

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>Dec 31</b>	<b>Jan 1, 18</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
		6:00pm Library Board (Library)				
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
	5:30pm Parks Board (Parks & Rec)	4:00pm Public Safety Committee (Public Safety Building) 5:00pm 6:00pm Historical Preservation Board (		4:00pm Audit & Finance Committee (City Hall) 7:00pm Council Meeting		
<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
		4:00pm Public Works Committee (Engineering Conf Room)	1:00pm SKAT Board (Burlington City Hall) 5:30pm 7:30pm Planning Commission (Council Chambers)			
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
			9:00am 10:00am Downtown Burlington Association (Visitor Information Center/Chamber of	4:00pm Audit & Finance (City Hall) 7:00pm Council Meeting		
<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>Feb 1</b>	<b>2</b>	<b>3</b>

Dec 31 - Jan 6

Jan 7 - 13

Jan 14 - 20

Jan 21 - 27

Jan 28 - Feb 3

# February 2018

February 2018							March 2018						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
4	5	6	7	8	9	10	4	5	6	7	8	9	10
11	12	13	14	15	16	17	11	12	13	14	15	16	17
18	19	20	21	22	23	24	18	19	20	21	22	23	24
25	26	27	28				25	26	27	28	29	30	31

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>Jan 28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>Feb 1</b>	<b>2</b>	<b>3</b>
<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
	5:30pm Parks Board (Parks & Rec Dept) - Judy Sheahan	6:00pm Library Board (Library)		4:00pm Audit & Finance Committee (City Hall) 7:00pm Council Meeting		
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>
		4:00pm Public Safety Committee (Public Safety Building)				
<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
		4:00pm Public Works Committee (Engineering Conf Room)	1:00pm SKAT Board (Burlington City Hall) 5:30pm 7:30pm Planning Commission (Council Chambers)	4:00pm Audit & Finance (City Hall) 7:00pm Council Meeting		
<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>Mar 1</b>	<b>2</b>	<b>3</b>
			9:00am 10:00am Downtown Burlington Associati 5:30pm 7:00pm Planning Commission (Council			

Jan 28 - Feb 3

Feb 4 - 10

Feb 11 - 17

Feb 18 - 24

Feb 25 - Mar 3

January 11, 2018

**CALL TO ORDER:**

**Mayor Steve Sexton** called the meeting to order at 7:01 p.m. with the Pledge of Allegiance. Council members present: Bill Aslett, Joe DeGloria, Rick DeGloria, Edie Edmundson, Chris Loving, Ted Montgomery, and James Stavig. Staff present: Jennifer Berner, Lawanda Hampton, Bryan Harrison, Brad Johnson, Leif Johnson, Michael Luvera, Kristen Morrison, Marv Pulst, Renee Sinclair, and Sarah Ward.

**MINUTES:**

A motion was made to approve the minutes of the December 28, 2017 council meeting by **Councilors Aslett/J. DeGloria**. All in favor; motion carried.

**AUDIT OF BILLS:**

A motion was made by **Councilors J. DeGloria/Aslett** to approve Accounts Payable invoices to be paid as reviewed on January 11, 2018 in the amount of \$915, 814.79; and Payroll expenses for pay period ending December 25, 2017 in the amount of \$546,925.60. All in favor; motion carried.

**PUBLIC COMMENTS:**

No public comments.

**COUNCIL COMMENTS:**

**Councilor Edie Edmundson** discussed the Historical Preservation Board's event last Saturday at the Visitors Information Center, which featured guest speakers, and a new display on early medicine, doctors and nurses in Burlington, which will be available for viewing until late June/early July. **Councilor Edmundson** discussed the Historical Boards' becoming a certified local government, and the application for a grant, which allowed for a survey of 100 buildings and homes in Burlington to determine historical significance. Of the 100 surveyed building, 50 were deemed to have historical significance, and it was suggested by a representative from the Department of Architecture and History that the Carnegie Library be the first of the buildings to be further assessed. **Councilor Edmundson** discussed the upcoming series of historic, Skagit County-based storytelling and slideshows to be presented by Historical Board member Jesse Kennedy, beginning April 7<sup>th</sup> from 1:30-3:00 at the Burlington Public Library.

**Councilor Joe DeGloria** discussed the Audit & Finance committee meeting, during which members were presented with two loan amortization schedules for the requested Fire Department's Quint Aerial apparatus; both schedules include the same interest rate, but one schedule is with a 10 year payback, the other a 15 year payback. **Director of Budget & Accounting Renee Sinclair** stated that the amortization schedules would be placed in all council members boxes by next Thursday, and that the 10 year payback schedule is half of funds required, and the 15 year payback schedule would be all of the funds required; both of which would be borrowed from the City's sewer fund. Discussion was held on additional information being distributed and presented by **Chief Levon Yengoyan**; **City Administrator Bryan Harrison** suggested a presentation at the Council Workshop on January 18<sup>th</sup>. **Councilor Bill Aslett** stated



January 11, 2018

that this large expense requires much council discussion and consideration. **Sinclair** stated that on February 1<sup>st</sup>, the apparatus manufacturer would be increasing the price of the Quint by 3%, which equates to approximately \$35,000.00, and that a 90% of payment down at time of purchase would save an additional \$65,000.00. **Councilor Chris Loving** questioned the necessity of purchasing the new apparatus, and the potential costs associated with maintenance. Discussion was held on the necessity of the apparatus and the state of the existing ladder truck. **Mayor Sexton** stated that all of the concerns and questions would be discussed in-depth, and presented to council as a group, by **Chief Yengoyan**, prior to the January 25<sup>th</sup> council meeting.

**MAYOR'S UPDATE:**

No Mayor's Update.

**PROCLAMATION:**

No Proclamation.

**SPECIAL PRESENTATION:**

No Special Presentation.

**OFFICER REPORTS:**

**City Administrator Bryan Harrison** reminded council of the monthly council workshops, the first of which is to take place on January 18<sup>th</sup>, from 6:00-8:00 p.m. **Administrator Harrison** discussed topics of discussion for the meetings, including economic forecasts, and preferred level of service. **Administrator Harrison** stated that the first meeting would involve discussions between council and staff in order to improve communication, and to give staff better understanding of council's priorities.

**UNFINISHED BUSINESS:**

No Unfinished Business.

**CONSENT AGENDA:**

No Consent Agenda

**NEW BUSINESS:**

**PHASE FIVE OF THE COMPREHENSIVE MUNICIPAL CODE UPDATE AND REORGANIZATION—  
FINAL ADOPTION OF CODE AND MAP UPDATES**

**Senior Planner Brad Johnson** discussed the Comprehensive Municipal Code update, and stated that all updates have been approved by the Planning Commission. **Councilor Stavig** questioned some of the language used in code enforcement; **City Attorney Leif Johnson** stated that there were not a lot of substantive changes to the code, mostly the adoption of a hearings examiner, and explained the wording choices regarding code enforcement corrective action. **Leif Johnson** also explained that the Municipal Code is a living document, and that council has the power to make future changes if the updates are found to be undesirable or ineffective. **Councilor Aslett** stated that he would like to see the redline copies, as well as the updated Code for comparison;

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**Leif Johnson** stated that much of that material was distributed in that fashion to council, but that the final recommendations from the Planning Commission were not. **Leif Johnson** stated that redline copies of all changes could be made available to council. **Councilor Aslett** discussed his preferences on large agenda packet formatting; **Administrator Harrison** stated that this issue will be addressed by staff. Further discussion was held on the Municipal Code changes. **Councilor Aslett** requested a future discussion regarding the Code as it pertains to HDTV antenna heights.

A motion was made by **Councilors J. DeGloria/Aslett** to approve Ordinance Number 1851 adopting the proposed changes to the Burlington Municipal Code and authorize the Mayor to sign the attached ordinances. All in favor; motion carried.

A motion was made by **Councilors J. DeGloria/Aslett** to approve Ordinance Number 1852 adopting the proposed changes to the Burlington Municipal Code and authorize the Mayor to sign the attached ordinances. All in favor; motion carried.

A motion was made by **Councilors J. DeGloria/Montgomery** to approve Ordinance Number 1853 adopting the proposed changes to the Burlington Municipal Code and authorize the Mayor to sign the attached ordinances. All in favor; motion carried.

A motion was made by **Councilors J. DeGloria/Aslett** to approve Ordinance Number 1854 adopting the proposed changes to the Burlington Municipal Code and authorize the Mayor to sign the attached ordinances. All in favor; motion carried.

A motion was made by **Councilors J. DeGloria/R. DeGloria** to approve Ordinance Number 1855 adopting the proposed changes to the Burlington Municipal Code and authorize the Mayor to sign the attached ordinances. All in favor; motion carried.

A motion was made by **Councilors J. DeGloria/Aslett** to approve Ordinance Number 1856 adopting the proposed changes to the Burlington Municipal Code and authorize the Mayor to sign the attached ordinances. All in favor; motion carried.

A motion was made by **Councilors J. DeGloria/Aslett** to approve Ordinance Number 1857 adopting the proposed changes to the Burlington Municipal Code and authorize the Mayor to sign the attached ordinances. All in favor; motion carried.

#### **APPROVAL OF ORDINANCE ADOPTING CAPITAL IMPROVEMENT PLAN**

**Brad Johnson** discussed the Capital Improvement Plan, and the requirement of the annual update of such, which is done to reflect the changing budget and council priorities. **Councilor Aslett** discussed the CIP, and future budget concerns. **Administrator Harrison** stated that the CIP does not authorize expenditures of any kind, but functions as planning document.

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A motion was made by **Councilors Montgomery/Aslett** to accept the Planning Commission's recommendation to adopt an updated CIP and authorize the Mayor to sign the ordinance. All in favor; motion carried.

**INTERLOCAL AGREEMENT FOR EMERGENCY MANAGEMENT SERVICES WITH SKAGIT COUNTY**

**Administrator Harrison** discussed the agreement, and the historical use of such interlocal agreements with Skagit County for emergency management coordination services.

A motion was made by **Councilors Aslett/R. DeGloria** to approve the attached interlocal agreement and authorization the Mayor to sign the agreement, as well as authorizing the Mayor to select the City's administrative representative pertaining to this agreement, and the member advisory. All in favor; motion carried.

**PORTABLE RESTROOM SERVICES AGREEMENT**

**Parks & Recreation Director Jennifer Berner** discussed the portable restroom services agreement, the RFP process for these services, reviewed the submitted bids, and discussed the costs of the services.

A motion was made by **Councilors J. DeGloria/Montgomery** to award the portable restroom services bid to Baker Septic Pumping and approve the agreement and authorize the Mayor to sign. All in favor; motion carried.

**SUPPLEMENT AGREEMENT WITH REICHARDT & EBE**

**Public Works Director Marv Pulst** explained the need for the supplement agreement, and the reason for the extension of the agreement end date. Discussion was held regarding the grants, funding of the project, and the project time frame.

A motion was made by **Councilors Montgomery/Aslett** to authorize the Mayor to sign the supplement agreement. All in favor; motion carried.

**BID AND CONTRACT AWARD WITH BURLINGTON AUTOMOTIVE FOR VEHICLE MAINTENANCE**

**Administrator Harrison** discussed the Audit & Finance committee's directive to standardize the City's vehicle maintenance to fix costs, stated that any work that can be completed by City staff, will be, and that all maintenance shops in the city were given the opportunity to bid for this contract. Discussion was held on the contract terms and conditions.

A motion was made by **Councilors Aslett/J. DeGloria** to award bid and authorize the Mayor to sign agreement with Burlington Automotive for Vehicle Maintenance. All in favor; motion carried.

January 11, 2018

**RESOLUTION AMENDING RESOLUTION NO. 11-2017 WHICH ESTABLISHED 2018 WAGES FOR CITY EMPLOYEES AND ELECTED OFFICIALS**

**Director Sinclair** discussed the need to adopt the amended 2018 Salary Resolution so that it will include the table which shows the Burlington Police Employees' Guild labor agreement monthly and hourly salary ranges for those positions in 2018, which was mistakenly not included in the wage tables of the original 2018 Salary Resolution.

A motion was made by **Councilors Aslett/ R. DeGloria** to adopt the amended 2018 Salary Resolution correcting the wage table for the positions within the Burlington Police Employees' Guild and authorize the Mayor's signature. All in favor; motion carried.

**EXECUTIVE SESSION:**

No Executive Session was held.

**ADJOURNMENT:**

**Mayor Steve Sexton** adjourned the meeting at 8:10 p.m.

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Renee Sinclair  
Director of Budget & Accounting

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Steve Sexton  
Mayor



ITEM #: 1

CHECK ONE:

NEW BUS. X

OLD BUS.           

## AGENDA ITEM

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Council Date: January 25, 2018 Subject: ARC Architect Building Assessments

Attachments: 1) Presentation Preview Public Hearing Required: YES ( ) NO (X)

### SUMMARY

ARC Architects will present their findings and recommendations pertaining to their building assessment work for the Parks and Recreation Building and former Carnegie Library Building.

They were awarded a \$20,000 contract in November of 2017 in order to provide the framework for potential facility upgrades at both buildings in order to better serve the City. A final report will be provided documenting their findings, recommendations and cost estimates.

### RECOMMENDATION

This item is for discussion only.

## **PARKS AND RECREATION BUILDING**

### **Goals**

Serve a broad range of community needs

Fitness and wellness

Educational

Public and private events

Arts – dance, visual, culture

All ages - families, youth/teens, adults, seniors

Central entry, lobby/lounge, reception

More restrooms

More storage

ADA Accessibility

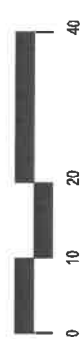
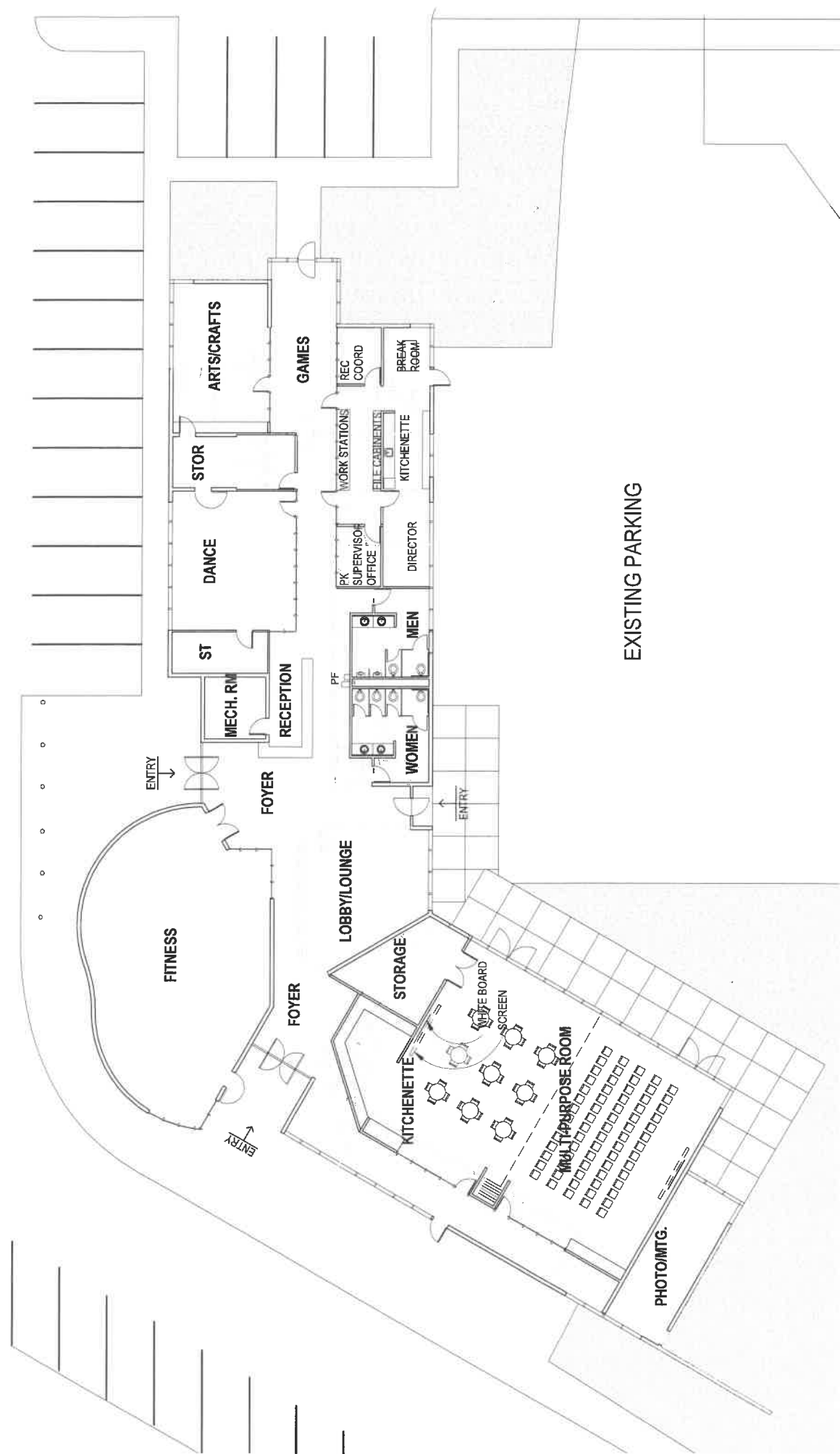
Open spaces to views inside and out

Respect the architecture, improve it where logical

New finishes

### **Issues**

Energy code



**CITY OF BURLINGTON  
BUILDING ASSESSMENT**

**FIRST FLOOR PLAN**

## CARNEGIE LIBRARY

### Goals

Listed on The National Register of Historic Places

Listed on The Washington Heritage Register

Maximize use

ADA Accessibility

Preserve the openness of the upper level

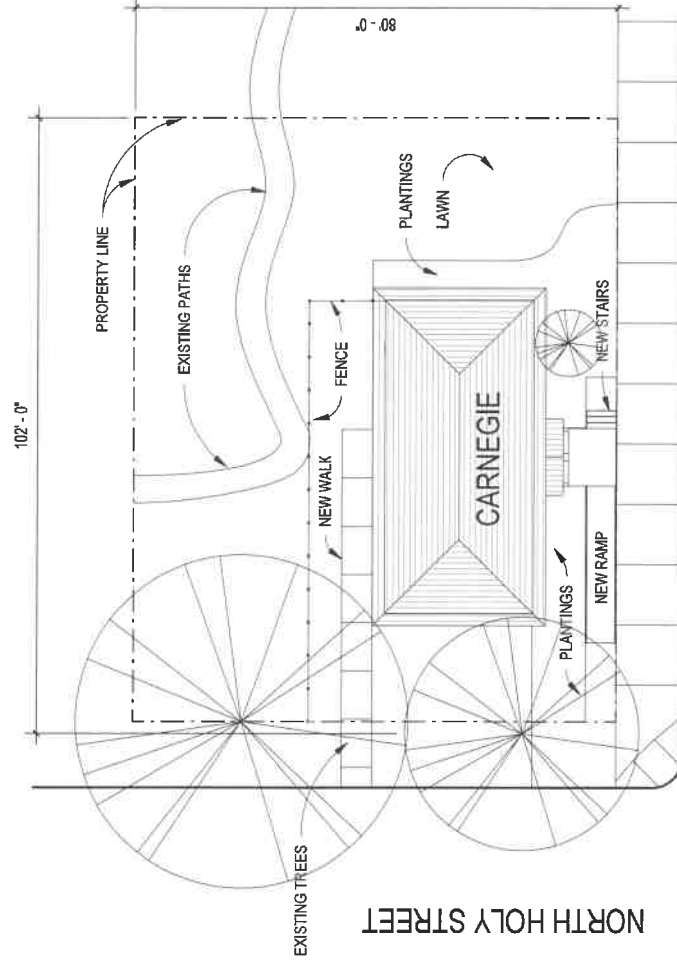
### Issues

Upper level limited to 49 occupants since one means of egress; stair could be added

Unisex restrooms, confirm number of fixtures

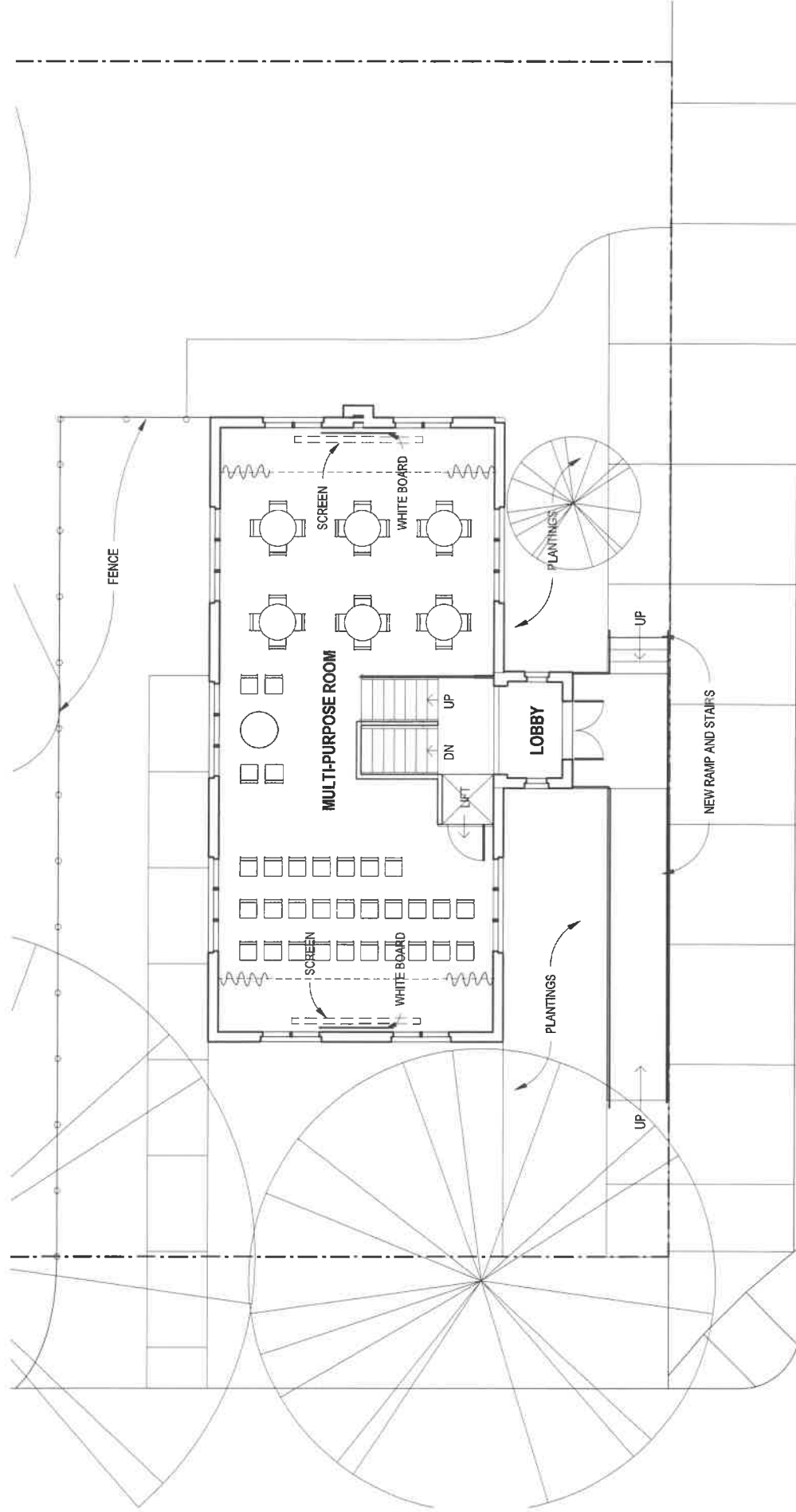
Property line versus fence line

Numerous funding opportunities – refer to Northwest Vernacular report



EAST FAIRHAVEN AVENUE

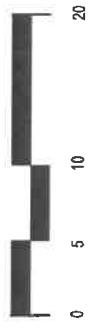
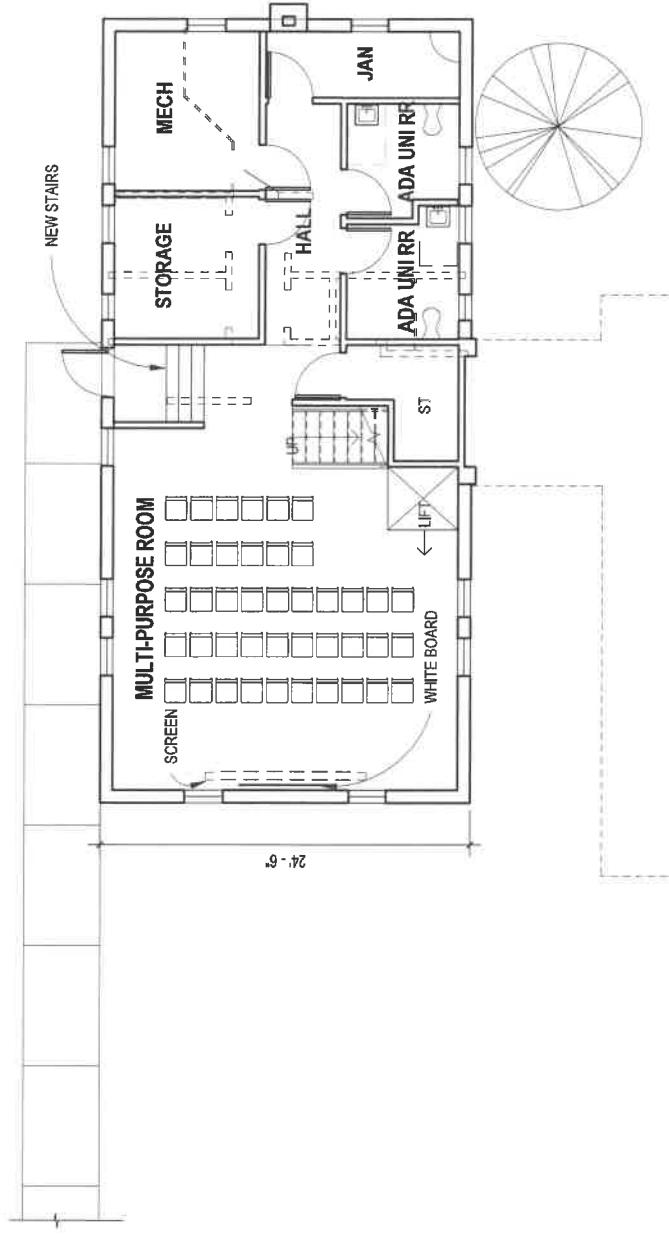




**CITY OF BURLINGTON BUILDING ASSESSMENT  
CARNEGIE LIBRARY**

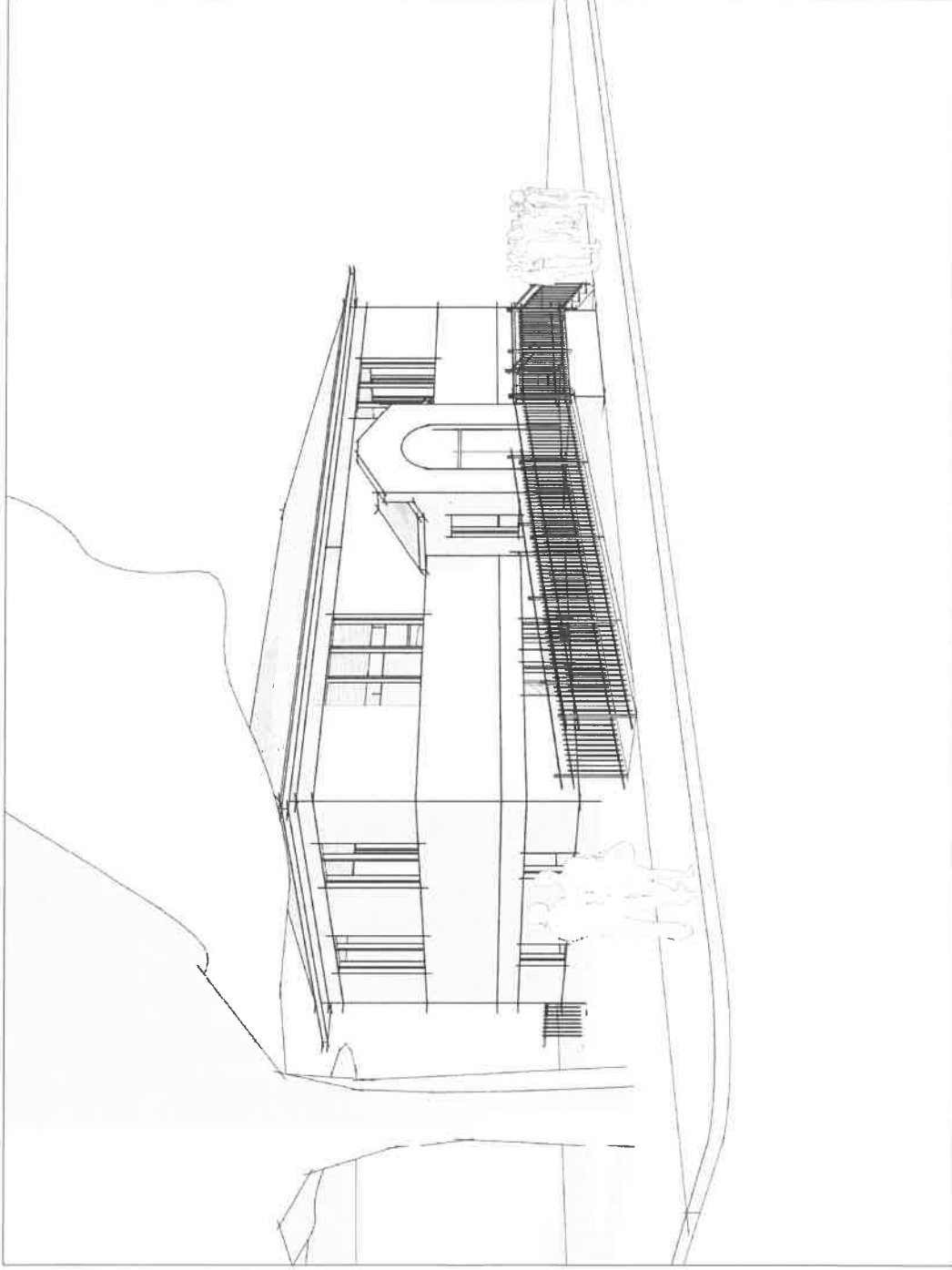
UPPER LEVEL





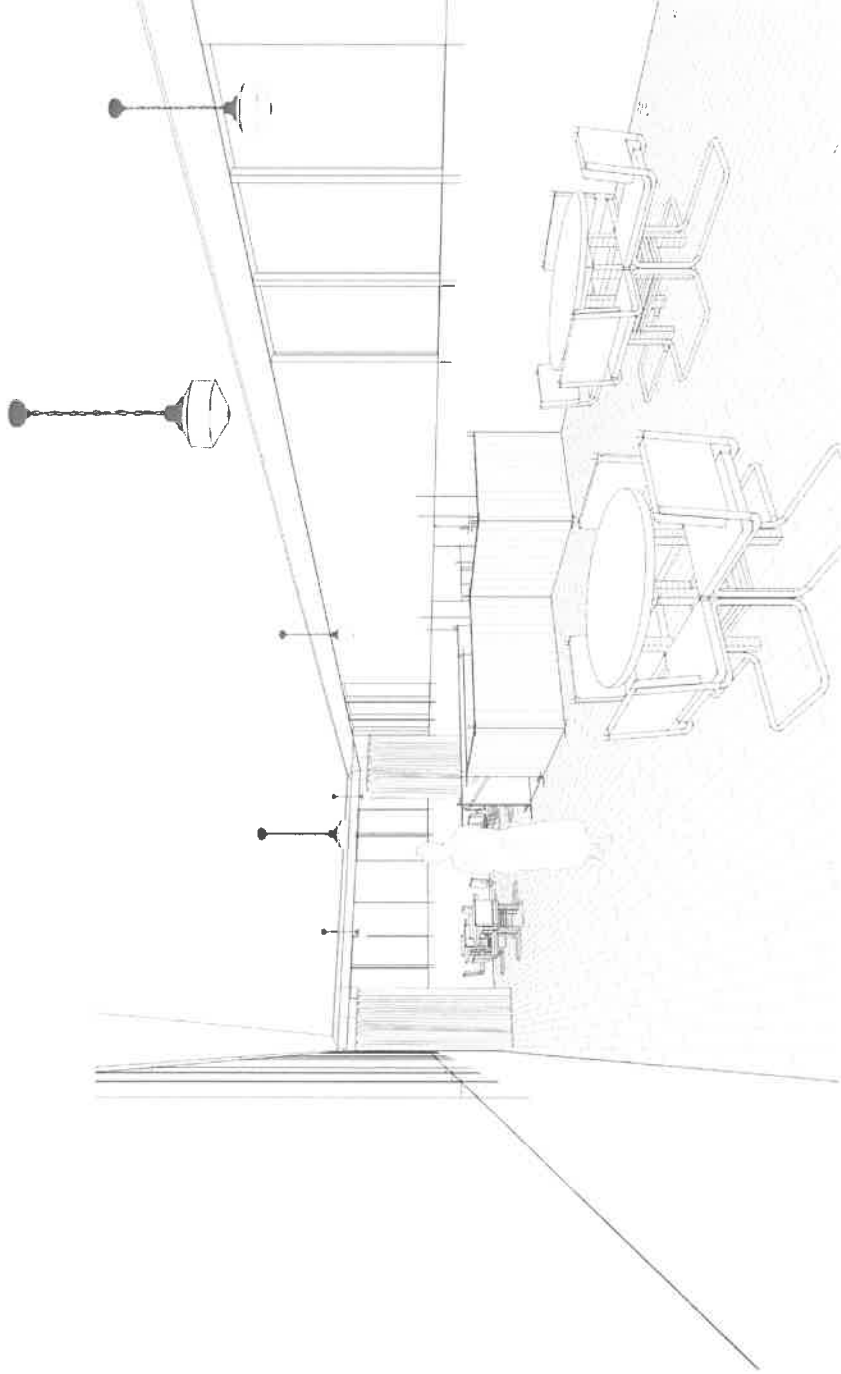
**CITY OF BURLINGTON BUILDING ASSESSMENT  
CARNEGIE LIBRARY**

**LOWER LEVEL**



**CITY OF BURLINGTON BUILDING ASSESSMENT**  
**CARNEGIE LIBRARY**

VIEW LOOKING NORTHEAST



**CITY OF BURLINGTON BUILDING ASSESSMENT**  
**CARNEGIE LIBRARY**

VIEW LOOKING EAST

**arc**  
ARCHITECTS  
119 SUMMIT ST. #200  
SEATTLE, WA 98104  
206.322.3322



ITEM #: 2

CHECK ONE:

NEW BUS. X

OLD BUS.       

## AGENDA ITEM

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Council Date: January 25, 2018 Subject: 2018 Council Committee Assignments and  
Steve Sexton, Mayor Recommendations

Attachments: Proposed 2018 Council Committee Assignments Public Hearing Required: YES ( ) NO (X)

### SUMMARY

The Mayor appoints Councilmembers to the following committees:

- Audit & Finance
- Public Works
- Public Safety
- Parks & Recreation Advisory Board & Cemetery Board
- Traffic Safety
- Board of Trustees of the Volunteer Firefighters' Relief & Compensation Fund
- Land Use
- Americans with Disabilities
- Downtown Burlington Association

The Mayor recommends Councilmembers appointments to the following committees:

- Lodging Tax
- Emergency Service Council
- Historical Preservation Board
- Skagit Transit Board
- SCOG/MPO

Council elects Councilmembers to the following positions:

- Mayor Pro- Tempore
- Investment Chair

### RECOMMENDATION

Motion to accept the Mayor's 2018 committee assignments for those positions that require confirmation by council.

## City of Burlington      2018 Council Committee Assignments

Elected by Council

Appointed by Mayor

Recommended by Mayor, confirmed by Council

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### Elected by Council:

#### 1) Mayor Pro-Tempore:

#### 2) Investment:

City Administrator Bryan Harrison  
Director of Budget & Accounting Renee Sinclair  
*Quarterly report provided by Director of Budget & Accounting*

### Appointed by Mayor:

#### 3) Audit and Finance:

Chair: Rick DeGloria  
Joe DeGloria  
Bill Aslett  
Alternate: James Stavig  
City Administrator Bryan Harrison  
Director of Budget & Accounting Renee Sinclair  
4:00 p.m., Day prior to Council meeting  
City Hall Conference Room

#### 4) Public Works:

Chair: Marv Pulst  
Rick De Gloria  
Edie Edmundson  
Chris Loving  
Alternate(s): Ted Montgomery  
Mayor Steve Sexton  
City Administrator Bryan Harrison  
Street Supervisor Travis Schwetz  
Building & Grounds Supervisor Eric Peterson  
Sewer Supervisor Don Erickson  
4:00 p.m., 3rd Tuesday  
City Hall Conference Room

### 5) Public Safety:

Chair: Edie Edmundson  
Rick DeGloria  
Ted Montgomery

Alternate: Joe DeGloria

Mayor Steve Sexton

City Administrator Bryan Harrison

Court Administrator Mickey Zitkovich

Fire Chief Levon Yengoyan

**Police Chief Mike Luvera**

4:00 p.m., 2<sup>nd</sup> Tuesday

Police Public Safety Building Conference Room

**6) Parks & Recreation Board & Cemetery Board:**

James Stavig

Chris Loving

Alternate: Edie Edmundson

### Parks & Recreation Director

\*one to three members of city council

5:30 p.m., 1st Monday

Parks &amp; Recreation Department

### 7) Traffic Safety:

Chair: Rick DeGloria

Alternate: Ted Montgomery

**Member of Community:**

Mayor Steve Sexton

City Administrator Bryan Harrison

**Police Chief Mike Luvera**

**Public Works Director Marv Pulst**      **Meet as needed**

**8) Board of Trustees of the Volunteer Firefighter's Relief and Compensation Fund:**

**Rick DeGloria**

**Mayor Steve Sexton**

City Administrator Bryan Harrison

**Director of Budget & Accounting Renee Sinclair**

Fire Chief Levon Yengoyan    Meet as needed

**9) Land Use:**

Chair: James Stavig

Chris Loving

Bill Aslett

**Mayor Steve Sexton**

**City Administrator Bryan Harrison**    **Meet as Needed**

### 10) Americans with Disabilities:

Chair: Ted Montgomery

Chris Loving

**Mayor Steve Sexton**

City Administrator Bryan Harrison

**Public Works Director Marv Pulst**      **Meet as needed**

**11) Downtown Burlington Association:**

Edie Edmundson  
Ted Montgomery  
James Stavig  
Alternate: Rick DeGloria

Meet as needed  
Chamber of Commerce Office

**Recommended by Mayor, confirmed by Council**

**12) Lodging Tax:**

Chair: Edie Edmundson  
Alternate: Chris Loving  
City Administrator Bryan Harrison

**13) Emergency Service Council:**

Chair: Mayor Steve Sexton  
James Stavig  
Police Chief, Bill VanWieringen  
Fire Chief Levon Yengoyan  
Fire Marshal Kelly Blaine  
City Administrator Bryan Harrison  
Meet as needed

**14) Historical Preservation Board (Commission):** Chair: Edie Edmundson

Alternate: Chris Loving  
Parks & Recreation Director  
Meet as needed

**15) Skagit Transit Board:**

Rick DeGloria  
Mayor Steve Sexton  
Alternate: Chris Loving  
1:00 p.m., 3rd Wednesday  
Burlington City Council Chambers

**16) TPB:** Mayor Steve Sexton

Alternate: Chris Loving  
2:00 p.m., 3<sup>rd</sup> Wednesday  
Burlington City Council Chambers





ITEM #: 3

CHECK ONE:

NEW BUS. X

OLD BUS.       

## AGENDA ITEM

Council Date: January 25, 2018 Subject: Purchase of Aerial Apparatus

Levon Yengoyan, Fire Chief

Attachments: 1-Pierce Purchase Agreement Public Hearing Required: YES ( ) NO (X)

2-Pierce Discount Recap

3-GPO Letter

4-Pierce Component List

5-Pierce Specification Verbiage

6-Public Procurement Authority Cooperative

Purchasing Agreement

7-Public Procurement Authority Solicitation Synopsis

8-Public Procurement Authority Contract Overview

9-Public Procurement Authority Request for Proposals

10-Public Procurement Authority Master Price List

11-Public Procurement Authority Base Model Price List

12-Public Procurement Authority Option Pricing

13-Public Procurement Authority Price Terms

14-BMC 2.84 Procurement

15-Aerial Apparatus Specification Presentation

## SUMMARY

The Burlington Fire Department operates a fleet of four primary response apparatus, two command vehicles, and one utility truck. Front-line response apparatus include a 2009 Spartan engine, a 1996 LTI ladder truck, and a 1997 Braun aid unit. A 2003 Pierce engine serves as a reserve.

The fire department has an apparatus maintenance program and has developed an apparatus replacement plan with the following goals:

- Maximize vehicle availability
- Minimize overall fleet cost
- Provide firefighters with safe and reliable tools to perform their job
- Plan and budget for short and long term apparatus needs

While the departments fleet maintenance program does not currently provide the data to conduct life cycle analysis with empirical means, replacement cycles have been developed based on industry best practices and recognized standards. In addition, an analysis using a weighted point system was conducted to evaluate the condition of the department's fleet. The need to replace the City's current ladder truck was identified through this replacement planning effort and fleet analysis.

The Fire Department's current aerial apparatus was purchased in 1996 and is over 20 years old. Due to its age, the apparatus does not comply with many current standards recommended for fire apparatus of this type. In addition, costs to maintain the apparatus and apparatus down time have increased significantly due to age and lack of parts for discontinued apparatus. The design of the truck (straight ladder with no water tank, pump, or hoses) limits its operational usefulness with current department staffing.

Replacing the current aerial with a quintuple combination pumper (quint) will enable firefighters to respond to emergencies with the tools needed to mitigate a variety of hazards more effectively. In addition, fire response in a quint will improve scoring in several areas as specified by the Washington Survey and Rating Bureau (WSRB). To ensure the new apparatus meets the current and future needs of the City, the fire department established an Apparatus Specification Committee in August of 2017. This committee met over a dozen times in the past six months to evaluate operational needs, evaluate purchases by other local fire departments, confer with vendors and other industry experts, and develop an apparatus design and specification. The purchase agreement, cost recap, component list, and specification verbiage are attached (Attachments 1-5).

The purchase of a new aerial apparatus is a significant expenditure for the City. This need was identified in 2016 and funds were appropriated in preparation of this purchase in the 2017 budget. The need to replace the City's current aerial was again identified in 2018 budget workshops and presentations have been made to Council's Public Safety Committee, Audit Finance Committee, and remaining Council members in January 2018. A copy of this presentation is attached (Attachment 15).

Cooperative purchasing is allowed per the Burlington Municipal Code and this purchase will be made through an existing Inter-Governmental Agreement with the Public Procurement Authority (Attachment 6). The Public Procurement Authority has undertaken a competitive bid process that complies with state purchasing requirements. Due to the bidding practices and volume pricing available purchase, via the cooperative purchasing agreement presents the best value for acquisition. All documents relating to the cooperative purchasing agreement are attached (Attachments 7-14).

#### **RECOMMENDATION**

I motion to approve the purchase of the Pierce Ascendant Aerial Apparatus via the Inter-Governmental Agreement for cooperative purchasing with the Public Procurement Authority and authorize the Mayor to sign the purchase agreement with Hughes Fire Equipment.

## PURCHASE AGREEMENT

This Purchase Agreement (together with all attachments referenced herein, the "Agreement"), made and entered into by and between Hughes Fire Equipment Inc. ("Company"), and the City of Burlington, a City ("Customer") is effective as of the date specified in Section 3 hereof.

### 1. Definitions.

- a. **"Product"** means the fire apparatus and any associated equipment manufactured or furnished for the Customer by Company pursuant to the Specifications.
- b. **"Specifications"** means the general specifications, technical specifications, training, and testing requirements for the Product contained in the Company Proposal for the Product prepared in response to the Customer's request for proposal.
- c. **"Company Proposal"** means the proposal provided by Company attached as Exhibit C prepared in response to the Customer's request for proposal.
- d. **"Delivery"** means the date Company is prepared to make physical possession of the Product available to the Customer.
- e. **"Acceptance"** The Customer shall have the opportunity, as described in Section 8(b) below, to inspect the Product for substantial conformance with the material Specifications; unless Company receives a Notice of Defect within the time frame described in Section 8(b), the Product will be deemed to be in conformance with the Specifications and accepted by the Customer.

2. Purpose. This Agreement sets forth the terms and conditions of Company's sale of the Product to the Customer.

3. Term of Agreement. This Agreement will become effective on the date it is signed and approved by both Customer and Company ("Effective Date") and, unless earlier terminated pursuant to the terms of this Agreement, it will terminate upon the Customer's Acceptance and payment in full of the Purchase Price.

4. Purchase and Payment. The Customer agrees to purchase the Product specified on Exhibit A for the total purchase price of \$1,073,566.27 ("Purchase Price"). Prices are in U.S. funds.

5. Future Changes. Various state or federal regulatory agencies (e.g. NFPA, DOT, EPA) may require changes to the Specifications and/or the Product and in any such event any resulting cost increases incurred to comply therewith will be added to the Purchase Price to be paid by the Customer. In addition, any future drive train upgrades (engine, transmission, axles, etc.), or any other specification changes have not been calculated into our annual increases and will be provided at additional cost. To the extent practicable, Company will document and itemize any such price increases for the Customer.

6. Agreement Changes. The Customer may request that Company incorporate a change to the Products or the Specifications for the Products by delivering a change order to Company; provided, however, that any such change order must be in writing and include a description of the proposed change sufficient to permit Company to evaluate the feasibility of such change ("Change Order"). Within [seven (7) business days] of receipt of a Change Order, Company will inform the Customer in writing of the feasibility of the Change Order, the earliest possible implementation date for the Change Order, of any increase or decrease in the Purchase Price resulting from such Change Order, and of any effect on production scheduling or Delivery resulting from such Change Order. Company shall not be liable to the Customer for any delay in performance or Delivery arising from any such Change Order. A Change Order is only effective when counter-signed by Company's authorized representative.

7. Cancellation/Termination. In the event this Agreement is cancelled or terminated by a party before completion, Company may charge a cancellation fee. The following charge schedule based on costs incurred may be applied: (a) 10% of the Purchase Price after order is accepted and entered by Company; (b) 20% of the Purchase Price after completion of approval drawings, and; (c) 30% of the Purchase Price upon any material requisition. The cancellation fee will increase accordingly as costs are incurred as the order progresses through engineering and into manufacturing. Company endeavors to mitigate any such costs through the sale of such Product to another purchaser; however, Customer shall remain liable for the difference between the Purchase Price and, if applicable, the sale price obtained by Company upon sale of the Product to another purchaser, plus any costs incurred by Company to conduct any such sale.

8. Delivery, Inspection and Acceptance. (a) Delivery. Delivery of the Product is scheduled to be within 11 to 14 months of the Effective Date of this Agreement, F.O.B. Customer's Facility, Burlington, Washington. Risk of loss shall pass to Customer upon Delivery. (b) Inspection and Acceptance. Upon Delivery, Customer shall have fifteen (15) days within which to inspect the Product for substantial conformance to the material Specifications, and in the event of substantial non-conformance to the material Specifications to furnish Company with written notice sufficient to permit Company to evaluate such non-conformance ("Notice of Defect"). Any Product not in substantial conformance to material Specifications shall be remedied by Company within thirty

(30) days from the Notice of Defect. In the event Company does not receive a Notice of Defect within fifteen (15) days of Delivery, Product will be deemed to be in conformance with Specifications and accepted by Customer.

9. **Notice.** Any required or permitted notices hereunder must be given in writing at the address of each party set forth below, or to such other address as either party may substitute by written notice to the other in the manner contemplated herein, by one of the following methods: hand delivery; registered, express, or certified mail, return receipt requested, postage prepaid; or nationally-recognized private express courier:

Company

Hughes Fire Equipment Inc.

910 Shelley Street

Springfield, Oregon 97477

Customer

City of Burlington

350 Sharon Avenue

Burlington, Washington 98233

10. **Standard Warranty.** Any applicable manufacturer warranties are attached hereto as Exhibit B and made a part hereof. Any additional warranties must be expressly approved in writing by Company's authorized representative.

a. **Disclaimer.** OTHER THAN AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER COMPANY, ITS PARENT COMPANY, AFFILIATES, SUBSIDIARIES, LICENSORS OR SUPPLIERS, THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, SHAREHOLDERS, AGENTS OR REPRESENTATIVES, MAKE ANY EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE PRODUCTS PROVIDED HEREUNDER OR OTHERWISE REGARDING THIS AGREEMENT, WHETHER ORAL OR WRITTEN, EXPRESS, IMPLIED OR STATUTORY. WITHOUT LIMITING THE FOREGOING, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, THE IMPLIED WARRANTY AGAINST INFRINGEMENT, AND THE IMPLIED WARRANTY OR CONDITION OF FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED AND DISCLAIMED. STATEMENTS MADE BY SALES REPRESENTATIVES OR IN PROMOTIONAL MATERIALS DO NOT CONSTITUTE WARRANTIES.

b. **Exclusions of Incidental and Consequential Damages.** In no event shall Company be liable for consequential, incidental or punitive damages incurred by Customer or any third party in connection with any matter arising out of or relating to this Agreement, or the breach thereof, regardless of whether such damages arise out of breach of warranty, tort, contract, strict liability, statutory liability, indemnity, whether resulting from non-delivery or from Company's own negligence, or otherwise.

11. **Force Majeure.** Company shall not be responsible nor deemed to be in default on account of delays in performance due to causes which are beyond Company's control which make Company's performance impracticable, including but not limited to civil wars, insurrections, strikes, riots, fires, storms, floods, other acts of nature, explosions, earthquakes, accidents, any act of government, delays in transportation, inability to obtain necessary labor supplies or manufacturing facilities, allocation regulations or orders affecting materials, equipment, facilities or completed products, failure to obtain any required license or certificates, acts of God or the public enemy or terrorism, failure of transportation, epidemics, quarantine restrictions, failure of vendors (due to causes similar to those within the scope of this clause) to perform their contracts or labor troubles causing cessation, slowdown, or interruption of work.

12. **Default.** The occurrence of one or more of the following shall constitute a default under this Agreement: (a) the Customer fails to pay when due any amounts under this Agreement or to perform any of its obligations under this Agreement; (b) Company fails to perform any of its obligations under this Agreement; (c) either party becomes insolvent or become subject to a bankruptcy or insolvency proceedings; (d) any representation made by either party to induce the other to enter into this Agreement is false in any material respect; (e) the Customer dissolves, merges, consolidates or transfers a substantial portion of its property to another entity; or (f) the Customer is in default or has breached any other contract or agreement with Company.

13. **Manufacturer's Statement of Origin.** It is agreed that the manufacturer's statement of origin ("MSO") for the Product covered by this Agreement shall remain in the possession of Company until the entire Purchase Price has been paid. If more than one Product is covered by this Agreement, then the MSO for each individual Product shall remain in the possession of Company until the Purchase Price for that Product has been paid in full. In case of any default in payment, Company may take full possession of the Product, and any payments that have been made shall be applied as payment for the use of the Product up to the date of taking possession.

14. Independent Contractors. The relationship of the parties established under this Agreement is that of independent contractors and neither party is a partner, employee, agent, or joint venture of or with the other.

15. Assignment. Neither party may assign its rights and obligations under this Agreement unless it has obtained the prior written approval of the other party.

16. Governing Law; Jurisdiction. Without regard to any conflict of laws provisions, this Agreement is to be governed by and under the laws of the state of Oregon.

17. Facsimile Signatures. The delivery of signatures to this Agreement by facsimile transmission shall be binding as original signatures.

18. Entire Agreement. This Agreement shall be the exclusive agreement between the parties for the Product. Additional or different terms proposed by the Customer shall not be applicable, unless accepted in writing by Company's authorized representative. No change in, modification of, or revision of this Agreement shall be valid unless in writing and signed by Company's authorized representative.

19. Conflict. In the event of a conflict between the Customer Specifications and the Company Proposal, the Company Proposal shall control. In the event there is a conflict between the Company Proposal and this Agreement, the Company Proposal shall control.

Accepted and agreed to:

**COMPANY: Hughes Fire Equipment Inc.**

**CUSTOMER: City of Burlington**

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A**

**PURCHASE DETAIL FORM  
Hughes Fire Equipment Inc.**

Date: \_\_\_\_\_

Customer Name: City of Burlington

Quantity	Chassis Type	Body Type	Price per Unit
One (1)	Pierce Velocity	107' Ascendant TH292	\$1,045,332.00
Less	Chassis Progress Payment Discount		(11,839.00)
Less	Aerial Device Progress Payment Discount		(4,868.00)
Less	Payment Upon Completion at the Factory Discount		(12,113.00)
Less	90% Prepayment with Contract Discount		(27,050.00)
Subtotal			\$989,462.00
Plus	Washington State Sales Tax @ 8.20%		\$81,135.88
Plus	Washington State Motor Vehicle Tax @ 0.30%		\$2,968.39
Total			\$1,073,566.27

Warranty Period: Standard per Pierce Proposal TH292.

Training Requirements: Standard per Pierce Proposal TH292.

Other Matters: A performance bond will be provided.

This contract is available for inter-local and other municipal corporations to utilize with the option of adding or deleting any manufacturer available options, including chassis models. Any addition or deletion may affect the unit price.

Payment Terms: A 90% Prepayment in the amount of \$940,799.00 will be due within thirty (30) days of contract. If payment is not made at that time, \$55,870.00 or a portion thereof will be added to the final invoice. Final payment including any changes made during the manufacturing process will be due when the unit is completed at the Pierce Manufacturing facility and prior to the unit leaving the factory for delivery.

[NOTE: If deferred payment arrangements are required, the Customer must make such financial arrangements through a financial institution acceptable to Company.] All taxes, excises and levies that Company may be required to pay or collect by reason of any present or future law or by any governmental authority based upon the sale, purchase, delivery, storage, processing, use, consumption, or transportation of the Product sold by Company to the Customer shall be for the account of the Customer and shall be added to the Purchase Price. All delivery prices or prices with freight allowance are based upon prevailing freight rates and, in the event of any increase or decrease in such rates, the prices on all unshipped Product will be increased or decreased accordingly. Delinquent payments shall be subject to a carrying charge of 1.5 percent per month or such lesser amount permitted by law. Company will not be required to accept payment other than as set forth in this Agreement. However, to avoid a late charge assessment in the event of a dispute caused by a substantial nonconformance with material Specifications (other than freight), the Customer may withhold up to five percent (5%) of the Purchase Price until such time that Company substantially remedies the nonconformance with material Specifications, but no longer than sixty (60) days after Delivery. If the disputed amount is the freight charge, the Customer may withhold only the amount of the freight charge until the dispute is settled, but no longer than sixty (60) days after Delivery. Company shall have and retain a purchase money security interest in all goods and products now or hereafter sold to the Customer by Company or any of its affiliated companies to secure payment of the Purchase Price for all such goods and products. In the event of nonpayment by the Customer of any debt, obligation or liability now or hereafter incurred or owing by the Customer to Company, Company shall have and may exercise all rights and remedies of a secured party under Article 9 of the Uniform Commercial Code (UCC) as adopted by the state of Oregon.

THIS PURCHASE DETAIL FORM IS EXPRESSLY SUBJECT TO THE PURCHASE AGREEMENT TERMS AND CONDITIONS DATED AS OF \_\_\_\_\_, 20\_\_\_\_ BETWEEN COMPANY AND the City of Burlington WHICH TERMS AND CONDITIONS ARE HEREBY INCORPORATED IN, AND MADE PART OF, THIS PURCHASE DETAIL FORM AS THOUGH EACH PROVISION WERE SEPARATELY SET FORTH HEREIN, EXCEPT TO THE EXTENT OTHERWISE STATED OR SUPPLEMENTED BY COMPANY HEREIN.

EXHIBIT B  
**WARRANTY**

STANDARD PER PIERCE PROPOSAL TH292.



EXHIBIT C  
**COMPANY PROPOSAL**

STANDARD PER PIERCE PROPOSAL TH292.



January 18, 2018

City of Burlington, WA  
One (1) Velocity 107' Ascendant TH292  
Build Location: Appleton, Wisconsin

Proposal Price \$ 1,045,332.00

Washington State sales tax @	8.20%	85,717.22
Washington State motor vehicle tax @	0.30%	3,136.00

Total Bid Price Including Sales Tax \$ 1,134,185.22

Less chassis progress payment discount (11,839.00)

The chassis progress payment in the amount of \$394,628.00 will be due three (3) months prior to the ready for pick up from the factory date.

Less aerial device progress payment discount (4,868.00)

The aerial payment in the amount of \$252,815.00 will be due two (2) months prior to the ready for delivery from the factory date.

Less payment upon completion @ factory discount (12,113.00)

\* Deduct for 90% pre-payment with contract (27,050.00)

If this option is elected, the discount is in addition to the chassis progress payment discount and the payment upon completion at the factory discount.

Subtotal including all pre-pay discounts 989,462.00

Washington State sales tax @	8.20%	81,135.88
Washington State motor vehicle tax @	0.30%	2,968.39

Total Bid Price Including Pre-Pay Discounts & Sales Tax \$ 1,073,566.27

Terms:

Based on the current delivery schedule the unit would be ready for delivery from factory within 11 to 14 months after contract execution. Delivery is subject to change pending Pierce's delivery schedule at order placement.

The above quote is subject to change.

A performance bond is included in the above pricing.

If financing using PNC Pierce Financial Solutions, a performance bond will be required.

The Purchasing Documents will be between Hughes Fire Equipment and the Customer.

An invoice will be provided 30 days prior to the chassis and aerial payment due dates if they are elected.

If payment discount options are not elected standard payment terms will apply: Final payment will be due 30 days after the unit leaves the

An invoice will be provided upon order processing for the 90% Prepayment in the amount of 90% of the Proposal Price, for the amount of \$940,799.00, if the prepayment option is elected.

The proposal price is based on the unit being purchased through FireRescue GPO / NPPGov. This pricing is only valid for a FireRescue GPO / NPPGov purchase on PPA MPA for RFP No. 1420.

An annual price increase will go into effect for all orders processed after January 31, 2018. If order is not submitted prior to that date, a 3% price increase will be required.

Transportation of the unit to be driven from the factory is included in the pricing. However, if we are unable to obtain necessary permits, due to the weight of the unit, and the unit must be transported on a flat bed, additional transportation charges will be the responsibility of the purchaser. We will provide pricing at that time if necessary.

Two (2) factory inspection trips for three (3) fire department customer representatives is included in the above pricing. The inspection trips will be scheduled at times mutually agreed upon between the manufacture's representative and the customer. Airfare, lodging and meals while at the factory are included. If the Department elects to forgo an inspection trip \$1,850.00 per traveler (per trip) will be deducted from the final invoice.



29 January 2018

FireRescue GPO, program of NPPGov  
Attn: Susan Kordel

The City of Burlington, Washington has contracted to purchase a Pierce Manufacturing Fire Apparatus from Hughes Fire Equipment Inc.

One (1) Pierce Velocity 107' Ascendant TH292

The FireRescue GPO ID#52035 was utilized for this sale and the following purchased:

(1) 1.27 Arrow XT, Single, 1500 Pump, 107' Aerial

The purchase includes published options as shown in the FireRescue option list, including the change to a Velocity Chassis and Tandem Axle, totaling the following contractual amount:

Base ID Contract Amount	\$975,930.00
Additional Option Content	\$69,402.00
Subtotal	\$1,045,332.00
Less Prepayment Discounts	(55,870.00)
Total	\$989,462.00
Plus: Washington State Sales Tax @ 8.20%	
\$81,135.88	
Plus: State Motor Vehicle Tax @ 0.3%	
\$2,968.39	
Total Purchase/Contract Price	
\$1,073,566.27	

Sincerely,

Renee Sinclair  
Finance Director  
City of Burlington



# Proposal Option List

1/17/2018

<b>Customer:</b>	City of Burlington	<b>Bid Number:</b>	292
<b>Representative</b>	Hill, Terry	<b>Job Number:</b>	
<b>Organization:</b>	Hughes Fire Equipment, Inc	<b>Number of Units:</b>	1
<b>Requirements Manager:</b>		<b>Bid Date:</b>	12-27-2017
<b>Description:</b>	Burlington Ascendant Quint	<b>Stock Number:</b>	
<b>Body:</b>	Aerial, HD Ladder 107' ASL Tandem, Alum Body	<b>Price Level:</b>	36 (Current: 36)
<b>Chassis:</b>	Velocity Chassis, Aerials, Tandem Axle, Ascendant, (Big Block), 2010		

Line	Option	Type	Option Description	Qty
1	0010012		No Boiler Plates requested	1
2	0018180		Single Source Compliance, Aerials	1
3	0584456		Manufacture Location: Appleton, Wisconsin	1
4	0584452		RFP Location: Appleton, Wisconsin	1
5	0588609		Vehicle Destination, US	1
6	0610784		Comply NFPA 1901 Changes Effective Jan 1, 2016, With Exceptions	1
7	0533351		Quint Fire Apparatus	1
8	0588612		Vehicle Certification, Aerial w/Pump	1
9	0681278		Agency, Apparatus Certification, Aerial w/Pump, U.L.	1
10	0536644		Customer Service Website	1
11	0620361		Consortium, GPO	1
12	0537375		Unit of Measure, US Gallons	1
13	0529326		Bid Bond, 10%, Pierce Built Chassis	1
14	0540326		Performance Bond, Not Requested	1
15	0000007		Approval Drawing	1
16	0002928		Electrical Diagrams	1
17	0786878		Velocity Chassis, Aerials, Tandem Axle, Ascendant, (Big Block), 2010	1
18	0000110		Wheelbase	1
			Wheelbase - approx. 251 inches	
19	0000070		GVW Rating	1
			GVW rating - 68,800 lbs	
20	0000203		Frame Rails, 13.38 x 3.50 x .375, Qtm/AXT/Imp/Vel/DCF	1
21	0060637		Frame Liner, Inv "L" 12.68" x 3.00" x .25", AXT/Vel/Imp, Full Length, 56"Qval	1
22	0508849		Axle, Front, Oshkosh TAK-4, Non Drive, 22,800 lb, Imp/Vel	1
23	0010427		Suspension, Front TAK-4, 22,800 lb, Qtm/AXT/Imp/Vel/DCF/Enf	1
24	0087572		Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	1
25	0000322		Oil Seals, Front Axle	1
26	0664500		Tires, Front, Goodyear, G296 MSA, 425/65R22.50, 20 ply, Fire Service Speed Rtnng	1
27	0019611		Wheels, Front, Alcoa, 22.50" x 12.25", Aluminum, Hub Pilot	1
28	0604679		Axle, Rear, Meritor RT46-160, 44,000 lb	1
29	0602744		Top Speed of Vehicle, Non-NFPA 2016 Compliant	1
			Top Speed of Vehicle - 70	
30	0090743		Suspen, Rear, Neway AD246, Air Ride, 46,000 lb	1
31	0000485		Oil Seals, Rear Axle	1
32	0000483		Driver Controlled Differential Lock, Rear Axle, Tandem	1
33	0587016		Tires, Rear, Goodyear, G622 RSD, 12R22.50, 16 ply, Tandem	1
34	0019646		Wheels, Rear, Alcoa, 22.50" x 8.25", Aluminum-Steel, Hub Pilot, Tandem	1
35	0568081		Tire Balancing, Counteract Beads	1
36	0620569		Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Tandem Axle	1
			Qty, Tire Pressure Ind - 10	
37	0003245		Axle Hub Covers w/center hole, S/S, Front Axle	1
38	0013241		Axle Hub Covers, Rear, S/S High Hat (Tandem)	1
39	0691196		Extender, Valve Stem, 180 Degree, Tandem Axle, Two Pair	1
40	0057936		Covers, Lug Nut, Chrome	1
41	0002045		Mud Flaps, w/logo front & rear	1
42	0601010		Chocks, Wheel, SAC-44-E, Folding, Aerials	1
			Qty, Pair - 01	
43	0601009		Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal, Aerials	1
			Qty, Pair - 01	
			Location, Wheel Chocks - Left Side Rear Tire, Forward	

Line	Option	Type	Option Description	Qty
44	0593759		ESC/ABS/ATC Wabco Brake System, Tandem Rear Axle, 2010	1
45	0030185		Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	1
46	0590981		Brakes, Meritor, Cam, Rear, 16.50 x 8.63", Tandem	1
47	0058463		Air Compressor, Brake, Bendix 15.8 CFM	1
48	0000789		Brake Reservoirs, Five	1
49	0568012		Air Dryer, Wabco System Saver 1200, Heater, 2010	1
50	0000790		Brake Lines, Nylon	1
51	0000856		Air Inlet, with Kussmaul Air Eject	1
			Location, Air Coupling(s) - aa) DS Cab Corner	
			Qty, Air Coupling (s) - 1	
52	0643363		Outlet, Air, with Shut Off Valve, Location	1
			Location - drivers side pump panel	
			Qty, Air Coupling (s) - 1	
53	0070810		All Wheel Lockup (Aerial/Tanker Chassis)	1
54	0610848		Engine, DDC DD13, 525 hp, 1850 lb-ft, W/OBD, EPA 2016, Velocity	1
55	0001244		High Idle w/Electronic Engine, Custom	1
56	0590300		Engine Brake, Jacobs Compression Brake, DD13	1
			Switch, Engine Brake - f) DD13	
57	0552334		Clutch, Fan, Air Actuated, Horton Drive Master	1
58	0011302		Heater, 1000 Watt Immersion	1
59	0123135		Air Intake, w/Ember separator, Imp/Vel	1
60	0565965		Exhaust System, 5", 2010 DD13, ISX engine, Horizontal, Right Side	1
61	0787999		Radiator, Impel/Velocity	1
62	0616439		Cooling Hoses, Gates Silicone	1
63	0001125		Fuel Tank, 65 Gallon, Left Side Fill	1
64	0001129		Lines, Fuel	1
65	0618791		DEF Tank, 4.5 Gallon, DS Fill, Forward of Axle, Common Air Bottle Door	1
66	0552793		Not Required, Fuel Priming Pump	1
67	0552567		Shutoff Valve, Fuel Line @ Fuel Tank	1
68	0553019		Cooler, Engine Fuel, Imp/Vel, AXT/Qtm/Sab/DCF/SFR/Enf	1
69	0051290		Label, "Diesel Fuel Only"	1
			Location - inside the diesel fill door	
70	0672449		Label, "DEF Only", Blue Letters	1
			Location - inside the DEF fill door	
71	0690880		No Selection Required From This Category	1
72	0642582		Trans, Allison 5th Gen, 4000 EVS P, w/Prognostics, Imp/Vel/DCF/SFR/Enf	1
73	0625331		Transmission, Shifter, 6-Spd, Push Button, 4000 EVS	1
74	0684459		Transmission Oil Cooler, Modine, External	1
75	0535530		Mode, Downshift, Aggressive downshift to 2nd, w/engine brake, 6 speed	1
76	0559012		Program, Transmission, Shift To Neutral, With Parking Brake	1
77	0001375		Driveline, Spicer 1810	1
78	0669988		Steering, Sheppard M110 w/Tilt, TAK-4, Eaton Pump, w/Cooler	1
79	0001544		Not Required, Steering Assist Cylinder on Front Axle	1
80	0509230		Steering Wheel, 4 Spoke without Controls	1
81	0690274		Logo/Emblem, on Dash	1
			Text, Row (1) One - City of	
			Text, Row (2) Two - Burlington	
			Text, Row (3) Three - Fire Dept.	
82	0773371	SP	Bumper, 13" Extended, Steel Painted, Color Feature, Imp/Vel	1
			Paint, Color - Red #90	
83	0616511		Tray, Hose, Center, 13" Bumper, Outside Air Horns, Imp/Vel	1
			Grating, Bumper extension - Grating, Rubber	
			Capacity, Bumper Tray - 00) 100' of 1.00"	
84	0630809		Cover, Aluminum Treadplate, One (1) D-Ring Latch, Hose Tray, Notched	1
			Stay arm, Tray Cover - b) Pneumatic Stay Arm	
85	0510226		Lift & Tow Package, Imp/Vel, AXT, Dash CF	1
86	0005739		Tow Eyes, Chrome, Chicago Style, Top of Deck	1
87	0532853		Recess, Side Zone Warning Light, In Side of Extended Bumper	1
			Material, Brkt, Recess Lt Bumper - Painted Smooth Aluminum	
88	0698960		Coating, Top Flange, Front Bumper, Outside Exterior, Line-X Coating, Black	1
89	0668314		Cab, Velocity FR, 7010 Raised Roof w/Notch	1

Line	Option	Type	Option Description	Qty
90	0668309		Engine Tunnel, ISL and DD13, Impel/Velociry FR	1
91	0677478		Rear Wall, Exterior, Cab, Aluminum Treadplate	1
92	0122466		Cab Lift, Elec/Hyd, w/Manual Override, Imp/Vel	1
93	0123176		Grille, Bright Finished, Front of Cab, Impel/Velociry	1
94	0002224		Scuffplates, S/S At Cab Door Jambs, 4-Door Cab	1
			Material Trim/Scuffplate - c) S/S, Polished	
95	0646179		Trim, S/S, Rect Headlights, VEL/IMP	1
			Material Trim/Scuffplate - c) S/S, Polished	
			Turnsignal Covers - Polished S/S Covers	
96	0087357		Molding, Chrome on Side of Cab	1
97	0521669		Mirrors, Retractable, West Coast Style, Htd/Rmt, w/Htd/Rmt Convex	1
98	0667921		Door, Half-Height, Velocity FR 4-Door Cab, Raised Roof	1
			Key Model, Cab Doors - 751	
99	0655511		Door Panel, Brushed Stainless Steel, Impel/Velociry 4-Door Cab	1
100	0667905		Storage Pockets w/ Elastic Cover, Recessed, Impel/Velociry FR	1
101	0667902		Controls, Electric Windows, All Cab Doors, Impel/Velociry FR	1
102	0662776		Electric Door Locks, Cab Doors, Conceal Switch Feature, Imp/Vel	1
			Location - DS pump panel next to the air horn switch/button	
103	0621811		Steps, 4-Door Cab, Dual, 1" Larger Btm Step, Imp/Vel	1
			Light, Step, Additional - P25 LED	
104	0509649		Lights, Cab and Crew Cab Access Steps, P25, LED w/Bezel, 1Lt Per Step	1
105	0002140		Fenders, S/S on Cab	1
106	0586564		Window, Side of C/C, Fixed, w/EMS Cabinet, Imp/Vel	1
107	0552935		Trim, Cab Side Windows, Velocity	1
108	0012090		Not Required, Windows, Front/Side of raised roof	1
109	0509286		Not Required, Windows Rear of Crew Cab, Imp/Vel	1
110	0558334		Not Required, Trim, Cab Rear Windows, No Rear Windows	1
111	0619724		Compt, Storage, 10.71 W x 30 H x 14 D, (1) Ea Side C/C, Dbl Pan, D-Ring, Imp/Vel	1
			Light, Aux Cab Compartments - Pierce, Hinged Side	
			Finish, Exterior Cab Compt - Spatter Gray	
			Door, Exterior Stop - 2-Bumper	
112	0775312	SP	Drip Rail, Cab Roof, Painted, Impel/Velociry/Velociry SLT	1
113	0663375		Mounting Provisions, 1/4" Alum, Full Engine Tunnel, Vel/Imp	1
			Mounting Provision Spacing - 1.00"	
			Material Finish, Cab Interior - Painted	
114	0658325		Mounting Provisions, Computer, Tray, S/S, Straps, Slides, No Sides	1
			Location - to be shipped with the loose equipment	
			Qty, - 01	
115	0667945		Cab Interior, Vinyl, Velocity FR	1
			Color, Cab Interior Vinyl/Fabric - a) Silver/Gray	
116	0667943		Cab Interior, Paint Color, Impel/Velociry FR	1
			Color, Cab Interior Paint - i) fire smoke gray	
117	0509532		Floor, Rubber Padded Cab & Crew Cab, Imp/Vel, Dash CF	1
118	0600859		Heater/Defroster, w/Overhead Defrost Fans, Dual Zone Control, Imp/Vel FR	1
119	0603347		Air Conditioning, Dual Zone Control, Impel/Velociry FR	1
			Paint Color, A/C Condenser - Cover/Mounts Match Roof	
120	0639675		Sun Visor, Smoked Lexan, AXT, Dash CF, Imp/Vel, Saber FR/Enforcer	1
			Sun Visor Retention - Thumb Latch	
121	0548173		Grab Handles, Driver and Passenger Door Post, Imp/Vel	1
122	0583938		Lights, Engine Compt, Custom, Auto Sw, Wln 3SC0CDCR, 3" LED, Trim	1
			Qty, - 01	
123	0122516		Fluid Check Access, Imp/Vel	1
124	0599959		Straps, Velcro, Map Box, Custom Chassis	1
			Qty, - 1	
			Z Size, High -	
			Location, Map Box/Straps - Shipped Loose	
125	0002501		Map box, 4 bin/30 Deg Slant, Custom Chassis	1
			Location - shipped loose	
126	0583042		Side Roll and Frontal Impact Protection	1
127	0622619		Seating Capacity, 4 Seats	1
128	0697005		Seat, Driver, Pierce PS6, Premium, Air Ride, High Back, Safety	1
129	0696994		Seat, Officer, Pierce PS6, Premium, Air Ride, SCBA, Safety	1

Line	Option	Type	Option Description	Qty
130	0002517		Not Required, Radio Compartment	1
131	0784684	SP	Cabinet, EMS, Rear Facing, DS, 23.50 W x 40.25 H x 30.50 D, Web, Imp/Vel Type of fastener - 1" side release Light, Short EMS Compt - Pierce, Left Side Restraint Location - Inboard	1
132	0102783		Not Required, Seat, Rr Facing C/C, Center	1
133	0607254	SP	Cabinet, EMS, Rear Facing, PS, 21.50 W x 40.25 H x 26.50 D, Web, Imp/Vel Type of fastener - 1" side release Light, Short EMS Compt - Pierce, Right Side Restraint Location - Inboard	1
134	0108189		Not Required, Seat, Forward Facing C/C, DS Outboard	1
135	0122744		Seat, Forward Facing C/C, Center, (2) Pierce PS6, Premium, SCBA, Safety	1
136	0108190		Not Required, Seat, Forward Facing C/C, PS Outboard	1
137	0609699		Shelf, Adjustable, EMS Compt, 0.75" Lip Flanged Down Location - (2) in each crew cab cabinet Qty, Shelf - 04	4
138	0566653		Upholstery, Seats In Cab, Turnout Tuff Color, Cab Interior Vinyl/Fabric - c) Black	1
139	0543991		Bracket, Air Bottle, Hands-Free II, Cab Seats Qty, - 03	3
140	0603867		Seat Belt, ReadyReach Seat Belt Color - Red	1
141	0604867		Seat Belt Height Adjustment, 4 Seats, Imp/Vel, Dash CF	1
142	0602464		Helmet Storage, Provided by Fire Department, NFPA 2016	1
143	0647647		Lights, Dome, FRP Dual LED 4 Lts Color, Dome Lt - Red & White Color, Dome Lt Bzl - Grey Control, Dome Lt White - Door Switches and Lens Switch Control, Dome Lt Color - Lens Switch	1
144	0631776		Not Required, Overhead Map Lights	1
145	0650352		Spotlight, Golight Stryker, Model 30**4, LED, 2 Lts Location - one (1) each side cab roof, behind the warning lightbar Color, GoLt - Black Bracket, Spotlight - Pedestal - 2 Lts	1
146	0650059		Controller, Spotlight, Golight Stryker, Wired Dash Mount, 2 Lts	1
147	0649967		Location, Spotlight Controller, Driver and Officer, 2 Lts	1
148	0602622		Portable Hand Light, Provided by Fire Department, Quint NFPA 2016 Classification	1
149	0568369		Cab Instruments, Ivory Gauges, Chrome Bezels, Impel/Velocity 2010, Dash CF	1
150	0509511		Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	1
151	0543751		Light, Do Not Move Apparatus Alarm, Do Not Move Truck - Pulsing Alarm	1
152	0509042		Messages, Open Door/Do Not Move Truck, MUX w/Color Display	1
153	0611681		Switching, Cab, Membrane, Impel/Velocity/Quantum, Dash CF, AXT WiFi MUX Location, Emerg Sw Pnls - Driver's Side Overhead	1
154	0555915		Wiper Control, 2-Speed with Intermittent, MUX, Impel/Velocity	1
155	0002565		Hourmeter, Aerial Inside Cab	1
156	0002615		Switch, Aerial 12V Master	1
157	0002617		PTO switch, w/light - aerial	1
158	0610968		Wiring, Spare, 2.0 A 12V DC, USB Termination Blue Sea 1016 1st Qty, - 01 12vdc power from - Battery direct Location - to the left of the officers position	1
159	0548015		Wiring, Spare, 30 A 12V DC 1st Qty, - 01 12vdc power from - Battery direct Wire termination - 10-Place Bus Bar w/Cover Location, Spare Wiring - mounted on the rear of the drivers side EMS cabinet	1
160	0548016		Wiring, Spare, 30 A 12V DC 2nd Qty, - 01 12vdc power from - Battery switched Wire termination - 10-Place Bus Bar w/Cover	1

Line	Option	Type	Option Description	Qty
160			Location - on the rear of the passengers side EMS compartment	
161	0566101		Recess, Dash Panel, Officer Side, Vel/Imp	1
162	0615386		Vehicle Information Center, 7" Color Display, Touchscreen, MUX	1
			System Of Measurement - US Customary	
163	0606249		Vehicle Data Recorder w/CZ and Overhead Display Seat Belt Monitor	1
164	0684553		Antenna Mount, Custom Chassis, Cable Routed to Officer Side Dashboard	2
			Location - (1) each side cab roof	
			Qty, - 02	
165	0653519		Camera, Pierce, Driver Mux, R, RS, LS Cameras	1
			Camera System Audio - Speaker on Instrument Panel	
166	0511071		Guard, 4-Way, Rear Vision Camera	1
			Qty, - 01	
			Location - on top of the traffic directing light at the rear of the truck	
167	0615100		Pierce Command Zone, Advanced Electronics & Control System, Diag LEDs, Vel, WiFi	1
168	0624254		Electrical System, Velocity	1
169	0079166		Batteries, (4) Exide Grp 31, 950 CCA ea, Threaded Stud	1
170	0008621		Battery System, Single Start, All Custom Chassis	1
171	0123174		Battery Compartment, Imp/Vel	1
172	0531324		Charger, Sngl Sys, Kusmaul, 1000, 091-56-12 w/Battery Saver	1
173	0688318		Location, Charger, Cab Behind Driver Seat, On the EMS Compt Vertical Wall	1
174	0537512		Location, Battery Charger Indicator, Display Through Window Behind Driver Seat	1
175	0016857		Shoreline, 20A 120V, Kusmaul Auto Eject, 091-55-20-120, Super	1
			Qty, - 01	
			Color, Kusmaul Cover - b) red	
			Shoreline Connection - battery charger and block heater	
176	0026800		Shoreline Location	1
			Location, Shoreline(s) - DS Cab, Frt Corner	
177	0647728		Alternator, 430 amp, Delco Remy 55SI	1
178	0092582		Load Manager/Sequencer, MUX	1
			Enable/Disable Hi-Idle - e)High Idle enable	
179	0783153		Headlights, Rect LED, JW Spkr Evo 2, AXT/DCF/Enf/Imp/Sab/Vel	1
			Color, Headlight Bez - Chrome Bezel	
180	0648425		Light, Directional, Wln 600 LED Cmb, Cab Crn, Imp/Vel/AXT/Qtm/DCF	1
			Color, Lens, LED's - m)match LED's	
181	0648074		Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts	1
182	0620054		Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	1
183	0511569		Lights, Clearance/Marker/ID, Rear, P25 LED 7Lts	1
			Light Guard - Without Guard	
184	0559318		Light, Marker End Outline, Rubber Arm, LED Marker Lamp, Turn Signal	1
			Location, Lights - as low and as far to the rear of the vehicle, (1) each side	
			Qty, Lights, Pair - 1	
185	0564683		Lights, Tail, Wln M6BTT* Red LED Stop/Tail & M6T* Amber LED Dir Arw For Hsg	1
			Color, Lens - Colored	
186	0551758		Lights, Backup, Wln M6BUW, LED, Flange Feature	1
			Flange Kit - w/o) with out flange	
187	0664481		Bracket, License Plate & Light, P25 LED	1
188	0556842		Bezels, Wln, (2) M6 Chrome Pierce, For mtg (4) Wln M6 lights	1
189	0589905		Alarm, Back-up Warning, PRECO 1040	1
190	0065911		Switch, Back-Up Alarm Override	1
191	0659009		Lights, Cornering/Scene, Wln M6BUW LED, White, Switches 1st	1
			Location - recessed in the 45 degree angle of the front bumper, (1) each side	
			Qty, Lights, Pair - 1	
			Switch, Lt Control 1 DC,1 - m) no control	
			Switch, Lt Control 2 DC,2 - e) No Control	
			Switch, Lt Control 3 DC,3 - d) No Control	
			Switch, Lt Control 4 DC,4 - d) No Control	
192	0056200		Mounting, Light, Recess (each)	2
			Location - in the 45 degree corner, each side front bumper for the cornering lights	
			Qty, - 02	



Line	Option	Type	Option Description	Qty
193	0666455		Lights, Perimeter Cab, Amdor AY-9500-020 LED 4Dr	1
194	0616663		Lights, Perimeter Pump House, Amdor AY-9500-020 LED 1lt	1
195	0616284		Lights, Perimeter Body, Amdor AY-9500-020 LED 2lts, Turntable Access	1
			Control, Perimeter Lts - DS Switch Panel and Parking Brake Applied	
			Control, Perimeter Lts - DS Switch Panel and Parking Brake Applied	
196	0545689		Lights, Perimeter, Amdor AY-9500-020 LED, Brkt	5
			Qty, Lights - 05	
			Location, Additional Perimeter Lights - Each Side Under Front Bumper,	
			2lts, Each Side Under Tailboard, 2lts and Under Pump Panel PS	
197	0554198		Lights, Step, P25 LED, Aerial With Pump 2Lts, Pump Pnl Sw	1
198	0645676		Lights, Not Required, Hose Bed, Deck Lights At Rear	1
199	0645681		Lights, Not Required, Rear Work, Deck Lights At Rear	1
200	0709438		Light, Walking Surface, FRP Flood, LED	1
201	0776357		Light, Visor, WIn, 12V P*H2* Pioneer, Cnt Feature, 1st	1
			Qty, - 01	
			Location, driver's/passenger's/center -	
			Color, WIn Lt Housing - Black Paint	
			Control, Scene Lts - Cab Sw Panel DS and Cab Sw Panel PS	
			Scene Light Optics - Flood/Spot	
202	0775524		Lights, WIn, P*H1* Pioneer, 12 VDC, 1st	1
			Location - up high behind the crew cab door, DS	
			Qty, - 01	
			Color, WIn Lt Housing - Black Paint	
			Control, Scene Lts - Cab Sw Panel DS, Cab Sw Panel PS and DS Flood	
		Lts	Scene Light Optics - combination	
			Mount, WIn II - Semi-recessed 0 deg P**1	
203	0774948		Lights, WIn, P*H1* Pioneer, 12 VDC, 2nd	1
			Location - up high behind the crew cab door, PS	
			Qty, - 01	
			Color, WIn Lt Housing - Black Paint	
			Control, Scene Lts - Cab Sw Panel DS, Cab Sw Panel PS and PS Flood	
		Lts	Scene Light Optics - combination	
			Mount, WIn II - Semi-recessed 0 deg P**1	
204	0774296		Housing, Recessed Light, Horizontal Mt	2
			Location - (1) housing each side above the D-2 and P-2 compartments,	
			where those compartments meet the D-3 and P-3 compartments	
			Qty, - 02	
			Material, Bracket - Aluminum Threadplate	
205	0774579		Light, WIn, P*H2* Pioneer, 12 VDC, 1st	1
			Location - above the D-2 compartment in the diamond plate housing	
			Qty, - 01	
			Color, WIn Lt Housing - Black Paint	
			Control, Scene Lts - DS Flood Lts	
			Scene Light Optics - Flood/Spot	
			Mount, WIn II - Semi-recessed 0 deg P**2	
206	0774333		Light, WIn, P*H2* Pioneer, 12 VDC, 2nd	1
			Location - above the P-2 compartment in the diamond plate housing	
			Qty, - 01	
			Color, WIn Lt Housing - Black Paint	
			Control, Scene Lts - PS Flood Lts	
			Scene Light Optics - Flood/Spot	
			Mount, WIn II - Semi-recessed 0 deg P**2	
207	0631374		Lights, Deck, WIn (2) MPPBCS Micro Pioneer LED Rear Flood Lights	1
			Control, Scene Lts - Cab Sw Panel DS and Body Switch, DS Rear	
		Bulkhead	Control, Scene Lts - Cab Sw Panel DS and Body Switch, DS Rear	
		Bulkhead		
208	0793399		Aerial, HD Ladder 107' ASL Tandem, Alum Body	1
209	0554269		Body Skirt Height, 18"	1
210	0013386		Tank, Water, 300 Gallon, Poly, Ascendant Tandem, PAL/PAP	1
211	0003405		Overflow, 4.00" Water Tank, Poly	1
212	0028104		Foam Cell Required	1

Line	Option	Type	Option Description	Qty
213	0553729		Not Required, Restraint, Water Tank, Heavy Duty	1
214	0003429		Not Required, Direct Tank Fill	1
215	0593672		Alum Hose Bed Construction, Ascendant TA, PAL, 85 PAP, Smooth Aluminum Door	1
216	0003492		Hose Bed Capacity, Special Amount, Ascendant Tandem, PAP, PAL Capacity, Hosebed - 800 feet of double jacket 5-inch hose in a two wide, flat load arrangement, hose bed area to be a minimum of 20 inches wide	1
217	0581819		Hose Restraint, Hose Bed, Vinyl, Top, Aerial Color, Vinyl Cover - c) black Type of fastener - Velcro - Sides of Hosebed Type of fastener, Front - Velcro with snaps - Front Hosebed	1
218	0003512		Running Boards, Ascendant, PAL	1
219	0665275		Turntable Steps-Morton Cass, Swing Down,DS&PS,Ascend TA,PAL,PAP,Handhld Cut Outs	1
220	0554004		Lights, Step (6), P25 LED, Swing Down Access Steps, Each Side	1
221	0690023		Wall, Rear, Smooth Aluminum	1
222	0029503		Tow Eyes (2), Aerial	1
223	0013641		Construction, Compt, Alum, Ascendant Tandem, PAL, 85 PAP	1
224	0063695		Compt, DS F/H F/D, Roll Drs, w/o Chute, Ascendant Tandem, 105', 85 PAP, 100 HAL	1
225	0625078	SP	Compt, DS Turntable, F/H F/D,Roll Dr/Lift Dr,Rr Compt Blist,AscendTA,105',85'PAP	1
226	0023672		Compt, IPO Stairs, Not Required, DS	1
227	0063733		Compt, PS F/H, Roll Drs, Ascendant Tandem, 105 HDL, 85 PAP, 100 HAL	1
228	0035382		Compt, PS Turntable, F/H, Roll Dr & Lift Dr, Ascendant Tandem, 105 HDL, 85 PAP	1
229	0023673		Compt, IPO Stairs, Not Required, PS	1
230	0666813		Doors, Lap/Amдор Roll-up, Aluminum, Side Compartments Qty, Door Accessory - 08 Color, Roll-up Door - AMDOR Painted to Match Lower Body Latch, Roll-up Door - Non-Locking Liftbar	8
231	0556162		Not Req'd, Compt Blister in Front of Rear Axle	1
232	0084028		Bumper, Rear, 8" Counterweight, w/Treadplate Cover, Ascendant Tandem, PAP, PAL	1
233	0689549		Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door Location - all compartments except the over stabilizer compartments. Qty, - 09	9
234	0603420		Shelf Tracks, Painted, Aerial Qty, Shelf Track - 06 Location, Shelf Track - D3, D1, P1, P3, D4 and P4	6
235	0600289		Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations, Aerial Qty, Shelf - 01 Material Finish, Shelf - Painted - Spatter Gray Location, Shelves/Trays, Predefined - D1-At Transition Point, D1-Upper Third, P1-Upper Third, D4-At Transition Point, D4-Upper Third Left of Partition, P4-At Transition Point, P4-Upper Third and P1-Upper Third - 2nd	1
236	0647045		Tray, Floor Mounted, Slide-Out, Full Width/Full Depth, 500lb, 2.00" Sides, 2G Qty, - 04 location - D-1, D-4, P-1, P-4 Material - Painted - Spatter Gray	4
237	0595085		Toolboard, Swing-out, Alum, .188", Pac Trac location - D-3 compartment Qty - 1 Location, Pivot - Front Mounting, Toolboard - Adjustable Frt-back	1
238	0709346		Toolboard, Slide-out, Alum, .188", Peg Board, Predefined Locations Qty, - 01 Mounting, Toolboard - Adjustable side-side Hole Diameter, Pegboard/Toolboard - .203" diameter Finish, Pegboard/Toolboard - Painted - Spatter Gray Location, Partition/Toolboard, Predefined - D4- 38.00" From Forward Door Frame	1
239	0776262	SP	Compt, IPO Chute,85.00" Deep,Rear Access,Tandem,Smooth Dr,w/Divider,Latch Location - drivers side Qty, - 1 Latch, Door, Storage - "D" Handle Latch	1

Line	Option	Type	Option Description	Qty
240	0026449		Divider, Vertical Location - between the D-1 & D-2 compartment and sealed so as not to allow air movement between the two compartments Qty, - 01	1
241	0013919		Partition, Adjustable, Vertical Compt Location - (1) centered in the D-4 compartment, mounted in the center of the lower adjustable shelf Qty, Partition - 01	1
242	0050308		Rear of Body, Smooth Aluminum Sheet	1
243	0027090		Tracks, Equipment Mounting, Horizontal Location - D-3 & P-3 compartments Qty, Shelf Track - 02	2
244	0004016		Rub Rail, Aluminum Extruded, Side of Body	1
245	0004027		Fender Crowns, Rear, S/S, Two Pair	1
246	0519849		Not Required, Hose, Hard Suction	1
247	0626229		Handrails, Side Pump Panels, Per Print	1
248	0780142		Compt, Air Bottle in Fender Panel Corner, Two Bottles, w/Straps, PS Only, Aerial Qty, Air Bottle Comp - 2 Location, Air Bottle - (2) PS Ahead & Behind Rr Wheel Door Finish, Fender Compt - Polished Latch, Air Bottle Compt - Flush Lift & Turn Door Type - vertically hinged	2
249	0621698		Compt, Air Bottle, Between Tandems, Four (4) Bottles, w/ Straps, Aerial Qty, Air Bottle Comp - 2 Location, driver's/passenger's/center - 1DS & 1PS Door Finish, Fender Compt - Polished Latch, Air Bottle Compt - Pair, Flush Lift & Turn Door Type - drop down with support cable	2
250	0780145	SP	Compt, Air Bottle w/Fuel Fill, Common Triang Door, w/Strap, Single, Round, Fender Pnl Qty, Air Bottle Comp - 1 Door, Material & Finish, Storage - Polished S/S Location, Air Bottle - (1) DS Behind Rr Wheel Latch, Air Bottle Compt - Flush Lift & Turn Insert, Air Bottle Compt - Rubber Matting	1
251	0780146	SP	Compt, Air Bottle w/DEF Tank, Common Triang Door, w/Strap, Single, Round, Fender Pnl Qty, Air Bottle Comp - 1 Door Finish, Fender Compt - Polished Location, Fender Compt - Single - DS Fwd Latch, Air Bottle Compt - Flush Lift & Turn Insert, Air Bottle Compt - Rubber Matting	1
252	0004218		Ladder, 35' Duo-Safety 1200A 2-Sect Qty, - 1	1
253	0010406		Ladder, 28' Duo-Safety 1200A 2-Section Qty, - 1 Location, Extension Ladder - ladder storage	1
254	0595251		Ladder, 16' Duo-Safety 875-DR Roof, Hooks Both Ends Qty, - 01	1
255	0654575		Ladder, 10' Duo-Safety 775A-DR Roof Qty, - 01 Location - left side of aerial base section behind boom panel	1
256	0652466		Ladder, 20' Duo-Safety 875-DR Roof Qty, - 01	1
257	0004233		Ladder, 14' Duo-Safety Fresno 701 Qty, - 1	1
258	0004246		Ladder, 10' Duo-Safety Folding, 585A Qty, - 01 Location, Folding Ladder Aerial - ladder storage	1
259	0592248		Ladders Stored in Torque Box, Amdor Roll, Ascendant TA, PAL, PAP Color, Roll-up Door - AMDOR Satin Aluminum	1
260	0602100		Lights, Torque Box Ladder Storage, Pierce LED Strip Lights, 2 Lts	1
261	0557255		Pike Pole, 6' Fire Hooks Unlimited, New York Roof Hook, Steel, Pry End, RH-6 Location - ladder storage compartment	2

Line	Option	Type	Option Description	Qty
261			Qty, Pike Poles - 2	
262	0627899		Pike Pole, 8' Fire Hooks Unlimited, New York Roof Hook, Steel, Pry End, RH-8 Location - ladder storage compartment Qty, Pike Poles - 2	2
263	0004349		Pike Pole, 10' DUO Safety, Fiberglass Location - ladder storage compartment Qty, Pike Poles - 1	1
264	0638595		Trash Hook, 6' Fire Hooks Unlimited, Fiberglass, TRH-6, w/D Handle Location - ladder storage compartment Qty, Pike Poles - 2	2
265	0775907		Pike Pole, 12' DUO Safety, Fiberglass Qty, - 01	1
266	0547754		Not Required, Pike, Pole, 8'	1
267	0549137		Not Required, Pike Pole, 6'	1
268	0548410		Not Required, Pole, Pike, 3'	1
269	0081834		Trough for D-Handled Trash Hook, Qty Location - ladder storage compartment Qty, - 02	2
270	0004361		Tubes, Alum, Pike Pole Storage Qty, Pike Pole Tubes - 06 Location, Pike Pole Tube - Ladder Storage	6
271	0593075		Steps, Folding, Front Bulkheads (Aerial), w/LED, Trident Coating, Step - luminescent	1
272	0634452		Platform, Slide-Out/Fold-Out, Pump Operator Panel, 500 lb Capacity Qty, Slideout Step - 1 Location, driver's/passenger's/center - passenger's side Light, Long Step - Amdor Lumabar H2O Insert - Morton Cass Width, Step - 52"	1
273	0592990		Step, Folding - Extra, Body Only, Luminescent w/LED, Trident Qty, Folding Step - 04 Location, Additional Step - (2) equally spaced, each side, front body bulkheads	4
274	0004425		Pump, Waterous, CSU, 1500 GPM, Single Stage	1
275	0004482		Seal, Mechanical, Waterous	1
276	0559769		Trans, Pump, Waterous C20 Series	1
277	0635600		Pumping Mode, Stationary Only	1
278	0605126		Pump Shift, Air w/Manual Override, Split Shaft, Interlocked, Waterous	1
279	0003148		Transmission Lock-up, EVS	1
280	0004547		Auxiliary Cooling System	1
281	0014486		Not Required, Transfer Valve, Stage Pump	1
282	0777622		Valve, Relief Intake, Elkhart, w/Pressure Features Pressure Setting - 125 psig	1
283	0794959		Controller, Pressure, Pierce, Pump Boss, PBA300	1
284	0072153		Primer, Trident, Air Prime, Air Operated	1
285	0780364		Manuals, Pump, (2) Total, Electronic Copies	1
286	0603129		Plumbing, Stainless Steel and Hose, Single Stage Pump	1
287	0775901		Plumbing and Manifolds, Stainless Steel, w/Foam System	1
288	0004645		Inlets, 6.00" - 1250 GPM or Larger Pump	1
289	0602448		Cap, Main Pump Inlet, Provided by Fire Department, NFPA 2016	1
290	0014650		Short Suction Tube, Both Sides	1
291	0084610		Valves, Akron 8000 series- All	1
292	0004660		Inlet, Left Side, 2.50"	1
293	0004680		Inlet, Right Side, 2.50"	1
294	0004686		Valve, Inlet(s) Recess Behind Panel, Side Cntrl Qty, Inlets - 2	2
295	0004700		Control, Inlet, at Valve	1
296	0092569		No Rear Inlet (Large Dia) Requested	1
297	0092696		Not Required, Cap, Rear Inlet	1
298	0064116		No Rear Inlet Actuation Required	1
299	0009648		No Rear Intake Relief Valve Required on Rear Inlet	1
300	0092568		No Rear Auxiliary Inlet Requested	1

Line	Option	Type	Option Description	Qty
301	0563738		Valve, .75" Bleeder, Aux. Side Inlet, Swing Handle	1
302	0029043		Tank to Pump, (1) 3.00" Valve, 3.00" Plumbing	1
303	0004905		Outlet, Tank Fill, 1.50"	1
304	0004940		Outlet, Left Side, 2.50"	2
			Qty, Discharges - 02	
305	0092570		Not Required, Outlets, Left Side Additional	1
306	0004945		Outlet, Right Side, 2.50"	1
			Qty, Discharges - 01	
307	0092571		Not Required, Outlets, Right Side Additional	1
308	0008731		Outlet, 5.00" w/4.00" Right, Handwheel	1
			Valve, Brand - Akron	
309	0649939		Outlet, Front, 1.50" w/2.00" Plumbing	1
			Fitting, Outlet - 1.50" NST with 90 degree swivel	
			Drain, Front Outlet - Automatic	
			Location, Front, Single - top of left bumper	
310	0092575		Not Required, Outlet, Rear	1
311	0092574		Not Required, Outlet, Rear, Additional	1
312	0092573		Not Required, Outlet, Hose Bed/Running Board Tray	1
313	0085076		Caps for 1.50" to 3.00" Discharge, VLH	1
314	0563739		Valve, 0.75" Bleeder, Discharges, Swing Handle	1
315	0005091		Elbow, Left Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
316	0035094		Not Required, Elbow, Left Side Outlets, Additional	1
317	0025091		Elbow, Right Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	1
318	0089584		Not Required, Elbow, Right Side Outlets, Additional	1
319	0045099		Not Required, Elbow, Rear Outlets	1
320	0085695		Not Required, Elbow, Rear Outlets, Large, Additional	1
321	0005099		Elbow, Large Dia Outlet, 30 Deg, 5.00" FNST x 5.00" Storz	1
322	0062133		Control, Outlets, Manual, Pierce HW if applicable	1
323	0029106		Not Required, Deluge Outlet	1
324	0029302		No Monitor Requested	1
325	0029304		No Nozzle Req'd	1
326	0029107		No Deluge Mount	1
327	0047583		Waterway Outlet & Control, 4.00" Akron, Handwheel	1
328	0563468	SP	Crosslays (2+) 1.50", Std. Cap, Sng. Stk, Plumb to Outside,w/Poly Tray	2
			Qty, Crosslays - 2	
			Location - (1) each side pump panel	
329	0773071	SP	Crosslay, (1) 2.50" Spl Cap/Arrangement w/ Side Outlet, w/Poly Tray	1
			Capacity, Special Xlay - 150 feet of 2.50" dbl. jacket hose in a single stack	
330	0029260		Not Required, Speedlays	1
331	0687205		Hose Restraint, Crosslay/Deadlay, Vinyl, Fasteners, Each Side, Ends	4
			Color, Vinyl Cover - c) black	
			Qty, - 04	
			Type of fastener - bungee cord and hook	
332	0067378		Cover, Crosslay, 3/16" Alum Treadplate, Rear Hinge	1
			Stay arm, Tray Cover - f) Rubber Latch	
333	0590875		Hose Restraint, Crosslay/Deadlay, Aluminum Treadplate, Bi-Fold, Top Only	1
			Stay arm, Tray Cover - f) Rubber Latch	
			Restraint Location - Front (towards front of truck)	
334	0056195		Crosslays, 9.00" Lower Than Standard	1
335	0773044	SP	Crosslays, Tray Size Information Only	1
			Size - (2) trays @ 4.75" inside wide, (1) tray @ 5.50" inside wide	
336	0092844		Deadlay(s), Special Cap.	1
			Location - above the pump, behind the crosslays	
			Capacity, Special Xlay - 1 bulk load for 500' of 2.50" dbl. jacket hose	
			Qty, Deadlays - 1	
337	0007795		Divider, Crosslay, .25" Single Sheet, Unpainted	1
			Location - in the deadlay hose bed above the pump	
			Qty, - 1	
338	0624939		Foam Sys, Husky 3, Single Agent, Multi Select Feature	1
			Discharge, Foam Locations - Front Bumper Center, Crosslay Front, Crosslay Center and Crosslay Rear	

Line	Option	Type	Option Description	Qty
338			Discharge, Foam Locations - Front Bumper Center, Crosslay Front, Crosslay Center and Crosslay Rear	
339	0012126		Not Required, CAF Compressor	1
340	0592527		Refill, Foam Tank, Integral, Husky 3	1
341	0031894		Demonstration, Foam System, At Pierce Vehicle, Qty, Training, P - 1 vehicle	1
342	0005446		Foam Cell, 20 Gallon, Not Reduce Water Type of Foam - Class "A"	1
343	0697589		Drain, 1.00", Foam Tank #1, Husky 3 Foam System, Quarter Turn	1
344	0091079		Not Required, Foam Tank #2	1
345	0091112		Not Required, Foam Tank #2 Drain	1
346	0015500		Pump House, Side Control, 54"	1
347	0035570		Pump Panel Configuration, No Match Required	1
348	0634202		Step, Slide-Out/Fold-Out, Pump Operator Platform, Special Width, Aerial Width, Step - 52"	1
349	0667237		Light, Slide-Out Pump Operator Step, Amdor, LumaBar H2O, AY-9500-020, Short Step	1
350	0635355		Material, Pump Panels, Side Control Painted FormCoat Black Material Finish, Pump Panel, Side Control - Painted FormCoat Black Material, Pump Panel, Side Control - Aluminum	1
351	0005578		Panel, Pump Access - Pass Side Only	1
352	0035501		Pump House Structure, Std Height	1
353	0583824		Light, Pump Compt, Wln 3SC0CDCR LED White Qty, - 01	1
354	0586382		Gauges, Engine, Included With Pressure Controller	1
355	0005601		Throttle Included w/ Pressure Controller	1
356	0549333		Indicators, Engine, Included with Pressure Controller	1
357	0069390		Control, Air Horn At Pump Panel w/Red Button	1
358	0677894		Gauges, 4.50" Master, Class 1, Special, LED Gauge Pressure Range - 30"-0-400 psi Light,Class One, Pressure - Blue LED	1
359	0677881		Gauge, 2.50" Pressure, Class 1, Special, LED Qty, Gauges/Disc. - 09 Gauge Pressure Range - 0-400 psi Light,Class One, Pressure - Blue LED	9
360	0062586		Gauge, Water Level, Class 1, Pierce Std	1
361	0060753		Water Level Gauge, Wln PSTANK, LED 1-Light, 4-Level Qty, - 02 Activation, Water Level G - pb) parking brake is applied Location, Water Level Gauge - Each Side Custom Cab	2
362	0062992		Gauge, Foam Level, (1) Tank, Class 1, 5lt	1
363	0665336		Light Shield/Step 8", 4-FRC Firefly LED115-Q01, P25 LED Step Lt	1
364	0665286		Light Shield/Step 8", PS, 3-FRC Firefly LED115-Q01, P25 LED Stp Lt	1
365	0606697		Air Horns, (2) Grover, In Bumper	1
366	0606832		Location, Air Horns, Bumper, Left Side, Outside Frame, Same Side (Pos #6 & #7)	1
367	0006064		Control, Air Horn, DS & PS Foot Sw	1
368	0525667		Siren, Wln 295SLSA1, 100 or 200 Watt	1
369	0510206		Location, Elect Siren, Recessed Overhead In Console Location, Elec Siren - Overhead, Above Eng Tunnel PS	1
370	0076156		Control, Elec Siren, Head Only	1
371	0601306		Speaker, (1) Wln, SA315P, w/Pierce Polished Stainless Steel Grille, 100 watt Connection, Speaker - siren head	1
372	0601551		Location, Speaker, Frt Bumper, Recessed, Right Side, Outside Frame,Outbrd(Pos 1)	1
373	0056084		Wiring & Mount, Siren, Federal Q2B, Cust Installed	1
374	0006097		Location of Siren, Recessed in Bumper Location, Siren, Mech - b) right	1
375	0026162		Control, Mech Siren, PS Foot Switch	1
376	0606715		Lightbar, Wln, Freedom IV-Q, 2-21.5", RRRRR RRRRR Filter, Whl Freedom Ltbrs - No Filters	1
377	0691544		Light, GTT, 794* LED Opticom Emitter, Remote Mounted on Cab Roof Location - driver's side Opticom Priority - b) High	1

Line	Option	Type	Option Description	Qty
377			Opticom Activation - Cab Switch & E-Master Momentary Opticom Activation - no activation	
378	0540460		Light, Front Zone, Wln M6*C LED, Clear Lens, 4lts Q Bezel Color, Lt DS Frnt Outside - DS Front Outside Red Color, Lt PS Frnt Outside - PS Front Outside Red Color, Lt DS Front Inside - w) DS Front Inside White Color, Lt PS Front Inside - w) PS Front Inside White	1
379	0540692		Lights, Side Zone Lower, Wln M6*C LED, Clear Lens, 3pr, Ovr 25 Location, Lights Front Side - b)each side bumper Color, Lt Side Front - Red Color, Lt Side Middle - Red Color, Lt Side Rear - Red Location, Lights Mid Side - Over Front Wheels Location, Lights Rear Side - Between Tandem	1
380	0564655		Lights, Rear Zone Lower, Wln M6*C LED, Clear Lens, For Tail Lt Housing Color, Lt DS Rear - r) DS Rear Lt Red Color, Lt PS Rear - r) PS Rear Lt Red	1
381	0088745		Light, Rear Zone Upper, Wln L31HRFN LED Beacon, Red LED Color, Dome, Rear Warning - j) both domes clear	1
382	0006551		Not Required, Lights, Rear Upper Zone Blocking	1
383	0791468		Light, Traffic Directing, Wln TAM85 46.87" Long LED Activation, Traffic Dir L - Control Head Only	1
384	0530073		Location, Traf Dir Lt, Surface Mounted Between Handrails Trdplt Wedge and Box	1
385	0533175		Location, Traf Dir Lt Controller, Overhead, Center	1
386	0780267		Receptacle, 15/20A 120V 3-Pr 3-Wr SB Dup, GFI, Interior Cab Qty, - 02 Location 1 - (1) receptacle on each interior side of the EMS cabinets in the crew cab, about engine tunnel height towards the rear of the cabinets AC Power Source - Shoreline Cover, Receptacle - Interior, Flip Up Duplex Cover(s)	2
387	0779700		Receptacle, 15/20A 120V 3-Pr 3-Wr SB Dup, GFI, Interior Body Qty, - 02 Location 1 - P-1 & P-4 compartments with 6 feet of extra wire and unmounted receptacles AC Power Source - Shoreline Cover, Receptacle - Interior Flip Up Cover(s)	2
388	0519934		Not Required, Brand, Hydraulic Tool System	1
389	0649753		Not Required, PTO Driven Hydraulic Tool System	1
390	0649750		Not Required, Hydraulic Reels	1
391	0649736		Not Required, Hydraulic Tools	1
392	0786884		Aerial, 107' ASL Tandem, Heavy Duty Ladder, 50 MPH, 750 dry/500 water	1
393	0601988		Light, Boom Support, Amdor LumaBar H2O, 12" LED	1
394	0772951	SP	Boom Support Compartment, Smooth Alum Rear, Rear of Cab, Cab Height, Full Depth Latch, Door, Storage - "D" Handle Latch, Pair Hinge, Location - Forward	1
395	0000042		Boom Support, Rear of the Chassis Cab	1
396	0791624		Boom Panel, One, Special Size Paint, Color - Red #90 Size - to match the stokes basket box length and height Location, - driver's side	1
397	0526885		Indicator, Extension, Inside and Outside Handrails, Every 10' Color - 2) red	1
398	0592992		Steps, Folding, Four, Aerial Device, w/LED, Trident Coating, Step - luminescent	1
399	0688232		Rung Covers, Aerial Device Rung Cover Color - Black	1
400	0674963		Scabbard, Temporary Vent Saw Storage, Aerial Ladder Qty, - 02 Location, Aerial Device - each side of aerial tip	2
401	0786841		Brackets Only, Roof Ladder, Base Section, Inboard of Boom Panel Qty, - 01 Location, Aerial Device - left side	1

Line	Option	Type	Option Description	Qty
401			Roof Ladder, Make/Model, Multi-Select - 10' Duo-Safety 775-A-DR	
402	0678815		Brackets Only, Axe, 6lb or 8lb, Aerial Fly Section	1
403	0678896		Box, Stokes/Backboard Storage, w/Cover, Base Section, In Place of Boom Panel	1
			Qty, - 01	
			Size - 90" long x 25" high x 8.50" deep	
			Finish - Painted, Aerial Device/Boom Panel	
			Latch, Door, Storage - Butterfly Latch	
			Location, Aerial Device - right side	
			Louvers - louvers	
404	0601972		Lights, Turntable Walkway, P25, LED	1
405	0601949		Light, Turntable Console, TecNiq T-10, LED Strip Light	1
406	0793038		Control Stations, ASL Tandem Axle, MUX, Color Display	1
407	0610007		Remote Tip Controls, ASL	1
408	0792976		Stabilizers, Ascendant Tandem, Rear Mount Steel, 16' Spread, 18" Pen, MUX	1
			Material, Stabilizer Pad - Composite	
409	0548900		Door, Stabilizer Control Box, Aerial MUX, Smooth Aluminum	1
410	0615060		Stabilizer Placement, Lasers Only, 1 Set	1
411	0793039		Hydraulic System, Ascendant Tandem Axle	1
412	0786880		Swivels, D-Series w/Encoder, ASL-Tandem/Tiller, MUX (32 Collector Rings)	1
413	0793396		Electrical System, ASL Tandem Axle, MUX	1
414	0630343		Lights, W/in MPB* Micro LED, Trk & Tip, 6lbs (PAL/HAL)	1
			Location, Sw, Axl DC Lts - x) 2 locations	
			Color, W/in Lt Housing - Black Paint	
415	0653677		Lighting, Rung, LED, TecNiq, 4 Section, Base, Lower/Upper Mid, Fly	1
			Control, Aerial Rung Lighting - Turntable Sw w/Master Batt Sw	
			Color, Lt Aerial Fly Sect - Blue	
			Color, Lt Aerial Base Sect - Blue	
			Color, Lt Aerial Lower Mid Sect - Blue	
			Color, Lt Aerial Upper Mid Sect - Blue	
416	0540743		Lights, Stabilizer Warn (2) Sets, W/in M6*C LED, Clear Lens	1
			Color, Lt Rr Stabilizr Pan - r) Pan Light Red	
			Color, Lt Fr Stabilizr Pan - r) Pan Light Red	
417	0068703		Lights, Grote Supernova LED, Stabilizer Beam, (1) Set	1
418	0601299		Lights, Stabilizer Scene, (2) sets, Amdor H2O, LED	1
419	0006929		Not Required, 120v To Tip	1
420	0594648		Intercom, 2-Way Fire Research ICA900 Hands Free	1
421	0540895		Not Required, Breathing Air to Tip, Aerial Ladder	1
422	0024742		Not Required, Mask, Breathing Air To Tip	1
423	0126600		Raised Pedestal, 3.00", Rear Mount Aerials, AXT, Velocity, Impel, Enf	1
424	0604457		Lifting Eye Assembly, Rope Rescue Attachment, ASL	1
425	0536374		Turntable Access, ManSaver Bars, Red	1
426	0624672		Waterway, High Flow, 1500 GPM, ASL	1
427	0632855		Monitor, Akron 3480 StreamMaster II Electric w/Extended Vertical Travel	1
			Nozzle, Monitor 1 PAL - Akron 5178 Electric 1500 gpm	
428	0010758		Flow Meter, Waterway, PAL (Mux)	1
429	0004836		Inlet, 5.00" at Rear w/ Pump, Ascendant Tandem, PAP, PAL	1
430	0673128		Quick-Lock Waterway Locking System, 100' HDL/MDL, 105' HDL, ASL	1
431	0013164		Elbow, Aerial Inlet, 5" FNST x 5" Storz w/Cap	1
			Location - rear inlet	
			Qty, - 1	
432	0047897		Tools, Aerial	1
433	0559494		Manuals and Training, 3 Days, Ascendant Ladder, PAL	1
434	0007150		Bag of Nuts and Bolts	1
			Qty, Bag Nuts and Bolts - 1	
435	0602497		NFPA Required Loose Equipment, Quint, NFPA 2016, Provided by Fire Department	1
436	0519913		Not Required, Soft Suction Hose	1
437	0027023		No Strainer Required	1
438	0602534		Extinguisher, Dry Chemical, Quint NFPA 2016, Provided by Fire Department	1
439	0602352		Extinguisher, 2.5 Gal. Pressurized Water, Quint, NFPA 2016, Provided by Fire Dept	1
440	0007482		Not Required, Crowbars	1
441	0007484		Not Required, Claw Tools	1



Line	Option	Type	Option Description	Qty
442	0602883		Axe, Flathead, Quint NFPA 2016, Provided by Fire Department	1
443	0602670		Axe, Pickhead, Quint NFPA 2016, Provided by Fire Department	1
444	0007494		Not Required, Sledgehammers	1
445	0559573		Paint, Single Color, Custom	1
			Paint Color, Predefined - #90 Red	
446	0646901		Paint Chassis Frame Assy, With Liner, E-Coat, Standard	1
			Paint Color, Frame Assembly, Predefined - Black	
447	0693797		No Paint Required, Aluminum Front Wheels	1
448	0687652		Paint, Rear Wheels, Tandem Axle, Alum-Stl	1
			Paint, Wheels - Black #101	
449	0680701		Paint, Egress, Special Color	1
			Paint Color, Egress - #90 Red	
450	0007230		Compartment, Painted, Spatter Gray	1
451	0788412		Aerial Ladder Paint, ASL-Tandem	1
			Paint Color, Aerial Device - Gray metallic 509	
452	0781728	SP	Reflective Band, 1" Vinyl-6" Refl-1" Vinyl, w/Borders, 1/2" Gaps	1
453	0510041		Reflective across Cab Face, Imp/Vel	1
454	0583451		Stripe, Chevron, Rear, Reflective, Aerial	1
			Color, Chev, Reflective B - yellow	
			Color, Chev, Reflective A - ruby red	
455	0598754		Stripe, Reflective/Diamond Grade, 4.00" on Stabilizers	1
			Color, Reflect Band - A - c) ruby red	
456	0027341		Jog, In Reflective Stripe, Single or Multiple	1
			Qty, - 1	
457	0772952	SP	Stripe, Reflective, Chevron, Reflective, Rear Facing Boom Support Compt	1
			Color, Reflect Band - A - c) ruby red	
			Color, Reflect Band - B - r) yellow	
458	0065687		Stripe, Reflective, Cab Doors Interior	1
			Color, Reflective - c) ruby red	
459	0027372		Lettering Specifications, (GOLD STAR Process)	1
460	0686428		Lettering, Gold Leaf, 3.00", (41-60)	1
			Outline, Lettering - Outline	
461	0686002		Lettering, Reflective, 8.00", Each	10
			Qty, Lettering - 10	
			Outline, Lettering - Outline	
462	0685985		Lettering, Reflective, 12.00", Each	4
			Qty, Lettering - 04	
			Outline, Lettering - Outline and Shade	
463	0685992		Lettering, Reflective, 10.00", (1-20)	1
			Outline, Lettering - Outline	
464	0531545		Lettering, Numerals, Grille, Painted w/ Outline (2), IMP/VEL	1
465	0008554		2% Handling Charge on 105' HDL/Ascendant Tandem	1
466	0529225		Manuals, Two (2) CD, Fire Apparatus Parts, Custom Chassis	1
467	0531636		Manual, Two (2) CD, Chassis Service, Custom	1
468	0531638		Manual, Two (2) CD, Chassis Operation, Custom	1
469	0030008		Warranty, Basic, 1 Year, Apparatus, WA0008	1
470	0611136		Warranty, Chassis, 3 Year, Velocity/Impel, WA0284	1
471	0696696		Warranty, Engine, Detroit DD13, 5 Year, WA0180	1
472	0684953		Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	1
473	0595767		Warranty, Frame, 50 Year, Velocity/Impel, Dash CF, WA0038	1
474	0595698		Warranty, Axle, 3 Year, TAK-4, WA0050	1
475	0777368		Warranty, Axle, 2 Year, Meritor, General Service, WA0328	1
476	0652758		Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	1
477	0019914		Warranty, Structure, 10 Year, Custom Cab, WA0012	1
478	0595813		Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	1
479	0524627		Warranty, Electronics, 5 Year, MUX, WA0014	1
480	0695416		Warranty, Pierce Camera System, WA0188	1
481	0647720		Warranty, Pierce LED Strip Lights, WA0203	1
482	0046369		Warranty, 5-year EVS Transmission, Standard Custom, WA0187	1
483	0685945		Warranty, Transmission Cooler, WA0216	1
484	0688798		Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	1

Line	Option	Type	Option Description	Qty
485	0596025		Warranty, Structure, 10 Year, Body, WA0009	1
486	0693127		Warranty, Gortite, Roll-up Door, 6 Year, WA0190	1
487	0063510		Warranty, Pump, Waterous, 5 Year Parts, WA0225	1
488	0648675		Warranty, 10 Year S/S Pumping, WA0035	1
489	0657990		Warranty, Foam System, Husky 3, WA0231	1
490	0006999		Warranty, Structure, 20 Year, Aerial Device, WA0052	1
491	0687388		Warranty, Swivels, 5 Year, Aerial Device, WA0197	1
492	0685727		Warranty, Hydraulic System and Components, 3 Year/5 Year, WA0200	1
493	0687327		Warranty, Waterway, 10 Year, Aerial Device, WA0198	1
494	0595860		Warranty, Paint, 4 Year, Aerial Device, Pro-Rated, WA0047	1
495	0595820		Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	1
496	0595421		Warranty, Goldstar, 3 Year, Apparatus, WA0018	1
497	0683627		Certification, Vehicle Stability, CD0156	1
498	0610837		Certification, Engine Installation, Velocity, Detroit DD13, 2016, CD0148	1
499	0686786		Certification, Power Steering, CD0098	1
500	0667417		Certification, Cab Integrity, Velocity FR, CD0009	1
501	0548950		Certification, Cab Door Durability, Velocity/Impel, CD0001	1
502	0548967		Certification, Windshield Wiper Durability, Impel/Veloc, CD0005	1
503	0667411		Certification, Electric Window Durability, Velocity/Impel FR, CD0004	1
504	0549273		Certification, Seat Belt Anchors and Mounting, Imp/Vel/Vel SLT, CD0018	1
505	0667416		Certification, Cab Heater and Defroster, Velocity/Impel FR, CD0015	1
506	0667415		Certification, Cab Air Conditioning Performance, Velocity/Impel FR, CD0016	1
507	0545073		Amp Draw Report, NFPA Current Edition	1
508	0002758		Amp Draw, NFPA/ULC Radio Allowance	1
509	0799248		Appleton/Florida BTO	1
510	0000049		Ascendant BODY	1
511	0000012		PIERCE CHASSIS	1
512	0562778		DD13 ENGINE	1
513	0046396		EVS 4000 Series TRANSMISSION	1
514	0020011		WATEROUS PUMP	1
515	0020009		POLY TANK	1
516	0028048		FOAM SYSTEM	1
517	0020006		SIDE CONTROL	1
518	0020007		AKRON VALVES	1
519	0020015		ABS SYSTEM	1
520	0658751		Manufacturing Attribute	1

### **SINGLE SOURCE MANUFACTURER**

Pierce Manufacturing, Inc. provides an integrated approach to the design and manufacture of our products that delivers superior apparatus and a dedicated support team. From our facilities, the chassis, cab weldment, cab, pump house (including the sheet metal enclosure, valve controls, piping and operators panel) body and aerial device will be entirely designed, tested, and hand assembled to the customer's exact specifications. The electrical system either hardwired or multiplexed, will be both designed and integrated by Pierce Manufacturing. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) will be provided by Pierce as a single source manufacturer. Pierce's single source solution adds value by providing a fully engineered product that offers durability, reliability, maintainability, performance, and a high level of quality.

Your apparatus will be manufactured in Appleton, Wisconsin.

### **NFPA 2016 STANDARDS**

This unit will comply with the NFPA standards effective January 1, 2016, except for fire department directed exceptions. These exceptions will be set forth in the Statement of Exceptions.

Certification of slip resistance of all stepping, standing and walking surfaces will be supplied with delivery of the apparatus.

All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points will be identified on the customer approval print and are shown as approximate. Actual location(s) will be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack.

A plate that is highly visible to the driver while seated will be provided. This plate will show the overall height, length, and gross vehicle weight rating.

The manufacturer will have programs in place for training, proficiency testing and performance for any staff involved with certifications.

An official of the company will designate, in writing, who is qualified to witness and certify test results.

### **NFPA COMPLIANCY**

Apparatus proposed by the bidder will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Fire department's specifications that differ from NFPA specifications will be indicated in the proposal as "non-NFPA".

## **VEHICLE INSPECTION PROGRAM CERTIFICATION**

To assure the vehicle is built to current NFPA standards, the apparatus, in its entirety, will be third-party, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition of NFPA 1901. The certification will include: all design, production, operational, and performance testing of not only the apparatus, but those components that are installed on the apparatus.

A placard will be affixed in the driver's side area stating the third party agency, the date, the standard and the certificate number of the whole vehicle audit.

## **INSPECTION CERTIFICATE**

A third party inspection certificate for the aerial device will be furnished upon delivery of the aerial device. The certificate will be Underwriters Laboratories Inc. Type 1 and will indicate that the aerial device has been inspected on the production line and after final assembly.

Visual structural inspections will be performed on all welds on both aluminum and steel ladders.

On critical weld areas, or on any suspected defective area, the following tests will be conducted:

- Magnetic particle inspection will be conducted on steel aerials to assure the integrity of the weldments and to detect any flaws or weaknesses. Magnets will be placed on each side of the weld while iron powder is placed on the weld itself. The powder will detect any crack that may exist. This test will conform to ASTM E709 and be performed prior to assembly of the aerial device.
- A liquid penetrant test will be conducted on aluminum aerials to assure the integrity of the weldments and to detect any flaws or weaknesses. This test will conform to ASTM E165 and be performed prior to assembly of the aerial device.
- Ultrasonic inspection will be conducted on all aerials to detect any flaws in pins, bolts and other critical mounting components.

In addition to the tests above, functional tests, load tests, and stability tests will be performed on all aerials. These tests will determine any unusual deflection, noise, vibration, or instability characteristics of the unit.

## **PUMP TEST**

The pump will be tested, approved and certified by Underwriter's Laboratory at the manufacturer's expense. The test results and the pump manufacturer's certification of hydrostatic test; the engine manufacturer's certified brake horsepower curve; and the manufacturer's record of pump construction details will be forwarded to the Fire Department.

## **GENERATOR TEST**

If the unit has a generator, the generator will be tested, approved, and certified by Underwriters Laboratories at the manufacturer's expense. The test results will be provided to the Fire Department at the time of delivery.

## **BREATHING AIR TEST**

If the unit has breathing air, Pierce Manufacturing will draw an air sample from the air system and certify that the air quality meets the requirements of NFPA 1989, *Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection*.

## **AFTERMARKET SUPPORT WEBSITE**

Pierceparts.com will provide Pierce authorized dealer access to comprehensive information pertaining to the maintenance and service of their customer's apparatus. This tool will provide the Pierce authorized dealer the ability to service and support their customers to the best of their ability with factory support at their fingertips.

Pierceparts.com is also accessible to the end user through the guest login. Limited access is available and vehicle specific parts information accessible by entering a specific VIN number. All end users should see their local authorized Pierce dealer for additional support and service.

The website will consist of the following screens at the dealer level:

### **My Fleet Screen**

The My Fleet screen will provide access to truck detail information on the major components of the vehicle, warranty information, available vehicle photographs, vehicle drawings, sales options, applicable vehicle software downloads, etc.

### **Parts Screens**

The Parts screens will provide parts look-up capability of Pierce Manufacturing sourced items, with the aid of digital photographs, part drawings and assembly drawings. The parts search application will permit the searching of parts by item description or function group (major system category). The parts application will provide the ability to submit electronically a parts order, parts quote, or parts return request directly to Pierce Manufacturing for processing.

### **Warranty Screen**

The Warranty screens will provide dealers the ability to submit electronically warranty claims directly to Pierce Manufacturing for reimbursement.

### **My Reports Screens**

The My Reports screens will provide access to multiple dealer reports to allow the dealership to maintain communication with the customer on the status of orders, claims, and phone contacts.

## **Technical Support Screens**

The Technical Support screens will provide access to all currently published Operation and Maintenance and Service Publications. Access to Pierce Manufacturing Service Bulletins and Work Instructions, containing information on current service topics and recommendations will be provided.

## **Training**

The Training screens will provide access to upcoming training classes offered by Pierce Manufacturing along with interactive electronic learning modules (Operators Guides) covering the operation of major vehicle components will be provided. Access to training manuals used in Pierce Manufacturing training classes will be provided.

## **About Pierce**

Access to customer service articles, corporate news, quarterly newsletters, and key contacts within the Customer Service Department will be provided. The current Customer Service Policy and Procedure Manual, detailing the operation of the Customer Service group will also be accessible.

## **BID BOND**

A bid bond as security for the bid in the form of a 10% bid bond will be provided with the proposal. This bid bond will be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond will be issued by an authorized representative of the Surety Company and will be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond will include language which assures that the bidder/principal will give a bond or bonds, as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract.

Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.

## **PERFORMANCE BOND**

Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment

or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.

### **APPROVAL DRAWING**

A drawing of the proposed apparatus will be prepared and provided to the purchaser for approval before construction begins. The Pierce sales representative will also be provided with a copy of the same drawing. The finalized and approved drawing will become part of the contract documents. This drawing will indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc.

A "revised" approval drawing of the apparatus will be prepared and submitted by Pierce to the purchaser showing any changes made to the approval drawing.

### **ELECTRICAL WIRING DIAGRAMS**

Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.

### **VELOCITY CHASSIS**

The Pierce Velocity® is the custom chassis developed exclusively for the fire service. Chassis provided will be a new, tilt-type custom fire apparatus. The chassis will be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis will be designed and manufactured for heavy-duty service, with adequate strength and capacity for the intended load to be sustained and the type of service required. The chassis will be the manufacturer's first line tilt cab.

### **WHEELBASE**

The wheelbase of the vehicle will be approx. 251 inches.

### **GVW RATING**

The gross vehicle weight rating will be 68,800 lbs.

### **FRAME**

The chassis frame will be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails will have a 13.38" tall web over the front and mid sections of the chassis, with a continuous smooth taper to 10.75" over the rear axle. Each rail will have a section modulus of 25.992 cubic inches and a resisting bending moment (rbm) of 3,119,040 in-lb over the critical regions of the frame assembly, with a section modulus of 18.96 cubic inches with an rbm of 2,275,200 in-lb over the rear axle. The frame rails will be constructed of 120,000 psi yield strength heat-treated 0.38" thick steel with 3.50" wide flanges.

### **FRAME REINFORCEMENT**

In addition, a mainframe inverted "L" liner will be provided. It will be heat-treated steel measuring 12.00" x 3.00" x 0.25". Each liner will have a section modulus of 7.795 cubic inches, yield strength of 110,000 psi, and rbm of 857,462 in-lb. Total rbm at wheelbase center will be 3,976,502 in-lb.

The frame liner will be mounted inside of the chassis frame rail and extend the full length of the frame.

### **FRONT NON DRIVE AXLE**

The Oshkosh TAK-4® front axle will be of the independent suspension design with a ground rating of 22,800 lb.

Upper and lower control arms will be used on each side of the axle. Upper control arm castings will be made of 100,000-psi yield strength 8630 steel and the lower control arm casting will be made of 55,000-psi yield ductile iron.

The center cross members and side plates will be constructed out of 80,000-psi yield strength steel.

Each control arm will be mounted to the center section using elastomer bushings. These rubber bushings will rotate on low friction plain bearings and be lubricated for life. Each bushing will also have a flange end to absorb longitudinal impact loads, reducing noise and vibrations.

There will be nine (9) grease fittings supplied, one (1) on each control arm pivot and one (1) on the steering gear extension.

The upper control arm will be shorter than the lower arm so that wheel end geometry provides positive camber when deflected below rated load and negative camber above rated load.

Camber at load will be 0 degrees for optimum tire life.

The ball joint bearing will be of low friction design and be maintenance free.

Toe links that are adjustable for alignment of the wheel to the center of the chassis will be provided.

The wheel ends will have little to no bump steer when the chassis encounters a hole or obstacle.

The steering linkage will provide proper steering angles for the inside and outside wheel, based on the vehicle wheelbase.

The axle will have a third party certified turning angle of 45 degrees. Front discharge, front suction, or aluminum wheels will not infringe on this cramp angle.

### **FRONT SUSPENSION**

Front Oshkosh TAK-4™ independent suspension will be provided with a minimum ground rating of 22,800 lb.

The independent suspension system will be designed to provide maximum ride comfort. The design will allow the vehicle to travel at highway speeds over improved road surfaces and at moderate speeds over rough terrain with minimal transfer of road shock and vibration to the vehicle's crew compartment.

Each wheel will have torsion bar type spring. In addition, each front wheel end will also have energy absorbing jounce bumpers to prevent bottoming of the suspension.



The suspension design will be such that there is at least 10.00" of total wheel travel and a minimum of 3.75" before suspension bottoms.

The torsion bar anchor lock system allows for simple lean adjustments, without the use of shims. One can adjust for a lean within 15 minutes per side. Anchor adjustment design is such that it allows for ride height adjustment on each side.

The independent suspension was put through a durability test that simulated 140,000 miles of inner city driving.

### **FRONT SHOCK ABSORBERS**

KONI heavy-duty telescoping shock absorbers will be provided on the front suspension.

### **FRONT OIL SEALS**

Oil seals with viewing window will be provided on the front axle.

### **FRONT TIRES**

Front tires will be Goodyear 425/65R22.50 radials, 20 ply G296 tread, rated for 22,800 lb maximum axle load and 75 mph maximum speed.

The tires will be mounted on Alcoa 22.50" x 12.25" polished aluminum disc type wheels with a ten (10)stud, 11.25" bolt circle.

### **REAR AXLE**

The rear axle will be a Meritor™, Model RT-46-160, tandem axle assembly with a capacity of 44,000 lb.

An inter-axle differential, which divides torque evenly between axles, will be provided with an indicator light mounted on the cab instrument panel.

### **TOP SPEED OF VEHICLE**

NFPA 1901, 2016 edition requires limits on the top speed of vehicles. NFPA 4.15.2 requires that the maximum top speed of fire apparatus with a GVWR over 26,000 lb will not exceed either 68 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower. NFPA 4.15.3 requires that if the combined water tank and foam agent tank on the fire apparatus exceed 1250 gallons or the GVWR of the vehicle is over 50,000 lb, the maximum top speed of the apparatus will not exceed either 60 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower. It is the intention of the standard to improve safety by limiting the speed of all apparatus to 68 mph, and tankers or heavy apparatus to 60 mph. By requesting an exception to this requirement, the purchasing authority is consciously choosing to operate their apparatus at speeds above the limits designated as safe speeds by the NFPA Technical Committee on Fire Department Apparatus.

The top speed of the apparatus as manufactured exceeds the NFPA requirements. Per fire department specification of a top speed that exceeds NFPA requirements, the apparatus will be non-compliant to NFPA 1901 standards at time of contract execution.

A rear axle ratio will be furnished to allow the vehicle to reach an approximate top speed of 70 MPH.

### **REAR SUSPENSION**

Rear suspension will be a Neway Model AD246, air ride with a ground rating of 46,000 lb. The suspension will have the following features:

- Outboard vertical mounted heavy-duty shock absorbers
- Utilizes track bars and Ultra Torque Rod Plus torque rods to restrict lateral axle movement and maintain constant pinion angles
- Super heavy-duty transverse beam to help reduce axle stress while increasing roll stability or resistance to lean
- Low spring rate air springs for excellent ride quality
- Dual height control valves to maintain level vehicle from side to side

### **REAR OIL SEALS**

Oil seals will be provided on the rear axle(s).

### **DRIVER CONTROL DIFFERENTIAL LOCK (DCDL)**

The rear axle of the rear tandem axle will be equipped with a driver controlled differential lock (DCDL). The control will be located within easy reach of the driver.

### **REAR TIRES**

Rear tires will be eight (8) Goodyear 12R22.50 radials, 16 ply all season G622 RSD tread, rated for 54,240 lb maximum axle load and 75 mph maximum speed.

The outside tires will be mounted on Alcoa© 22.50" x 8.25" polished aluminum disc wheels with a ten (10) stud 11.25" bolt circle.

The inside tires will be mounted on 22.50" x 8.25" steel disc wheels with a ten (10) stud 11.25" bolt circle.

### **TIRE BALANCE**

All tires will be balanced with Counteract balancing beads. The beads will be inserted into the tire and eliminate the need for wheel weights.

### **TIRE PRESSURE MANAGEMENT**

There will be a RealWheels LED AirSecure™ tire alert pressure management system provided, that will monitor each tire's pressure. A sensor will be provided on the valve stem of each tire for a total of 10 tires.

The sensor will calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor will activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi.

Removing the cap from the sensor will indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED will immediately start to flash.

### **FRONT HUB COVERS**

Stainless steel hub covers will be provided on the front axle. An oil level viewing window will be provided.

### **REAR HUB COVERS**

Stainless steel, high hat, hub covers will be provided on the rear axle hubs.

### **CHROME LUG NUT COVERS**

Chrome lug nut covers will be supplied on front and rear wheels.

### **EXTENDER, VALVE STEM**

A pair of 180 degree valve stem extenders will be installed on the valve stems of the rear outside tires. The extender will allow the tire pressure monitor cap to face the outside.

### **MUD FLAPS**

Mud flaps with a Pierce logo will be installed behind the front and rear wheels.

### **WHEEL CHOCKS**

There will be one (1) pair of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks, with easy-grip handle provided.

### **WHEEL CHOCK BRACKETS**

There will be one (1) pair of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets will be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets will be mounted forward of the left side rear tire.

### **ELECTRONIC STABILITY CONTROL**

A vehicle control system will be provided as an integral part of the ABS brake system from Meritor Wabco.

The system will monitor and update the lateral acceleration of the vehicle and compare it to a critical threshold where a side roll event may occur. If the critical threshold is met, the vehicle control system

will automatically reduce engine RPM, engage the engine retarder (if equipped), and selectively apply brakes to the individual wheel ends of the front and rear axles to reduce the possibility of a side roll event.

The system will monitor directional stability through a lateral accelerometer, steer angle sensor and yaw rate sensor. If spinout or drift out is detected, the vehicle control system will selectively apply brakes to the individual wheel ends of the front and rear axles to bring the vehicle back to its intended direction.

### **ANTI-LOCK BRAKE SYSTEM**

The vehicle will be equipped with a Wabco 6S6M, anti-lock braking system. The ABS will provide a six (6) channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology will control the anti-lock braking system. Each wheel will be monitored by the system. When any wheel begins to lockup, a signal will be sent to the control unit. This control unit will then reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system will eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.

### **AUTOMATIC TRACTION CONTROL**

An anti-slip feature will be included with the ABS. The Automatic Traction Control will be used for traction in poor road and weather conditions. The Automatic Traction Control will act as an electronic differential lock that will not allow a driving wheel to spin, thereby supplying traction at all times. The ABS electronic control unit (ECU) will work with the engine ECU, sharing information concerning wheel slip. Engine ECU will use information to control engine speed, allowing only as much throttle application as required for the available traction, regardless of how much the driver is asking for. A "mud/snow" switch will be provided on the instrument panel. Activation of the switch will allow additional tire slip to let the truck climb out and get on top of deep snow or mud.

### **BRAKES**

The service brake system will be full air type.

The front brakes will be Knorr/Bendix disc type with a 17.00" ventilated rotor for improved stopping distance.

The brake system will be certified, third party inspected, for improved stopping distance.

The rear brakes will be Meritor™ 16.50" x 8.63" cam operated with automatic slack adjusters.

### **AIR COMPRESSOR, BRAKE SYSTEM**

The air compressor will be a Bendix®, Model BA-921, with 15.80 cubic feet per minute output at 1,250 rpm.

### **BRAKE SYSTEM**

The brake system will include:

- Bendix dual brake treadle valve
- Heated automatic moisture ejector on air dryer
- Total air system capacity of 6,653 cubic inches
- Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi
- Spring set parking brake system
- Parking brake operated by a push-pull style control valve
- A parking "brake on" indicator light on instrument panel
- Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, will be provided with an automatic spring brake application at 40 psi
- A pressure protection valve will be provided to prevent all air operated accessories from drawing air from the air system when the system pressure drops below 80 psi (550 kPa).
- 1/4 turn drain valves on each air tank

The air tank will be primed and painted to meet a minimum 750 hour salt spray test.

To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.

### **BRAKE SYSTEM AIR DRYER**

The air dryer will be WABCO System Saver 1200 with spin-on coalescing filter cartridge and 100 watt heater.

### **BRAKE LINES**

Color-coded nylon brake lines will be provided. The lines will be wrapped in a heat protective loom in the chassis areas that are subject to excessive heat.

### **AIR INLET WITH AUTOMATIC EJECT**

One (1) air inlet with Kussmaul Air Eject will be provided. It will allow station air to be supplied to the apparatus brake system through a shoreline hose. The inlet will automatically disconnect the air line when the truck is started. It will be equipped with a male coupling and be located mounted ahead of the cab door at the driver's side corner. A check valve will be provided to prevent reverse flow of air. The inlet will discharge into the "wet" tank of the brake system. A mating female coupling will also be provided with the loose equipment.

### **AIR OUTLET**

One (1) air outlet will be installed with a female coupling located drivers side pump panel. This system will tie into the "wet" tank of the brake system, include an 85 psi pressure protection valve in the outlet

line to prevent the brake system from losing all air, and include a quarter turn shut off valve mounted at the tank. The valve and hoses will be mounted to the tank as high as possible to ensure maximum clearance and protect the lines from being damaged by brush and rocks during off-road operations.

### **ALL WHEEL LOCK-UP**

An additional all wheel lock-up system will be installed which applies air to the front brakes only. The standard spring brake control valve system will be used for the rear.

### **ENGINE**

The chassis will be powered by an electronically controlled engine as described below:

Make:	Detroit™
Model:	DD13®
Power:	525 hp at 1625 rpm
Torque:	1850 lb-ft at 1075 rpm
Governed Speed:	Full Load - 1900 rpm Road/2080 rpm Parked PTO
Emissions Certification:	EPA 2016 (GHG17)
Fuel:	Diesel
Cylinders:	Six (6)
Displacement:	781 cubic inches (12.8L)
Starter:	Delco Remy 39MT™
Fuel Filters:	Dual cartridge style with check valve, water separator, and water in fuel sensor

The engine will include On-board diagnostics (OBD), which provides self diagnostic and reporting. The system will give the owner or repair technician access to state of health information for various vehicle sub systems. The system will monitor vehicle systems, engine and after treatment. The system will illuminate a malfunction indicator light on the dash console if a problem is detected.

### **HIGH IDLE**

A high idle switch will be provided, inside the cab, on the instrument panel, that will automatically maintain a preset engine rpm. A switch will be installed, at the cab instrument panel, for activation/deactivation.

The high idle will be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light will be provided, adjacent to the switch. The light will illuminate when the above conditions are met. The light will be labeled "OK to Engage High Idle."

### **ENGINE BRAKE**

A Jacobs® engine brake is to be installed with the controls located on the instrument panel within easy reach of the driver.

The driver will be able to turn the engine brake system on/off and have a high, medium and low setting.

The engine brake will be installed in such a manner that when the engine brake is slowing the vehicle the brake lights are activated.

The ABS system will automatically disengage the auxiliary braking device when required.

### **CLUTCH FAN**

A Horton® fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and fully engaged in "Pump" position.

### **ENGINE HEATER**

A 1000 watt, 120 volt, immersion type engine heater with thermostat shall be installed. The AC power inlet shall be located to the rear of the driver's door.

### **ENGINE AIR INTAKE**

An air intake with an ember separator (to prevent road dirt, burning embers, and recirculating hot air from entering the engine) will be mounted at the front of the apparatus, on the passenger side of the engine. The ember separator will be mounted in the air intake with flame retardant, roto-molded polyethylene housing. It will be easily accessible by the hinged access panel at the front of the vehicle.

### **EXHAUST SYSTEM**

The exhaust system will include a diesel particulate filter (DPF) and a selective catalytic reduction (SCR) device to meet current EPA standards. The exhaust system will be stainless steel from the turbo to the inlet of the SCR device and will be 5.00" in diameter. An insulation wrap will be provided on all exhaust pipes between the turbo and SCR to minimize the transfer of heat to the cab. The exhaust will terminate horizontally ahead of the right side rear wheels. A tailpipe diffuser will be provided to reduce the temperature of the exhaust as it exits. Heat deflector shields will be provided to isolate chassis and body components from the heat of the tailpipe diffuser.

### **RADIATOR**

The radiator and the complete cooling system will meet or exceed NFPA and engine manufacturer cooling system standards.

For maximum corrosion resistance and cooling performance, the entire radiator core will be constructed using long life aluminum alloy. The core will be made of aluminum fins, having a serpentine design, brazed to aluminum tubes. The tubes will be brazed to aluminum headers. No solder joints or leaded material of any kind will be acceptable in the core assembly. The radiator core will have a minimum frontal area of 1434 square inches. Supply tank made of glass-reinforced nylon and a return tank of cast aluminum alloy shall be crimped on to the core assembly using header tabs and a compression gasket to

complete the radiator core assembly. The radiator will be compatible with commercial antifreeze solutions.

There will be a full steel frame around the entire radiator core assembly. The radiator core assembly will be isolated within the steel frame by rubber inserts to enhance cooling system durability and reliability. The radiator will be mounted in such a manner as to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven ground. The radiator assembly will be isolated from the chassis frame rails with rubber isolators.

The radiator assembly will include an integral deaeration tank permanently mounted to the top of the radiator framework, with a readily accessible remote-mounted overflow tank. For visual coolant level inspection, the radiator will have a built-in sight glass. The radiator will be equipped with a 15 psi pressure relief cap.

A drain port will be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system.

A heavy-duty fan will draw in fresh, cool air through the radiator. Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.

### **COOLANT LINES**

Gates® silicone hoses will be used for all engine/heater coolant lines installed by the chassis manufacturer.

The chassis manufacturer will also use Gates brand hose on other heater, defroster and auxiliary coolant circuits. There will be some areas in which an appropriate Gates product is not available. In those instances, a comparable silicone hose from another manufacturer will be used.

Hose clamps will be stainless steel "constant torque type" to prevent coolant leakage. They will react to temperature changes in the cooling system and expand or contract accordingly while maintaining a constant clamping pressure on the hose.

### **FUEL TANK**

A 65 gallon fuel tank will be provided and mounted at the rear of the chassis. The tank will be constructed of 12-gauge, hot rolled steel. It will be equipped with swash partitions and a vent. To eliminate the effects of corrosion, the fuel tank will be mounted with stainless steel straps.

A 0.75" drain plug will be located in a low point of the tank for drainage.

A fill inlet will be located on the left hand side of the body and is covered with a hinged, spring loaded, stainless steel door that is marked "Ultra Low Sulfur - Diesel Fuel Only."

A 0.50" diameter vent will be installed from tank top to just below fuel fill inlet.



The fuel tank will meet all FHWA 393.67 requirements including a fill capacity of 95 percent of tank volume.

All fuel lines will be provided as recommended by the engine manufacturer.

#### **DIESEL EXHAUST FLUID TANK**

A 4.5 gallon diesel exhaust fluid (DEF) tank will be provided and mounted in the driver's side body forward of the rear axle.

A 0.50" drain plug will be provided in a low point of the tank for drainage.

A fill inlet will be provided and marked "Diesel Exhaust Fluid Only". The fill inlet will be located below the air bottle storage behind a common door on the driver side of the vehicle.

The tank will meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing.

The tank will include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.

#### **FUEL SHUTOFF**

A shutoff valve will be installed in the fuel line, at the fuel tank.

#### **FUEL COOLER**

An air to fuel cooler will be installed in the engine fuel return line.

#### **LABEL, FUEL DOOR**

A label will be provided, inside the diesel fill door, to read "Diesel Fuel Only".

#### **LABEL, DEF DOOR**

A label will be provided, inside the DEF fill door. It will read "DEF Only".

#### **TRANSMISSION**

An Allison 5th generation, Model EVS 4000P, electronic, torque converting, automatic transmission will be provided.

The transmission will be equipped with prognostics to monitor oil life, filter life, and transmission health. A wrench icon on the shift selector's digital display will indicate when service is due.

Two (2) PTO openings will be located on left side and top of converter housing (positions 8 o'clock and 1 o'clock).

A transmission temperature gauge with red light and buzzer will be installed on the cab instrument panel.

### **TRANSMISSION SHIFTER**

A six (6)-speed push button shift module will be mounted to right of driver on console. Shift position indicator will be indirectly lit for after dark operation.

The transmission ratio will be:

1st	3.51 to 1.00
2nd	1.91 to 1.00
3rd	1.43 to 1.00
4th	1.00 to 1.00
5th	0.75 to 1.00
6th	0.64 to 1.00
R	4.80 to 1.00

### **TRANSMISSION COOLER**

A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.

### **DOWNSHIFT MODE (W/ENGINE BRAKE)**

The transmission will be provided with an aggressive downshift mode.

This will provide earlier transmission downshifts to 2nd gear from 6th gear, resulting in improved engine braking performance.

### **TRANSMISSION PROGRAM**

The transmission will shift to neutral when parking brake is set.

### **DRIVELINE**

Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1810 universal joints.

The shafts will be dynamically balanced before installation.

A splined slip joint will be provided in each driveshaft where the driveline design requires it. The slip joint will be coated with Glidecoat® or equivalent.

### **STEERING**

Dual Sheppard, Model M110, steering gears, with integral heavy-duty power steering, will be provided. For reduced system temperatures, the power steering will incorporate an air to oil cooler and an Eaton, Model VN20, hydraulic pump with integral pressure and flow control. All power steering lines will have wire braded lines with crimped fittings.

A tilt and telescopic steering column will be provided to improve fit for a broader range of driver configurations.

### **STEERING WHEEL**

The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 4-spoke design.

### **LOGO AND CUSTOMER DESIGNATION ON DASH**

The dash panel will have an emblem containing the Pierce logo and customer name. The emblem will have three (3) rows of text for the customer's department name. There will be a maximum of eight (8) characters in the first row, 11 characters in the second row and 11 characters in the third row.

The first row of text will be: City of

The second row of text will be: Burlington

The third row of text will be: Fire Dept.

### **BUMPER**

A one piece bumper manufactured from .25" formed steel with a .38" bend radius will be provided. The bumper will be a minimum of 10.00" high with a 1.50" top and bottom flange, and will extend 13.00 " from the face of the cab. The bumper will be 102.00" wide with 45 degree corners and side plates. The bumper will be metal finished and painted Red #90.

To provide adequate support strength, the bumper will be mounted directly to the front of the C channel frame. The frame will be a bolted modular extension frame constructed of 50,000 psi tensile steel.

### **GRAVEL PAN**

A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and the cab face. The pan will be properly supported from the underside to prevent flexing and vibration.

Documentation will be provided, upon request to show that the options selected have been engineered for fit up and approval for this modular bumper extension. A chart will be provided to indicate the option locations and will include but not be limited to the following options: air horns, mechanical sirens, speakers, hose trays with hose capacities, winches, lights, discharge and suction connections.

### **CENTER HOSE TRAY**

A hose tray, constructed of aluminum, will be placed in the center of the bumper extension.

The tray will have a capacity of 100' of 1.00" double jacket.

Black rubber grating will be provided at the bottom of the tray. Drain holes are also provided.

### **CENTER HOSE TRAY COVER**

A bright aluminum treadplate cover will be provided over the center hose tray.

The cover will be "notched" allowing the hose to be pre connected to hose connection.

The cover will be attached with a stainless steel hinge.

A D-ring latch will secure the cover in the closed position and a pneumatic stay arm will hold the cover in the open position.

### **LIFT AND TOW MOUNTS**

Mounted to the frame extension will be lift and tow mounts. The lift and tow mounts will be designed and positioned to adapt to certain tow truck lift systems.

The lift and tow mounts with eyes will be painted the same color as the frame.

### **TOW EYES**

Two (2) Chicago style tow eyes will be mounted through the top of the bumper extension. The tow eyes will be designed and positioned to allow up to a 6,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow eyes will not be used for lifting of the apparatus.

The inner and outer edges of the tow eyes will have a .25" radius.

The tow eyes will be chrome plated.

### **SIDE ZONE LIGHT MOUNTING**

The front lower warning lights on each side will be recessed into the side of the bumper extension to protect the light from damage.

The recessed bracket will be made of painted smooth aluminum.

### **FRONT BUMPER LINE-X COATING**

Protective black Line-X® coating will be provided on the outside exterior of the top front bumper flange. It will not be sprayed on the underside of the flange.

The lining will be properly installed by an authorized Line-X dealer.

### **CAB**

The Velocity cab will be designed specifically for the fire service and will be manufactured by Pierce Manufacturing.

To provide quality at the source and single source customer support, the cab will be built by the apparatus manufacturer in a facility located on the manufacturer's premises.

For reasons of structural integrity and enhanced occupant protection, the cab will be of heavy duty design, constructed to the following minimal standards.

The cab will have 12 main vertical structural members located in the A-pillar (front cab corner posts), B-pillar (side center posts), C-pillar (rear corner posts) and rear wall areas. The A-pillar will be constructed of 0.25" heavy wall extrusions joined by a solid A356-T6 aluminum joint casting. The B-pillar and C-pillar will also be constructed from 0.25" heavy wall extrusions. The rear wall will be constructed of two (2) 4.00" x 2.00" outer aluminum extrusions and two (2) 3.00" x 2.00" inner

aluminum extrusions. All main vertical structural members will run from the floor to 7.50" x 3.50" x 0.125" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.75" thick corner casting at each of the front corners of the roof assembly.

The front of the cab will be constructed of a 0.25" thick firewall, covered with a 0.125" front skin (for a total thickness of 0.38"), and reinforced with 24.50" wide x 10.00" deep x 0.50" thick supports on each side of the engine tunnel. The cross-cab support will be welded to the A-pillar, 0.25" firewall, and engine tunnel, on the left and right sides.

The cab floors will be constructed of 0.1875" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.44" of structural material at the front floor area. The front floor area will also be supported with three (3) 0.50" plates bolted together that also provides the mounting point for the cab lift. This tubing will run from the front of the cab to the 0.1875" thick engine tunnel, creating the structure to support the forces created when lifting the cab.

The cab will be a full-tilt style. A 3-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab.

The crew cab will be a totally enclosed design with the interior area completely open to improve visibility and verbal communication between the occupants.

The forward cab section will have an overall height (from the cab roof to the ground) of approximately 102.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of approximately 112.00". The raised portion will start at the most forward point of the B-pillar and continue rearward to the back of the cab. The overall height listed will be calculated based on a truck configuration with the lowest suspension weight ratings, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension will increase the overall height listed.

The raised roof section of the crew cab will have a 58.00" wide x 10.00" high square notch in the center section of the roof. This will allow the aerial device to be bedded in the same location as a non-raised roof.

The cab will have an interior width of not less than 93.50". The driver and passenger seating positions will have a minimum 24.00" clear width at knee level.

To reduce injuries to occupants in the seated positions, proper head clearance will be provided. The floor-to-ceiling height inside the forward cab will be no less than 60.25". The floor-to-ceiling height inside the crew cab will be no less than 52.95" in the center position and 68.75" in the outboard positions.

The crew cab will measure a minimum of 57.50" from the rear wall to the backside of the engine tunnel (knee level) for optimal occupant legroom.

### **INTERIOR CAB INSULATION**

The cab walls, ceiling and engine tunnel will be insulated in all strategic locations to maximize acoustic absorption and thermal insulation. The cab will be insulated with 2.00" insulation in the rear wall, 3.00" insulation in the side walls, and 1.50" insulation in the ceiling.

### **FENDER LINERS**

Full-circular, aluminum inner fender liners in the wheel wells will be provided.

### **PANORAMIC WINDSHIELD**

A one (1)-piece, safety glass windshield with more than 2,802 square inches of clear viewing area will be provided. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: the outer light, the middle safety laminate, and the inner light. The 0.114" thick outer light layer will provide superior chip resistance. The middle safety laminate layer will prevent the windshield glass pieces from detaching in the event of breakage. The inner light will provide yet another chip resistant layer. The cab windshield will be bonded to the aluminum windshield frame using a urethane adhesive. A custom frit pattern will be applied on the outside perimeter of the windshield for a finished automotive appearance.

### **WINDSHIELD WIPERS**

Three (3) electric windshield wipers with a washer, in conformance with FMVSS and SAE requirements, will be provided. The wiper blades will be 21.65" long and together will clear a minimum of 1,783 square inches of the windshield for maximum visibility in inclement weather.

The windshield washer fluid reservoir will be located at the front of the vehicle and be accessible through the access hood for simple maintenance.

### **FAST SERVICE ACCESS FRONT TILT HOOD**

A full-width access hood will be provided for convenient access to engine coolant, steering fluid, wiper fluid, cab lift controls, headlight power modules, and ember separator. The hood will also provide complete access to the windshield wiper motor and components. The hood will be contoured to provide a sleek, automotive appearance. The hood will be constructed of two (2) fiberglass panels bonded together and will include reinforcing ribs for structural integrity. The hood will include air cylinders to hold the hood in open and closed positions, and a heavy duty latch system that will meet FMVSS 113 (Hood Latch System). The spring-loaded hood latch will be located at the center of the hood with a double-action release lever located behind the Pierce logo. The two (2)-step release requires the lever first be pulled to the driver side until the hood releases from the first latch (primary latch) then to the passenger side to fully release the hood (secondary latch).

### **ENGINE TUNNEL**

To provide structural strength, the engine tunnel sidewalls will be constructed of 0.50" aluminum plate that is welded to both the 0.25" firewall and 0.38" heavy wall extrusion under the crew cab floor. To maximize occupant space, the top edges will be tapered.

The back of the engine tunnel will be no higher than 16.25" off the crew cab floor.

The engine tunnel will be insulated on both sides for thermal and acoustic absorption. The underside of the tunnel will be covered with 1.00" thick polyether foam that is reinforced with an aluminized face. Thermal rating for this insulation will be -40 degrees Fahrenheit to 300 degrees Fahrenheit. The insulation will keep noise (dBA) levels at or lower than the specifications in the current edition of the NFPA 1901 standards.

### **CAB REAR WALL EXTERIOR COVERING**

The exterior surface of the rear wall of the cab will be overlaid with bright aluminum treadplate except for areas that are not typically visible when the cab is lowered.

### **CAB LIFT**

A hydraulic cab lift system will be provided, consisting of an electric-powered hydraulic pump, fluid reservoir, dual lift cylinders, remote cab lift controls and all necessary hoses and valves. The hydraulic pump will have a backup manual override, for use in the event of an electrical failure.

The cab lift controls will be located at the driver side front of the cab, easily accessible under the full width front access hood. The controls will include a permanently mounted raise/lower switch. For enhanced visibility during cab tilt operations, a remote control tether with on/off switch will be supplied on a coiled cord that will extend from 2.00' (coiled) to 6.00' (extended).

The cab will be capable of tilting 42 degrees and 80 degrees with crane assist to accommodate engine maintenance and removal. The cab pivots will be located 46.00" apart to provide stability while tilting the cab.

The rear of the cab will be locked down by a two (2)-point, automatic, hydraulic, double hook mechanism that fully engages after the cab has been lowered (self-locking). The dual 2.25" diameter hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the cab is in the tilt position.

For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the driver side between the chassis and cab frame when cab is in the raised position. This device will be manually stowed to its original position before the cab can be lowered.

### **Cab Lift Interlock**

The cab lift safety system will be interlocked to the parking brake. The cab tilt mechanism will 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 will be disabled.

### **GRILLE**

A bright finished aluminum mesh grille screen, inserted behind a formed bright finished grille surround, will be provided on the front center of the cab, and will serve as an air intake to the radiator.

### **DOOR JAMB SCUFFPLATES**

All cab door jambs will be furnished with a polished stainless steel scuffplate, mounted on the striker side of the jamb.

### **FRONT CAB TRIM**

There will be polished stainless steel rectangular garnish plates installed behind the two (2) headlight bezels for an enhanced appearance.

There will be polished stainless steel corner covers provided over the painted cab corner where the cab turn signals are located.

### **SIDE OF CAB MOLDING**

Chrome molding will be provided on both sides of cab.

### **MIRRORS**

A Retraco, Model 613423, dual vision, motorized, west coast style mirror, with chrome finish, will be mounted on each side of the front cab door with spring loaded retractable arms. The flat glass and convex glass will be heated and adjustable with remote control within reach of the driver.

### **CAB DOORS**

The forward cab and crew cab doors will be the half-height style door. To enhance entry and egress to the cab, the forward cab doors will be a minimum of 43.59" wide x 64.71" high. The crew cab doors will measure a minimum of 37.87" wide x 73.75" high.

The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.125". The exterior door skins will be constructed from 0.090" aluminum.

The forward cab door windows will include a 7.50" high x 10.00" wide drop area at the front to enhance visibility.

A customized, vertical, pull-down type door handle will be provided on the exterior of each cab door. The exterior handle will be designed specifically for the fire service to prevent accidental activation, and will provide 4.00" wide x 2.00" deep hand clearance for ease of use with heavy gloved hands. Each door will also be provided with an interior flush, open style paddle handle that will be readily operable from fore and aft positions, and be designed to prevent accidental activation. The interior handles will provide 4.00" wide x 1.25" deep hand clearance for ease of use with heavy gloved hands.

The cab doors will be provided with both interior (rotary knob) and exterior (keyed) locks exceeding FMVSS standards. The keys will be Model 751. The locks will be capable of activating when the doors are open or closed. The doors will remain locked if locks are activated when the doors are opened, then closed.



A full length, heavy duty, stainless steel, piano-type hinge with a 0.38" pin and 11 gauge leaf will be provided on all cab doors. There will be double automotive-type rubber seals around the perimeter of the door framing and door edges to ensure a weather-tight fit.

A chrome grab handle will be provided on the inside of each cab and crew cab door.

The cab steps at each cab door location will be located below the cab doors and will be exposed to the exterior of the cab.

### **CAB DOOR PANELS**

The inner cab door panels will be constructed out of brushed stainless steel. The cab door panels will be removable.

### **RECESSED POCKET WITH ELASTIC COVER**

To provide organized storage (clutter control) in the cab for miscellaneous equipment, the cab interior will be provided with recessed storage pockets. The pockets will be 5.63" wide x 2.00" high x 4.00" deep. The pockets will be provided with a perforated elastic material cover to secure the equipment in the pocket. The pockets will be installed in all available mounting locations of the overhead console.

### **ELECTRIC WINDOW CONTROLS**

Each cab entry door will be equipped with an electrically operated tempered glass window. A window control panel will be located on the door panel within easy reach of the respective occupant. Each switch will allow intermittent or auto down operation for ease of use. Auto down operation will be actuated by holding the window down switch for approximately 1 second. The driver control panel will contain a control switch for each cab door's window. All other door control panels will contain a single switch to operate the window within that door.

The window switches will be connected directly to the battery power. This allows the windows to be raised and lowered when the battery switch is in the off position.

### **ELECTRIC CAB DOOR LOCKS**

The front driver and passenger doors will have a door lock master switch (custom designed rotary lock knob) built into the interior door latch that will control all front and rear side exit door locks. Each rear cab door will have its own lock control. Each door will have a keyed exterior lock mechanism built into the door handle assembly.

There will be one (1) concealed switch located DS pump panel next to the air horn switch/button.

The lock system will include two (2) key FOBs that allow for keyless entry into the vehicle. The key FOB system will use code hopping technology for high security and be FCC part 15 compliant.

### **DUAL STEPS**

A dual step will be provided below each cab and crew cab door. The steps will be designed with a grip pattern punched into bright aluminum treadplate material providing support, slip resistance, and

drainage. The steps will be a bolt-on design and provide a 24.00" wide x 7.00" deep stepping surface. The bottom step will protrude past the middle step 4.50". The step design raises the middle step higher and closer to the cab floor, resulting in a 12.00" distance from the step to cab floor in the cab and a 13.50" distance from the step to cab floor in the crew cab. Stepping distances from the ground to first step will be 16.50" and from first step to middle step will be 12.00".

The first step will be lit by a white 12 volt DC LED light provided on the step.

### **STEP LIGHTS**

For reduced overall maintenance costs compared to incandescent lighting, there will be four (4) white LED step lights provided. The lights will be installed at each cab and crew cab door, one (1) per step. The lights will be located in the driver side front doorstep, driver side crew cab doorstep, passenger side front doorstep and passenger side crew cab doorstep.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light.

The lights will be activated when the adjacent door is opened.

### **FENDER CROWNS**

Stainless steel fender crowns will be installed at the cab wheel openings.

### **CREW CAB WINDOWS**

One (1) fixed window with tinted glass will be provided on each side of the cab, to the rear of the front cab door. The windows will be sized to enhance light penetration into the cab interior. The windows will measure 20.00" wide x 20.50" high.

### **WINDOWS INTERIOR TRIM**

For improved aesthetics, the cab side windows will include a vacuum formed ABS interior trim panel.

### **STORAGE COMPARTMENTS**

Provided on each side of the cab, to the rear of the crew cab access doors, will be a storage compartment. The compartments will be approximately 10.71" wide x 30.00" high x 14.00" deep.

The compartment interior will be painted spatter gray.

The doors will be a painted double pan construction with one (1) D-ring latch. A rubber bumper for each exterior door will be used as a door stop.

### **Compartment Light**

There will be two (2) white LED strip lights provided, one (1) each hinged side of compartment door openings. The lights will be controlled by an automatic door switch.

### **CAB ROOF DRIP RAIL**

For enhanced protection from inclement weather, a drip rail will be furnished on the sides of the cab. The drip rail will be constructed of extruded aluminum painted to match the cab exterior, and be bonded to the sides of the cab. The drip rail will extend the full length of the cab roof.

### **MOUNTING PLATE ON ENGINE TUNNEL**

Equipment installation provisions will be installed on the engine tunnel.

A 0.25" smooth aluminum plate will be bolted to the top surface of the engine tunnel. The plate will be located to the left of the officer and on the rear of the tunnel. It will follow the contour of the engine tunnel and will run the entire length of the engine tunnel. The plate will be spaced off the engine tunnel 1.00" to allow for wire routing below the plate.

The mounting surface will be painted to match the cab interior.

### **COMPUTER MOUNTING**

There will be one (1) computer installation provision(s) installed to be shipped with the loose equipment.

The tray will be constructed of stainless steel. The tray will be supplied with two (2) straps over the top connected to footman loops. These straps will secure the computer in place during travel.

### **CAB INTERIOR**

With safety as the primary objective, the wrap-around style cab instrument panel will be designed with unobstructed visibility to instrumentation. The dash layout will provide the driver with a quick reference to gauges that allows more time to focus on the road.

The center console will be a high impact ABS polymer and will be easily removable for access to the defroster. The center console will include louvers strategically located for optimal air flow and defrost capability to the windshield.

The passenger side dashboard will be constructed of painted aluminum for durability and low maintenance. For enhanced versatility, the passenger side dash will include a flat working surface.

To provide optional (service friendly) control panels, switches and storage modules, a painted aluminum overhead console will also be provided.

To complete the cab front interior design, painted aluminum modesty panels will be provided under the dash on both sides of the cab. The driver side modesty panel will provide mounting for the battery switch and diagnostic connectors, while the passenger side modesty panel provides a glove box, and ground access to the main electrical distribution panel via quick quarter turn fasteners.

To provide a deluxe automotive interior, the engine tunnel, side walls and rear wall will be covered by a leather grain vinyl that is resistant to oil, grease, and mildew.

The headliner will be installed in both forward and rear cab sections. The headliner panel will be a composition of an aluminum panel covered with a sound barrier and upholstery.

The cab structure will include designated raceways for electrical harness routing from the front of the cab to the rear upper portion of the cab. Raceways will be extruded in the forward door frame, floor, walls and overhead in the area where the walls meet the ceiling. The raceways located in the floor will be covered by aluminum extrusion, while the vertical and overhead raceways will be covered by painted aluminum covers. The raceways will improve harness integrity by providing a continuous harness path that eliminates wire chafing and abrasion associated with exposed wiring or routing through drilled metal holes. Harnesses will be laid in place.

### **CAB INTERIOR UPHOLSTERY**

The cab interior upholstery will be dark silver gray. All cab interior materials will meet FMVSS 302 (flammability of interior materials).

### **CAB INTERIOR PAINT**

A rich looking interior will be provided by painting all the metal surfaces inside the cab fire smoke gray, vinyl texture paint.

### **CAB FLOOR**

The cab and crew cab floor areas will be covered with Polydamp™ acoustical floor mat consisting of a black pyramid rubber facing and closed cell foam decoupler.

The top surface of the material has a series of raised pyramid shapes evenly spaced, which offer a superior grip surface. Additionally, the material has a 0.25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels.

### **CAB DEFROSTER**

To provide maximum defrost and heating performance, a 54,961 BTU heater-defroster unit with 558 SCFM of air flow will be provided inside the cab. The defroster unit will be strategically located under the center forward portion of the instrument panel. For easy access, a removable metal cover will be installed over the defroster unit. The defroster will include an integral aluminum frame air filter, high performance dual scroll blowers, and ducts designed to provide maximum defrosting capabilities for the 1-piece windshield. The defroster ventilation will be built into the design of the cab dash instrument panel and will be easily removable for maintenance. The defroster will be capable of clearing 98 percent of the windshield and side glass when tested under conditions where the cab has been cold soaked at 0 degrees Fahrenheit for 10 hours, and a 2 ounce per square inch layer of frost/ice has been able to build up on the exterior windshield. The defroster system will meet or exceed SAE J382 requirements.

A defrost fan will be located on each side of the cab, recessed in the outboard overhead console. The fans will use recirculated air from within the cab to blow air towards the driver and officer side windows for additional defrost capabilities.

The defroster fan speed control will also control the overhead defrost fans. When the defroster is set to low or medium, the overhead defroster fan speed will be medium. When the defroster is set to high, the overhead defroster fan speed will also be high.

### **CAB/CREW CAB HEATER**

Two (2) 36,702 BTU auxiliary heaters with 276 SCFM (each unit) of air flow will be provided inside the crew cab, one (1) in each outboard rear facing seat riser. The heaters will include high performance dual scroll blowers, one (1) for each unit. Outlets for the heaters will be located below each rear facing seat riser and below the fronts of the driver and passenger seats, for efficient airflow. An extruded aluminum plenum will be incorporated in the cab structure that will transfer heat to the forward cab seating positions.

The heater/defroster and crew cab heaters will be controlled by an integral electronic control panel. The heater control panel will allow the driver to control heat flow to the front and rear independently. The control panel will include variable adjustment for temperature and fan control, and be conveniently located on the dash in clear view of the driver. The control panel will include highly visible, progressive LED indicators for both fan speed and temperature.

### **AIR CONDITIONING**

Due to the large space inside the cab, a high-performance, customized air conditioning system will be furnished. A 19.10 cubic inch compressor will be installed on the engine.

The air conditioning system will be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 64 degrees Fahrenheit in the forward section of the cab, and 69 degrees Fahrenheit in the rear section of the cab, at 50 percent relative humidity within 30 minutes. The cooling performance test will be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of 4 hours.

A roof-mounted condenser with a 63,000 BTU output that meets and exceeds the performance specification will be installed on the cab roof. The condenser cover and mounting legs to be painted to match the cab roof.

The evaporator unit will be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator will include two (2) high performance cores and plenums with multiple outlets, one (1) plenum directed to the front and one (1) plenum directed to the rear of the cab.

The evaporator unit will have a 49,000 BTU (4.08 tons) rating that meets and exceeds the performance specifications.

Adjustable air outlets will be strategically located on the evaporator cover per the following:

- Four (4) will be directed towards the drivers location
- Four (4) will be directed towards the officers location
- Eight (8) will be directed towards crew cab area

The air conditioner refrigerant will be R-134A and will be installed by a certified technician.

The air conditioner will be controlled by dual zone integral electronic control panels for the heater, defroster and air conditioner. The cab control panel will be located in the center console. For ease of operation, the control panels will include variable adjustment for temperature and fan control.

### **INTERIOR CAB INSULATION**

The cab walls, ceiling and engine tunnel will be insulated in all strategic locations to maximize acoustic absorption and thermal insulation. The cab will be insulated with 2.00" insulation in the rear wall, 3.00" insulation in the side walls, and 1.50" insulation in the ceiling. Headliners will be constructed from a 0.20" high density polyethylene corrugated material. Each headliner will be wrapped with a 0.25" thick foil faced poly damp low emissivity foam insulation barrier for acoustic and thermal control.

Designed for maximum sound absorption and thermal insulation, the rear cab wall will be insulated with a 1.50" thick open cell acoustical foam. The thermal protection of the foam will provide an R-value of 4 per 1.00" thickness.

### **SUN VISORS**

Two (2) smoked Lexan™ sun visors provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab.

There will be a black plastic thumb latch provided to help secure each sun visor in the stowed position.

### **GRAB HANDLE**

A black rubber covered grab handle will be mounted on the door post of the driver side and passenger side cab door to assist in entering the cab. The grab handle will be securely mounted to the post area between the door and windshield.

### **ENGINE COMPARTMENT LIGHTS**

There will be one (1) Whelen, Model 3SC0CDCR, 12 volt DC, 3.00" white LED light(s) with Whelen, Model 3FLANGEC, chrome flange kit(s) installed under the cab to be used as engine compartment illumination.

These light(s) will be activated automatically when the cab is raised.

### **ACCESS TO ENGINE DIPSTICKS**

For access to the engine oil and transmission fluid dipsticks, there will be a door on the engine tunnel, inside the crew cab. The door will be on the rear wall of the engine tunnel, on the vertical surface. The door will be 17.75" wide x 12.75" high and be flush with the wall of the engine tunnel.

The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling. An additional port will be provided for filling the engine oil.

The door will have a rubber seal for thermal and acoustic insulation. One (1) flush latch will be provided on the access door.

### **VELCRO STRAP(S) FOR MAP BOX**

There will be one (1) Velcro® strap(s) shipped with loose equipment .

### **MAP BOX**

A map box with four (4) bins, open from top, will be installed shipped loose. The map box will be divided into four (4) bins, each being 12.50" wide x 2.25" high x 12.00" deep. Each bin will slant 30 degrees from horizontal. The map box will be constructed of .125" aluminum and will be painted to match the cab interior.

### **CAB SAFETY SYSTEM**

The cab will be provided with a safety system designed to protect occupants in the event of a side roll or frontal impact, and will include the following:

- A supplemental restraint system (SRS) sensor will be installed on a structural cab member behind the instrument panel. The SRS sensor will perform real time diagnostics of all critical subsystems and will record sensory inputs immediately before and during a side roll or frontal impact event.
- A slave SRS sensor will be installed in the cab to provide capacity for eight (8) crew cab seating positions.
- A fault-indicating light will be provided on the vehicle's instrument panel allowing the driver to monitor the operational status of the SRS system.
- A driver side front air bag will be mounted in the steering wheel and will be designed to protect the head and upper torso of the occupant, when used in combination with the 3-point seat belt.
- A passenger side knee bolster air bag will be mounted in the modesty panel below the dash panel and will be designed to protect the legs of the occupant, when used in combination with the 3-point seat belt.
- Air curtains will be provided in the outboard bolster of outboard seat backs to provide a cushion between occupant and the cab wall.
- Suspension seats will be provided with devices to retract them to the lowest travel position during a side roll or frontal impact event.
- Seat belts will be provided with pre-tensioners to remove slack from the seat belt during a side roll or frontal impact event.

### **FRONTAL IMPACT PROTECTION**

The SRS system will provide protection during a frontal or oblique impact event. The system will activate when the vehicle decelerates at a predetermined G force known to cause injury to the occupants. The cab and chassis will have been subjected, via third party test facility, to a crash impact during frontal and oblique impact testing. Testing included all major chassis and cab components such as mounting straps for fuel and air tanks, suspension mounts, front suspension components, rear suspensions components, frame rail cross members, engine and transmission and their mounts, pump house and mounts, frame extensions and body mounts. The testing provided configuration specific

information used to optimize the timing for firing the safety restraint system. The sensor will activate the pyrotechnic devices when the correct crash algorithm, wave form, is detected.

The SRS system will deploy the following components in the event of a frontal or oblique impact event:

- Driver side front air bag
- Passenger side knee bolster air bag
- Air curtains mounted in the outboard bolster of outboard seat backs
- Suspension seats will be retracted to the lowest travel position
- Seat belts will be pre-tensioned to firmly hold the occupant in place

### **SIDE ROLL PROTECTION**

The SRS system will provide protection during a fast or slow 90 degree roll to the side, in which the vehicle comes to rest on its side. The system will analyze the vehicle's angle and rate of roll to determine the optimal activation of the advanced occupant restraints.

The SRS system will deploy the following components in the event of a side roll:

- Air curtains mounted in the outboard bolster of outboard seat backs
- Suspension seats will be retracted to the lowest travel position
- Seat belts will be pre-tensioned to firmly hold the occupant in place

### **SEATING CAPACITY**

The seating capacity in the cab will be four (4).

### **DRIVER SEAT**

A Pierce PS6® seat will be provided in the cab for the driver. The seat design will be a cam action type with air suspension. For increased convenience, the seat will include electric controls to adjust the rake (15 degrees), height (1.12" travel) and horizontal (7.75" travel) position. Electric controls will be located below the forward part of the seat cushion. To provide flexibility for multiple driver configurations, the seat will have a reclining back, adjustable from 20 degrees back to 45 degrees forward. Providing for maximum comfort, the seat back will be a high back style with manual lumbar adjustment lever, for lower back support, and will include minimum 7.50" deep side bolster pads for maximum support. The lumbar adjustment lever will be easily located at the lower outboard position of the seat cushion. For optimal comfort, the seat will be provided with 17.00" deep dual density foam cushions designed with EVC (elastomeric vibration control).

The seat will include the following features incorporated into the side roll protection system:

- Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position.
- A suspension seat safety system will be included. When activated in the event of a side roll, this system will pretension the seat belt and retract the seat to its lowest travel position.



The seat will be furnished with a 3-point, shoulder type seat belt. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

### **OFFICER SEAT**

A Pierce PS6® seat will be provided in the cab for the passenger. The seat will be a cam action type with air suspension. For increased convenience, the seat will include a manual control to adjust the horizontal position (6.00" travel). The manual horizontal control will be a towel-bar style located below the forward part of the seat cushion. For optimal comfort, the seat will be provided with 17.00" deep dual density foam cushions designed with EVC (elastomeric vibration control). To ensure safe operation, the seat will be equipped with seat belt sensors in the seat cushion and belt receptacle that will activate an alarm indicating a seat is occupied but not belted.

The seat back will be an SCBA back style with 7.5 degree fixed recline angle, and will include minimum 4.50" wide x 7.50" deep side bolster pads for maximum support. The SCBA cavity will be adjustable from front to rear in 1.00" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location.

The seat will include the following features incorporated into the side roll protection system:

- Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position.
- A suspension seat safety system will be included. When activated, this system will pretension the seat belt and then retract the seat to its lowest travel position.

The seat will be furnished with a 3-point, shoulder type seat belt. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

### **REAR FACING DRIVER SIDE EMS COMPARTMENT**

A rear facing EMS compartment will be provided in the crew cab at the driver side outboard position.

The compartment will be 23.50" wide x 40.25" high x 30.50" deep. The interior door will be web netting. The netting is to be made with 1.00" wide nylon material with 2.00" openings. The nylon webbing will be permanently fastened at the inboard side of the compartment and have 1.00" side release fasteners on the opposite side to secure it.

The compartment will be constructed of smooth aluminum and painted to match the cab interior.

### **Compartment Light**

There will be one (1) white LED strip light installed on the left side of the compartment opening. The lights will be controlled by an automatic door switch.

### **REAR FACING PASSENGER SIDE EMS COMPARTMENT**

A rear facing EMS compartment will be provided in the crew cab at the passenger side outboard position.

The compartment will be 21.50" wide x 40.25" high x 26.50" deep. The interior door will be web netting. The netting is to be made with 1.00" wide nylon material with 2.00" openings. The nylon webbing will be permanently fastened at the inboard side of the compartment and have 1.00" side release fasteners on the opposite side to secure it.

The compartment will be constructed of smooth aluminum, and painted to match the cab interior.

#### **Compartment Light**

There will be one (1) white LED strip light installed on the right side of the compartment opening. The lights will be controlled by a switch on the exterior of the compartment.

### **FORWARD FACING CENTER SEATS**

There will be two (2) forward facing, Pierce PS6® seats provided at the center position in the crew cab. For optimal comfort, the seats will be provided with 17.00" deep dual density foam cushions designed with EVC (elastomeric vibration control). To ensure safe operation, the seats will be equipped with seat belt sensors in the seat cushion and belt receptacle that will activate an alarm indicating a seat is occupied but not buckled.

The seat backs will be an SCBA back style with 7.5 degree fixed recline angle, and will include minimum 4.50" wide x 7.50" deep side bolster pads for maximum support. The SCBA cavity will be adjustable from front to rear in 1.00" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location.

The seats will include the following feature incorporated into the side roll protection system:

- A seat safety system will be included. When activated, this system will pretension the seat belts around the occupants to firmly hold them in place in the event of a side roll.

The seats will be furnished with 3-point, shoulder type seat belts. The seat belts will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

### **SHELVING**

There will be four (4) shelves provided in the EMS compartment. Each shelf will be constructed of .090" aluminum with a 0.75" lip flanged down. Shelving will be infinitely adjustable by means of a threaded tightener sliding in a track.

The location will be (2) in each crew cab cabinet.

### **SEAT UPHOLSTERY**

All seat upholstery will be black Turnout Tuff material.

### **AIR BOTTLE HOLDERS**

All SCBA type seats in the cab will have a "Hands-Free" auto clamp style bracket in its backrest. For efficiency and convenience, the bracket will include an automatic spring clamp that allows the occupant to store the SCBA bottle by simply pushing it into the seat back. For protection of all occupants in the cab, in the event of an accident, the inertial components within the clamp will constrain the SCBA bottle in the seat and will exceed the NFPA standard of 9G.

There will be a quantity of three (3) SCBA brackets.

### **SEAT BELTS**

All seating positions in the cab, crew cab and tiller cab (if applicable) will have red seat belts.

To provide quick, easy use for occupants wearing bunker gear, the female buckle and seat belt webbing length will meet or exceed the current edition of NFPA 1901 and CAN/ULC - S515 standards.

The 3-point shoulder type seat belts will also include the ReadyReach D-loop assembly to the shoulder belt system. The ReadyReach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location.

### **SHOULDER HARNESS HEIGHT ADJUSTMENT**

All seating positions furnished with 3-point shoulder type seat belts will include a height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter.

A total of four (4) seating positions will have the adjustable shoulder harness.

### **HELMET STORAGE PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 14.1.7.4.1 requires a location for helmet storage be provided.

There is no helmet storage on the apparatus as manufactured. The fire department will provide a location for storage of helmets.

### **CAB DOME LIGHTS**

There will be four (4) dual LED dome lights with grey bezels provided. Two (2) lights will be mounted above the inside shoulder of the driver and officer and two (2) lights will be installed and located, one (1) on each side of the crew cab.

The color of the LED's will be red and white.

The white LED's will be controlled by the door switches and the lens switch.

The color LED's will be controlled by the lens switch.

In order to ensure exceptional illumination, each white LED dome light will provide a minimum of 10.1 foot-candles (fc) covering an entire 20.00" x 20.00" square seating position when mounted 40.00" above the seat.

### **CAB SPOTLIGHT**

There will be two (2) Golight® Stryker™, Model 30\*\*4, black LED spotlights located on the cab roof, one (1) each side cab roof, behind the warning lightbar. The spotlights will be mounted on painted pedestals.

These lights may be load managed when the parking brake is applied.

### **SPOTLIGHT CONTROLLER**

There will be one (1) wired dash mounted remote provided for each spotlight.

### **SPOTLIGHT CONTROLLER LOCATIONS**

The remotes to control the spotlights will be located one (1) within reach of the driver and one (1) within reach of the officer.

### **PORTABLE HAND LIGHTS, PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 9.9.4 requires two portable hand lights mounted in brackets fastened to the apparatus.

The hand lights are not on the apparatus as manufactured. The fire department will provide and mount these hand lights.

### **CAB INSTRUMENTATION**

The cab instrument panel will consist of gauges, an LCD display, telltale indicator lights, alarms, control switches, and a diagnostic panel. The function of instrument panel controls and switches will be identified by a label adjacent to each item. Actuation of the headlight switch will illuminate the labels in low light conditions. Telltale indicator lamps will not be illuminated unless necessary. The cab instruments and controls will be conveniently located within the forward cab section directly forward of the driver. Gauge and switch panels will be designed to be removable for ease of service and low cost of ownership.

### **GAUGES**

The gauge panel will include the following ten (10) ivory gauges with chrome bezels to monitor vehicle performance:

- Voltmeter gauge (Volts)

- Low volts (11.8 VDC)

- Amber indicator on gauge assembly with alarm

High volts (15 VDC)

Amber indicator on gauge assembly with alarm

Very low volts (11.3 VDC)

Amber indicator on gauge assembly with alarm

Very high volts (16 VDC)

Amber indicator on gauge assembly with alarm

- Tachometer (RPM)

- Speedometer (Primary (outside) MPH, Secondary (inside) Km/H)

- Fuel level gauge (Empty - Full in fractions)

Low fuel (1/8 full)

Amber indicator on gauge assembly with alarm

Very low fuel (1/32) fuel

Amber indicator on gauge assembly with alarm

- Engine oil pressure gauge (PSI)

Low oil pressure to activate engine warning lights and alarms

Red indicator on gauge assembly with alarm

- Front air pressure gauge (PSI)

Low air pressure to activate warning lights and alarm

Red indicator on gauge assembly with alarm

- Rear air pressure gauge (PSI)

Low air pressure to activate warning lights and alarm

Red indicator on gauge assembly with alarm

- Transmission oil temperature gauge (Fahrenheit)

High transmission oil temperature activates warning lights and alarm

Amber indicator on gauge assembly with alarm

- Engine coolant temperature gauge (Fahrenheit)

High engine temperature activates an engine warning light and alarm

Red indicator on gauge assembly with alarm

- Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions)

Low fluid (1/8 full)

Amber indicator on gauge assembly with alarm

All gauges and gauge indicators will perform prove out at initial power-up to ensure proper performance.

### **INDICATOR LAMPS**

To promote safety, the following telltale indicator lamps will be integral to the gauge assembly and are located above and below the center gauges. The indicator lamps will be "dead-front" design that is only visible when active. The colored indicator lights will have descriptive text or symbols.

The following amber telltale lamps will be present:

- Low coolant
- Trac cntl (traction control) (where applicable)
- Check engine
- Check trans (check transmission)
- Aux brake overheat (Auxiliary brake overheat)
- Air rest (air restriction)
- Caution (triangle symbol)
- Water in fuel
- DPF (engine diesel particulate filter regeneration)
- Trailer ABS (where applicable)
- Wait to start (where applicable)
- HET (engine high exhaust temperature) (where applicable)
- ABS (antilock brake system)
- MIL (engine emissions system malfunction indicator lamp) (where applicable)

- SRS (supplemental restraint system) fault (where applicable)
- DEF (low diesel exhaust fluid level)

The following red telltale lamps will be present:

- Warning (stop sign symbol)
- Seat belt
- Parking brake
- Stop engine
- Rack down

The following green telltale lamps will be provided:

- Left turn
- Right turn
- Battery on

The following blue telltale lamp will be provided:

- High beam

### **ALARMS**

Audible steady tone warning alarm: A steady audible tone alarm will be provided whenever a warning message is present.

Audible pulsing tone caution alarm: A pulsing audible tone alarm (chime/chirp) will be provided whenever a caution message is present without a warning message being present.

Alarm silence: Any active audible alarm will be able to be silenced by holding the ignition switch at the top position for three (3) to five (5) seconds. For improved safety, silenced audible alarms will intermittently chirp every 30 seconds until the alarm condition no longer exists. The intermittent chirp will act as a reminder to the operator that a caution or warning condition still exists. Any new warning or caution condition will enable the steady or pulsing tones respectively.

### **INDICATOR LAMP AND ALARM PROVE-OUT**

Telltale indicators and alarms will perform prove-out at initial power-up to ensure proper performance.

### **CONTROL SWITCHES**

For ease of use, the following controls will be provided immediately adjacent to the cab instrument panel within easy reach of the driver.

Emergency master switch: A molded plastic push button switch with integral indicator lamp will be provided. Pressing the switch will activate emergency response lights and siren control. A green lamp on the switch provides indication that the emergency master mode is active. Pressing the switch again disables the emergency master mode.

Headlight / Parking light switch: A three (3)-position maintained rocker switch will be provided. The first switch position will deactivate all parking lights and the headlights. The second switch position will activate the parking lights. The third switch position will activate the headlights.

Panel backlighting intensity control switch: A three (3)-position momentary rocker switch will be provided. The first switch position decreases the panel backlighting intensity to a minimum level as the switch is held. The second switch position is the default position that does not affect the backlighting intensity. The third switch position increases the panel backlighting intensity to a maximum level as the switch is held.

The following standard controls will be integral to the gauge assembly and are located below the right hand gauges. All switches have backlit labels for low light applications.

High idle engagement switch: A two (2)-position momentary rocker switch with integral indicator lamp will be provided. The first switch position is the default switch position. The second switch position will activate and deactivate the high idle function when pressed and released. The "Ok To Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch will indicate when the high idle function is engaged.

"Ok To Engage High Idle" indicator lamp: A green indicator light will be provided next to the high idle activation switch to indicate that the interlocks have been met to allow high idle engagement.

The following standard controls will be provided adjacent to the cab gauge assembly within easy reach of the driver. All switches will have backlit labels for low light applications.

Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will deactivate vehicle ignition. The second switch position will activate vehicle ignition. The third momentary position will disable the Command Zone audible alarm if held for three (3) to five (5) seconds. A green indicator lamp will be activated with vehicle ignition.

Engine start switch: A two (2)-position momentary rocker switch will be provided. The first switch position is the default switch position. The second switch position will activate the vehicle's engine. The switch actuator is designed to prevent accidental activation.

4-way hazard switch: A two (2)-position maintained rocker switch will be provided. The first switch position will deactivate the 4-way hazard switch function. The second switch position will activate the 4-way hazard function. The switch actuator will be red and includes the international 4-way hazard symbol.



Heater, defroster, and optional air conditioning control panel: A control panel with membrane switches will be provided to control heater/defroster temperature and heater, defroster, and air conditioning fan speeds. A green LED status bar will indicate the relative temperature and fan speed settings.

Turn signal arm: A self-canceling turn signal with high beam headlight and windshield wiper/washer controls will be provided. The windshield wiper control will have high, low, and intermittent modes.

Parking brake control: An air actuated push/pull park brake control valve will be provided.

Chassis horn control: Activation of the chassis horn control will be provided through the center of the steering wheel.

### **CUSTOM SWITCH PANELS**

The design of cab instrumentation will allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There will be positions for up to four (4) switch panels in the overhead console on the driver's side, up to four (4) switch panels in the engine tunnel console facing the driver, up to four (4) switch panels in the overhead console on the officer's side and up to two (2) switch panels in the engine tunnel console facing the officer. All switches will have backlit labels for low light applications.

### **DIAGNOSTIC PANEL**

A diagnostic panel will be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel will allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches will allow ABS systems to provide blink codes should a problem exist.

The diagnostic panel will include the following:

- Engine diagnostic port
- Transmission diagnostic port
- ABS diagnostic port
- SRS diagnostic port (where applicable)
- Command Zone USB diagnostic port
- ABS diagnostic switch (blink codes flashed on ABS telltale indicator)
- Diesel particulate filter regeneration switch (where applicable)
- Diesel particulate filter regeneration inhibit switch (where applicable)

### **CAB LCD DISPLAY**

A digital four (4)-row by 20-character dot matrix display will be integral to the gauge panel. The display will be capable of showing simple graphical images as well as text. The display will be split into three (3) sections. Each section will have a dedicated function. The upper left section will display the outside ambient temperature.

The upper right section will display, along with other configuration specific information:

- Odometer
- Trip mileage
- PTO hours
- Fuel consumption
- Engine hours

The bottom section will display INFO, CAUTION, and WARNING messages. Text messages will automatically activate to describe the cause of an audible caution or warning alarm. The LCD will be capable of displaying multiple text messages should more than one caution or warning condition exist.

### **AIR RESTRICTION INDICATOR**

A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm shall be provided.

### **"DO NOT MOVE APPARATUS" INDICATOR**

A flashing red indicator light, located in the driving compartment, will be illuminated automatically per the current NFPA requirements. The light will be labeled "Do Not Move Apparatus If Light Is On."

The same circuit that activates the Do Not Move Apparatus indicator will activate a pulsing alarm when the parking brake is released.

### **DO NOT MOVE TRUCK MESSAGES**

Messages will be displayed on the Command Zone™, color display located within sight of the driver whenever the Do Not Move Truck light is active. The messages will designate the item or items not in the stowed for vehicle travel position (parking brake disengaged).

The following messages will be displayed (where applicable):

- Do Not Move Truck
- DS Cab Door Open (Driver Side Cab Door Open)
- PS Cab Door Open (Passenger's Side Cab Door Open)
- DS Crew Cab Door Open (Driver Side Crew Cab Door Open)
- PS Crew Cab Door Open (Passenger's Side Crew Cab Door Open)

- DS Body Door Open (Driver Side Body Door Open)
- PS Body Door Open (Passenger's Side Body Door Open)
- Rear Body Door Open
- DS Ladder Rack Down (Driver Side Ladder Rack Down)
- PS Ladder Rack Down (Passenger Side Ladder Rack Down)
- Deck Gun Not Stowed
- Lt Tower Not Stowed (Light Tower Not Stowed)
- Fold Tank Not Stowed (Fold-A-Tank Not Stowed)
- Aerial Not Stowed (Aerial Device Not Stowed)
- Stabilizer Not Stowed
- Steps Not Stowed
- Handrail Not Stowed

Any other device that is opened, extended, or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved will be displayed as a caution message after the parking brake is disengaged.

### **SWITCH PANELS**

The emergency light switch panel will have a master switch for ease of use plus individual switches for selective control. Each switch panel will contain eight (8) membrane-type switches each rated for one million (1,000,000) cycles. Panels containing less than eight (8) switch assignments will include non-functioning black appliques. Documentation will be provided by the manufacturer indicating the rated cycle life of the switches. The switch panel(s) will be located in the overhead position above the windshield on the driver side overhead to allow for easy access.

Additional switch panel(s) will be located in the overhead position(s) above the windshield or in designated locations on the lower instrument panel layout.

The switches will be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch will be illuminated white whenever back lighting is activated and illuminated green whenever the switch is active. An active illuminated switch will flash when interlock requirements are not met or device is actively being load managed. For ease of use, a two (2)-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch will be placed in the center of the switch. The label will allow light to pass through the letters for ease of use in low light conditions.

### **WIPER CONTROL**

For simple operation and easy reach, the windshield wiper control will be an integral part of the directional light lever located on the steering column. The wiper control will include high and low wiper speed settings, a one (1)-speed intermittent wiper control and windshield washer switch. The control will have a "return to park" provision, which allows the wipers to return to the stored position when the wipers are not in use.

### **HOURLMETER - AERIAL DEVICE**

An hourmeter for the aerial device will be provided and located within the cab display or instrument panel.

### **AERIAL MASTER**

There will be a master switch for the aerial operating electrical system provided.

### **AERIAL PTO SWITCH**

A PTO switch for the aerial with indicator light will be provided.

### **SPARE CIRCUIT**

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

The positive wire will be connected directly to the battery switched power.

The negative wire will be connected to ground.

Wires will be protected to 30 amps at 12 volts DC.

Power and ground will terminate on the rear of the passengers side EMS compartment.

Termination will be with a 10-place bus bar with screws and removable cover.

Wires will be sized to 125% of the protection.

This circuit(s) may be load managed when the parking brake is set.

### **SPARE CIRCUIT**

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power
- The negative wire will be connected to ground
- Wires will be protected to 30 amps at 12 volts DC
- Power and ground will terminate mounted on the rear of the drivers side EMS cabinet
- Termination will be with a 10-place bus bar with screws and removable cover
- Wires will be sized to 125% of the protection

This circuit(s) may be load managed when the parking brake is set.

### **SPARE CIRCUIT**

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power.
- The negative wire will be connected to ground.
- Wires will be protected to 2.0 amps at 12 volts DC.
- Power and ground will terminate to the left of the officers position .
- Termination will be a Blue Sea Systems part number 1016 dual USB charger socket.
- Wires will be sized to 125% of the protection.

This circuit(s) may be load managed when the parking brake is applied.

### **RECESS, DASH PANEL**

The dash panel across from the officer will be recessed to accommodate the mounting of miscellaneous items. The recess will be 8.25" down x 7.81" back and 20.88" wide.

### **INFORMATION CENTER**

An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing.

The information center will have the following specifications:

- Operate in temperatures from -40 to 185 degrees Fahrenheit
- An Optical Gel will be placed between the LCD and protective lens
- Five weather resistant user interface switches
- Grey with black accents
- Sunlight Readable
- Linux operating system
- Minimum of 1000nits rated display
- Display can be changed to an available foreign language
- A LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area.
- Programmed to read US Customary

### **GENERAL SCREEN DESIGN**

Where possible, background colors will be used to provide "At a Glance" vehicle information. If information provided on a screen is within acceptable limits, a green background will be used.

If a caution or warning situation arises the following will occur:

- An amber background/text color will indicate a caution condition
- A red background/text color will indicate a warning condition
- The information center will utilize an "Alert Center" to display text messages for audible alarm tones. The text messages will be written to identify the item(s) causing the audible alarm to

sound. If more than one (1) text message occurs, the messages will cycle every second until the problem(s) have been resolved. The background color for the "Alert Center" will change to indicate the severity of the "warning" message. If a warning and a caution condition occur simultaneously, the red background color will be shown for all alert center messages.

- A label for each button will exist. The label will indicate the function for each active button for each screen. Buttons that are not utilized on specific screens will have a button label with no text or symbol.

### **HOME/TRANSIT SCREEN**

This screen will display the following:

- Vehicle Mitigation (if equipped)
- Water Level (if equipped)
- Foam Level (if equipped)
- Seat Belt Monitoring Screen
- Tire Pressure Monitoring (if equipped)
- Digital Speedometer
- Active Alarms

### **ON SCENE SCREEN**

This screen will display the following and will be auto activated with pump engaged (if equipped):

- Battery Voltage
- Fuel
- Oil Pressure
- Coolant Temperature
- RPM
- Water Level (if equipped)
- Foam Level (if equipped)
- Foam Concentration (if equipped)
- Water Flow Rate (if equipped)
- Water Used (if equipped)
- Active Alarms

### **VIRTUAL BUTTONS**

There will be four (4) virtual switch panel screens that match the overhead and lower lighting and HVAC switch panels.

### **PAGE SCREEN**

The page screen will display the following and allow the user to progress into other screens for further functionality:

- Diagnostics
  - Faults
    - Listed by order of occurrence
    - Allows to sort by system
  - Interlock
    - Throttle Interlocks
    - Pump Interlocks (if equipped)
    - Aerial Interlocks (if equipped)
    - PTO Interlocks (if equipped)
  - Load Manager
    - A list of items to be load managed will be provided. The list will provide a description of the load.
    - The lower the priority numbers the earlier the device will be shed should a low voltage condition occur.
    - The screen will indicate if a load has been shed (disabled) or not shed.
    - "At a glance" color features are utilized on this screen.
  - Systems
    - Command Zone
      - Module type and ID number
      - Module Version
      - Input or output number
      - Circuit number connected to that input or output
      - Status of the input or output
      - Power and Constant Current module diagnostic information
    - Foam (if equipped)
    - Pressure Controller (if equipped)
    - Generator Frequency (if equipped)
  - Live Data
    - General Truck Data
- Maintenance
  - Engine oil and filter
  - Transmission oil and filter
  - Pump oil (if equipped)
  - Foam (if equipped)
  - Aerial (if equipped)
- Setup
  - Clock Setup
  - Date & Time
    - 12 or 24 hour format
    - Set time and date

- Backlight
  - Daytime
  - Night time
  - Sensitivity
- Unit Selection
- Home Screen
- Virtual Button Setup
- On Scene Screen Setup
- Configure Video Mode
  - Set Video Contrast
  - Set Video Color
  - Set Video Tint
- Do Not Move
  - The screen will indicate the approximate location and type of item that is open or is not stowed for travel. The actual status of the following devices will be indicate
    - Driver Side Cab Door
    - Passenger's Side Cab Door
    - Driver Side Crew Cab Door
    - Passenger's Side Crew Cab Door
    - Driver Side Body Doors
    - Passenger's Side Body Doors
    - Rear Body Door(s)
    - Ladder Rack (if applicable)
    - Deck Gun (if applicable)
    - Light Tower (if applicable)
    - Hatch Door (if applicable)
    - Stabilizers (if applicable)
    - Steps (if applicable)
- Notifications
  - View Active Alarms
    - Shows a list of all active alarms including date and time of the occurrence is shown with each alarm
    - Silence Alarms - All alarms are silenced
- Timer Screen
- HVAC (if equipped)
- Tire Information (if equipped)
- Ascendant Set Up Confirmation (if equipped)

Button functions and button labels may change with each screen.



## **VEHICLE DATA RECORDER**

There will be a vehicle data recorder (VDR) capable of reading and storing vehicle information provided.

The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A USB cable can be used to connect the VDR to a laptop to retrieve required information. The program to download the information from the VDR will be available to download on-line.

The vehicle data recorder will be capable of recording the following data via hardwired and/or CAN inputs:

- Vehicle Speed - MPH
- Acceleration - MPH/sec
- Deceleration - MPH/sec
- Engine Speed - RPM
- Engine Throttle Position - % of Full Throttle
- ABS Event - On/Off
- Seat Occupied Status - Yes/No by Position
- Seat Belt Buckled Status - Yes/No by Position
- Master Optical Warning Device Switch - On/Off
- Time - 24 Hour Time
- Date - Year/Month/Day

## **Seat Belt Monitoring System**

A seat belt monitoring system (SBMS) will be provided on the Command Zone™ color display and in the center overhead of the cab instrument panel. The SBMS will be capable of monitoring up to 10 seating positions indicating the status of each seat position per the following:

- Seat Occupied & Buckled = Green LED indicator illuminated
- Seat Occupied & Unbuckled = Red LED indicator with audible alarm
- No Occupant & Buckled = Red LED indicator with audible alarm
- No Occupant & Unbuckled = No indicator and no alarm

The seat belt monitoring screen will become active on the Command Zone color display when:

- The home screen is active:
  - and there is any occupant seated but not buckled or any belt buckled with an occupant.
  - and there are no other Do Not Move Apparatus conditions present. As soon as all Do Not Move Apparatus conditions are cleared, the SBMS will be activated.

The SBMS will include an audible alarm that will warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.

### **RADIO ANTENNA MOUNT**

There will be two (2) standard 1.125", 18 thread antenna-mounting base(s) installed (1) each side cab roof on the cab roof with high efficiency, low loss, coaxial cable(s) routed to the officer side dashboard area. A weatherproof cap will be installed on the mount.

### **VEHICLE CAMERA SYSTEM**

There will be a color vehicle camera system provided with the following:

- One (1) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse.
- One (1) camera located on the right side of the apparatus, pointing rearward, displayed automatically with the right side turn signal.
- One (1) camera located on the left side of the apparatus, pointing rearward, displayed automatically with the left side turn signal.

The camera images will be displayed on the driver's color touchscreen multiplex display. Audio from the microphone on the rear camera will be emitted by an amplified speaker with volume control located on the instrument panel.

The following components will be included:

- One (1) SV-CW134639CAI Camera
- Two (2) CS134404CI Side cameras
- One (1) Amplified speaker (if applicable)
- All necessary cables

### **VEHICLE CAMERA GUARD**

There will be one (1) aluminum treadplate guard(s) fastened over the vehicle camera(s) located on top of the traffic directing light at the rear of the truck .

### **ELECTRICAL POWER CONTROL SYSTEM**

The primary power distribution will be located forward of the officer's seating position and be easily accessible while standing on the ground for simplified maintenance and troubleshooting. Additional electrical distribution centers will be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components. The electrical distribution centers will be located strategically throughout the vehicle to minimize wire length. For ease of maintenance, all electrical distribution centers will be easily accessible. All distribution centers containing fuses, circuit breakers and/or relays will be easily accessible.

Distribution centers located throughout the vehicle will contain battery powered studs for supplying customer installed equipment thus providing a lower cost of ownership.

Circuit protection devices, which conform to SAE standards, will be utilized to protect electrical circuits. All circuit protection devices will be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers will be Type-I automatic reset (continuously resetting). When required, automotive type fuses will be utilized to protect electronic equipment. Control relays and solenoid will have a direct current rating of 125 percent of the maximum current for which the circuit is protected per NFPA.

### **SOLID-STATE CONTROL SYSTEM**

A solid-state electronics based control system will be utilized to achieve advanced operation and control of the vehicle components. A fully computerized vehicle network will consist of electronic modules located near their point of use to reduce harness lengths and improve reliability. The control system will comply with SAE J1939-11 recommended practices.

The control system will operate as a master-slave system whereas the main control module instructs all other system components. The system will contain patented Mission Critical software that maintains critical vehicle operations in the unlikely event of a main controller error. The system will utilize a Real Time Operating System (RTOS) fully compliant with OSEK/VDX™ specifications providing a lower cost of ownership.

For increased reliability and simplified use the control system modules will include the following attributes:

- Green LED indicator light for module power
- Red LED indicator light for network communication stability status
- Control system self test at activation and continually throughout vehicle operation
- No moving parts due to transistor logic
- Software logic control for NFPA mandated safety interlocks and indicators
- Integrated electrical system load management without additional components
- Integrated electrical load sequencing system without additional components
- Customized control software to the vehicle's configuration
- Factory and field re programmable to accommodate changes to the vehicle's operating parameters
- Complete operating and troubleshooting manuals
- USB connection to the main control module for advanced troubleshooting

To assure long life and operation in a broad range of environmental conditions, the solid-state control system modules will meet the following specifications:

- Module circuit board will meet SAE J771 specifications
- Operating temperature from -40C to +70C
- Storage temperature from -40C to +70C
- Vibration to 50g

IP67 rated enclosure (Totally protected against dust and also protected against the effect of temporary immersion between 15 centimeters and one (1) meter)

Operating voltage from eight (8) volts to 16 volts DC

The main controller will activate status indicators and audible alarms designed to provide warning of problems before they become critical.

### **CIRCUIT PROTECTION AND CONTROL DIAGRAM**

Copies of all job-specific, computer network input and output (I/O) connections will be provided with each chassis. The sheets will indicate the function of each module connection point, circuit protection information (where applicable), wire numbers, wire colors and load management information.

### **ON-BOARD ADVANCED/VISUAL ELECTRICAL SYSTEM DIAGNOSTICS**

The on-board information center will include the following diagnostic information:

- Text description of active warning or caution alarms
- Simplified warning indicators
- Amber caution indication with intermittent alarm
- Red warning indication with steady tone alarm

All control system modules, with the exception of the main control module, will contain on-board visual diagnostic LEDs that assist in troubleshooting. The LEDs will be enclosed within the sealed, transparent module housing near the face of the module. One LED for each input or output will be provided and will illuminate whenever the respective input or output is active. Color-coded labels within the modules will encompass the LEDs for ease of identification. The LED indicator lights will provide point of use information for reduced troubleshooting time without the need for an additional computer.

### **TECH MODULE WITH WIFI**

An in cab module will provide WiFi wireless interface and data logging capability. The WiFi interface will comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz. The module will provide an external antenna connection allowing a line of site communication range of up to 300 feet with a roof mounted antenna.

The module will transmit a password protected web page to a WiFi enabled device (i.e. most smart phones, tablets or laptops) allowing two levels of user interaction. The firefighter level will allow vehicle monitoring of the vehicle and firefighting systems on the apparatus. The technician level will allow diagnostic access to inputs and outputs installed on the Command Zone™, control and information system.

The data logging capability will record faults from the engine, transmission, ABS and Command Zone™, control and information systems as they occur. No other data will be recorded at the time the fault occurs. The data logger will provide up to 2 Gigabytes of data storage.

A USB connection will be provided on the Tech Module. It will provide a means to download data logger information and update software in the device.

### **PROGNOSTICS**

A software based vehicle tool will be provided to predict remaining life of the vehicles critical fluid and events.

The system will send automatic indications to the Command Zone, color display and/or wireless enabled device to proactively alert of upcoming service intervals.

Prognostics will include:

- Engine oil and filter
- Transmission oil and filter
- Pump oil (if equipped)
- Foam oil (if equipped)
- Aerial oil and filter (if equipped)

### **ADVANCED DIAGNOSTICS**

An advanced, Windows-based, diagnostic software program will be provided for this control system. The software will provide troubleshooting tools to service technicians equipped with a Windows-based computer or wireless enabled device.

The service and maintenance software will be easy to understand and use and have the ability to view system input/output (I/O) information.

### **INDICATOR LIGHT AND ALARM PROVE-OUT SYSTEM**

A system will be provided which automatically tests basic indicator lights and alarms located on the cab instrument panel.

### **VOLTAGE MONITOR SYSTEM**

A voltage monitoring system will be provided to indicate the status of the battery system connected to the vehicle's electrical load. The system will provide visual and audible warning when the system voltage is below or above optimum levels.

The alarm will activate if the system falls below 11.8 volts DC for more than two (2) minutes.

### **DEDICATED RADIO EQUIPMENT CONNECTION POINTS**

There will be three (3) studs provided in the primary power distribution center located in front of the officer for two-way radio equipment.

- The studs will consist of the following:
- 12-volt 40-amp battery switched power
- 12-volt 60-amp ignition switched power

- 12-volt 60-amp direct battery power

There will also be a 12-volt 100-amp ground stud located in or adjacent to the power distribution center.

### **ENHANCED SOFTWARE**

The solid-state control system will include the following software enhancements:

All perimeter lights and scene lights (where applicable) will be deactivated when the parking brake is released.

Cab and crew cab dome lights will remain on for ten (10) seconds for improved visibility after the doors close. The dome lights will dim after ten (10) seconds or immediately if the vehicle is put into gear.

Cab and crew cab perimeter lights will remain on for ten (10) seconds for improved visibility after the doors close. The dome lights will dim after ten (10) seconds or immediately if the vehicle is put into gear.

### **EMI/RFI PROTECTION**

To prevent erroneous signals from crosstalk contamination and interference, the electrical system will meet, at a minimum, SAE J551/2, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system will be used to ensure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source.

The apparatus will have the ability to operate in the electromagnetic environment typically found in fire ground operations to ensure clean operations. The electrical system will meet, without exceptions, electromagnetic susceptibility conforming to SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter. The vehicle OEM, upon request, will provide EMC testing reports from testing conducted on an entire apparatus and will certify that the vehicle meets SAE J551/2 and SAE J1113/25 Region 1, Class C EMR for 10KHz-1GHz to 100 Volts/Meter requirements. Component and partial (incomplete) vehicle testing is not adequate as overall vehicle design can impact test results and thus is not acceptable by itself.

EMI/RFI susceptibility will be controlled by applying appropriate circuit designs and shielding. The electrical system will be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing will be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.

### **ELECTRICAL**

All 12-volt electrical equipment installed by the apparatus manufacturer will conform to modern automotive practices. All wiring will be high temperature crosslink type. Wiring will be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers will be provided which conform to SAE Standards. Wiring will be color, function and number coded. Function and number codes will be continuously imprinted on all wiring harness

conductors at 2.00" intervals. Exterior exposed wire connectors will be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids.

Electrical wiring and equipment will be installed utilizing the following guidelines:

1. All holes made in the roof will be caulked with silicon, rope caulk is not acceptable. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof.
2. Any electrical component that is installed in an exposed area will be mounted in a manner that will not allow moisture to accumulate in it. Exposed area will be defined as any location outside of the cab or body.
3. Electrical components designed to be removed for maintenance will not be fastened with nuts and bolts. Metal screws will be used in mounting these devices. Also a coil of wire will be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work.
4. Corrosion preventative compound will be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections will require this compound in the plug to prevent corrosion and for easy separation (of the plug).
5. All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area.
6. All electrical terminals in exposed areas will have silicon (1890) applied completely over the metal portion of the terminal.

All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, will be furnished. Rear identification lights will be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads will be protected from damage by installing a false bulkhead inside the rear compartments.

An operational test will be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

The results of the tests will be recorded and provided to the purchaser at time of delivery.

### **BATTERY SYSTEM**

There will be four (4) 12 volt Exide®, Model 31S950X3W, batteries that include the following features will be provided:

- 950 CCA, cold cranking amps
- 190 amp reserve capacity
- High cycle
- Group 31
- Rating of 3800 CCA at 0 degrees Fahrenheit

- 760 minutes of reserve capacity
- Threaded stainless steel studs

Each battery case will be a black polypropylene material with a vertically ribbed container for increased vibration resistance. The cover will be manifold vented with a central venting location to allow a 45 degree tilt capacity.

The inside of each battery will consist of a "maintenance free" grid construction with poly wrapped separators and a flooded epoxy bottom anchoring for maximum vibration resistance.

### **BATTERY SYSTEM**

There will be a single starting system with an ignition switch and starter button provided and located on the cab instrument panel.

### **MASTER BATTERY SWITCH**

There will be a master battery switch provided within the cab within easy reach of the driver to activate the battery system.

An indicator light will be provided on the instrument panel to notify the driver of the status of the battery system.

### **BATTERY COMPARTMENTS**

The batteries will be stored in well-ventilated compartments that are located under the cab and bolted directly to the chassis frame. The battery compartments will be constructed of 3/16" steel plate and be designed to accommodate a maximum of three (3) group 31 batteries in each compartment. The compartments will include formed fit heavy-duty roto-molded polyethylene battery tray inserts with drains on each side of the frame rails. The batteries will be mounted inside of the roto-molded trays.

### **JUMPER STUDS**

One (1) set of battery jumper studs with plastic color-coded covers will be installed on the battery box on the driver's side. This will allow enough room for easy jumper cable access.

### **BATTERY CHARGER**

A Kussmaul Autocharge 1000, Model 091-56-12, battery charger with internal battery saver will be provided. A bar graph display indicating the state of charge will be included.

The battery saver circuit will be capable of supplying up to three (3) amps for external loads such as hand light or auxiliary radio batteries.

The battery charger will be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.

Battery charger will be located in the cab behind the driver seat, on the vertical wall of the EMS compartment.



The battery charger indicator will be displayed through the window behind the driver seat. The display will be mounted on a bracket so that it is visible from outside the apparatus in the front lower corner of the window.

### **AUTO EJECT FOR SHORELINE**

There will be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus.

The shoreline inlet(s) will include red weatherproof flip up cover(s).

There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting.

The shoreline(s) will be connected to battery charger and block heater.

There will be a mating connector body supplied with the loose equipment.

There will be a label installed near the inlet(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

The shoreline receptacle will be located on the driver side of cab, to the front of cab door.

### **ALTERNATOR**

A Delco Remy®, Model 55SI, alternator will be provided. It will have a rated output current of 430 amps, as measured by SAE method J56. The alternator will feature an integral regulator and rectifier system that has been tested and qualified to an ambient temperature of 257 degrees Fahrenheit (125 degrees Celsius). The alternator will be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.

### **ELECTRONIC LOAD MANAGER**

An electronic load management (ELM) system will be provided that monitors the vehicles 12-volt electrical system, automatically reducing the electrical load in the event of a low voltage condition, and automatically restoring the shed electrical loads when a low voltage condition expires. This ensures the integrity of the electrical system.

For improved reliability and ease of use, the load manager system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load management tasks. Load management systems which require additional components will not be allowed.

The system will include the following features:

- System voltage monitoring.
- A shed load will remain inactive for a minimum of five minutes to prevent the load from cycling on and off.
- Sixteen available electronic load shedding levels.
- Priority levels can be set for individual outputs.
- High Idle to activate before any electric loads are shed and deactivate with the service brake.
  - If enabled:
    - "Load Man Hi-Idle On" will display on the information center.
    - Hi-Idle will not activate until 30 seconds after engine start up.
- Individual switch "on" indicator to flash when the particular load has been shed.
- The information center indicates system voltage.

The information center, where applicable, includes a "Load Manager" screen indicating the following:

- Load managed items list, with priority levels and item condition.
- Individual load managed item condition:
  - ON = not shed
  - SHED = shed

## **SEQUENCER**

A sequencer will be provided that automatically activates and deactivates vehicle loads in a preset sequence thereby protecting the alternator from power surges. This sequencer operation will allow a gradual increase or decrease in alternator output, rather than loading or dumping the entire 12 volt load to prolong the life of the alternator.

For improved reliability and ease of use, the load sequencing system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load sequencing tasks. Load sequencing systems which require additional components will not be allowed.

Emergency light sequencing will operate in conjunction with the emergency master light switch. When the emergency master switch is activated, the emergency lights will be activated one by one at half-second intervals. Sequenced emergency light switch indicators will flash while waiting for activation.

When the emergency master switch is deactivated, the sequencer will deactivate the warning light loads in the reverse order.

Sequencing of the following items will also occur, in conjunction with the ignition switch, at half-second intervals:

- Cab Heater and Air Conditioning
- Crew Cab Heater (if applicable)
- Crew Cab Air Conditioning (if applicable)
- Exhaust Fans (if applicable)

- Third Evaporator (if applicable)

### **HEADLIGHTS**

There will be four (4) JW Speaker®, rectangular LED lights mounted in the front quad style, chrome housing on each side of the cab grille:

- the outside light on each side will contain a part number 055\*\*\*1 low beam module
- the inside light on each side will contain a part number 055\*\*\*1 high beam module
- the headlight to include chrome bezels

The low beam lights will be activated when the headlight switch is on.

The high beam and low beam lights will be activated when the headlight switch and the high beam switch is activated.

### **DIRECTIONAL LIGHTS**

There will be two (2) Whelen 600® series, LED combination directional/marker lights provided. The lights will be located on the outside cab corners, next to the headlights.

The color of the lenses will be the same color as the LED's.

### **CAB CLEARANCE/MARKER/ID LIGHTS**

There will be seven (7) amber LED lights provided to indicate the presence and overall width of the vehicle in the following locations:

- Three (3) amber LED identification lights will be installed in the center of the cab above the windshield.
- Two (2) amber LED clearance lights will be installed, one (1) on each outboard side of the cab above the windshield.
- Two (2) amber LED marker lights will be installed, one (1) on each side above the cab doors.

### **INTERMEDIATE LIGHT**

There will be two (2) Weldon, Model 9186-8580-29, amber LED turn signal marker lights furnished, one (1) each side, in the rear fender panel. The light will double as a turn signal and marker light.

### **REAR CLEARANCE/MARKER/ID LIGHTING**

There will be three (3) LED identification lights located at the rear installed per the following:

- As close as practical to the vertical centerline
- Centers spaced not less than 6.00" or more than 12.00" apart
- Red in color
- All at the same height

There will be two (2) LED lights installed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following:

- To indicate the overall width of the vehicle
- One (1) each side of the vertical centerline
- As near the top as practical
- Red in color
- To be visible from the rear
- All at the same height

There will be two (2) LED lights installed on the side of the apparatus used as marker lights as close to the rear as practical per the following:

- To indicate the overall length of the vehicle
- One (1) each side of the vertical centerline
- As near the top as practical
- Red in color
- To be visible from the side
- All at the same height

The lights will be mounted with no guard.

There will be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground.

There will be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground.

Per FMVSS 108 and CMVSS 108 requirements.

### **MARKER LIGHTS**

There will be one (1) pair of amber and red LED marker lights with rubber arm, located as low and as far to the rear of the vehicle, (1) each side. The amber lens will face the front and the red lens will face the rear of the truck.

These lights will be activated with the running lights of the vehicle and when the respective directional lights are activated.

### **REAR FMVSS LIGHTING**

The rear stop/tail and directional LED lighting will consist of the following:

- Two (2) Whelen®, Model M6BTT, red LED stop/tail lights
- Two (2) Whelen, Model M6T, amber LED arrow turn lights

The lights shall be provided with color lenses.

The lights will be mounted in a polished combination housing.

Two (2) Whelen Model M6BUW, LED backup lights, will be provided without a flange.

### **LICENSE PLATE BRACKET**

There will be one (1) license plate bracket mounted on the rear of the body.

A white LED light will illuminate the license plate. A polished stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.

### **LIGHTING BEZEL**

There will be two (2) Whelen, Model M6FCV4P, four (4) place chromed ABS housings with Pierce logos provided for the rear M6 series stop/tail, directional, back up, scene lights or warning lights.

### **BACK-UP ALARM**

A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse will be provided. The device will sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.

### **SWITCH, BACK-UP ALARM OVERRIDE**

There will be a momentary switch provided in the cab for the back-up alarm. The switch will be within reach of the driver. The switch will cancel the back-up alarm when the switch is pushed and automatically reset when the apparatus is shifted out of reverse.

### **CORNERING/SCENE LIGHTS**

There will be one (1) pair of Whelen®, Model M6BUW, white 12 volt DC LED lights with chrome trim provided on the apparatus, no higher than the low beam headlights, recessed in the 45 degree angle of the front bumper, (1) each side.

The LED lights will be wired so they activate and cancel when the battery switch is on, the headlight switch is on and with the directional light activation.

The lights will also be activated by the following:

- no additional switch location
- no additional switch location
- no additional switch location
- no additional switch location

### **MOUNTING, RECESS LIGHT**

There will be two (2) recessed pocket(s) for mounting light(s). The recessed pocket(s) will be provided in the 45 degree corner, each side front bumper for the cornering lights.

### **CAB PERIMETER SCENE LIGHTS**

There will be four (4) Amdor LumaBar H2O, Model AY-9500-020, 20.00" white LED strip lights provided, one (1) for each cab door.

These lights will be activated automatically when the battery switch is on and the exit doors are opened or by the same means as the body perimeter scene lights.

### **PUMP HOUSE PERIMETER LIGHTS**

There will be one (1) Amdor LumaBar H2O, Model AY-9500-020, 20.00" LED weatherproof strip light with bracket provided under the passenger's side pump panel running board.

The light will be controlled by the same means as the body perimeter lights.

### **BODY PERIMETER SCENE LIGHTS**

There will be two (2) Amdor LumaBar H2O™, Model AY-9500-020, 20.00" 12 volt DC LED strip lights provided.

The lights will be mounted in the following locations:

- One (1) light under the driver's side turntable access steps
- One (1) light under the passenger's side turntable access steps

The perimeter scene lights will be activated when a switch within reach of the driver is activated and the parking brake is applied.

### **ADDITIONAL PERIMETER LIGHTS**

There will be five (5) lights Amdor® Luma Bar® H2O, Model AY-9500-020, 20.00" LED perimeter light sticks provided one (1) light under each side of the front bumper spaced evenly, one (1) light under each side of the rear tailboard and one (1) light under the passenger's side pump panel.

The lights will be activated by the same means as the body perimeter lights.

### **STEP LIGHTS**

Two (2) white LED step lights will be provided, one (1) on each side of the front body.

In order to ensure exceptional illumination, each light shall provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light.

The lights will be actuated with the pump panel light switch.

All other steps on the apparatus will be illuminated per the current edition of NFPA 1901.

### **WALKING SURFACE LIGHT**

There will be Model FRP, 4" round black 12 volt DC LED floodlight with bolt mount provided to illuminate the entire designated walking surface on top of the body.

The light will be activated when the body step lights are on.

### **12 VOLT LIGHTING**

There will be one (1) Whelen® Model P\*H2\*, 17,750 lumens 12 volt DC light(s) with a combination of flood and spot optics provided on the front visor, [Location, driver's/passenger's/center].

The painted parts of this light assembly to be black.

The light(s) will be controlled by a switch at the driver's side switch panel and by a switch at the passenger's side switch panel.

These light(s) may be load managed when the parking brake is applied.

### **12 VOLT DC SCENE LIGHTS**

There will be one (1) Whelen® Model P\*H1\*, 8,875 lumens 12 volt DC powered lights with white LEDs and a combination of flood and spot optics installed on the apparatus located, up high behind the crew cab door, DS.

The light(s) to be installed in a 0 degree vertical recessed bracket.

The painted parts of this light assembly to be black.

The lights will be activated by a switch at the driver's side switch panel, by a switch at the passenger's side switch panel and by the same control that has been selected for the driver's side flood light(s).

The light(s) may be load managed when the parking brake is applied.

### **12 VOLT DC SCENE LIGHTS**

There will be one (1) Whelen® Model P\*H1\*, 8,875 lumens 12 volt DC powered lights with white LEDs and a combination of flood and spot optics installed on the apparatus located, up high behind the crew cab door, PS.

The light(s) to be installed in a 0 degree vertical recessed bracket.

The painted parts of this light assembly to be black.

The lights will be activated by a switch at the driver's side switch panel, by a switch at the passenger's side switch panel and by the same control that has been selected for the passenger's side flood light(s).

The light(s) may be load managed when the parking brake is applied.

### **12 VOLT LIGHTING**

There will be one (1) Whelen® Model P\*H2\*, 17,750 lumens 12 volt DC LED light(s) with a combination of flood and spot optics installed on the apparatus located, above the P-2 compartment in the diamond plate housing.

The painted parts of this light assembly to be black.

The light(s) to be installed in a 0 degree vertical recessed bracket.

The lights will be controlled by the same control that has been selected for the passenger's side flood light(s).

The light(s) may be load managed when the parking brake is applied.

### **HOUSING TO MOUNT RECESSED LIGHT ONTO A HORIZONTAL SURFACE**

There will be two (2) housings fabricated with aluminum treadplate installed on the apparatus (1) housing each side above the D-2 and P-2 compartments, where those compartments meet the D-3 and P-3 compartments for the 12 volt DC recessed lights.

### **12 VOLT LIGHTING**

There will be one (1) Whelen® Model P\*H2\*, 17,750 lumens 12 volt DC LED light(s) with a combination of flood and spot optics installed on the apparatus located, above the D-2 compartment in the diamond plate housing.

The painted parts of this light assembly to be black.

The light(s) to be installed in a 0 degree vertical recessed bracket.

The lights will be controlled by the same control that has been selected for the driver's side flood light(s).

The light(s) may be load managed when the parking brake is applied.

### **DECK LIGHTS**

There will be two (2) Whelen®, Model MPPBCS, black with chrome housing 12 volt DC LED floodlights with on/off switch. Each light will be provided with a low profile pedestal/swivel mount provided at the rear of the hose bed, one (1) each side.

The lights will be activated by a switch at the driver's side switch panel and by a switch in a recessed cup located at the driver's side rear bulkhead.

### **WATER TANK**

The water tank will have a capacity of 300 gallons and will be constructed of polypropylene plastic in a rectangular shape.

The joints and seams will be nitrogen welded inside and out.

The tank will be baffled in accordance with the current edition of NFPA 1901 requirements.

The baffles will have vent openings at both the top and bottom of each baffle to permit movement of air and water between compartments.



The longitudinal partitions will be constructed of 0.38" polypropylene plastic and extend from the bottom of the tank through the top cover to allow positive welding.

The transverse partitions extend from 4.00" off the bottom to the underside of the top cover.

All partitions interlock and will be welded to the tank bottom and sides.

The tank top will be constructed of 0.50" polypropylene.

It will be recessed 0.38" and will be welded to the tank sides and the longitudinal partitions.

It will be supported to keep it rigid during fast filling conditions.

Construction will include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions.

Two of the dowels will be drilled and tapped (0.50" diameter, 13.00" deep) to accommodate lifting eyes.

A sump will be provided at the bottom of the water tank. The sump will include a drain plug and the tank outlet.

Tank will be installed in a fabricated "cradle" assembly constructed of structural steel.

Sufficient crossmembers are provided to properly support bottom of tank.

Crossmembers are constructed of steel bar channel or rectangular tubing.

Tank "floats" in cradle to avoid torsional stress caused by chassis frame flexing.

Rubber cushions, 0.50" thick x 3.00" wide, will be placed on all horizontal surfaces that the tank rests on.

Stops are provided to prevent an empty tank from bouncing excessively while moving vehicle.

Tank mounting system is approved by the manufacturer.

Fill tower will be constructed of .50" polypropylene and will be a minimum of 8.00" wide x 14.00" long.

Fill tower will be furnished with a .25" thick polypropylene screen and a hinged cover.

An overflow pipe, constructed of 4.00" schedule 40 polypropylene, will be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle.

### **HOSE BED**

The hose body will be fabricated of .125"-5052 aluminum with a nominal 38,000 psi tensile strength.

The sides will not form any portion of the fender compartments.

The hose body width will be 68.00" inside.

The upper edges of side panels will have a double break for rigidity.

The hose bed will be located ahead of the ladder turntable.

The hose bed will be equipped with one (1) adjustable partition located in the center of the bed.

Hose removal will be via "chutes" at each side of the body under the turntable area whenever compartmentation is not selected in place of the "chute". The hose chutes will be enclosed with a full height smooth aluminum door with a spring hinge at the top of the door.

Flooring of the hose bed will be removable aluminum grating with the top surface corrugated to aid in hose aeration.

The grating slats will be .50" x 4.50" with spacing between slats for hose ventilation.

Hose capacity will be a minimum of 800 feet of double jacket 5-inch hose in a two wide, flat load arrangement, hose bed area to be a minimum of 20 inches wide.

#### **HOSE BED HOSE RESTRAINT**

A black hose bed cover will be furnished with velcro with snaps fasteners at the front and velcro fasteners on the sides.

#### **RUNNING BOARDS**

The running boards will be fabricated of 0.125" bright aluminum treadplate and supported by structural steel angle assemblies bolted to the chassis frame rails.

Running boards will be 13.00" deep and are spaced away from the body 0.50".

A splash guard will be provided to keep road dirt or water from splashing up onto the pump panels.

The running boards will have a riser on the body to protect the painted surface from damage by stepping on the running boards.

The entire surface of the running boards will be covered with bright aluminum treadplate.

#### **TURNTABLE STEPS**

Steps to access the turntable from the driver side and passenger side will be provided just behind the compartmentation. The steps will be a swing-down design, with the stepping area made of Morton Tread-Grip® channel. The step height for the bottom step (the distance from the top surface of the step to the ground) will not exceed 24.00" with the step in its extended position. No step height (the distance between the top surfaces of any two (2) adjacent steps) will be greater than 14.00". The stepwell will be lined with bright aluminum treadplate to act as scuffplates. The steps will be connected to the "Do Not Move Truck" indicator. A handrail will be provided on each side of the access steps. A hand hold will be provided in the left and right side of each set of access steps.

### **STEP LIGHTS**

There will be three (3) white LED step lights provided for each set of aerial turntable access steps.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light.

The step lights will be actuated by the aerial master switch in the cab.

### **SMOOTH ALUMINUM REAR WALL**

The rear wall will be smooth aluminum.

### **TOW EYES**

Two (2) rear painted tow eyes will be located at the rear of the apparatus and will be mounted directly to the torque box. The inner and outer edges of the tow eyes will be radiused.

### **COMPARTMENTATION**

Compartmentation will be fabricated of 0.125" 5052 aluminum. The side compartments are an integral assembly with the rear fenders. Fully enclosed rear wheel housings will be provided to prevent rust pockets and for ease of maintenance. Due to the severe loading requirements of this aerial, a method of compartment body support suitable for the intended load will be provided.

The backbone of the support system will be the chassis frame rail, which is the strongest component of the chassis and is designed for sustaining maximum loads.

A support system will be used which will incorporate a floating substructure by using Neoprene Elastomer isolators to allow the body to remain rigid while the chassis goes through its natural flex. The isolators will have a broad range of proven viability in vehicular applications, be of a fail safe design, and allow for all necessary movement in three (3) transitional and rotational modes. This will result in a 500 lb equipment rating for each lower compartment of the body.

The compartmentation in front of the rear axle will include a 3.00" steel support assemblies which are bolted to the chassis frame rails. A steel framework will be mounted to the body above these support assemblies connected to the support assemblies with isolators. There will be one (1) support assembly mounted to each chassis frame rail.

The compartmentation behind the rear axle will include 3.00" steel support assemblies which are bolted to the chassis frame rails and extend underneath to the outside edge of the body. The support assembly will be coated to isolate the dissimilar metals before it is bolted to the body. There will be one (1) support assembly mounted to each chassis frame rail.

Compartment flooring will be of the sweep out design with the floor higher than the compartment door lip. The compartment door openings are framed by flanging the edges in 1.75" and bending out again 0.75" to form an angle. Drip protection is provided over all door openings by means of bright aluminum

extrusion or formed bright aluminum treadplate. Side compartment tops will be covered with bright aluminum treadplate with a 1.00" rolled over edge on the front, rear and outward side. The covers are fabricated in one (1) piece and have the corners welded. A bright aluminum treadplate cover will be provided on the front wall of each side compartment. All screws and bolts which protrude into a compartment will have acorn nuts at the ends to prevent injury.

The body design has been fully tested. Proven engineering and test techniques such as finite element analysis, model analysis, stress coating and strain gauging have been performed with special attention given to fatigue life and structural integrity of the compartment body and substructure.

### **AGGRESSIVE WALKING SURFACE**

All exterior surfaces designated as stepping, standing, and walking areas will comply with the required average slip resistance of the current NFPA standards.

### **LOUVERS**

All body compartments will have a minimum of one (1) set of louvers stamped into a wall to provide the proper airflow inside the compartment and to prevent water from dripping into the compartment. These louvers will be formed into the metal and not added to the compartment as a separate plate.

### **DRIVER SIDE COMPARTMENTATION**

A full height roll-up door compartment ahead of the rear wheels will be 41.75" wide x 64.00" high x 24.25" deep inside with an clear door opening of 38.75" wide x 56.38" high.

One (1) roll-up door compartment above the fender compartments and over the rear axles will be provided. The compartment will be 72.13" wide x 33.25" high x 24.25" deep inside with a clear door opening of 63.75" wide x 25.50" high.

A compartment with a single pan stainless steel door will be located above the front stabilizer. The compartment will be 23.00" high x 18.00" wide x 24.25" deep with a door opening of 15.75" high x 12.00" wide.

A full height roll-up door compartment behind the rear wheels will be 43.75" wide x 49.25" high x 21.25" deep. The clear door opening will be 40.75" wide x 41.62" high. This compartment will have a blister in the upper, rear area to accommodate a special depth compartment in place of chute.

One (1) lift-up door compartment below the turntable will be provided. The compartment will be 39.38" wide x 18.38" high x 21.25" deep inside with a door opening of 35.00" wide x 14.88" high.

### **PASSENGER SIDE COMPARTMENTATION**

A full height roll-up door compartment ahead of the rear wheels will be 41.75" wide x 56.38" high x 24.25" deep inside the lower 29.75" and 12.00" deep inside the upper portion with a clear door opening of 38.75" wide x 56.38" high.

One (1) roll-up door compartment will be provided above the fender compartments and over the rear axles. The compartment will be 72.13" wide x 33.25" high x 12.00" deep inside with a clear door opening of 63.75" wide x 25.50" high.

A compartment with a single pan stainless steel door will be located above the front stabilizer. The compartment will be 18.00" wide x 23.00" high x 12.00" deep with a door opening of 12.00" wide x 15.75" high.

A full height roll-up door compartment behind the rear wheels will be approximately 43.75" wide x 49.25" high x 21.25" deep inside the lower 29.75" and 12.00" deep in the upper portion. The clear door opening will be approximately 40.75" wide x 41.62" high.

One (1) compartment below the turntable with a lift-up door will be approximately 39.38" wide x 18.38" high x 12.00" deep inside with a door opening of approximately 35.00" wide x 14.88" high.

### **SIDE COMPARTMENT DOORS**

All hinged compartment doors will be lap style with double panel construction and fabricated of .09" 5052H32 aluminum. Doors will be a minimum of 1.50" thick. To provide additional door strength, a C section reinforcement will be installed between the outer and interior panels.

Doors will be provided with a closed cell rubber gasket around the surface that laps onto the body. A second heavy-duty automotive rubber molding with a hollow core will be installed on the door framing that seals onto the interior panel, to ensure a weather resisting compartment.

All lap compartment doors will have polished stainless steel continuous hinge with a pin diameter of .25", that is bolted or screwed on with stainless steel fasteners. A dielectric substance will be applied to each hinge fastener.

All door lock mechanisms will be fully enclosed within the door panels to prevent fouling of the lock in the event equipment inside shifts into the lock area.

Doors will be latched with recessed, polished stainless steel D ring handles and Eberhard 106 locks.

To prevent corrosion caused by dissimilar metals, compartment door handles will not be attached to outer door panel with screws. A rubber gasket will be provided between the D ring handle and the door.

### **ROLL-UP DOOR(S)**

There will be eight (8) compartment doors installed on the side compartments, double faced, aluminum construction, painted one (1) color to match the lower portion of the body and manufactured by AMDOR™ brand roll-up doors.

Door(s) will be constructed using 1.00" extruded double wall aluminum slats which will feature a flat smooth interior surface to provide maximum protection against equipment hang-up. The slats will be connected with a structural driven ball and socket hinge designed to provide maximum curtain diaphragm strength. Mounting and adjusting the curtain will be done with a clip system that connects

the curtain to the balancer drum allowing for easy tension adjustment without tools. The slats will be mounted in reusable slat shoes with positive snap-lock securement.

Each slat will incorporate weather tight recessed dual durometer seals. One (1) fin will be designed to locate the seal within the extrusion. The second will serve as a wiping seal which will also allow for compression to prevent water ingress.

The doors will be mounted in a one (1)-piece aluminum side frame with recessed side seals to minimize seal damage during equipment deployment. All seals including side frames, top gutters and bottom panel are to be manufactured utilizing non-marring materials.

Bottom panel flange of roll-up door will be equipped with two (2) cut-outs to allow for easier access with gloved hands.

A stainless steel lift bar to be provided for opening the door and located at the bottom of each door with latches on the outer extrusion of the door frame. A ledge to be supplied over lift bar for additional area to aid in closing the door. The lift bar will be located at the bottom of door with striker latches installed at the base of the side frames. Side frame mounted door strikers will include support beneath the stainless steel lift bar to prevent door curtain bounce, improve bottom seal life expectancy and to avoid false door ajar signals.

All injection molded roll-up door wear components will be constructed of Type 6 nylon.

Each roll-up door will have a 3.00 inch diameter balancer/tensioner drum to assist in lifting the door.

The header for the roll-up door assembly will not exceed 4.00".

A heavy-duty magnetic switch will be used for control of open compartment door warning lights.

### **REAR BUMPER**

An 8.00" rear bumper will be furnished. The bumper will be constructed of steel framework and will be covered with polished aluminum treadplate. The bumper will be 7.00" deep x 4.50" high and will be spaced away from the body approximately 1.00". It will extend the full width of the body.

### **COMPARTMENT LIGHTING**

There will be nine (9) compartment(s) with two (2) white 12 volt DC LED compartment light strips. The dual light strips will be centered vertically along each side of the door framing. There will be two (2) light strips per compartment. The dual light strips will be in compartment(s): all compartments except the over stabilizer compartments..

Any remaining compartments without light strips will have a 6.00" diameter Truck-Lite, Model: 79384 light. Each light will have a number 1076 one filament, two wire bulb.

Opening the compartment door will automatically turn the compartment lighting on.

### **MOUNTING TRACKS**

There will be six (6) sets of tracks for mounting shelf(s) in D3, D1, P1, P3, D4 and P4. These tracks will be installed vertically to support the adjustable shelf(s), and will be full height of the compartment. The tracks will be painted to match the compartment interior.

### **ADJUSTABLE SHELVES**

There will be one (1) shelf with a capacity of 500 lb provided.

The shelf construction will consist of .188" aluminum painted spatter gray with 2.00" sides.

Each shelf will be infinitely adjustable by means of a threaded fastener, which slides in a track.

The shelves will be held in place by .12" thick stamped plated brackets and bolts.

The location(s) will be in D1 at the transition point, in D1 in the upper third, in P1 in the upper third, in D4 at the transition point, in D4 in the upper third to the left of the partition, in P4 at the transition point, in P4 in the upper third and in P1 in the upper third.

### **SLIDE-OUT FLOOR MOUNTED TRAY**

There will be four (4) floor mounted slide-out tray(s) with 2.00" sides provided D-1, D-4, P-1, P-4.

Each tray will be rated for up to 500lb in the extended position. The tray(s) will be constructed of a minimum .13" aluminum with welded corners. The finish will be painted spatter gray.

The trays will be designed for maximum compartment width and depth.

There will be two undermount-roller bearing type slides rated at 250lb each provided. The pair of slides will have a safety factor rating of 2.

To ensure years of dependable service, the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.

To ensure years of easy operation, the slides will require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request.

Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand.

### **SWING OUT TOOLBOARD**

A swing out aluminum toolboard will be provided.

It will be a minimum of .188" thick aluminum.

Pac Trac tool mount material will be provided on both sides of the toolboard.

A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard.

The board will be mounted on a pivoting device at the front of the compartment on the top and bottom to allow easy movement in and out of the compartment. The maximum tool load will be 400 pounds.

The board will have positive lock in the stowed and extended position.

The board will be mounted on adjustable tracks from front to back within the compartment.

There will be One (1) toolboard(s) provided and installed D-3 compartment.

### **SLIDE-OUT TOOLBOARD**

There will be one (1) slide-out toolboard(s) provided.

The toolboard will be a minimum of 0.188" thick with .203" diameter holes in a pegboard pattern with 1.00" centers between holes.

A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard.

The board will be mounted on an under-mount roller bearing type slide rated at 250 lb with a factor of safety of 2.

To ensure years of dependable service the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.

To ensure years of easy operation, the slides will require no more than a 50 pound force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request.

The slide will be mounted on adjustable tracks side to side within the compartment.

The board will have positive lock in the stowed and extended position.

The toolboard(s) will be spatter gray painted and installed in D4, 38.00" from the forward door frame.

### **COMPARTMENT IPO HOSE CHUTE**

There will be one (1) compartment(s) located on the drivers side side of the body at the rear, in place of the hose chute. The compartment(s) will be approximately 85.00" deep x 16.00" high x 10.00" wide. The compartment will extend through the rear most side body compartment and will be enclosed in that area.

There will be a smooth aluminum lift up door with a spring-loaded hinge and D-handle latch provided for the compartment(s).



There will be a .125" vertical divider centered in the compartment. The divider will be set back 10.00" from the rear door.

### **VERTICAL DIVIDER**

A .12" thick aluminum vertical compartment divider will be provided between the D-1 & D-2 compartment and sealed so as not to allow air movement between the two compartments. The divider will be secured in place with #10 self tapping screws.

A total of one (1) will be provided.

One (1) partition, vertically mounted in adjustable tracks, will be installed in (1) centered in the D-4 compartment, mounted in the center of the lower adjustable shelf .

### **REAR WALL**

The entire rear surface of the apparatus and all the doors will be covered with smooth aluminum.

### **MOUNTING TRACKS**

There will be two (2) sets of tracks for mounting equipment. These tracks will be installed horizontally on the back wall of the compartment(s).

The compartment(s) with mounting tracks will be D-3 & P-3 compartments.

### **RUB RAIL**

Bottom edge of the side compartments will be trimmed with a bright aluminum extruded rub rail.

Trim will be 2.12" high with 1.38" flanges turned outward for rigidity.

The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.

### **BODY FENDER CROWNS**

Stainless steel fender crowns will be provided around the rear wheel openings.

A rubber welting will be provided between the body and the crown to seal the seam and restrict moisture from entering.

### **HARD SUCTION HOSE**

Hard suction hose will not be required.

### **HANDRAILS**

The handrails will be 1.25" diameter anodized aluminum extrusion, with a ribbed design, to provide a positive gripping surface.

Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces.

Drain holes will be provided in the bottom of all vertically mounted handrails.

Handrails will be provided to meet NFPA 1901 section 15.8 requirements. The handrails will be installed as noted on the sales drawing.

#### **SINGLE AIR BOTTLE STORAGE**

There will be one (1) air bottle compartment provided on the driver's side behind the rear wheel. The air bottle compartment will be 7.75" diameter round x 26.00" deep.

A polished stainless steel triangular shaped door with a chrome plated flush lift & turn latch will be provided to contain the air bottle. The door will cover the fuel fill and the air bottle opening. Inside the compartment, black rubber matting will be provided. There will be a drain hole provided.

A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

#### **AIR BOTTLE COMPARTMENT STRAP**

Straps will be provided in the air bottle compartment(s) to help contain the air bottles. The straps will wrap around the neck of each bottle and attach to the wall of the compartment.

#### **FOUR AIR BOTTLE STORAGE COMPARTMENT**

A total of two (2) air bottle compartments will be provided and located one (1) on the driver's side and one (1) on the passenger's side centered between the tandem rear wheels. The air bottle compartment will consist of individual bins each designed to hold an air bottle with a maximum diameter of 7.63" and a maximum depth of 26.00".

Each compartment will hold a total of four (4) air bottles. The compartment will accommodate three (3) bottles across the top and one (1) centered below. The bottom air bottle will be accessible only when the top center bottle is removed and the hinged partition over the bottom bottle is lifted up. Each bottle will be separated by a partition.

Flooring will be rubber lined and have a drain hole. A drop down door with support cables with pair of flush lift & turn latches will be provided for each compartment. The door will be polished stainless steel. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

#### **AIR BOTTLE COMPARTMENT STRAP**

Straps will be provided in the air bottle compartment(s) to help contain the air bottles. The straps will wrap around the neck of each bottle and attach to the wall of the compartment.

#### **CORNER FENDER PANEL DOUBLE AIR BOTTLE STORAGE**

A total of two (2) air bottle compartments will be provided in the upper corner(s) of the passenger side fender panel. The compartment(s) will be located on the passenger's side ahead of and behind the rear wheel. The air bottle compartment(s) will be in the form of a round tube (7.75" diameter maximum) and

of adequate depth (26.00" maximum) to accommodate different size air bottles. The tubes will be mounted separately in a diagonal fashion, one above the other.

Flooring will be rubber lined and have a drain hole. A triangular shaped vertically hinged door and a chrome plated flush lift & turn latch will be provided for each compartment. The door will be polished stainless steel. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

#### **AIR BOTTLE COMPARTMENT STRAP**

Straps will be provided in the air bottle compartment(s) to help contain the air bottles. The straps will wrap around the neck of each bottle and attach to the wall of the compartment.

#### **AIR BOTTLE STORAGE (SINGLE)**

A quantity of one (1) air bottle compartment, 7.75" in diameter x 26.00" deep, will be provided on the driver side forward of the rear wheels. A triangular, polished stainless steel door with a chrome plated flush lift & turn latch will be provided to contain the air bottle and also cover the DEF tank opening. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

Inside the compartment, black rubber matting will be provided.

#### **AIR BOTTLE COMPARTMENT STRAP**

Straps will be provided in the air bottle compartment(s) to help contain the air bottles. The straps will wrap around the neck of each bottle and attach to the wall of the compartment.

#### **EXTENSION LADDER**

There will be one (1) 35' two (2) section aluminum Duo-Safety Series 1200-A extension ladder(s) provided.

#### **AERIAL EXTENSION LADDERS**

There will be one (1) 28' two (2) section aluminum Duo-Safety Series 1200-A extension ladder(s) provided and located in the ladder storage compartment.

#### **ROOF LADDER**

There will be one (1) 16' aluminum, Duo-Safety, Series 875-DR roof ladder(s) provided. The ladder(s) will have hooks on both ends.

#### **ADDED ROOF LADDER**

There will be one (1) 10' aluminum roof ladder(s), Series 775-A, with roof hooks on both ends provided left side of aerial base section behind boom panel.

#### **ADDED ROOF LADDER**

There will be one (1) 20' aluminum, Duo-Safety, Series 875-DR roof ladder(s) provided.

#### **AERIAL ATTIC EXTENSION LADDER**

There will be one (1) 14' Fresno aluminum Duo-Safety Series 701 attic extension ladder(s) provided.

### **AERIAL FOLDING LADDER**

There will be one (1) 10' aluminum Duo-Safety Series 585-A folding ladder(s) provided and located in the ladder storage compartment.

### **GROUND LADDER STORAGE**

The ground ladders are stored within the torque box and are removable from the rear.

Ladders will be enclosed to prevent road dirt and debris from fouling or damaging the ladders.

The ladders 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.

An AMDOR rollup door will be provided at the rear, double faced, aluminum construction, satin aluminum and manufactured by AMDOR manufacturing. The latching mechanism will consist of a full length lift bar lock with latches on the outer extrusion of the door frame.

A stainless plate with a two bend flange and a stainless steel hinge will be provided to secure the aerial ladder complement. The plate assembly will be mounted to the bottom of the entrance of the torque box ladder storage area.

When the plate is vertical, it will 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 will activate the "Open Door Indicator Light" within the cab. The roll-up door together with hinge friction will secure the plate in place during driving operations.

A door guard will be provided to prevent tools inside the torque box from damaging the roll-up door.

### **LADDER STORAGE LIGHTING**

There will be 21.00" white 12 volt DC LED strip lights in the torque box ladder storage compartment. One (1) light will be provided on each side of the ladder storage area.

The lights will be activated when the ladder storage compartment door is opened.

### **8' PIKE POLE**

Two (2) pike poles, Fire Hooks Unlimited, Model RH 8, 8' long roof hook, with a steel handle and pry end will be provided and located ladder storage compartment.

### **6' PIKE POLE**

Two (2) pike poles, Fire Hooks Unlimited, Model RH6, 6' long roof hook, with a steel handle and pry end will be provided and located ladder storage compartment.

### **PIKE POLE, 10'**

One (1) pike pole 10' long DUO Safety with a fiberglass handle, will be provided and located ladder storage compartment.

### **6' PIKE POLE**

Two (2) pike poles, 6' long trash hook(s), Fire Hooks Unlimited, Model TRH-6 with D-handle will be provided and located ladder storage compartment.

### **PIKE POLES**

There will be one (1) 12' Duo Safety pike pole(s) with fiberglass handles provided. The pike pole(s) will be stored in tubular holders located in the ground ladder storage compartment.

### **TRASH HOOK STORAGE**

There will be two (2) stainless steel U-shaped trough(s) provided for storage of D-handle style trash hook(s). The trough(s) will be installed ladder storage compartment.

### **PIKE POLE STORAGE**

Aluminum tubing will be used for the storage of six (6) pike poles and will be located in ladder storage compartment. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided.

### **STEPS**

A folding step will be provided on the front of each fender compartment for access to the hose bed. The step will be bright finished, non-skid with a luminescent coating that is rechargeable from any light source and can hold a charge for up to 24 hours. The step will incorporate an LED light to illuminate the stepping surface. The step can be used as a hand hold with two openings wide enough for a gloved hand.

### **SLIDE-OUT/FOLD-OUT PLATFORM**

One (1) slideout platform will be provided on the passenger's side. The platform will have a pull out, flip down design. The front edge and top surface of the platform will be made of DA finished aluminum. There will be a Morton Cass insert provided on the stepping surface.

The platform will be approximately 13.75" deep when in the stowed position and approximately 22.00" deep when extended. The capacity rating will be 500 lb in the extended position. The platform will be 52.00" wide with a 45.00" wide stepping surface. The platform will lock in the retracted and extended position.

There will be an Amdor LumaBar H2O, Model AY-9500-0\*\* white 12 volt DC LED light provided to illuminate the ground area.

Four (4) additional folding steps will be located (2) equally spaced, each side, front body bulkheads. The step(s) will be bright finished, non-skid, with a luminescent coating. The luminescent coating is rechargeable from any light source and can hold a charge for up to 24 hours. Each step will incorporate

an LED light to illuminate the stepping surface. The step(s) can be used as a hand hold with two openings wide enough for a gloved hand.

## **PUMP**

Pump will be a Waterous CSU, 1500 gpm single (1) stage midship mounted centrifugal type.

Pump will be the class "A" type.

Pump will deliver the percentage of rated discharge at pressures indicated below:

- 100% of rated capacity at 150 psi net pump pressure.

- 70% of rated capacity at 200 psi net pump pressure.

- 50% of rated capacity at 250 psi net pump pressure.

Pump body will be close-grained gray iron, bronze fitted, and horizontally split in two (2) sections for easy removal of the entire impeller shaft assembly (including wear rings).

Pump will be designed for complete servicing from the bottom of the truck, without disturbing the pump setting or apparatus piping.

Pump case halves will be bolted together on a single horizontal face to minimize chance of leakage and facilitate ease of reassembly. No end flanges will be used.

Discharge manifold of the pump will be cast as an integral part of the pump body assembly and will provide a minimum of three (3) 3.50" openings for flexibility in providing various discharge outlets for maximum efficiency.

The three (3) 3.50" openings will be located as follows: one (1) outlet to the right of the pump, one (1) outlet to the left of the pump, and one (1) outlet directly on top of the discharge manifold.

Impeller shaft will be stainless steel, accurately ground to size. It will be supported at each end by sealed, anti-friction ball bearings for rigid precise support. Impeller will have flame plated hubs assuring maximum pump life and efficiency despite any presence of abrasive matter in the water supply.

Bearings will be protected from water and sediment by suitable stuffing boxes, flinger rings, and oil seals. No special or sleeve type bearings will be used.

Pump will be equipped with a self-adjusting, maintenance-free, mechanical shaft seal.

The mechanical seal will consist of a flat, highly polished, spring fed carbon ring that rotates with the impeller shaft. The carbon ring will press against a highly polished stainless steel stationary ring that is sealed within the pump body.

In addition, a throttling ring will be pressed into the steel chamber cover, providing a very small clearance around the rotating shaft in the event of a mechanical seal failure. The pump performance will not deteriorate, nor will the pump lose prime, while drafting if the seal fails during pump operation.

Wear rings will be bronze and easily replaceable to restore original pump efficiency and eliminate the need to replace the entire pump casing due to wear.

### **PUMP TRANSMISSION**

The pump transmission will be made of a three (3) piece, aluminum, horizontally split casing. Power transfer to pump will be through a high strength Morse HY-VO silent drive chain. By the use of a chain rather than gears, 50% of the sprocket will be accepting or transmitting torque, compared to two (2) or three (3) teeth doing all the work.

Drive shafts will be 2.35" diameter hardened and ground alloy steel and supported by ball bearings. The case will be designed to eliminate the need for water cooling.

### **PUMPING MODE**

An interlock system will be provided to ensure that the pump drive system components are properly engaged so that the apparatus can be safely operated. The interlock system will be designed to allow stationary pumping only.

### **AIR PUMP SHIFT**

Pump shift engagement will be made by a two (2) position sliding collar, actuated pneumatically (by air pressure), with a three (3) position air control switch located in the cab. A manual back-up shift control will also be located on the left side pump panel.

Two (2) indicator lights will be provided adjacent to the pump shift inside the cab. One (1) green light will indicate the pump shift has been completed and be labeled "pump engaged". The second green light will indicate when the pump has been engaged, and that the chassis transmission is in pump gear. This indicator light will be labeled "OK to pump".

Another green indicator light will be installed adjacent to the hand throttle on the pump panel and indicate either the pump is engaged and the road transmission is in pump gear, or the road transmission is in neutral and the pump is not engaged. This indicator light will be labeled "Warning: Do not open throttle unless light is on".

The pump shift will be interlocked to prevent the pump from being shifted out of gear when the chassis transmission is in gear to meet NFPA requirements.

The pump shift control in the cab will be illuminated to meet NFPA requirements.

### **TRANSMISSION LOCK-UP**

The direct gear transmission lock-up for the fire pump operation will engage automatically when the pump shift control in the cab is activated.

### **AUXILIARY COOLING SYSTEM**

A supplementary heat exchange cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the engine water. The heat exchanger will be cylindrical type and will be a separate unit. The heat exchanger will be installed in the pump or engine compartment with the control located on the pump operator's control panel. Exchanger will be plumbed to the master drain valve.

### **INTAKE RELIEF VALVE - PUMP**

An Elkhart Style 40 relief valve will be installed on the suction side of the pump preset at 125 psig.

The relief valve will have a working range of 75 psig to 250 psig.

The outlet will terminate below the frame rails with a 2.50" National Standard hose thread adapter and will have a "do not cap" warning tag.

The relief valve pressure control will be located behind an access door at the right side pump panel.

### **PRESSURE CONTROLLER**

A Pierce Pump Boss Model PBA300 pressure governor will be provided.

A pressure transducer will be installed in the water discharge manifold on the pump.

The display panel will be located at the pump operator's panel.

### **PRIMING PUMP**

The priming pump will be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi based AirPrime System, conforming to standards outlined in the current edition of NFPA 1901.

All wetted metallic parts of the priming system are to be of brass and stainless steel construction.

One (1) priming control will open the priming valve and start the pump primer.

### **PUMP MANUALS**

There will be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals will be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual will cover pump operation, maintenance, and parts.

### **PLUMBING, STAINLESS STEEL AND HOSE**

All inlet and outlet lines will be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's will be equipped with brass or stainless steel couplings. All stainless steel hard plumbing will be a minimum of a schedule 10 wall thickness.



Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping will be equipped with victaulic or rubber couplings.

Plumbing manifold bodies will be ductile cast iron or stainless steel.

All piping lines are to be drained through a master drain valve or will be equipped with individual drain valves. All drain lines will be extended with a hose to drain below the chassis frame.

All water carrying gauge lines will be of flexible polypropylene tubing.

All piping, hose and fittings will have a minimum of a 500 PSI hydrodynamic pressure rating.

### **PLUMBING, FOAM SYSTEM**

All piping and manifolds that is in contact with the foam concentrate or foam/water solution will be stainless steel. The fittings will be stainless steel or brass. Cast iron pump manifolds will be NOT allowed.

### **MAIN PUMP INLETS**

A 6.00" pump manifold inlet will be provided on each side of the vehicle. The suction inlets will include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.

### **MAIN PUMP INLET CAP PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 16.6.8 requires all intakes to be provided with caps or closures capable of withstanding a hydrostatic gauge pressure of 500 psi.

The caps are not on the apparatus as manufactured. The fire department will provide both caps for the main pump inlets.

### **SHORT SUCTION TUBE**

The suction tubes on the mid-ship pump will have short suction tubes to allow for installation of adapters without excessive overhang.

### **VALVES**

All ball valves will be Akron® Brass. The Akron valves will be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve.

Valves will have a **ten (10) year** warranty.

### **LEFT SIDE INLET**

There will be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter.

The auxiliary inlet will be provided with a strainer, chrome swivel and plug.

### **RIGHT SIDE INLET**

There will be one (1) auxiliary inlet with a 2.50" valve at the right side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter.

The auxiliary inlet will be provided with a strainer, chrome swivel and plug.

The location of the valve for the two (2) inlets will be behind the pump panel.

### **INLET CONTROL**

The side auxiliary inlet(s) will incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism will indicate the position of the valve.

### **INLET BLEEDER VALVE**

A 0.75" bleeder valve will be provided for each side gated inlet. The valves will be located behind the panel with a swing style handle control extended to the outside of the panel. The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. The water discharged by the bleeders will be routed below the chassis frame rails.

### **TANK TO PUMP**

The booster tank will be connected to the intake side of the pump with heavy duty piping and a quarter turn 3.00" full flow line valve with the control remotely located at the operator's panel. Tank to pump line will run straight (no elbows) from the pump into the front face of the water tank and angle down into the tank sump. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing.

A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.

### **TANK REFILL**

A 1.50" combination tank refill and pump re-circulation line will be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.

### **LEFT SIDE DISCHARGE OUTLETS**

There will be two (2) discharge outlets with a 2.50" valve on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.

### **RIGHT SIDE DISCHARGE OUTLETS**

There will be one (1) discharge outlet with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.

### **LARGE DIAMETER DISCHARGE OUTLET**

There will be a 5.00" discharge outlet with a 4.00" Akron valve installed on the right side of the apparatus, terminating with a 5.00" (M) National Standard hose thread adapter. This discharge outlet will be actuated with a handwheel control at the pump operator's control panel.

An indicator will be provided to show when the valve is in the closed position.

### **FRONT DISCHARGE OUTLET**

There will be one (1) 1.50" discharge outlet piped to the front of the apparatus and located on the top of the left side of the front bumper.

Plumbing will consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe will be used in the plumbing where appropriate. The piping will terminate with a 1.50" NST with 90 degree stainless steel swivel.

There will be automatic drains provided at all low points of the piping.

### **DISCHARGE CAPS**

Chrome plated, rocker lug, caps with chains will be furnished for all side discharge outlets.

The caps will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

### **OUTLET BLEEDER VALVE**

A 0.75" bleeder valve will be provided for each outlet 1.50" or larger. Automatic drain valves are acceptable with some outlets if deemed appropriate with the application.

The valves will be located behind the panel with a swing style handle control extended to the outside of the side pump panel. The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. Bleeders will be located at the bottom of the pump panel. They will be properly labeled identifying the discharge they are plumbed in to. The water discharged by the bleeders will be routed below the chassis frame rails.

### **LEFT SIDE OUTLET ELBOWS**

The 2.50" discharge outlets located on the left side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow.

The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

### **RIGHT SIDE OUTLET ELBOWS**

The 2.50" discharge outlets located on the right side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow.

The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.

### **LARGE DIAMETER OUTLET ELBOWS**

The 5.00" outlet will be furnished with a 5.00" (F) National Standard hose thread x 5.00" Storz elbow adapter with Storz cap.

### **DISCHARGE OUTLET CONTROLS**

The discharge outlets will incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The valve operating mechanism will indicate the position of the valve.

If a handwheel control valve is used, the control will be a minimum of a 3.9" diameter stainless steel handwheel with a dial position indicator built in to the center of the handwheel.

### **AERIAL OUTLET**

The aerial waterway will be plumbed from the pump to the water tower line with 5.00" pipe and a 4.00" Akron valve. The handwheel control for the waterway valve will be located at the pump operator's panel.

An indicator will be provided to show the position of the valve.

### **CROSSLAY HOSE BEDS**

Two (2) crosslays with 1.50" outlets will be provided. Each bed to be capable of carrying 200 feet of 1.75" double jacketed hose and will be plumbed with 2.00" i.d. pipe and gated with a 2.00" quarter turn ball valve.

Each outlet to be equipped with a 1.50" National Standard hose thread chrome adapter. The adapter will be terminate below the hose bed, through the side of the body. The hose thread adapters will be located (1) each side pump panel .

The crosslay controls will be at the pump operator's panel.

A removable tray will be provided for each crosslay hosebed. The crosslay trays will be constructed of black poly to provide a lightweight sturdy tray. Two (2) hand holes will be in the floor and additional hand holes will be provided in the sides for easy removal and installation from the compartment. The floor of the trays will be perforated to allow for drainage and hose drying. The bottom of the crosslay compartments will be lined with stainless steel to allow the tray to slide with ease. Scuffplates will be provided on both sides, at the sides and bottom of each opening to protect the paint.

### **CROSSLAY HOSE BED, 2.50"**

One (1) crosslay with a 2.50" outlet will be provided. The bed to be capable of carrying 150 feet of 2.50" dbl. jacket hose in a single stack and will be plumbed with 2.50" i.d. pipe and gated with a 2.50" quarter turn ball valve.

The outlet to be equipped with a 2.50" National Standard hose thread chrome adapter located below the crosslay hosebed on the passengers side.

The crosslay control will be at the pump operator's panel.

Stainless steel vertical scuffplates will be provided at hose bed ends (each side of vehicle). Bottom of hose bed ends (each side) will also be equipped with a stainless steel scuffplate.

Crosslay bed flooring will consist of removable perforated brushed aluminum.

A removable tray will be provided for each crosslay hosebed. The crosslay trays will be constructed of black poly to provide a lightweight sturdy tray. Two (2) hand holes will be in the floor and additional hand holes will be provided in the sides for easy removal and installation from the compartment. The floor of the trays will be perforated to allow for drainage and hose drying. The bottom of the crosslay compartments will be lined with stainless steel to allow the tray to slide with ease. Scuffplates will be provided on both sides, at the sides and bottom of each opening to protect the paint.

### **CROSSLAY/DEADLAY HOSE RESTRAINT**

There will be black vinyl end flap provided across each end of four (4) crosslay/deadlay opening(s) to secure the hose during travel. Each vinyl end flap will be attached with quarter-turn fasteners at the top of the crosslay/deadlay opening(s). They will be attached with bungee cord and hook fasteners at the bottom of the crosslay/deadlay opening(s).

### **CROSSLAY COVER**

A bi-fold aluminum treadplate cover, hinged at the front will be installed over the top of the crosslay/deadlay(s). It will include a latch at each end of the cover to hold it securely in place, a chrome grab handle at each end for opening and closing the cover and a foam rubber gasket where the cover comes into contact to a painted surface. The cover will be provided with rubber latch hold open device.

### **CROSSLAY COVER**

A hinged .19" aluminum treadplate cover will be installed over the crosslay hose beds. It will include a latch at each end of the cover to hold it securely in place, a chrome grab handle at each end for opening and closing the cover and a foam rubber gasket where the cover comes into contact to a painted surface.

The cover will be provided with rubber latch hold open device.

The hinge will be to the rear of the hose beds.

### **CROSSLAY 9.00" LOWER THAN STD**

The crosslays will be lowered 9.00" from standard.

### **CROSSLAY TRAY INFORMATION**

The crosslay hose bed tray(s) will be (2) trays @ 4.75" inside wide, (1) tray @ 5.50" inside wide .

### **DEADLAY HOSE BED**

One (1) deadlay bed without plumbing, will be provided above the pump compartment capable of carrying 1 bulk load for 500' of 2.50" dbl. jacket hose.

Stainless steel vertical scuffplates will be provided at hose bed ends (each side of vehicle). The bottom of hose bed ends (each side) will also be equipped with a stainless steel scuffplate.

above the pump, behind the crosslays

Deadlay bed flooring will consist of removable perforated brushed aluminum.

one (1) crosslay dividers will be .25" aluminum single sheet. The divider will be located in the deadlay hose bed above the pump.

### **HUSKY 3 FOAM PROPORTIONER**

A Pierce Husky® 3 foam proportioning system will be provided. The Husky 3 is an on demand, automatic proportioning, single point, direct injection system suitable for all types of Class A and B foam concentrates, including the high viscosity (6000 cps), alcohol resistant Class B foams. Operation will be based on direct measurement of water flow, and remain consistent within the specified flows and pressures. The system will automatically proportion foam solution at rates from .1 percent to 3.0 percent regardless of variations in water pressure and flow, up to the maximum rated capacity of the foam concentrate pump.

The design of the system will allow operation from draft, hydrant, or relay operation.

### **SYSTEM CAPACITY**

The system will have the ability to deliver the following minimum foam solution flow rates at accuracies that meet or exceed NFPA requirements at a pump rating of 150 psi.

100 gpm @ 3 percent

300 gpm @ 1 percent

600 gpm @ 0.5 percent

Class A foam setting in .1 percent increments from .1 percent to 1 percent. Typical settings of 1 percent, .5 percent and .3 percent (maximum capacity will be limited to the plumbing and water pump capacity).

### **CONTROL SYSTEM**

The system will be equipped with a digital electronic control display located on the pump operators panel. Push button controls will be integrated into the panel to turn the system on/off, control the foam percentage, and to set the operation modes.

The percent of injection will have a preset. This preset can be changed at the fire department as desired. The percent of injection will be able to be easily changed at the scene to adjust to changing demands.

Three (3) .50 tall LEDs will display the foam percentage in numeric characters. Three (3) indicator LEDs will also be included, one (1) green, one (1) red, and one (1) yellow. The LEDs will indicate various system operation or error states.

The indications will be:

Solid Green - System On

Solid Red - Valve Position Error

Solid Yellow - Priming System

Flashing Green - Injecting Foam

Flashing Red - Low Tank Level

Flashing Yellow - Refilling Tank

The control display will house a microprocessor, which receives input from the systems water flow meter while also monitoring the position of the foam concentrate pump. The microprocessor will compare the values of the water flow versus the position/rate of the foam pump, to ensure the proportion rate is accurate. One (1) check valve will be installed in the plumbing to prevent foam from contaminating the water pump.

### **HYDRAULIC DRIVE SYSTEM**

The foam concentrate pump will be powered by an electric over hydraulic drive system. The hydraulic system and motor will be integrated into one (1) unit.

### **FOAM CONCENTRATE PUMP**

The foam concentrate pump will be of positive displacement, self-priming; linear actuated design, driven by the hydraulic system. The pump will be constructed of brass body; chrome plated stainless steel shaft, with a stainless steel piston. In order to increase longevity of the pump, no aluminum will be present in its construction.

A relief system will be provided which is designed to protect the drive system components and prevent over pressuring the foam concentrate pump

The foam concentrate pump will have minimum capacity for 3 gpm with all types of foam concentrates with a viscosity at or below 6000 cps including protein, fluoroprotein, AFFF, FFFP, or AR-AFFF. The system will deliver only the amount of foam concentrate flow required, without recirculating foam back to the storage tank. Recirculating foam concentrate back to the storage tank can cause agitation and premature foaming of the concentrate, which can result in system failure. The foam concentrate pump

will be self-priming and have the ability to draw foam concentrate from external supplies such as drums or pails.

### **EXTERNAL FOAM CONCENTRATE CONNECTION**

An external foam pick-up will be provided to enable use of a foam agent that is not stored on the vehicle. The external foam pick-up will be designed to allow continued operation after the on-board foam tank is empty, or the use of foam different than the foam in the foam tank.

### **PANEL MOUNTED EXTERNAL PICK-UP CONNECTION / VALVE**

A bronze three (3)-way valve will be provided. The unit will be mounted to the pump panel. The valve unit will function as the foam system tank to pump valve and external suction valve. The external foam pick-up will be one (1) .75" male connection GHT (garden hose thread) with a cap.

### **PICK-UP HOSE**

A .75" flexible hose with an end for insertion into foam containers will be provided. The hose will be supplied with a .75" female swivel GHT (garden hose thread) swivel connector. The hose will be shipped loose.

### **DISCHARGES**

The foam system will be plumbed to the center of front bumper, front crosslay, center crosslay and rear crosslay.

### **SYSTEM ELECTRICAL LOAD**

The maximum current draw of the electric motor and system will be no more than 55 amperes at 12 VDC.

### **SINGLE FOAM TANK REFILL**

The foam system's proportioning pump will be used to fill the foam tank. This will allow use of the auxiliary foam pick-up to pump the foam from pails or a drum on the ground into the foam tank. A foam shut-off switch will be installed in the fill dome of the tank to shut the system down when the tank is full. The fill operation will be controlled by a mode in the foam system controller. While the proportioner pump is filling the tank, the controller will display a flashing yellow LED to indicate that the tank is filling. When the tank is full, as determined by the float switch in the tank dome, the pump will stop and the controller will shut the yellow LED off. If it attempted to use tank fill and the refill valve and suction valve are in the wrong position(s), then a red LED will illuminate to indicate the improper valve position(s). When the valves are positioned properly, then filling will commence.

### **FOAM SYSTEM TRAINING**

The fire department will order one (1) vehicle with this foam system. A demonstration will be provided at the apparatus manufacturers facility on the operation of the foam system.

This demonstration will include:

- A review of the foam system manual emphasizing key areas



- A walk around review of the system components on the finished truck
- A hands-on foam system start-up and foam discharge session
- Instructions on the use of the manual overrides
- The proper way to shut down and flush the foam system.

### **FOAM TANK**

The foam tank will be an integral portion of the polypropylene water tank. The cell will have a capacity of 20 gallons of foam with the intended use of Class A foam. The foam cell will not reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.

### **FOAM TANK DRAIN**

The foam tank drain will be a 1.00" quarter turn drain valve located inside the pump/plumbing compartment.

### **PUMP COMPARTMENT**

The pump compartment will be separate from the hose body and compartments so that each may flex independently of the other. It will be a fabricated assembly of steel tubing, angles and channels which supports both the fire pump and the side running boards.

The pump compartment will be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist.

The pump compartment, pump, plumbing and gauge panels will be removable from the chassis in a single assembly.

### **PUMP MOUNTING**

The pump will be mounted to a substructure which will be mounted to the chassis frame rail using rubber isolators. The mounting will allow the chassis frame rails to flex independently without damage to the fire pump.

### **PUMP CONTROL PANELS (SIDE CONTROL)**

All pump controls and gauges will be located at the left (driver's) side of the apparatus and properly marked.

The pump panel on the right (passenger's) side is removable with lift and turn type fasteners. The left (driver's) side is fastened with screws.

The control panels will be 54.00" wide.

The gauge and control panels will be two (2) separate panels for ease of maintenance.

The side gauge panel will be hinged at the bottom with a full length stainless steel hinge. The fasteners used to hold the panel in the upright position will be a quarter turn type. Vinyl covered cable or chains will be used to hold the gauge panel in the dropped position.

Polished stainless steel trim collars will be installed around all inlets and outlets.

All push/pull valve controls will have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods will be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls will be capable of locking in any position. The control rods will pull straight out of the panel and will be equipped with universal joints to eliminate binding.

The identification tag for each valve control will be recessed in the face of the tee handle.

All discharge outlets will have color coded identification tags, with each discharge having its own unique color. Color coding will include the labeling of the outlet and the drain for each corresponding discharge.

All line pressure gauges will be mounted in individual chrome plated castings with the identification tag recessed in the casting below the gauge. All remaining identification tags will be mounted on the pump panel in chrome plated bezels. Mounting of the castings and identification bezels will be done with a threaded peg cast on the back side of the bezel or screws.

screws.

### **PUMP PANEL CONFIGURATION**

The pump panel configuration will be neat and orderly.

### **PUMP OPERATOR'S PLATFORM**

A pull out, flip down platform will be provided at the pump operator's control panel.

The front edge and the top surface of the platform will be made of DA finished aluminum with a Morton Cass insert.

The platform will be approximately 13.75" deep when in the stowed position and approximately 22.00" deep when extended. The platform will be 52.00" wide with a 45.00" wide stepping surface. The platform will lock in the retracted and the extended position.

The platform will be wired to the "step not stowed" indicator in the cab.

### **PUMP OPERATOR'S PLATFORM PERIMETER LIGHT**

There will be an Amdor LumaBar H2O, Model AY-9500-020, 20.00" white 12 volt DC LED strip light provided to illuminate the ground area.

### **PUMP AND GAUGE PANEL**

The pump and gauge panels will be constructed of aluminum with a painted FormCoat black finish. A polished aluminum trim molding will be provided around each panel.

The passenger's side pump panel will be removable and fastened with swell type fasteners.

### **PUMP COMPARTMENT LIGHT**

There will be one (1) Whelen®, Model 3SC0CDCR, 3.00" white 12 volt DC LED light(s) with Whelen, Model 3FLANGEC, flange(s) installed in the pump compartment.

There will be a switch accessible through a door on the pump panel included with this installation.

Engine monitoring graduated LED indicators will be incorporated with the pressure controller.

Also provided at the pump panel will be the following:

- Master Pump Drain Control

### **AIR HORN BUTTON**

An air horn control button will be provided at the pump operator's control panel. This button will be red in color and properly labeled and put within easy reach of the operator.

### **VACUUM AND PRESSURE GAUGES**

The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated ©.

The gauges will be a minimum of 4.50" in diameter and will have white faces with black lettering, with a pressure range of 30.00" 0-400 psi.

The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel.

The blue LED backlight will be activated by the pump in gear interlock circuit.

Test port connections will be provided at the pump operator's panel. One (1) will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and polished stainless steel plugs. They will be marked with a label.

### **PRESSURE GAUGES**

The nine (9) individual line pressure gauges for the discharges will be interlube filled and manufactured by Class 1©.

They will be a minimum of 2.50" in diameter and will have white faces with black lettering.

Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.

Gauges will have a pressure range of 0-400 psi.

The individual pressure gauge will be installed as close to the outlet control as practical.

The blue LED backlight will be activated by the pump in gear interlock circuit.

### **WATER LEVEL GAUGE**

There will be an electronic water level gauge provided on the operator's panel that registers water level by means of five (5) colored LED lights. The lights will be durable, ultra-bright five (5) LED design viewable through 180 degrees. The water level indicators will be as follows:

- 100 percent = Green
- 75 percent = Yellow
- 50 percent = Yellow
- 25 percent = Yellow
- Refill = Red

The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the water tank is empty.

The level measurement will be based on the sensing of head pressure of the fluid in the tank.

The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from water and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The field calibratable display measures head pressure to accurately show the tank level.

### **WATER LEVEL GAUGE**

There will be two (2) additional water level indicator, Whelen®, Model PSTANK, LED module installed one (1) each side rearward of crew cab doors.

This light module will include four (4) colored levels, and function similar to the water level indicator located at the operators panel:

- First green module indicates a full water level
- Second blue module indicates a water level above 3/4 full
- Third amber module indicates a water level above 1/2 full
- Last red module indicates a water level above 1/4 full and empty
  - Above 1/4 this light will be steady burning
  - At empty this light will be flashing

This module will be activated when the parking brake is applied.

### **FOAM LEVEL GAUGE**

An electronic foam level gauge will be provided on the operator's panel that registers foam level by means of five (5) colored LED lights. The lights will be durable, ultra-bright five (5) LED design viewable through 180 degrees. The foam level indicators will be as follows:

- 100 percent = Green
- 75 percent = Yellow
- 50 percent = Yellow
- 25 percent = Yellow
- Refill = Red

The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the foam tank is empty.

The level measurement will be based on the sensing of head pressure of the fluid in the tank.

The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from foam and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The display will be able to be calibrated in the field and will measure head pressure to accurately show the tank level.

### **STEP/LIGHT SHIELD**

There will be an aluminum treadplate stepping surface no less than 8.00" deep and properly reinforced to support a man's weight, installed over the pump operators panel.

- There will be four (4) Fire Research Firefly, part number LED115-Q01, 12 volt DC LED lights installed under the step to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights will be activated by the pump panel light switch. Additional lights will be included every 18.00" depending on the size of the pump house.
- One (1) pump panel light will come on when the pump is in ok to pump mode.

There will be a light activated above the pump panel light switch when the parking brake is set. This is to afford the operator some illumination when first approaching the control panel.

There will be a green pump engaged indicator light activated on at the operator's panel when the pump is shifted into gear from inside the cab

There will be one (1) white LED step light provided above this step. In order to ensure exceptional illumination, each step light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00"

square at the same 10.00" distance below the light. The step light will be activated by the pump panel light switch.

### **ADDITIONAL STEP/LIGHT SHIELD**

There will be an additional aluminum treadplate stepping surface no less than 8.00" deep and properly reinforced to support a man's weight, installed over the passenger's side pump panel.

- There will be three (3) Fire Research Firefly, part number LED115-Q01, 12 volt DC white LED lights installed under the step to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights will be activated by a switch on the pump panel.

There will be one (1) white LED, step light provided above the step. In order to ensure exceptional illumination, each step light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The step light will be activated by the pump panel light switch.

### **AIR HORN SYSTEM**

There will be two (2) Grover air horns recessed in the front bumper. The horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed in-line to prevent loss of air in the air brake system.

#### **Air Horn Location**

The air horns will be located on the left side of the bumper, outside of the frame rail.

### **AIR HORN CONTROL**

The air horns will be actuated by two (2) foot switches, one (1) located on the officer's side and one (1) on the driver's side.

### **ELECTRONIC SIREN**

A Whelen®, Model 295SLSA1, electronic siren with noise canceling microphone will be provided.

This siren to be active when the battery switch is on and that emergency master switch is on.

Electronic siren head will be recessed in the overhead console above the engine tunnel on the officer side.

The electronic siren will be controlled on the siren head only. No horn button or foot switches will be provided.

### **SPEAKER**

There will be one (1) Whelen®, Model SA315P, black nylon composite, 100-watt, speaker with through bumper mounting brackets and polished stainless steel grille provided. The speaker will be connected to the siren amplifier.

The speaker will be recessed in the right side of the front bumper, towards the outside.

### **WIRING & MOUNTING ONLY FOR MECHANICAL SIREN, (AUXILIARY)**

Provisions for mounting and wiring a mechanical siren will be provided. All required 12 volt power cables and brackets/reinforcement will be provided.

The control solenoid will be powered up after the emergency master switch is activated.

The mechanical siren will be recessed in the front bumper on the right side. The siren will be properly supported using the bumper framework.

The mechanical siren will be actuated by a foot switch located on the officer's side.

### **FRONT ZONE UPPER WARNING LIGHTS**

There will be two (2) 21.50" Whelen Freedom IV LED lightbars mounted on the cab roof, one (1) on each side, above the driver's and passenger's door, facing forward.

The driver's side lightbar will include the following:

- One (1) red flashing LED module in the outside end position.
- One (1) red flashing LED module in the outside front corner position.
- One (1) red flashing LED module in the outside front position.
- One (1) red flashing LED module in the inside front position.
- One (1) red flashing LED module in the inside front corner position.

The passenger's side lightbar will include the following:

- One (1) red flashing LED module in the inside front corner position.
- One (1) red flashing LED module in the inside front position.
- One (1) red flashing LED module in the outside front position.
- One (1) red flashing LED module in the outside front corner position.
- One (1) red flashing LED module in the outside end position.

There will be clear lenses included on the lightbar.

There will be a switch in the cab on the switch panel to control the lightbars.

### **TRAFFIC LIGHT CONTROLLER**

There will be a GTT, Model 794\* LED Opticom traffic light controller with national standard high priority remote mounted on the front edge of the cab driver's side.

The Opticom traffic light controller will be activated by a cab switch with emergency master control.

The Opticom traffic light controller will have no momentary activation switch.

The Opticom traffic light controller will be disabled when the parking brake is applied.

### **CAB FACE WARNING LIGHTS**

There will be four (4) Whelen®, Model M6\*C, LED flashing warning lights installed on the cab face, above the headlights, mounted in a common bezel.

- The driver's side front outside warning light to be red
- The driver's side front inside warning light to be white
- The passenger's side front inside warning light to be white
- The passenger's side front outside warning light to be red

All four (4) lights will include a clear lens.

There will be a switch located in the cab, on the switch panel, to control the four (4) lights.

The inside lights may be load managed if colored or disabled if white, when the parking brake is set.

### **SIDE ZONE LOWER LIGHTING**

There will be six (6) Whelen®, Model M6\*C, flashing LED warning lights with chrome trim installed per the following:

- Two (2) lights, one (1) each side on the bumper extension. The side front lights to be red.
- Two (2) lights, one (1) each side above the front wheels. The side middle lights to be red.
- Two (2) lights, one (1) each side located between the tandems. The side rear lights to be red.
- The lights will include clear lenses.

There will be a switch in the cab on the switch panel to control the lights.

### **REAR ZONE LOWER LIGHTING**

There shall be two (2) Whelen®, Model M6\*C, LED flashing warning lights located at the rear of the apparatus.

- The driver's side rear light to be red
- The passenger's side rear light to be red

Both lights will include a lens that is clear.

There will be a switch located in the cab on the switch panel to control the lights.



### **REAR/SIDE ZONE UPPER WARNING LIGHTS**

There will be two (2) Whelen®, Model L31H\*FN, LED warning beacons provided at the rear of the truck, located one (1) each side. There will be a switch located in the cab on the switch panel to control the beacons.

The color of the lights will be red LEDs with both domes clear.

### **TRAFFIC DIRECTING LIGHT**

There will be one (1) Whelen® Model TAM85, 46.00" long x 2.87" high x 2.25" deep, amber LED traffic directing light installed at the rear of the apparatus.

The Whelen Model TACTL5 control head will be included with this installation.

The auxiliary warning mode will be activated with the control head only.

This traffic directing light will be surface mounted between the handrails on a treadplate wedge bracket with a treadplate box at the rear of the apparatus.

The traffic directing light control head shall be located overhead in the center panel position.

### **120 VOLT RECEPTACLE**

There will be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex GFCI receptacle(s) with interior duplex flip up cover(s), installed (1) receptacle on each interior side of the EMS cabinets in the crew cab, about engine tunnel height towards the rear of the cabinets. The NEMA configuration for the receptacle(s) will be 5-20R.

The receptacle(s) will be powered from the shoreline inlet.

There will be a label installed near the receptacle(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency
- Power Source

### **120 VOLT RECEPTACLE**

There will be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex GFCI receptacle(s) with interior flip up cover(s), installed P-1 & P-4 compartments with 6 feet of extra wire and unmounted receptacles. The NEMA configuration for the receptacle(s) will be 5-20R.

The receptacle(s) will be powered from the shoreline inlet.

There will be a label installed near the receptacle(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency
- Power Source

#### **FOUR (4)-SECTION 107 FOOT AERIAL LADDER**

##### **CONSTRUCTION STANDARDS**

The ladder will be constructed to meet all of the requirements as described in the current NFPA 1901 standards.

The aerial device will be a true ladder type device; therefore ladders attached to booms will not be considered.

These capabilities will be established in an unsupported configuration.

All structural load supporting elements of the aerial device that are made of a ductile material will have a design stress of not more than 50% of the minimum yield strength of the material based on the combination of the live load and the dead load. This 2:1 structural safety factor meets the current NFPA 1901 standard.

All structural load supporting elements of the aerial device that are made of non-ductile material will have a design stress of not more than 20% of the minimum ultimate strength of the material, based on the combination of the rated capacity and the dead load. This 5:1 safety factor meets the current NFPA 1901 standard.

Wire ropes and attaching systems used to extend and retract the fly sections will have a 5:1 safety factor based on the ultimate strength under all operating conditions. The factor of safety for the wire rope will remain above 2:1 during any extension or retraction stall. The minimum ratio of the diameter of wire rope used to the diameter of the sheave used will be 1:12. Wire ropes will be constructed of seven (7) strands over an inner wire core for increased flexibility. The wire rope will be galvanized to reduce corrosion.

The aerial base pivot bearings will be maintenance free type bearings and require no external lubrication.

The aerial device will be capable of sustaining a static load one and one-half times its rated tip load capacity (live load) in every position in which the aerial device can be placed when the vehicle is on a firm level surface.

The aerial device will be capable of sustaining a static load one and one-third times its rated tip load capacity (live load) in every position the aerial device can be placed when the vehicle is on a slope of five degrees downward in the direction most likely to cause overturning.

With the aerial device out of the cradle and in the fully extended position at zero degrees elevation, a test load will be applied in a horizontal direction normal to the centerline of the ladder. The turntable will not rotate and the ladder will not deflect beyond what the product specification allows.

All welding of aerial components, including the aerial ladder sections, turntable, pedestal, and outriggers, will be in compliance with the American Welding Society standards. All welding personnel will be certified, as qualified under AWS welding codes.

The aerial device will be capable of operating in conditions of wind up to 50 mph and icing conditions of up to a .25" coating over the aerial structure.

All of the design criteria must be supported by the following test data:

- Strain gage testing of the complete aerial device
- Analysis of deflection data taken while the aerial device was under test load

The following standards for materials are to be used in the design of the aerial device:

- Materials are to be certified by the mill that manufactured the material
- Material testing that is performed after the mill test will be for verification only and not with the intent of changing the classification
- All welded structural components for the ladder will be traceable to their mill lots.

### **LADDER CONSTRUCTION**

The ladder is comprised of four (4) sections.

The ladder will have the capability to support a minimum of 750 pounds at the tip in the unsupported configuration, based upon 360 degree rotation, up to full extension and from -10 degrees to +77 degrees.

The ladder (handrails, baserails, trusses, K-braces and rungs) will be constructed of high strength low alloy steel, minimum 100,000 pounds per square inch yield, with full traceability on all structural members.

Each section will be trussed diagonally, vertically and horizontally using welded steel tubing.

All ladder rungs are round and welded to each section utilizing "K" bracing for lateral and torsional rigidity.

The inside width dimensions of the ladder will be:

- Base Section 41.87"
- Lower Mid Section 34.88"

- Upper Mid Section 27.87"

- Fly Section 21.63"

The height of the handrails above the centerline of the rungs will be:

- Base Section 26.28"

- Lower Mid Section 22.68"

- Upper Mid Section 20.06"

- Fly Section 17.32"

The ladder will be designed to provide continuous egress for firefighters and civilians from an elevated position to the ground.

The egress section will be designed to maintain the rated load of the aerial device. It will be bolted on for easy replacement. There will be a tow eye welded on to each side of the egress.

### **VERTICAL HEIGHT**

The ladder will extend to a minimum height of 107' above the ground at full extension and elevation. The measurement of height will be consistent with NFPA standards.

### **HORIZONTAL REACH**

The rated horizontal reach will be 100'. The measurement of horizontal reach will be consistent with NFPA standards.

### **TURNTABLE**

The upper turntable assembly will connect the aerial ladder to the turntable bearing. The steel structure will have a mounting position for the aerial elevation cylinders, ladder connecting pins, and upper turntable operator's position.

The turntable will be a 0.375" thick steel deck, coated with a non-skid, chemical resistant material in the walking areas. The stepping surfaces will meet the skid-resistance requirements of the current NFPA 1901 standard.

The turntable handrails will be a minimum 42.00" high and will not increase the overall travel height of the vehicle. The handrails will be constructed from aluminum and have a slip resistant knurled surface. The turntable vertical handrail spacing will be designed with a 44.00" wide x 27.00" high opening to allow for equipment to pass through from the ground to the aerial ladder. The opening will be located at the center, rear of the turntable.

### **ELEVATION SYSTEM**

Dual 5.50" diameter elevating cylinders will be mounted on the underside of the base section of the ladder, one (1) on each side. One (1) 2.25" diameter stainless steel pin will fasten each cylinder to the

ladder and one (1) 2.50" diameter stainless steel pin will fasten each cylinder to the turntable. The pins will have 125,000 psi minimum yield strength and will be secured with 0.50" Grade 8 bolts with castle nut and cotter pin. The bolts are to ensure that the pins do not walk out of the mounting brackets on the turntable and base section.

The elevating cylinders will be mounted utilizing maintenance-free spherical bearings on both ends of the cylinders. The aerial base pivot bearings will be maintenance-free type bearings with no external lubrication required. The cylinders will function only to elevate the ladder and not as a structural member to stabilize the ladder side movement. The elevating cylinders will be provided with pilot-operated check valves on the barrel and rod side of the piston to prevent movement of the ladder in case of a loss of hydraulic pressure.

The operation envelope will be 10 degrees below horizontal to 77 degrees above horizontal.

The elevation system will be designed following NFPA standards. The elevation hydraulic cylinders will incorporate cushions on the upper limit of travel.

The lift cylinders will be equipped with integral holding valves located in the cylinder to prevent the unit from descending should the charged lines be severed, at any point within the hydraulic system and to maintain the ladder in the bedded position during road travel. The integral holding valves will NOT be located in the transfer tubes.

The elevation system will be controlled by the microprocessor. Linear transducers will measure the extension of the elevation cylinder. The microprocessor will provide the following features:

- Collision avoidance of the elevation system to prevent accidental body damage
- Automatic deceleration when the aerial device is lowered into the cradle
- Automatic deceleration at the end of stroke, in maximum raise and lower positions
- Deceleration of the aerial device at the limits of travel.

### **EXTENSION/RETRACTION SYSTEM**

A hydraulically powered, extension and retraction system will be provided through dual hydraulic cylinders and wire ropes. Each set will be capable of operating the ladder in the event of a failure, of the other. The extension cylinder rod will be chrome plated to provide smooth operation of the aerial device and reduce seal wear. The extension/retraction cylinders will be equipped, with integral holding valves, to prevent the unit from retracting should the charged line be severed, at any point within the hydraulic system. The integral holding valves will NOT be located in the transfer tubes.

Wire ropes and attaching systems used to extend and retract the fly sections will have a 5:1 safety factor based on the ultimate strength under all operating conditions. The factor of safety for the wire rope will remain above 2:1 during any extension or retraction stall. The minimum ratio of the diameter of wire rope used to the diameter of the sheave used will be 1:12. Wire ropes will be constructed of seven (7)

strands over an inner wire for increased flexibility. The wire rope will be galvanized to reduce corrosion.

The extension/retraction system will be controlled by the microprocessor. Linear transducers will measure the ladder extension. The microprocessor will provide the following features:

- Automatic deceleration at the end of stroke, in maximum extend and retract positions

All sheaves will require lubrication. They will have bronze bushings and grease zerks.

### **MANUAL OVERRIDE CONTROLS**

Manual override controls will be provided for all aerial and stabilizer functions.

### **LADDER SLIDE MECHANISM**

UHMW polyethylene wear pads will be used between the telescoping ladder sections, to provide greater bearing surface area for load transfer. Adjustable slide pads will be used to control side play between the ladder sections.

### **ROTATION SYSTEM**

The aerial will be supplied with a powered rotation system as outlined in NFPA standards. The hydraulic rotation motor will provide continuous rotation under all rated conditions and be supplied with a brake to prevent unintentional rotation. One (1) hydraulically driven, planetary gear box with drive speed reducers will be used to provide infinite and minute rotation control throughout the entire rotational travel. One (1) spring applied, hydraulically released disc type swing brake will be furnished to provide positive braking of the turntable assembly. Provisions will be made for emergency operation of the rotation system should complete loss of normal hydraulic power occur. The hydraulic system will be equipped with pressure relief valves which will limit the rotational torque to a nondestructive power. The gearbox will have a minimum continuous torque rating of 80,000 in. lbs. and a minimum intermittent rating of 160,000 in. lbs. The turntable bearing, ring gear teeth, pinion gear, planetary gearbox, and output shaft will be certified by the manufacturer of the components for the application.

The rotation system will be controlled by the microprocessor. The microprocessor will provide the following features:

- Collision avoidance to prevent accidental body damage
- Prevent the aerial from being rotated into an unstable condition.

### **ROTATION INTERLOCK**

The microprocessor will be used to prevent the rotation of the aerial device to the side in which the stabilizers have not been fully deployed (short-jacked). The microprocessor will allow full and unrestricted use of the aerial, in the 180 degree area, on the side(s) where the stabilizers have been fully deployed. The system will also have a manual override, to comply with NFPA 1901. SYSTEMS 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 will NOT BE ACCEPTED.

### **LADDER CRADLE INTERLOCK SYSTEM**

A ladder cradle interlock system will be provided through the microprocessor to prevent the lifting of the aerial device from the nested position until the operator places all the stabilizers in a load supporting configuration. A switch will be installed at the boom support to prevent operation of the stabilizers once the aerial has been elevated from the nested position..

### **AERIAL TORQUE BOX/PEDESTAL**

The pedestal assembly will be a welded assembly made of high strength 0.25" plate. The vertical member will be a 0.375" reinforced wall cylinder with a 28.00" outside diameter and will connect the rotation bearing mounting plate to the lower substructure.

The pedestal assembly will be bolted to the chassis frame with 0.88" diameter Grade 8 bolts, and will be utilized to mount the outrigger jacks and reservoir for the aerial hydraulic system.

There will be a 5/8" gap between the torque box and the frame rails to promote drying of the surfaces and reduce the effect of corrosion.

### **LOAD CAPACITIES**

The following load capacities will be established with the stabilizers at full horizontal extension and placed in the down position to level the truck and to relieve the weight from the tires and axles. Capacities will be based upon full extension and 360 degree rotation.

A load chart, visible at the operator's station, will be provided. The load chart will show the recommended safe load at any condition of the aerial device's elevation and extension.

### **50 MPH WIND CONDITIONS/WATERWAY DRY**

Degrees of Elevation	-10 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 77
Egress	750	750	750	750	750	750	750	750
Fly	-	-	-	-	-	250	500	750
Upper Mid	-	-	-	-	250	500	1000	1000
Lower Mid	-	-	-	-	500	750	1000	1000
Base	-	-	-	500	500	1000	1000	1000

### **50 MPH WIND CONDITIONS/WATERWAY CHARGED**

Degrees of Elevation	-10 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 77

Egress	500	500	500	500	500	500	500	500
Fly	-	-	-	-	-	250	500	500
Upper Mid	-	-	-	-	250	500	750	1000
Lower Mid	-	-	-	250	500	750	1000	1000
Base	-	-	250	500	750	1000	1000	1000

**Reduced loads at the tip can be redistributed in 250 lb. increments to the fly, mid, or base sections as needed.**

**The tip capacity will be reduced to zero when flowing water with the nozzle above the waterway centerline.**

**Side to side monitor travel will be reduced with a 50MPH wind rating on the device.**

### **BOOM SUPPORT**

A heavy-duty boom support will be provided for support of the ladder in the travel position. On the base section of the ladder, a stainless steel scuffplate will be provided where the ladder comes into contact with the boom support.

### **AERIAL BOOM SUPPORT LIGHT**

There will be one (1) Amdor, Model Luma Bar H2O, white LED strip light mounted on the boom support cradle. This light will be activated when the aerial master switch is activated.

### **BOOM SUPPORT COMPARTMENT DIRECTLY BEHIND THE CAB**

A compartment will be provided on each side of the apparatus directly behind the cab. Each compartment will utilize the available depth from the side of the cab to the boom support.

Compartment will be made of aluminum treadplate. The rear facing surface of the compartment will be smooth aluminum. The interior dimensions of each compartment will be approximately 8.00" wide x 22.75" deep. The height of the compartment will be determined by the height of the cab (to the raised roof if applicable).

A single pan aluminum treadplate door will be provided for each compartment. Each door will be hinged along the forward edge.

There will be a pair of D-handle latches provided on each door. Latches will be spaced as evenly as possible, yet both latches will remain accessible from the ground.

The boom support will be located just to the rear of the chassis cab.



### **SPECIAL SIZE AERIAL BOOM PANELS**

There will be one boom panel provided on the driver's side of the aerial ladder base section. The boom panel will be painted Red #90. The size of the boom panel will be to match the stokes basket box length and height.

The boom panel will be designed so no mounting bolts are in the face of the panel. This will keep the lettering surface free of holes.

### **EXTENSION INDICATOR**

Extension markings and corresponding numerical indicators will be provided along each inside and outside top rail of the base section of the aerial every 10'. They will indicate various positions of extension up to full. Markings and indicators will be clearly visible to the console operator. To aid in visibility during hours of darkness, the markings and numerical indicators will be red reflective material.

### **FOLDING STEPS**

One (1) set of folding steps will be provided at the tip of the ladder. An additional set of folding steps will be provided at the base of the fly section. The steps will be bright finished, non-skid with a luminescent coating that is rechargeable from any light source and can hold a charge for up to 24 hours. Each step will incorporate an LED light to illuminate the stepping surface.

### **AERIAL DEVICE RUNG COVERS**

Each rung will be covered with a secure, heavy-duty, fiberglass pultrusion that incorporates an aggressive, no-slip coating.

The rung covers will be glued to each rung, and will be easily replaceable should the rung cover become damaged.

The center portion of each rung cover will be black and the outside 2.00" edge at each side will be black.

Under no circumstances will the rung covers be fastened to the rungs using screws or rivets.

The rung covers will have a 10-year, limited warranty.

### **LADDER STORAGE MOUNTING BRACKETS**

Mounting will be provided on the left side of the aerial device while viewed from the turntable for storage of one (1) roof ladder(s). The bracket(s) will be located inboard of the boom panel at the base section. The bracket(s) will hold the boom panel as close to the base section as possible and include straps to secure the ladder.

The mounting brackets will accommodate a 10' Duo-Safety 775-A-DR roof ladder as determined by the type of aerial device and the available space.

### **TEMPORARY SCABBARD AT END OF AERIAL**

There will be a total of two (2) vent saw scabbard(s) provided. The scabbard(s) will be mounted on each side of the aerial tip. The scabbard(s) will be DA finished.

### **STOKES AND BACKBOARD STORAGE BOX**

There will be one (1) aluminum storage box(es) provided at the base section of the aerial ladder on the right side of the aerial device while viewed from the turntable. The box will be painted to match the aerial device with the face of the box painted to match the boom sign color. The box(es) will be located in place of the aerial boom panel and have a hinged cover with butterfly latch to secure the equipment. The cover will have the same finish as the box. A divider will be provided to separate the stokes basket and the backboard. The box(es) will have louvers on the side of the box facing the aerial device for ventilation.

The size of the stokes basket and backboard will be 90" long x 25" high x 8.50" deep.

The maximum capacity of each box will be 75 lb.

### **AXE MOUNTING BRACKETS**

Brackets will be provided near the end of the fly section of the aerial ladder for mounting a fire axe. The mounting plates will be D/A finished aluminum.

### **LIGHTS FOR TURNTABLE WALKWAY**

There will be white LED lights provided at the aerial turntable. The lights will be located to illuminate the entire walking surface of the turntable including the area around the turntable console. These lights will be activated by the aerial master switch.

### **TURNTABLE CONSOLE LIGHTING**

There will be one (1), TecNiq Model T10, white LED light strip mounted in the turntable console cover to illuminate the controls located on both the upper and lower portion of the turntable control station. These lights will be activated by the aerial master switch.

### **INFORMATION CENTER**

There will be an information center provided. The information center will operate in temperatures from -40 to 185 degrees Fahrenheit. The information center will employ a Linux operating system and a 7.00" (diagonal measurement) LCD display. The LCD will have a minimum 400nits rated, color display. The LCD will be sunlight readable. The LCD display will be encased in an ABS, black plastic housing with a gray decal. There will be five (5), weather-resistant user interface switches provided. The LCD display can be changed to an available foreign language.

### **OPERATION**

The information center will be designed for easy operation in everyday use. There will be a page button to cycle from one screen to the next screen in a rotating fashion. A video button will allow an NTSC signal into the information center to be displayed on the LCD. If any button is pressed while viewing a video feed, the information center will return to the vehicle information screens. There will be a menu button to provide access to maintenance, setup, and diagnostic screens. All other button labels will be specific to the information being viewed.

## **GENERAL SCREEN DESIGN**

Where possible, background colors will be used to provide vehicle information *At A Glance*. If the information provided on a screen is within acceptable limits, a green background color will be used. If the information provided on a screen is not within acceptable limits, an amber background color will indicate a caution condition and a red background color will indicate a warning condition.

Every screen in the information center will include the aerial tip temperature, the time (12- or 24-hour mode) and a text Alert Center. The time will be synchronized between all Command Zone color displays located on the vehicle. The Alert Center will display text messages for audible alarms. The text messages will identify any items causing the audible alarm to sound. If more than one (1) audible alarm is activated, the text message for each alarm will cycle every second until the problems have been resolved. The background for the Alert Center will change to indicate the severity of the warning message. Amber will indicate a caution condition and red will indicate a warning condition. If a warning and a caution condition occur simultaneously, the red background color will be shown for all Alert Center messages.

A label will be provided for each button. The label will indicate the function for each active button for each screen. If the button is not utilized on specific screens, it will have a button label with no text.

Symbols will accurately depict the aerial device type the information pertains to such as rear mount ladder, rear mount platform, mid-mount ladder or mid-mount platform.

## **PAGE SCREENS**

The Information center will include the following pages:

The Aerial Main and Load Chart page will indicate the following information:

- Rungs Aligned and Rungs Not Aligned will be indicated with text and respective green or red colored ladder symbols.
- Ladder Elevation will be indicated via a fire apparatus vehicle with ladder symbol with the degree of elevation indicated between the vehicle and ladder.
- Water Flow (if applicable) will be indicated via a water nozzle symbol and text indicating flow / time.
- Breathing Air Levels will be indicated via an air bottle symbol and text indicating the percent (%) of air remaining. A green bar graphs shown inside the bottle will indicate oxygen levels above 20%. A red bar graph will indicate oxygen levels at or below 20%. When oxygen levels are at or below 10% the red bar graph will flash.
- The Aerial Load Chart will indicate the load limit on each section of the ladder based on actual ladder position and water flow (if applicable).

- *At A Glance* color features will be utilized on this screen. Caution type conditions will be indicated via a yellow background. Warning type conditions will be indicated via a red background. Conditions operating within acceptable limits will be indicated via a green background.

The Aerial Reach and Hydraulic Systems page will indicate the following information:

- Aerial Hydraulic Oil Temperature will be indicated with symbol and text. At a glance features will be utilized.

- Aerial Hydraulic Oil Pressure will be indicated with a symbol and text. At a glance features will be utilized.

- The following calculations will be indicated on a representative vehicle symbol:

- Aerial Device Extension length.

- Aerial Device Height indicating the height of the aerial device tip from the ground.

- Aerial Device Reach indicating the horizontal distance the aerial reaches from the turntable.

- Aerial Device Angle indicating the angle from the vehicle which the device is at.

- *At A Glance* color features will be utilized on this screen. Caution type conditions will be indicated via a yellow background. Warning type conditions will be indicated via a red background. Conditions operating within acceptable limits will be indicated via a green background.

The Level Vehicle page will indicate the following information:

- The grade of the vehicle will be indicated via a fire apparatus vehicle symbol with the degree of grade shown in text format. The symbol will tilt dependent on the vehicle grade.

- The slope of the vehicle will be indicated via a fire apparatus vehicle symbol with the degree of slope shown in text format. The symbol will tilt dependent on the vehicle slope.

- Outriggers status will be indicated via a colored symbol for each outrigger present. Each outrigger status will be defined as one of the following:

- Outrigger stowed indicated with a silver pan located close to the vehicle

- Outrigger fully extended indicated with a fully deployed green outrigger

- Outrigger short-jacked indicated by a yellow outrigger partially deployed

- Outrigger not set indicated by a red outrigger that is not set on the ground

- A text box located on the vehicle symbol will be utilized to identify the overall status of the outrigger leveling system. The following status will be indicated in the text box:

- Deployed status will indicate all outriggers are properly set on the ground at full extension
- Shortjacked status will indicate one or more outriggers are set on the ground but not fully extended.
- Not Set status will indicate one or more outriggers is not properly set on the ground.
- Stowed status will indicate all outriggers are stowed for vehicle travel.
- A bedding assist alert will indicate that the aerial device is being aligned by the Command Zone system as the operator lowers the aerial device into the cradle with the joystick.
- *At A Glance* color features will be utilized on this screen. Caution type conditions will be indicated via a yellow background. Warning type conditions will be indicated via a red background. Conditions operating within acceptable limits will be indicated via a green background.

### **MENU SCREENS**

The following screens will be available through the Menu button:

The View System Information screen will display aerial device hours, aerial PTO hours, ladder aligned for stowing, aerial rotation angle, total water flow (if applicable), and aerial waterway valve status (if applicable).

The Set Display Brightness screen will allow brightness increase and decrease and include a default setting button.

The Configure Video Mode screen will allow setting of video contrast, video color and video tint.

The Set Startup screen allows setting of the screen that will be active at vehicle power-up.

The Set Date and Time screen has a 12- or 24-hour format, and allows setting of the time and date.

The View Active Alarms screen shows a list of all active alarms including the date and time of each alarm occurrence and shows all alarms that are silenced.

The System Diagnostics screen allows the user to view system status for each module and it's respective inputs and outputs. Viewable data will include the module type and ID number; the module version; and module diagnostics information including input or output number, the circuit number connected to that input or output, the circuit name (item connected to the circuit), status of the input or output, and other module diagnostic information.

Aerial calibrations screen indicates items that may be calibrated by the user and instructions to follow for proper calibration of the aerial device.

Button functions and button labels may change with each screen.

### **LOWER CONTROL STATION**

A lower control station will be located at the rear of the apparatus in an easily accessible area. The controls and indication labels will be illuminated for nighttime operation. The following items will be furnished at the lower control station and will be clearly identified and conveniently located for ease of operation and viewing:

- Level assist switch
- Override switch to override microprocessor
- Emergency power unit switch

### **TURNTABLE CONTROL STATION**

There will be one (1) device control station located on the left side of the turntable so the operator may easily observe the ladder tip while operating the controls. All elevation, extension and rotation controls will operate from this location. The controls will permit the operator to regulate the speed of the aerial functions, within the safe limits, as determined by the manufacturer and NFPA standards. Each control will be equipped, with a positive lock to hold the control in a neutral position, preventing accidental activation. In addition to the neutral lock, a console cover will be provided at the turntable control station. The controls will be so designed to allow the turntable control station to immediately override the tip controls, if equipped, even if the ladder is being operated by the tip controls.

The following items will also be provided at the turntable control station, clearly identified, lighted for nighttime operation and conveniently located for ease of operation and viewing:

- Intercom controls
- Tip tracking light switch
- Emergency stop switch
- Emergency power unit switch
- Operator's load chart
- Two (2) position switch for selecting aerial operational speed

### **HIGH IDLE**

The high idle will be controlled by the microprocessor. The microprocessor will automatically adjust the engine rpm to compensate for the amount of load placed upon the system. The system will include a safety device that allows activation of the high idle, only when the parking brake is set and the transmission is placed in neutral.

## **REMOTE AERIAL CONTROL**

A remote control will be provided whereby all ladder movements can be controlled at the ladder tip, in addition to the control console.

The three (3) ladder functions (extension, rotation, elevation) will be controlled individually by means of spring loaded, return to center 12-volt proportional controls.

A momentary switch at the turntable control station, in conjunction with a momentary push button on the side of the ladder tip control module will activate the controls at the ladder tip.

The turntable control console ladder controls will override the ladder tip controls.

The remote control aerial speed will be set in accordance with the current NFPA 1901 standards.

## **STABILIZERS**

The vehicle will come equipped with a stabilization system consisting of four (4) hydraulically operated stabilizers. The front two (2) will be out and down style, the rear two (2) will be down only. This system will meet or exceed all requirements of the NFPA specifications related to stabilization and setup on sloped surfaces.

The stabilizer/leveling jacks will have a maximum spread of 16' measured from the centerline of the jack footpads when the beams are fully extended. The beams will be 6.88" wide x 9.00" high with 3/4" thick top and bottom plates and 1/2" thick sides of 100,000-PSI minimum yield strength steel. The cylinders will have pilot-operated check valves with thermal relief designed to insure that the beams will not drift out of the stowed position during travel. Wear pads will guide the stabilizers.

The horizontal extension cylinders will be totally enclosed within the beams and will incorporate telescoping hydraulic tubing to supply the jack cylinder hydraulic power. Stabilizer hydraulic hoses will remain stationary during operation of the stabilizers to prevent hose wear and potential failure. The cylinders will be equipped with decelerators to reduce the speed of extension and retraction when the beams are near the fully retracted and extended positions. The stabilizer extension hydraulic cylinders will have the following dimensions: 2.25" bore, 1.38" rod, and 39.25" stroke.

The vertical jack cylinders will be capable of 18.00" ground penetration. The cylinders will be supplied with pilot operated check valves on each jack cylinder to hold the cylinder in the stowed or working position, should a charged line be severed at any point in the hydraulic system. For safety, the integral holding valves will be located in the cylinder base, NOT in the transfer tube. Vertical jack cylinder rods will be fully enclosed by a telescoping inner box to protect the cylinder rods from damage. The stabilizer jack hydraulic cylinders will have the following dimensions: 4.25" bore, 3.00" rod, and 28.88" stroke.

Each stabilizer jack will have a polished stainless steel shield. The stainless steel shield will be a maximum of 14.00" wide so as to allow the extension of the stabilizer between parked cars or other

obstacles. This plate will serve as a protective guard and a mounting surface for warning lights. The top, forward, and rear edges will be flanged back 90 degrees for added strength.

### **STABILIZER PADS**

The stabilizer footpad will be 12.00" in diameter. The footpad will be attached to the jack cylinder rod by means of a machined ball at the end of the jack cylinder rod which mates to a socket machined into the footpad. The footpad will have the ability to pivot 20 degrees from horizontal in any direction to allow setup on uneven terrain.

### **AUXILIARY STABILIZER PADS**

An auxiliary ground pad will be supplied for each stabilizer to provide additional load distribution on soft surfaces. The pads will be 31" x 26" and made from lightweight composite material. The ground pressure will not exceed 75 pounds per square inch when the ground pads are used and the apparatus is fully loaded and the aerial device is carrying its rated capacity in any position. The pads will be stored in a double stacked configuration, two (2) behind each rear tandem axle in a single bracket.

### **STABILIZER CONTROLS**

A portable stabilizer control box will be provided. The control box will be weatherproof and oil resistant. Each function and indicator light will be labeled on a metal photo panel. The control box can be taken as far away as 15' from the vehicle with an extension cable.

The stabilizer control box will include the following:

- One (1) green power indicator light for stabilizer control that will be illuminated when the aerial master and "PTO" switches in the cab are activated.
- Four (4) electric toggle switches for stabilizers: each toggle switch will control the extend/retract (front only) and raise/lower of its respective stabilizer to allow vehicle set up in restricted areas and/or on uneven surfaces.
- Auto leveling assist switch: The outrigger control system will incorporate a computerized self leveling system in addition to the standard outrigger controls. The operator will have the option to manually or automatically level the truck. The computerized system will ensure full outrigger extension, proper jack penetration, and will level the vehicle within 1/2 a degree of level for safe operation of the aerial device.
- One (1) electric toggle switch for the engaging the emergency power unit.
- One (1) red "stabilizer not stowed" indicator light: this light will illuminate when the stabilizers are not in the fully stowed position.
- Two (2) fully extended beams green indicator lights: these lights will be illuminated when each of the respective stabilizer beams are fully extended.
- Four (4) firm on ground green indicator lights: each light will be illuminated when its respective stabilizer shoe is in the load supporting condition.



Each toggle switch will activate the engine fast idle automatically.

Manual override will be supplied for each stabilizer control valve.

A "Stabilizers Not Stowed" indicator will be provided in the driver's compartment. It will illuminate automatically whenever the stabilizers are not fully stowed to prevent damage to the apparatus if moved. The stabilizer system will also be wired to the "Do Not Move Indicator Light", which will flash whenever the apparatus parking brake is not fully engaged and the stabilizers are not fully stowed.

### **CRADLE INTERLOCK SYSTEM**

A cradle interlock system will 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. A switch will be installed at the cradle, to prevent operation of the stabilizers once the aerial has been elevated from the nested position.

### **STABILITY ALARM**

An audible alarm will be provided at the control console, to alert the operator should the stability limitations of the ladder be exceeded. The alarm will only notify the operator of the condition, but in no way restrict further operation of the ladder. Two (2) Ecco amber strobe lights will be located at the tip of the base section, one (1) each side, wired to the load gauge to indicate an unsafe condition.

### **STABILIZER CONTROL BOX ALUMINUM DOOR**

A vertically hinged smooth aluminum door will be provided over the stabilizer control box. The door will be hinged outboard.

### **STABILIZER PLACEMENT**

There will be two (2) lasers provided and installed on the body, one (1) next to each stabilizer. The lasers will be activated with the aerial master switch and park brake set and will provide a flashing green X on the ground to show where the outrigger pads need to be set. Laser may not be visible in direct sunlight. The individual lasers will be turned off when a stabilizer is extended beyond its stowed position as well as when the parking brake is released or the aerial master is turned off.

### **HYDRAULIC SYSTEM**

All hose assemblies will be assembled and crimped by the hose manufacturers certified technician.

All manufacturing employees responsible for the installation of hydraulic components will be properly trained. Training will include: proper handling, installation, torque requirements, cleanliness and quality control procedures for hydraulic components.

Hoses used in the aerial hydraulic system will be of a premium quality hose with a high abrasion resistant cover. All pressure hoses will have a working pressure of 4000 psi and a burst pressure rating of 16,000 psi.

All hydraulic fittings and tubing will be plated to minimize corrosion.

The fitting will use an O-ring seal where possible to minimize hydraulic leaks.

An interlock will be provided that prevents activation of the hydraulic pump until the transmission is placed in neutral and the parking brake is set as outlined in the current NFPA 1901 standard.

The system will meet the performance requirement of the current NFPA 1901 standard, which requires adequate cooling less than 2.5 hours of operations.

All hydraulic components that are non-sealing whose failure could result in the movement of the aerial will comply with current NFPA 1901 standards and have burst strength of 4:1.

Dynamic sealing components whose failure could cause aerial movement will have a margin of 2:1 on maximum operating pressure per the current NFPA 1901 standard.

All hydraulic hoses, tubes, and connections will have a minimum burst strength of 4:1 per the current NFPA 1901 standard.

A chassis mounted positive displacement piston pump for consistent pressure and rapid responses will supply hydraulic power for all aerial operations. The positive displacement pump will provide 3,150psi. The hydraulic pump will be solely dedicated to aerial operations.

Each aerial will be evaluated as to the region and climate where it will be used to determine the optimum viscosity and proper oil grade. Oil viscosity will be based on an optimum range of 80 to 1000 SUS during normal aerial use. Before shipment of the unit, an oil sample will be taken and analyzed to confirm the oil is within the allowable ISO grade tolerance.

The aerial hydraulic system will have a minimum oil cleanliness level of ISO 18/15/13 based on the ISO 4406:1999 cleanliness standard. Each customer will receive a certificate of actual cleanliness test results and an explanation of the rating system.

Each aerial will include an oil sample port, identified with a yellow dust cap and a label, for subsequent customer testing.

Ball valves will be provided in the hydraulic suction lines to permit component servicing without draining the oil reservoir.

The aerial will incorporate the use of trombone steel tubes inside the stabilizer beams to eliminate hydraulic hose wear and leaks.

Hydraulic power to the ladder will be transferred from the pedestal by a hydraulic swivel.

The system hydraulic pressure will be displayed on the turntable display.

The hydraulic system will be additionally protected from excessive pressure by a secondary pressure relief valve set at 3,150 psi. In the event the main hydraulic pump compensator malfunctions, the secondary relief will prevent system damage.

### **HYDRAULIC CYLINDERS**

All cylinders used on the aerial device will be produced by a manufacturer that specializes in the manufacture of hydraulic cylinders.

Each cylinder will include integral safety holding cartridges. No manifold or transfer tube mounted cartridge will be acceptable.

Each cylinder will be designed to a minimum safety factor of 4:1 to failure.

All safety holding cartridges will be installed at the cylinder manufacturer, in a controlled clean environment to avoid possible contamination and or failure.

### **POWER TAKEOFF/HYDRAULIC PUMP**

The apparatus will be equipped with a power takeoff driven by the chassis transmission and actuated by an electric shift, located inside the cab. The power takeoff which drives the hydraulic pump will meet all the requirements for the aerial unit operations.

An amber indicator light will be installed on the cab instrument panel to notify the operator that the power takeoff is engaged.

An interlock will 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.

The hydraulic system will be supplied by a variable displacement load and pressure compensating piston pump. The pump will meet the demands of all three simultaneous aerial functions. The pump will provide proper flow for single aerial function with the engine at idle speed. A switch will be provided on the control console to increase the engine speed for multiple function operation.

### **EMERGENCY PUMP**

The hydraulic system will be designed with an auxiliary power unit meeting the guidelines of the current NFPA 1901 standard.

The aerial will be equipped with an emergency hydraulic pump, electrically driven from the truck batteries. The pump will be capable of running for 30 minutes for limited aerial functions to stow the unit in case of a main pump or truck system failure. A momentary switch will be located at the stabilizer and aerial control locations to activate the emergency pump.

### **AERIAL CONTROL VALVE**

The aerial hydraulic control valve will be designed with special spool flows, limiting the oil flow for the designed function speed. The valve will be electrically controlled and be located in the control console

with the handles oriented downward for manual operation. The activation handles will be spaced a minimum of 3.50" for ease of operation. The valve spools will be designed to bleed off downstream pressure, in the neutral position and allow proper sealing of any cylinder holding cartridge.

### **OIL RESERVOIR**

The oil reservoir will have a minimum capacity of 38 gallons. The oil fill location will be easily accessible and be labeled "Hydraulic Oil Only" and also indicate the grade of oil that is installed in the reservoir. The fill will have a desiccant breather filter with a water capacity of 4 fluid ounces and a 5 micron rating. A drain hose will be included and will terminate with a quarter turn ball valve.

Two suction ports will be provided, one for the main hydraulic pump and one for the emergency pump. The main suction will be slightly elevated off the bottom of the reservoir and include a 100 mesh suction strainer. The emergency suction port will be closer to the bottom of the reservoir to provide some reserve oil for emergency operation.

A six (6) disc type magnetic drain will also be provided to collect any ferrous contaminants.

A float type sending unit in the reservoir will provide an indication of oil level on an electronic display. A temperature sending unit in the reservoir will provide indication of the oil temperature on an electronic display.

The hydraulic oil reservoir will be labeled per the current edition of NFPA 1901 standard.

### **RETURN FILTER**

The low pressure oil return filter will be integrated with the hydraulic manifold and designed to prevent oil loss during filter change. A 50 psi bypass will be included to protect the element and hydraulic system during lower than normal operating temperatures. The system will incorporate the following filter to provide dependable service:

- return filter: beta 200 at 6 micron

### **HYDRAULIC SWIVEL**

The aerial ladder will be equipped with a three (3) port, high pressure hydraulic swivel, which will connect the hydraulic lines from the hydraulic pump and reservoir through the rotation point to the aerial control bank. The hydraulic swivel will allow for 360 degree continuous rotation of the aerial.

### **ELECTRIC SWIVEL**

The ladder will be equipped with an electric swivel to allow 360 degrees rotation of the aerial while connecting all electrical circuits through the rotation point. A minimum of 32 collector rings will be provided that are capable of supplying 20 amp continuous service. All collector rings will be enclosed and protected with desiccant plugs against condensation and corrosion. No oil or silicone will be used.

## **12-BIT ABSOLUTE ENCODER**

The aerial ladder will be equipped with a 12-Bit Absolute Encoder which provides 4096 counts per shaft turn for position and direction reference.

The 12-Bit Absolute Encoder will provide a unique binary word to reference each position and direction for all 360 degrees of rotation.

If the power is interrupted for any reason, the 12-Bit Absolute Encoder will allow power to be returned to the system without having to re-zero the settings.

The 12-Bit Absolute Encoder will be an integral part of a micro-processor based control system.

## **ELECTRICAL SYSTEM**

The 107' heavy duty ladder shall utilize a microprocessor-based control system. The system shall consist of the following components:

A tethered stabilizer control shall be provided. The tethered control shall be weatherproof and oil resistant. A Super Bright LED indicator light shall be labeled on a metal photo panel for each function. The electrical connection at the tethered control shall be permanently attached by a strained relieved coil cord that shall allow the operator to move 14ft away from the electrical connection for operation.

- Remote Stabilizer Controls
- Weatherproof and oil resistant
- One (1) green "power" indicator light
- One (1) red "stabilizer not stowed" indicator light
- One (1) electric toggle switch for auto level assist
- One (1) electric toggle switch for the emergency power unit
- One (1) electric toggle switch for each stabilizer to control:
  - Extend/retract function (front only)
  - Raise/lower function
- One (1) green "stabilizer fully extended" indicator light for each front stabilizer
- One (1) green "firm on ground" indicator light for each stabilizer

## **Control System Modules**

Each of the control system modules shall be configured as follows:

- Sealed to a NEMA 4 rating
- Operating range from -40 degrees F to 185 degrees F (-40 degrees C to 85 degrees C)
- Communicate using J1939 data link
- Two (2) diagnostic LED light
- One (1) green light that illuminates when module has power (B+) and ground
- One (1) red light that flashes to indicate the module is capable of communicating via the data link

- Ground matrix identification system

The following control system modules shall be used:

#### Control Module

- Main controller for the system
- USB connection allows for computer diagnostics

#### Power Module

- Built-in fault sensing
- Eight (8) digital outputs
- Pulse width modulating (PWM) capable
- 10A continuous per output
- Circuit protection based on actual current draw (not affected by heat)

#### Constant Current Module

- Built-in fault sensing
- Three (3) analog inputs
- Eight (8) digital outputs
- Pulse width modulating (PWM) capable
- 3A continuous per output
- Circuit protection based on actual current draw (not affected by heat)
- Closed Loop System

#### Input Module

- 16 software selectable (digital or analog) inputs

#### Output Module

- 16 digital outputs

#### Input/Output Module

- Eight (8) software selectable (digital or analog) inputs
- Eight (8) digital outputs

### **SPOTLIGHTS**

There will be six (6) Whelen® Micro Pioneer, Model MPB\*, 12 volt DC LED bail mount lights furnished.

- One (1) will be mounted on the driver's side of the base section of the ladder
- One (1) will be mounted on the passenger's side of the base section of the ladder
- One (1) will be mounted high on the driver's side tip of aerial
- One (1) will be mounted high on the passenger's side tip of aerial
- One (1) will be mounted low on the driver's side tip of the aerial
- One (1) will be mounted low on the passenger's side tip of the aerial

The painted parts of this light assembly to be black.

Power to the "tracking lights" will be controlled by an on/off switch at the turntable control operator's position.

The lights at the tip will be controlled by turntable and pump panel.

### **LIGHTING ON AERIAL LADDER**

There will be TecNiq, Model D02 LED rung lighting provided on both sides of the aerial ladder base, lower and upper mid, and fly sections. The lighting will be located adjacent to the ladder rungs along the lower rail of the ladder sections and will run the length of the ladder section.

The color of the sections will be:

- The base section of the ladder to be blue.
- The lower mid section of the ladder to be blue.
- The upper mid section of the ladder to be blue.
- The fly section of the ladder to be blue.

The LED rung lighting will be activated when a switch at the turntable operator's panel is activated through the master battery switch.

The lights may be load managed when the parking brake is applied.

### **STABILIZER WARNING LIGHTS**

There will be four (4) Whelen®, Model M6\*C, LED flashing warning lights with Whelen, Model M6FC, chrome flanges installed, one (1) on each stabilizer cover panel.

- The front stabilizer pan lights will be red LED with a clear lens
- The rear stabilizer pan lights will be red LED with a clear lens

These warning lights will be activated by the same switch as the side warning lights.

### **STABILIZER BEAM WARNING LIGHTS**

Two (2) 4.00" diameter red LED flashing lights will be mounted on each stabilizer, one (1) facing forward and one (1) facing rearward. The lights will be Grote Supernova 40 series LED lights. The

lights will be recessed in the horizontal beam of the stabilizer. These warning lights will be activated with the aerial master switch.

### **STABILIZER SCENE LIGHTS**

There will be one (1) Amdor Luma Bar H2O, Model AY-9500-012 LED strip light installed under each stabilizer beam to illuminate the surrounding area. A total of four (4) lights will be installed. The lights will be activated by the aerial master switch.

### **2-WAY AERIAL COMMUNICATION SYSTEM**

There will be a Fire Research model ICA900-112 two-way intercom system provided. The control module will be located on the turntable operator console, provided there is room, and have an LED volume display and push-button volume control.

A hands free module will be located at the aerial tip or platform and constantly transmit to the other module unless the control module push-to-talk button is pressed.

Each intercom unit will be weatherproof.

### **RAISED AERIAL PEDESTAL**

The aerial pedestal will be raised to accommodate the height of the cab.

### **LIFTING EYE ASSEMBLY - ROPE RESCUE ATTACHMENT**

A lifting eye assembly will be provided that is designed to evenly distribute load at the tip of the aerial. The lift eye assembly is retained by two (2) locking pins, one (1) at each end outboard side of the egress. Leveling is maintained by the lifting eye assembly rotating within the egress mounting.

### **MANSAYER™ BARS, AERIAL TURNTABLE**

ManSaver™ bars will be red in color and installed at the aerial turntable.

### **WATER SYSTEM**

A waterway system will be provided consisting of the following components and features:

A 5.00" pipe will be connected to the water supply on one end and to a 5.00" internal diameter water swivel at the rotation point of the turntable. The water swivel will permit 360 degree continuous rotation of the aerial device.

The 5.00" waterway swivel is to be routed through the rotation point up to the heel pin swivel. The heel pin swivel will allow the water to flow to the ladder pipe while elevating the aerial ladder from -10 degrees to 77 degrees. The heel pivot pin is not integral with the waterway swivel at any point. The design of the waterway will allow complete servicing of the waterway swivel without disturbing the heel pivot pin.



The integral telescopic water system will consist of a 4.50" diameter tube in the base section, a 4.00" diameter tube in the mid-section and a 3.50" diameter tube in the fly section. The telescopic waterway will be constructed of anodized aluminum pipe.

The aerial will be capable of discharging up to 1000 gpm at 100 psi parallel to the ladder and 90 degrees to each side of center while maintaining the 500lb tip load.

The aerial will be capable of discharging between 1001 and up to 1500 gallons per minute at 100 psi parallel to the ladder and 40 degrees to each side of center while maintaining the 500lb tip load.

When the aerial device is positioned at -10 to 0 degrees of elevation, the master stream will be capable of flow up to 30 degrees above horizontal.

An adjustable pressure relief valve will be furnished to protect the aerial waterway from a pressure surge.

A 1.50" drain valve will be located at the lowest point of the waterway system.



### **WATERWAY SEALS**

The waterway seals will be of type-B PolyPak design, composed of nitroxile seal and a nitrile wiper, which together offer maximum stability and extrusion resistance on the waterway. The seal will be capable of withstanding pressures up to 2000 psi, temperatures in excess of 250 degrees Fahrenheit and have resistance to all foam generating solutions. The seals will be internally lubricated.

The waterway seals will have automatic centering guides constructed of synthetic thermalpolymer. The guides will provide positive centering of the extendible sections within each other and the base section to insure longer service life and smoother operation.

### **AERIAL MONITOR**

An Akron Model 3480 monitor with stow and deploy will be provided at the tip with a Akron 1500 gpm Model 5178. This monitor will allow for an additional 30 degrees of travel above horizontal at the aerial tip.

The monitor's functions will be controlled electrically from two (2) separate locations. One (1) control will be located at the control console and the other at the ladder tip.

There will be a courtesy light at the tip of the aerial to illuminate the controls.

If the aerial has a quick-lock waterway, a limit switch will be provided to disable the extended vertical travel when the monitor is locked to the lower ladder section.

### **AERIAL WATERWAY FLOW METER**

Waterway flow, including total water flowed, will be monitored by the microprocessor. An LCD display will be located at the turntable control station.

### **REAR INLET**

A 5.00" NST inlet to the aerial waterway will be provided at the rear of the apparatus. It will be furnished with a 5.00" chrome plated adapter and a 5.00" chrome plated, long handle cap.

### **WATERWAY LOCKING SYSTEM**

The aerial ladder waterway monitor will be capable of being positioned at either the fly section or at the next lower section of the ladder.

The monitor location will be changeable by the use of a single handle, located at the side of the ladder.

The handle, attached to a cam bracket, will simply be moved forward to lock the monitor at the fly section and back to lock it to the previous section.

There will be no pins to remove and reinstall.

The monitor will be operational at all times, regardless of its position, without connecting or disconnecting electrical lines.

### **ADAPTER, STORZ INLET**

There will be one (1) Storz 5.00" FNST x 5.00" Storz 30 degree elbow(s) with blind cap provided rear inlet.

### **TOOLS**

The following tools will be provided for retorquing of all specified bolts as recommended by the manufacturer:

Torque Wrench

All Required Extensions, Sockets and Adapters

4-to-1 Multiplier

### **MANUALS**

Two (2) operator maintenance manuals and two (2) wiring diagrams pertaining to the aerial device will be provided with the apparatus at time of pick-up.

### **INITIAL INSTRUCTION**

On initial delivery of the fire apparatus, the contractor will supply a qualified representative to demonstrate the apparatus and provide initial instruction to the fire department regarding the operation, care, and maintenance of the apparatus for a period of three (3) days.

## **LOOSE EQUIPMENT**

The following equipment will be furnished with the completed unit:

- One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.

## **NFPA REQUIRED LOOSE EQUIPMENT PROVIDED BY FIRE DEPARTMENT**

The following loose equipment as outlined in NFPA 1901, 2016 edition, section 9.9.3 and 9.9.4 will be provided by the fire department.

- 800 ft (240 m) of 2.50" (65 mm) or larger fire hose, in any combination.
- 400 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose, in any combination.
- One (1) handline nozzle, 200 gpm (750 L/min) minimum.
- Two (2) handline nozzles, 95 gpm (360 L/min) minimum.
- One (1) playpipe with shutoff and 1.00" (25 mm), 1.125" (29 mm), and 1.25" (32 mm) tips.
- One (1) SCBA complying with NFPA 1981 for each assigned seating position, but not fewer than four (4), mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer.
- One (1) spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space(s).
- One (1) first aid kit.
- Four (4) salvage covers, each a minimum size of 12 ft × 14 ft (3.6 m × 5.5 m).
- Four (4) combination spanner wrenches.
- Two (2) hydrant wrenches.
- One (1) double female 2.50" (65 mm) adapter with National Hose threads.
- One (1) double male 2.50" (65 mm) adapter with National Hose threads.
- One (1) rubber mallet, for use on suction hose connections.
- Four (4) ladder belts meeting the requirements of NFPA 1983.
- One (1) 150 ft (45 m) light-use life safety rope meeting the requirements of NFPA 1983.
- One (1) 150 ft (45 m) general-use life safety rope meeting the requirements of NFPA 1983.
- One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, *Standard for High Visibility Public Safety Vests*, and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front.
- Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (102 mm) from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band.
- Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities.

- One (1) automatic external defibrillator (AED).
- If the supply hose carried does not use sexless couplings, an additional double female adapter and double male adapter, sized to fit the supply hose carried, will be carried mounted in brackets fastened to the apparatus.
- If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side will be carried. Any intake connection larger than 3.00" (75 mm) will include a pressure relief device that meets the requirements of 16.6.6.
- If the apparatus does not have a 2.50" National Hose (NH) intake, an adapter from 2.50" NH female to a pump intake will be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake.
- If the supply hose carried has other than 2.50" National Hose (NH) threads, adapters will be carried to allow feeding the supply hose from a 2.50" NH thread male discharge and to allow the hose to connect to a 2.50" NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.

#### **SOFT SUCTION HOSE**

There will be no soft suction hose provided.

#### **DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 9.9.4 requires one (1) approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus.

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

#### **WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, section 9.9.4 requires one (1) 2.5 gallon or larger water extinguisher mounted in a bracket fastened to the apparatus.

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

#### **FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, Section 9.9.4 requires one (1) flathead axe mounted in a bracket fastened to the apparatus.

The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

### **PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT**

NFPA 1901, 2016 edition, Section 9.9.4 requires one (1) pickhead axe mounted in a bracket fastened to the apparatus.

The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

### **PAINT - BODY PAINTED TO MATCH CAB**

The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows:

1. Manual Surface Preparation - All exposed metal surfaces on the custom cab and body will be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces will be removed and sanded to a smooth finish. Exterior seams will be sealed before painting. Exterior surfaces that will not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate.
2. Chemical Cleaning and Pretreatment - All surfaces will be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces will be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces will be properly cleaned and treated using a high temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion. A final pure water rinse will be applied to all metal surfaces.
3. Surfacer Primer - The Surfacer Primer will be applied to a chemically treated metal surface to provide a strong corrosion protective basecoat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a Critical aesthetic finish. The Surfacer Primer is a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded.
4. Finish Sanding - The Surfacer Primer will be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat.
5. Sealer Primer - The Sealer Primer is applied prior to the Basecoat in all areas that have not been previously primed with the Surfacer Primer. The Sealer Primer is a two-component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated.
6. Basecoat Paint - Two coats of a high performance, two component high solids polyurethane basecoat will be applied. The Basecoat will be applied to a thickness that will achieve the proper color match. The Basecoat will be used in conjunction with a urethane clear coat to provide protection from the environment.
7. Clear Coat - Two (2) coats of Clear Coat will be applied over the Basecoat color. The Clear Coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style and roll-up doors will be Clear Coated to match the body. Paint warranty for the roll-up doors will be provided by the roll-up door manufacture.

Each batch of basecoat color is checked for a proper match before painting of the cab and the body. After the cab and body are painted, the color is verified again to make sure that it matches the color standard. Electronic color measuring equipment is used to compare the color sample to the color standard entered into the computer. Color specifications are used to determine the color match. A Delta E reading is used to determine a good color match within each family color.

All removable items such as brackets, compartment doors, door hinges, and trim will be removed and separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly.

Pierce Manufacturing paint finish quality levels for critical areas of the apparatus (cab front and sides, body sides and doors, and boom lettering panels) meet or exceed the Cadillac/General Motors GMW15777 global paint requirements. Orange peel levels meet or exceed the #6 A.C.T. standard in critical areas. These requirements are met in order for the exterior paint finish to be considered acceptable. The Pierce Manufacturing written paint standards will be available upon request.

The cab and the body will be painted #90 red.

#### **PAINT - ENVIRONMENTAL IMPACT**

Contractor will meet or exceed all current State regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions:

- Topcoats and primers will be chrome and lead free.
- Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals.
- Particulate emission collection from sanding operations will have a 99.99% efficiency factor.
- Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter is used, it will have an efficiency rating of 98.00%. Water wash systems will be 99.97% efficient
- Water from water wash booths will be reused. Solids will be removed on a continual basis to keep the water clean.
- Paint wastes are disposed of in an environmentally safe manner.
- Empty metal paint containers will be to recover the metal.
- Solvents used in clean-up operations will be recycled on-site or sent off-site for distillation and returned for reuse.

Additionally, the finished apparatus will not be manufactured with or contain products that have ozone depleting substances. Contractor will, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with his State EPA rules and regulations.

## **PAINT CHASSIS FRAME ASSEMBLY**

The chassis frame assembly will 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 will be painted are:

- Frame rails
- Frame liners
- Cross members
- Axles
- Suspensions
- Steering gear
- Battery boxes
- Bumper extension weldment
- Frame extensions
- Body mounting angles
- Rear Body support substructure (front and rear)
- Pump house substructure
- Air tanks
- Fuel tank
- Castings
- Individual piece parts used in chassis and body assembly

Components treated with epoxy E-coat protection prior to paint:

- Two (2) C-channel frame rails
- Two (2) frame liners

The E-coat process will meet the technical properties shown.

## **PAINT, REAR WHEELS**

All wheel surfaces, inside and outside of inboard steel wheels only, will be provided with powder coat paint #101 black.

## **AERIAL EGRESS PAINT COLOR**

The tip of the aerial device will be painted #90 red.

## **COMPARTMENT INTERIOR PAINT**

The compartment interior will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.

## **AERIAL DEVICE PAINT COLOR**

The aerial device paint procedure will consist of a six (6) step finishing process as follows:

1. Manual Surface Preparation - All exposed metal surfaces on the aerial device structural components above the rotation point will be thoroughly cleaned and mechanically shot-blasted to remove metal impurities and prepare the aerial for painting.
2. Primer/Surfacer Coats - A two (2) component urethane primer/surfacer will be hand applied to the chemically treated metal surfaces to provide a strong corrosion protective base coat and to smooth out the surface. All seams will be caulked before painting.
3. Hand Sanding - The primer/surfacer coat will be lightly sanded to an ultra smooth finish.
4. Sealer Primer Coat - A two (2) component sealer primer coat will be applied over the sanded primer.
5. Topcoat Paint - Urethane base coat will be applied to opacity for correct color matching.
6. Clearcoat - Two (2) coats of an automotive grade two (2) component urethane will be applied.

Surfaces that will not be painted include all chrome plated, polished stainless steel, anodized aluminum and bright aluminum treadplate.

All buy out components, such as monitor, nozzle, gauges, etc. will be supplied as received from the vendor.

Removable items such as brackets will be removed and painted separately to ensure paint coverage behind all mounted items.

The aerial device (turntable and ladder sections) will be painted gray metallic 509 using the six (6) step finishing process. The support structure, rotation motor, components below the rotation point and the stabilizers will be cleaned, caulked, primed and painted high gloss black.

The tip of the ladder will be painted a contrasting color for high visibility.

### **REFLECTIVE STRIPES**

Three (3) stripes will be provided across the front of the vehicle and along the sides of the body. The band will consist of a 1.00" charcoal metallic vinyl stripe at the top with a 1/4" black border top and bottom, then a 6.00" reflective black stripe, and a 1.00" charcoal metallic vinyl stripe at the bottom with a 1/4" black border top and bottom. There will be a 1/2" void between the stripes with an over all height of 10".

The reflective band provided on the cab face will be below the headlights on the fiberglass.

### **REAR CHEVRON STRIPING**

There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus. Covered surfaces will include the rear wall and aluminum doors. Rear compartment doors, stainless steel access doors and the rear bumper will not be covered.



The colors will be ruby red and yellow reflective.

Each stripe will be 6.00" in width.

This will meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface will be covered with chevron striping.

#### **REFLECTIVE STRIPE ON STABILIZERS**

There will be a 4.00" wide ruby red reflective stripe provided on the forward and rear facing side of all aerial stabilizers.

#### **JOG(S) IN REFLECTIVE BAND**

The reflective band located on each side of the apparatus body will contain one (1) jog(s) and will be angled at approximately a 45 degrees when installed.

#### **REFLECTIVE CHEVRON ON REAR FACING BOOM SUPPORT COMPART WALLS**

There will be a ruby red and yellow reflective stripe provided on the rear facing surfaces of the boom support compartment, each side of the apparatus. The striping will consist of a series of 6.00" inverted "V" stripes.

#### **CAB DOOR REFLECTIVE STRIPE**

A 6.00" x 16.00" ruby red reflective stripe will be provided across the interior of each cab door. The stripe will be located approximately 1.00" up from the bottom, on the door panel.

This stripe will meet the NFPA 1901 requirement.

#### **LETTERING**

The lettering will be totally encapsulated between two (2) layers of clear vinyl.

#### **LETTERING**

Forty-one (41) to sixty (60) genuine gold leaf lettering, 3.00" high, with outline will be provided.

#### **LETTERING**

One (1) to twenty (20) reflective lettering, 10.00" high, with outline will be provided.

#### **LETTERING**

There will be reflective lettering, 12.00" high, with outline and shade provided. There will be four (4) letters provided.

#### **LETTERING**

There will be reflective lettering, 8.00" high, with outline provided. There will be ten (10) letters provided.

### **LETTERING/NUMERALS ON CAB GRILLE**

Two (2) painted letters/numerals with outline, as determined by the fire department, will be provided on the cab grille.

### **FIRE APPARATUS PARTS CD MANUAL**

There will be two (2) custom parts manuals for the complete fire apparatus provided in CD format with the completed unit.

The manuals will contain the following:

- Job number
- Part numbers with full descriptions
- Table of contents
- Parts section sorted in functional groups reflecting a major system, component, or assembly
- Parts section sorted in alphabetical order
- Instructions on how to locate parts

The manuals will be specifically written for the chassis and body model being purchased. It will not be a generic manual for a multitude of different chassis and bodies.

### **SERVICE PARTS INTERNET SITE**

The service parts information included in these manuals are also available on the factory website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.

### **CHASSIS SERVICE CD MANUALS**

There will be two (2) CD format chassis service manuals containing parts and service information on major components provided with the completed unit.

The manual will contain the following sections:

- Job number
- Table of contents
- Troubleshooting
- Front Axle/Suspension
- Brakes
- Engine/Tires
- Wheels
- Cab
- Electrical, DC
- Air Systems
- Plumbing

- Appendix

The manual will be specifically written for the chassis model being purchased. It will not be a generic manual for a multitude of different chassis and bodies.

#### **CHASSIS OPERATION CD MANUALS**

There will be two (2) CD format chassis operation manuals provided.

#### **ONE (1) YEAR MATERIAL AND WORKMANSHIP**

A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.

#### **THREE (3) YEAR MATERIAL AND WORKMANSHIP**

The Pierce custom chassis limited warranty certificate, WA0284, is included with this proposal.

#### **ENGINE WARRANTY**

A Detroit Diesel **five (5) year** limited engine warranty will be provided. A limited warranty certificate, WA0180, is included with this proposal.

#### **STEERING GEAR WARRANTY**

A Sheppard **three (3) year** limited steering gear warranty shall be provided. A copy of the warranty certificate shall be submitted with the bid package.

#### **FIFTY (50) YEAR STRUCTURAL INTEGRITY**

The Pierce custom chassis frame and crossmembers limited warranty certificate, WA0038, is included with this proposal.

#### **FRONT AXLE THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY**

The Pierce TAK-4 suspension limited warranty certificate, WA0050, is included with this proposal.

#### **REAR AXLE TWO (2) YEAR MATERIAL AND WORKMANSHIP WARRANTY**

A Meritor axle limited warranty certificate, WA0046, is included with this proposal.

#### **ABS BRAKE SYSTEM THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY**

A Meritor Wabco™ABS brake system limited warranty certificate, WA0232, is included with this proposal.

#### **TEN (10) YEAR STRUCTURAL INTEGRITY**

The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.

#### **TEN (10) YEAR PRO-RATED PAINT AND CORROSION**

A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.

#### **FIVE (5) YEAR MATERIAL AND WORKMANSHIP**

The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.

#### **CAMERA SYSTEM WARRANTY**

A Pierce fifty four (54) month warranty will be provided for the camera system.

#### **COMPARTMENT LIGHT WARRANTY**

The Pierce 12 volt DC LED strip lights limited warranty certificate, WA0203, is included with this proposal.

#### **TRANSMISSION WARRANTY**

The transmission will have a **five (5) year/unlimited mileage** warranty covering 100 percent parts and labor. The warranty will be provided by Allison Transmission.

Note: The transmission cooler is not covered under any extended warranty you may be getting on your Allison Transmission. Please review your Allison Transmission warranty for coverage limitations.

#### **TRANSMISSION COOLER WARRANTY**

The transmission cooler will carry a five (5) year parts and labor warranty (exclusive to the transmission cooler). In addition, a collateral damage warranty will also be in effect for the first three (3) years of the warranty coverage and will not exceed \$10,000 per occurrence. A copy of the warranty certificate will be submitted with the bid package.

#### **WATER TANK WARRANTY**

A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.

#### **TEN (10) YEAR STRUCTURAL INTEGRITY**

The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.

#### **ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY**

A Gortite roll-up door limited warranty will be provided. The mechanical components of the roll-up door will be warranted against defects in material and workmanship for the lifetime of the vehicle. A **six (6) year** limited warranty will be provided on painted and satin roll up doors.

The limited warranty certificate, WA0190, is included with this proposal.

#### **PUMP WARRANTY**

A Waterous pump limited warranty certificate, WA0225, is included with this proposal.

#### **TEN (10) YEAR PUMP PLUMBING WARRANTY**

The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.

#### **FOAM SYSTEM WARRANTY**

The Husky 3 foam system limited warranty certificate, WA0231, is included with this proposal.

#### **TWENTY (20) YEAR AERIAL DEVICE STRUCTURAL INTEGRITY WARRANTY**

The Pierce device limited warranty certificate, WA0052, is included with this proposal.

#### **AERIAL SWIVEL WARRANTY**

An Amity five (5) year limited swivel warranty will be provided. A copy of the warranty certificate will be submitted with the bid package.

#### **HYDRAULIC SYSTEM COMPONENTS WARRANTY**

Aerial hydraulic system components will be provided with a five (5) year material and workmanship limited warranty.

#### **HYDRAULIC SEAL WARRANTY**

Aerial hydraulic seals will be provided with a three (3) year material and workmanship limited warranty.

A copy of the warranty certificates will be submitted with the bid package.

#### **AERIAL WATERWAY WARRANTY**

An Amity ten (10) year limited waterway warranty will be provided. A copy of the warranty certificate will be submitted with the bid package.

#### **FOUR (4) YEAR PRO-RATED PAINT AND CORROSION**

A Pierce aerial device limited pro-rated paint warranty certificate, WA0047, is included with this proposal.

#### **TEN (10) YEAR PRO-RATED PAINT AND CORROSION**

A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.

#### **THREE (3) YEAR MATERIAL AND WORKMANSHIP**

The Pierce Goldstar gold leaf lamination limited warranty limited warranty certificate, WA0018, is included with this proposal.

#### **VEHICLE STABILITY CERTIFICATION**

The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification will be provided at the time of bid.

#### **ENGINE INSTALLATION CERTIFICATION**

The fire apparatus manufacturer will provide a certification, along with a letter from the engine manufacturer stating they approve of the engine installation in the bidder's chassis. The certification will be provided at the time of bid.

#### **POWER STEERING CERTIFICATION**

The fire apparatus manufacturer will provide a certification stating the power steering system as installed meets the requirements of the component supplier. The certification will be provided at the time of bid.

## **CAB INTEGRITY CERTIFICATION**

The fire apparatus manufacturer will provide a cab integrity certification with this proposal. The certification will state that the cab has been tested and certified by an independent third-party test facility. Testing events will be documented with photographs, real-time and high-speed video, vehicle accelerometers, cart accelerometers, and a laser speed trap. The fire apparatus manufacturer will provide a state-licensed professional engineer to witness and certify all testing events. Testing will meet or exceed the requirements below:

- European Occupant Protection Standard ECE Regulation No.29.
- SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks.
- SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks.

### **Roof Crush**

The cab will be subjected to a roof crush force of 22,050 lb. This value meets the ECE 29 criteria and is equivalent to the front axle rating up to a maximum of 10 metric tons.

### **Additional Roof Crush**

The same cab will be subjected to a roof crush force of 100,000 lbs. This value exceeds the ECE 29 criteria by nearly 4.5 times.

### **Side Impact**

The same cab will be subjected to dynamic preload where a 13,275 lb moving barrier slams into the side of the cab at 5.5 mph at a force of 13,000 ft-lbs. This test is part of the SAE J2422 test procedure and more closely represents the forces a cab will see in a rollover incident.

### **Frontal Impact**

The same cab will withstand a frontal impact of 32,600 ft-lbs of force using a moving barrier in accordance with SAE J2420.

### **Additional Frontal Impact**

The same cab will withstand a frontal impact of 65,200 ft-lbs of force using a moving barrier, (twice the force required by SAE J2420).

The same cab will withstand all tests without any measurable intrusion into the survival space of the occupant area.

## **CAB DOOR DURABILITY CERTIFICATION**

Robust cab doors help protect occupants. Cab doors will survive a 200,000 cycle door slam test where the slamming force exceeds 20 G's of deceleration. The bidder will certify that the sample doors similar to those provided on the apparatus have been tested and have met these criteria without structural damage, latch malfunction, or significant component wear.

### **WINDSHIELD WIPER DURABILITY CERTIFICATION**

Visibility during inclement weather is essential to safe apparatus performance. Windshield wipers will survive a 3 million cycle durability test in accordance with section 6.2 of SAE J198 *Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles*. The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.

### **ELECTRIC WINDOW DURABILITY CERTIFICATION**

Cab window roll-up systems can cause maintenance problems if not designed for long service life. The window regulator design will complete 30,000 complete up-down cycles and still function normally when finished. The bidder will certify that sample doors and windows similar to those provided on the apparatus have been tested and have met these criteria without malfunction or significant component wear.

### **SEAT BELT ANCHOR STRENGTH**

Seat belt attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat belt anchor design will withstand 3000 lb of pull on both the lap and shoulder belt in accordance with FMVSS 571.210 Seat Belt Assembly Anchorages. The bidder will certify that each anchor design was pull tested to the required force and met the appropriate criteria.

### **SEAT MOUNTING STRENGTH**

Seat attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat mounting design will be tested to withstand 20 G's of force in accordance with FMVSS 571.207 Seating Systems. The bidder will certify that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.

### **CAB DEFROSTER CERTIFICATION**

Visibility during inclement weather is essential to safe apparatus performance. The defroster system will clear the required windshield zones in accordance with SAE J381 Windshield Defrosting Systems Test Procedure And Performance Requirements - Trucks, Buses, And Multipurpose Vehicles. The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.

### **CAB HEATER CERTIFICATION**

Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. The cab heaters will warm the cab 75 F from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder will certify that a substantially similar cab has been tested and has met these criteria.

### **CAB AIR CONDITIONING PERFORMANCE CERTIFICATION**

Good cab air conditioning temperature and air flow performance keeps occupants comfortable, reduces humidity, and provides a climate for recuperation while at the scene. The cab air conditioning system will cool the cab from a heat-soaked condition at 100 degrees Fahrenheit to an average of 67 degrees

Fahrenheit in 30 minutes. The bidder will certify that a substantially similar air conditioning system has been tested and has met these criteria. The certification will be available at the time of delivery.

### **AMP DRAW REPORT**

The bidder will provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system.

The manufacturer of the apparatus will provide the following:

- Documentation of the electrical system performance tests.
- A written load analysis, which will include the following:
  - The nameplate rating of the alternator.
  - The alternator rating under the conditions specified per:
    - Applicable NFPA 1901 or 1906 (Current Edition).
  - The minimum continuous load of each component that is specified per:
    - Applicable NFPA 1901 or 1906 (Current Edition).
  - Additional loads that, when added to the minimum continuous load, determine the total connected load.
  - Each individual intermittent load.

All of the above listed items will be provided by the bidder per the applicable NFPA 1901 or 1906 (Current Edition).



City of Burlington

Contract/Agreement Coversheet

CONTRACT NO. 2017-95

DEPARTMENT: Fire

FEDERAL TAXPAYER I.D.:

GRANTOR:

SERVICES: Intergovernmental Cooperative Purchasing Agreement

AMOUNT: See Agreement

DURATION FROM: 12/15/2017

TO: Until Terminated

Original: City of Burlington

Copies: Finance  
Fire

## **Intergovernmental Cooperative Purchasing Agreement**

This Intergovernmental Agreement (Agreement) is by and between the "Lead Contracting Agency" and participating government entities ("Participating Agencies"), that are members of National Purchasing Partners ("NPP"), including members of FireRescue GPO and Public Safety GPO, that agree to the terms and conditions of this Agreement. The Lead Contracting Agency and all Participating Agencies shall be considered as "parties" to this agreement.

WHEREAS, upon completion of a formal competitive solicitation and selection process, the Lead Contracting Agency has entered into Master Price Agreements with one or more Vendors to provide goods and services, often based on national sales volume projections;

WHEREAS, NPP provides group purchasing, marketing and administrative support for governmental entities. NPP's marketing and administrative services are free to its membership, which includes participating public entities and nonprofit institutions throughout North America.

WHEREAS, NPP has instituted a cooperative purchasing program under which member Participating Agencies may reciprocally utilize competitively solicited Master Price Agreements awarded by the Lead Contracting Agency;

WHEREAS, the Master Price Agreements provide that all qualified government members of NPP may purchase goods and services on the same terms, conditions and pricing as the Lead Contracting Agency, subject to applicable local and state laws of the Participating Agencies;

WHEREAS, the parties agree to comply with the requirements of the Intergovernmental Cooperation Act as may be applicable to the local and state laws of the Participating Agencies;

WHEREAS, the parties desire to conserve and leverage resources, and to improve the efficiency and economy of the procurement process while reducing solicitation and procurement costs;

WHEREAS, the parties are authorized and eligible to contract with governmental bodies and Vendors to perform governmental functions and services, including the purchase of goods and services; and

WHEREAS, the parties desire to contract with Vendors under the terms of the Master Price Agreements;

NOW, THEREFORE, the parties agree as follows:

## **ARTICLE 1: LEGAL AUTHORITY**

Each party represents and warrants that it is eligible to participate in this Agreement because it is a local government created and operated to provide one or more governmental functions and possesses adequate legal authority to enter into this Agreement.

## **ARTICLE 2: APPLICABLE LAWS**

The procurement of goods and services subject to this Agreement shall be conducted in accordance with and subject to the relevant statutes, ordinances, rules, and regulations that govern each party's procurement policies. Competitive Solicitations are intended to meet the public contracting requirements of the Lead Contracting Agency and may not be appropriate under, or satisfy Participating Agencies' procurement laws. It is the responsibility of each party to ensure it has met all applicable solicitation and procurement requirements. Participating Agencies are urged to seek independent review by their legal counsel to ensure compliance with all local and state solicitation requirements.

## **ARTICLE 3: USE OF BID, PROPOSAL OR PRICE AGREEMENT**

- a. A "procuring party" is defined as the Lead Contracting Agency or any Participating Agency that desires to purchase from the Master Price Agreements awarded by the Lead Contracting Agency.
- b. Each procuring party shall be solely responsible for their own purchase of goods and services under this Agreement. A non-procuring party shall not be liable in any fashion for any violation of law or contract by a procuring party, and the procuring party shall hold non-procuring parties and all unrelated procuring parties harmless from any liability that may arise from action or inaction of the procuring party.
- c. The procuring party shall not use this agreement as a method for obtaining additional concessions or reduced prices for similar goods and services outside the scope of the Master Price Agreement.
- d. The exercise of any rights or remedies by the procuring party shall be the exclusive obligation of such procuring party.
- e. The cooperative use of bids, proposals or price agreements obtained by a party to this Agreement shall be in accordance with the terms and conditions of the bid, proposal or price agreement, except as modified where otherwise allowed or required by applicable law, and does not relieve the party of its other solicitation requirements under state law or local policies.

#### **ARTICLE 4: PAYMENT OBLIGATIONS**

The procuring party will make timely payments to Vendors for goods and services received in accordance with the terms and conditions of the procurement. Payment for goods and services, inspections and acceptance of goods and services ordered by the procuring party shall be the exclusive obligation of such procuring party. Disputes between procuring party and Vendor shall be resolved in accordance with the law and venue rules of the state of the procuring party.

#### **ARTICLE 5: COMMENCEMENT DATE**

This Agreement shall take effect after execution of the "Lead Contracting Agency Endorsement and Authorization" or "Participating Agency Endorsement and Authorization," as applicable.

#### **ARTICLE 6: TERMINATION OF AGREEMENT**

This Agreement shall remain in effect until terminated by a party giving 30 days written notice to "Lead Contracting Agency"

#### **ARTICLE 7: ENTIRE AGREEMENT**

This Agreement and any attachments, as provided herein, constitute the complete Agreement between the parties hereto, and supersede any and all oral and written agreements between the parties relating to matters herein.

#### **ARTICLE 8: CHANGES AND AMENDMENTS**

This Agreement may be amended only by a written amendment executed by all parties, except that any alterations, additions, or deletions of this Agreement which are required by changes in Federal and State law or regulations are automatically incorporated into this Agreement without written amendment hereto and shall become effective on the date designated by such law or regulation.

#### **ARTICLE 9: SEVERABILITY**

All parties agree that should any provision of this Agreement be determined to be invalid or unenforceable, such determination shall not affect any other term of this Agreement, which shall continue in full force and effect.

**THIS INSTRUMENT HAS BEEN EXECUTED IN TWO OR MORE ORIGINALS BY EXECUTION AND ATTACHMENT OF "THE LEAD CONTRACTING AGENCY ENDORSEMENT AND AUTHORIZATION" OR "PARTICIPATING AGENCY ENDORSEMENT AND AUTHORIZATION," AS APPLICABLE. ONCE EXECUTED, IT IS THE RESPONSIBILITY OF EACH PARTY TO FILE THIS AGREEMENT WITH THE PROPER AGENCY IF REQUIRED BY LOCAL OR STATE LAW.**

**PUBLIC PROCUREMENT AUTHORITY  
ENDORSEMENT AND AUTHORIZATION**

The undersigned acknowledges, on behalf of the Public Procurement Authority ("Lead Contracting Agency") that he/she has read and agrees to the general terms and conditions set forth in the enclosed Intergovernmental Cooperative Purchasing Agreement regulating use of the Master Price Agreements and purchase of goods and services that from time to time are made available by the Public Procurement Authority to Participating Agencies locally, regionally, and nationally through NPP. Copies of Master Price Agreements and any amendments thereto made available by the Public Procurement Authority will be provided to Participating Agencies and NPP to facilitate use by Participating Agencies.

The undersigned understands that the purchase of goods and services under the provisions of the Intergovernmental Cooperative Purchasing Agreement is at the absolute discretion of the Participating Agencies.

The undersigned affirms that he/she is an agent of the Public Procurement Authority and is duly authorized to sign this Public Procurement Authority Endorsement and Authorization.



Date: 2-13-2014

BY: Jeffrey D. Johnson

ITS: Administrator/Board Member

**Public Procurement Authority Contact Information:**


Contact Person:	Heidi Chames
Address:	25030 SW Parkway Ave., Suite 330 Wilsonville, OR 97070 .
Telephone No.:	855-524-4572
Email:	questions@procurementauthority.org

**PARTICIPATING AGENCY  
ENDORSEMENT AND AUTHORIZATION**

The undersigned acknowledges, on behalf of ~~the City of Burlington~~ ("Participating Agency") that he/she has read and agrees to the general terms and conditions set forth in the enclosed Intergovernmental Cooperative Purchasing Agreement regulating use of the Master Price Agreements and purchase of goods and services that from time to time are made available by the Lead Contracting Agency to Participating Agencies locally, regionally, and nationally through NPP.

The undersigned further acknowledges that the purchase of goods and services under the provisions of the Intergovernmental Cooperative Purchasing Agreement is at the absolute discretion of the Participating Agency and that neither the Lead Contracting Agency nor NPP shall be held liable for any costs or damages incurred by or as a result of the actions of the Vendor or any other Participating Agency. Upon award of contract, the Vendor shall deal directly with the Participating Agency concerning the placement of orders, disputes, invoicing and payment.

The undersigned affirms that he/she is an agent of ~~the City of Burlington~~ and is duly authorized to sign this Participating Agency Endorsement and Authorization.

  
BY: Steve Sexton  
ITS: Mayor

Date: 12/15/12

**Participating Agency Contact Information:**

Contact Person: Levon Yengoyan  
Address: 833 S. Spruce St.  
Burlington, WA 98233

Telephone No.: 360-755-0261  
Email: levony@burlingtonwa.gov

**PUBLIC PROCUREMENT AUTHORITY  
FIRE APPARATUS Solicitation Synopsis  
Solicitation No. 1420**

**Intent**

The Public Procurement Authority (PPA) served as Lead Agency to solicit proposals for Fire Apparatus. PPA works in cooperation with National Purchasing Partners "NPP" and its Government Division dba NPPGov, dba FireRescue GPO, dba Law Enforcement GPO and dba Public Safety GPO (collectively hereinafter "NPPGov"), to service the PPA and NPPGov membership. The published Request for Proposal (RFP) contained provisions that permitted all members of PPA and NPPGov to "piggy-back" off the resulting Master Price Agreement.

**Determination for issuing RFP vs. Sealed Bid**

PPA has determined that it is advantageous for PPA to procure Fire Apparatus using the competitive RFP process rather than sealed bidding. Sealed bidding limits evaluation of offers solely to compliance with the requirements, provides no opportunity to compare the product and service offerings among the vendors, prohibits revision of the offers, and uses price as the predominate deciding factor. Such limitations prevent PPA from awarding the most advantageous contract(s) for PPA and its members.

**Procedure**

PPA issued an RFP (1420) on October 22, 2014.

The RFP was published in USA Today on October 27, 2014.

The RFP was published in the Daily Journal of Commerce on January 12, 2015.

The original RFP close date was January 26, 2015 but was extended to February 12, 2015 due to publication requirements.

The RFP was awarded on April 13, 2015.

The RFP was posted to the following web sites: [www.nppgov.com](http://www.nppgov.com), [www.procurementauthority.org](http://www.procurementauthority.org), and [www.findrfp.com](http://www.findrfp.com)

The text of the published notice of solicitation is as follows:

Public Procurement Authority (PPA)  
NOTICE OF SOLICITATION

PPA intends to enter into a master price agreement for the procurement of the following products and services to PPA members and available to all members of the national cooperative purchasing program National Purchasing Partners, LLC ("NPPGov").

Fire Apparatus #1420

Industrial and Medical Gases, Accessories and Equipment #1415

Station Alerting #1425

Responses due 5:00 pm February 12, 2015

For information or a copy of the Request for Proposal contact PPA, Heidi Arnold at 855-524-4572, questions@procurementauthority.org or download at [www.procurementauthority.org](http://www.procurementauthority.org)

PPA received proposals from the following vendors:

1. Toyne
2. Pierce Manufacturing
3. E.J. Metals
4. Sutphen
5. HME

Proposals were evaluated by PPA based on the criteria contained in the RFP and the following successful proposers were selected:

**National:**

- **E.J. Metals**
- **HME**
- **Pierce Manufacturing**
- **Sutphen**
- **Toyne**

### **Evaluation**

The evaluation was based on the following criteria as described in the RFP (weighted):

<b>Pricing:</b> Product price analysis and discounts proposed including favorable pricing for cooperative purchasing.	20
<b>Product Line:</b> Product line offered in indicated coverage area, considering geographic distribution limitations, warranties, any sub-proposers and coordination of manufacturer and distribution in response.	25
<b>Conformance:</b> Completeness of proposal and the degree to which the Proposer responds to the terms and all requirements of the RFP requirements and specifications.	10
<b>Marketing:</b> The Proposer's marketing plan to promote the resulting contractual agreement and ability to incorporate use of agreement in their sales system throughout indicated coverage region.	20



Customer Service: Support dedicated to Lead Contracting and Participating Agencies. Ability to conduct e-commerce and meet promised delivery timelines.	5
Coverage: Ability to provide products and services for indicated coverage region including distribution, retail & service facilities and staff availability. <i>*Note Exhibit 1 from PPW</i>	10
Proven Experience & References: Proposer's success in providing products and services in a timely manner including Past Performance Information (PPI) review.	10
<b><u>TOTAL</u></b>	100

### **Pricing Structure**

*E.J. Metals:* Proposer provided a discount off list. See Price List Attachment in the resulting Master Price Agreement.

*HME:* Proposer provided a fixed price discount. See Price List Attachment in the resulting Master Price Agreement.

*Pierce Manufacturing:* Proposer provided a fixed price discount. See Price List Attachment in the resulting Master Price Agreement.

*Sutphen:* Proposer provided a discount off list. See Price List Attachment in the resulting Master Price Agreement.

*Toyne:* Proposer provided a fixed price discount. See Price List Attachment in the resulting Master Price Agreement.

### **Additional Information**

National Purchasing Partners  
1100 Olive Way  
Suite #1020  
Seattle, WA 98101

Bruce Busch, Senior VP and Legal Counsel  
bruce.busch@mynpp.com  
(206) 494-4556  
www.nppgov.com

# AFFIDAVIT OF MAILING

STATE OF Oregon )  
 ) ss.  
 COUNTY OF Washington )

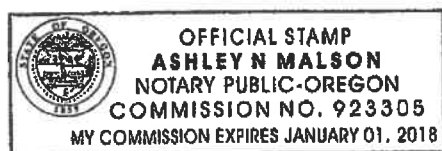
I, Heidi Chames, being first duly sworn on oath, depose and state that I am a Contract Manager for Public Procurement Authority, a government entity performing public procurement functions. On this 22<sup>nd</sup> day of October, 2014, I caused to be deposited in the United States mail at Wilsonville, Washington County, Oregon, with first class postage prepaid, one each copy of the attached NOTICE OF SOLICITATION for the MASTER AGREEMENT FOR FIRE APPARATUS to the following addresses:

<b>KME Fire Apparatus</b> Phil Gerace Director of Sales & Marketing One Industrial Complex Nesquehoning, PA 18240-1499	<b>Ferrara Fire Apparatus</b> Mike Doran Vice President 312 Littlefield Ave. South San Francisco, CA 94080	<b>Seagrave Fire Apparatus</b> George Kanugh Marketing Manager & Dealer Development 105 East 12 <sup>th</sup> St. Clintonville, WI 54929
<b>Pierce Manufacturing</b> Mike Schoenberger Vice President of Sales & Marketing 2600 American Drive, P.O. Box 2017 Appleton, WI 54912-2017	<b>E-One</b> Sam Itani VP of Global Sales 1601 SW 37 <sup>th</sup> Ave. Ocala, FL 34474	<b>Toyne</b> 104 Granite Ave. Breda, IA 51436
<b>Sutphen Corporation</b> Ken Creese Director, Sales & Marketing 6450 Eiterman Rd. Dublin, OH 43016	<b>E-One</b> Blair Schrock Director of Dealer Development 4955 Wiltshire Lane Suwanee, GA 30024	<b>Toyne</b> Larry Bezemer Western Regional Manager 2315 S. Weimarner Way Meridian, ID 83642
<b>Rosenbauer</b> Bill Hershman Government Sales Manager 5181 260 <sup>th</sup> Street Wyoming, MN 55092	<b>Spartan ERV</b> Rich Holzman National Sales Account Manager 5712 Kenmore Rd. Baltimore, MD 21210	<b>HME</b> Jim Morgan Western Regional Sales 1950 Byron Center Ave. Wyoming, MI 49519
<b>Rosenbauer</b> Harold Boer 100 Third Street Lyons, SD 57041	<b>Smeal</b> Kent Smith Senior Gov't Contracts Manager 610 West 4 <sup>th</sup> St. Snyder, NE 68664	<b>SVI Trucks</b> Blair Schrock Western Sales 3842 Redman Drive Fort Collins, CO 80524
<b>H&amp;W Emergency Vehicles</b> Jeff Weber VP Sales and Marketing 3150 SW 234 <sup>th</sup> Ave. Suite 100 Hillsboro, OR 97123	<b>American LaFrance, LLC</b> 164 Spring Grove Drive Moncks Corner, SC 29461	

Heidi Chames  
 Heidi Chames

SUBSCRIBED AND SWORN TO before me this 27<sup>th</sup> day of October, 2014 by Heidi Chames.

Ashley Malson  
 NOTARY PUBLIC in the State of Oregon  
 Residing at Canby, Oregon  
 My commission expires: 1/1/18



# AFFIDAVIT OF MAILING

STATE OF Oregon )  
 ) ss.  
 COUNTY OF Washington )

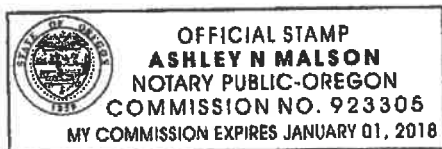
I, Heidi Arnold, being first duly sworn on oath, depose and state that I am a Contract Manager for Public Procurement Authority, a government entity performing public procurement functions. On this 12th day of January, 2015, I caused to be deposited in the United States mail at Wilsonville, Washington County, Oregon, with first class postage prepaid, one each copy of the attached NOTICE OF Extension of Submission, Selection, Negotiation and Award Dates for the MASTER AGREEMENT FOR FIRE APPARATUS to the following addresses:

<b>KME Fire Apparatus</b> Phil Gerace Director of Sales & Marketing One Industrial Complex Nesquehoning, PA 18240-1499	<b>Ferrara Fire Apparatus</b> Mike Doran Vice President 312 Littlefield Ave. South San Francisco, CA 94080	<b>Seagrave Fire Apparatus</b> George Kanugh Marketing Manager & Dealer Development 105 East 12 <sup>th</sup> St. Clintonville, WI 54929
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<b>Rosenbauer</b> Harold Boer 100 Third Street Lyons, SD 57041	<b>Smeal</b> Kent Smith Senior Gov't Contracts Manager 610 West 4 <sup>th</sup> St. Snyder, NE 68664	<b>SVI Trucks</b> Blair Schrock Western Sales 3842 Redman Drive Fort Collins, CO 80524
<b>H&amp;W Emergency Vehicles</b> Jeff Weber VP Sales and Marketing 3150 SW 234 <sup>th</sup> Ave. Suite 100 Hillsboro, OR 97123	<b>American LaFrance, LLC</b> 164 Spring Grove Drive Moncks Corner, SC 29461	

Heidi Arnold  
 Heidi Arnold

SUBSCRIBED AND SWORN TO before me this 12<sup>th</sup> day of January, 2015 by  
 Heidi Chames.

Ashley Malson  
 NOTARY PUBLIC in the State of Oregon  
 Residing at Wilsonville, Oregon  
 My commission expires: 1/1/18



AFFIDAVIT OF PUBLICATION

# DJC



921 S.W. Washington St. Suite 210 / Portland, OR 97205-2810  
(503) 226-1311

STATE OF OREGON, COUNTY OF MULTNOMAH--ss.

I, **Marc Caplan**, being first duly sworn, depose and say that I am a **Public Notice Manager** of the **Daily Journal of Commerce**, a newspaper of general circulation in the counties of **CLACKAMAS**, **MULTNOMAH**, and **WASHINGTON** as defined by ORS 193.010 and 193.020; published at Portland in the aforesaid County and State; that I know from my personal knowledge that the Goods and Services notice described as

**Notice of Solicitation**

**Public Procurement Authority; Bid Location Wilsonville, OR, Clackamas County; Due 02/12/2015 at 05:00 PM**

a printed copy of which is hereto annexed, was published in the entire issue of said newspaper for 1 time(s) in the following issues:

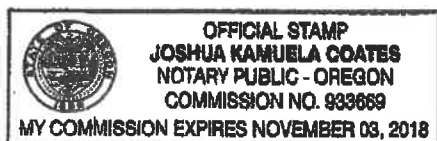
1/12/2015

State of Oregon  
County of Multnomah

SIGNED OR ATTESTED BEFORE ME  
ON THE 12th DAY OF January, 2015

  
\_\_\_\_\_  
Marc Caplan

  
\_\_\_\_\_  
Notary Public-State of Oregon



**PUBLIC PROCUREMENT  
AUTHORITY (PPA)  
NOTICE OF SOLICITATION**

PPA intends to enter into a master price agreement for the procurement of the following products and services to PPA members and available to all members of the national cooperative purchasing program National Purchasing Partners, LLC ("NPPGov").  
Fire Apparatus #1420  
Industrial and Medical Gases, Accessories and Equipment #1415  
Station Alerting #1425  
Responses due 5:00 pm February 12, 2015  
For information or a copy of the Request for Proposal contact PPA, Heidi Arnold at 855-524-4572, questions@procurementauthority.org or download at www.procurementauthority.org  
Published Jan. 12, 2015. 10666917

Heidi Arnold  
Public Procurement Authority  
25030 SW Parkway Ave Ste 330  
Wilsonville, OR 97070-9609

Order No.: 10666917  
Client Reference No:



June 15, 2015

To Whom It May Concern:

I am a duly authorized representative of Russell Johns Associates LLC, company handling the advertising matters for USA TODAY, a daily newspaper distributed within the US.

The ad for Public Procurement Authority was published in said newspaper within the National Marketplace Today section of the October 27, 2014 edition of USA TODAY.

---



Mary-Lynn Scott  
Executive Assistant

**CAMIKA C. WINTER**  
Notary Public, State of Florida  
My Comm. Expires Apr 07, 2018  
No. FF 110232

State of Florida  
County of Pinellas

On this 17<sup>th</sup> day of June, I attest that the attached document is a true, exact, complete, and unaltered  
tearsheet.



Notary

**Nielsen findings:** Although many cultural consumers expect to spend considerably more on holiday, they will wait for a better deal. While 65% of the general population says it plans to "wait until later in the season" to do the bulk of their holiday shopping, the number jumps to an average of 75% among minorities, says Russo.

later in the season" to do the of their holiday shopping, number jumps to an average among minorities, says Russo

SOURCE: ROBERT W. BAIRD, BAKER HUGHES

To view more Classified listings visit: [www.USATodayClassifieds.com](http://www.USATodayClassifieds.com)

[illegible]



PERFORM. LIKE NO OTHER.

Fire Apparatus



## Product Specifics

Pierce is a 100 year old builder of quality, customizable fire apparatus with a full spectrum of vehicles available including:

- Aerial
- Pumper
- Rescue
- Tanker
- Custom Options

## Pricing Details

Proposer provided a fixed price discount. See Price List Attachment in the resulting Master Price Agreement at [nppgov.com/firerescue-gpo](http://nppgov.com/firerescue-gpo).

## Contract Details

- Log into [nppgov.com](http://nppgov.com)
- Forms, legal documentation, price lists and other information can be found on the Pierce vendor page
- Sign the Intergovernmental Agreement (IGA) and keep for your records
- Provide your NPPGov member number on the purchase order



Lead Public Agency: Public  
Procurement Authority

RFP #1420

## NPPGov

NPPGov is a national cooperative procurement organization based in Seattle, WA offering publicly solicited contracts to government entities nationwide. Our contracts are created through a public solicitation and award process by a Lead Public Agency. Membership is free and there are no purchasing obligations.

### *Benefits of membership:*

- Access to publicly solicited contracts
- No membership fees or purchasing obligations
- Live contract support
- Individual discount programs



☐ [nppgov.com](http://nppgov.com)  
[customerservice@nppgov.com](mailto:customerservice@nppgov.com)  
877.329.8847

**NOTICE OF SOLICITATION**  
**PUBLIC PROCUREMENT AUTHORITY**

**RFP NUMBER 1420**

**SOLICITATION FOR: FIRE APPARATUS**

Notice is hereby given sealed proposals will be received by the Public Procurement Authority at the address listed below, until **5:00 PM PST on February 12, 2015** for FIRE APPARATUS for the Public Procurement Authority and government members of National Purchasing Partners across the nation, including Oregon and Idaho governmental units incorporated by "ATTACHMENT H" of the RFP, WIPHE members identified in "ATTACHMENT G" of the RFP, as well as government units in all other states. Significant sales potential exists because the resulting Master Price Agreement for national proposers will include piggy backing language that will permit use of the Master Price Agreement nationwide without the need for Participating Agencies to duplicate the formal solicitation process and expend staff resources and funds.

All Proposals must be signed, sealed and addressed to:

**Mailing Address:**

**PPA FIRE APPARATUS RFP #1420**  
**Public Procurement Authority**  
**c/o Heidi Chames**  
**25030 SW Parkway Ave.**  
**Suite 330**  
**Wilsonville, OR 97070**

and marked **"RFP NUMBER 1420 FOR FIRE APPARATUS"**

**NOTE: THE PUBLIC PROCUREMENT AUTHORITY WILL NOT ACCEPT PROPOSAL ENVELOPES WITH INSUFFICIENT POSTAGE.**

**INQUIRIES:**

**PPA FIRE APPARATUS RFP #1420**  
**Public Procurement Authority**  
**c/o Heidi Chames**  
**25030 SW Parkway Ave.**  
**Suite 330**  
**Wilsonville, OR 97070**

855-524-4572 or [questions@ProcurementAuthority.org](mailto:questions@ProcurementAuthority.org)

**NOTE: PUBLIC PROCUREMENT AUTHORITY PUBLISHES ITS NOTICE OF SOLICITATIONS IN THE OREGON DAILY JOURNAL OF COMMERCE, USA TODAY AND ONLINE AT**

**[www.ProcurementAuthority.org](http://www.ProcurementAuthority.org), [www.findrfp.com](http://www.findrfp.com) and [www.nppgovernment.com](http://www.nppgovernment.com)**

**REQUESTS FOR PROPOSALS (RFP's) ARE AVAILABLE FOR VIEWING AND/OR DOWNLOADING ONLINE AT**  
**[www.ProcurementAuthority.org](http://www.ProcurementAuthority.org), [www.findrfp.com](http://www.findrfp.com) and [www.nppgovernment.com](http://www.nppgovernment.com)**



# **PUBLIC PROCUREMENT AUTHORITY**

## **FIRE APPARATUS REQUEST FOR PROPOSAL**

**RFP NUMBER 1420**

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- 2. ATTACHMENT B – PROPOSER PROFILE WORKBOOK**
- 4. ATTACHMENT C– SPECIFICATIONS**
- 5. ATTACHMENT D – PRICING SCHEDULE**
- 6. ATTACHMENT E – PROPOSAL EVALUATION FORM**
- 7. ATTACHMENT F– ORS CHAPTER 279 REQUIREMENTS**
- 8. ATTACHMENT G – WIPHE RESPONSE FORM**
- 9. ATTACHMENT H– STATE REQUIREMENTS**

### **IMPORTANT**

### **PLEASE READ BEFORE SUBMITTING YOUR PROPOSAL**

#### **SOLICITATIONS FOR: FIRE APPARATUS**

##### **1.0 INTENT:**

##### **1.1 GENERAL INTENT**

The Public Procurement Authority (PPA) serves as the “Lead Contracting Agency” for this solicitation on behalf of its members, and as authorized by the Public Procurement Authority Intergovernmental Agreement, which is an agreement for intergovernmental cooperation among select local Oregon governments and recognized under ORS Chapter 190, in association with National Purchasing Partners, LLC (NPP), on behalf of NPP’s government members (hereinafter referred to as “Participating Agencies”) across the nation, including members of FireRescue GPO (FRGPO) and Public Safety GPO (PSGPO), Idaho and Oregon local government units (ATTACHMENT H), and WIPHE members (ATTACHMENT G), as well as government units in all other states, as authorized under the terms of the Intergovernmental Cooperative Purchasing Agreement executed by all Lead Contracting and Participating

Agencies, a cooperative procurement group, is soliciting proposals from qualified companies (hereinafter referred to as "Vendor") to enter into a Master Price Agreement for FIRE APPARATUS.

The intent of this Interstate Cooperative Procurement Solicitation (Solicitation) is to invite Proposers active in the retail and wholesale of FIRE APPARATUS to submit a competitive pricing proposal offering FIRE APPARATUS to PPA, which will then be made available to NPP members locally and nationwide; to reduce expenses by eliminating multiple requests for proposals and multiple responses by Vendors; and to obtain discounted pricing through volume purchasing. Significant sales potential exists because the Master Price Agreement will be used nationwide without the need for Participating Agencies to duplicate the formal solicitation process and expend staff resources. Preferably, the successful Proposer will provide its entire catalog ("catalog discount") or products and/or services in order that NPP, FRGPO, and PSGPO members who wish to access the Master Price Agreement may order a broad range of goods and services as needed.

With the exception of successful local Proposer(s) capable of servicing PPA and NPP members within the state of Oregon, successful Proposer(s) should have a strong national presence for FIRE APPARATUS for use by government agencies nationwide.

*This Solicitation meets Oregon public contracting requirements and may not be appropriate under or meet Participating Agencies' procurement laws. Participating Agencies are urged to seek independent review by their legal counsel to ensure compliance with all local and state solicitation requirements.*

## 1.2 POTENTIAL MARKET

The Public Procurement Authority is publishing this RFP with the express purpose to create publicly awarded contracts for use by its members, which may also benefit the thousands of fellow members of NPP, FireRescue GPO and Public Safety GPO. These are nationwide programs representing member government agencies in all 50 states. **We encourage proposer's response be a collaborative effort including manufacturer and distributor (when they are not the same company) to ensure nationwide contract utilization.**

Proposer's response should also take into consideration the considerable market potential for this solicitation. Because the successful bid will be incorporated into a nationwide purchasing program including thousands of local government participants, the PPA believes that contracts created from this solicitation will provide vendors with a significant market advantage. Members of NPP, FireRescue GPO and Public Safety GPO and current vendors who participate in the program indicate the ability to shorten the sale cycle by eliminating the need to complete individual RFP processes is a significant advantage to participation.

The PPA believes that participation in the NPP purchasing program, benefits both its participating agencies and successful proposers. NPP engages with successful proposers who complete the Vendor Administration Agreement through a marketing and sales partnership. This partnership includes (but is not limited to) contract promotion to members, contract administration support to potential customers and live customer phone support.

## 1.3 REQUIREMENTS

Solicitation is subject to the Public Procurement Authority's General Conditions & Instructions to Proposer(s), if any, and the following requirements:

- 1.3.1 This RFP and resulting Master Price Agreement is anticipated for use by the Public Procurement Authority's government members as well as other NPP member government entities and eligible nonprofit entities across the nation. The Public Procurement Authority has entered into an Intergovernmental (interlocal) Cooperative Purchasing Agreement with other Participating Agencies for the purpose of obtaining Master Price Agreements with various vendors. Interlocal purchasing agreements allow Participating Agencies to make purchases at the Public

Procurement Authority's accepted proposal price, terms and conditions, provided that the Participating Agency has satisfied all of its local and state cooperative procurement requirements. By submitting a proposal, the Proposer(s) agrees to make the same proposal terms and price, exclusive of any possible rebates, incentives, freight and transportation fees, available to other Participating Agencies. The Public Procurement Authority and NPP will not incur any direct liability with respect to specifications, delivery, payment, or any other aspect of purchases by such Participating Agencies or nonprofit institutions. A true and correct copy of the Intergovernmental Cooperative Purchasing Agreement is attached hereto as "ATTACHMENT A".

The successful Proposer must deal directly with the Participating Agencies concerning the placement of orders, disputes, invoicing and payment. The Public Procurement Authority and NPP shall not be held liable for any costs or damages incurred by or as a result of the actions of the Vendor or any Participating Agency. Successful Proposers must comply with the state and local laws, rules and regulations in each state and locality where the product or service is provided.

- 1.3.2 Each Participating Agency shall execute a Participating Agency Endorsement and Authorization included in the Intergovernmental Cooperative Purchasing Agreement. While the terms of the Master Price Agreement shall govern the general pricing terms, each Participating Agency may request modification of the Master Price Agreement in accordance with each Participating Agency's state and/or local purchasing laws, rules, regulations and procedures. Each Participating Agency may, at its discretion, and upon written agreement by the Participating Agency and Successful Proposer, request additional legal and procedural provisions not included herein that the successful Proposer must adhere to if it wishes to conduct business with said Participating Agency using the Master Price Agreement.
- 1.3.3 NPP, FireRescue GPO and Public Safety GPO provide vendor exposure and marketing support for the successful Proposer's products and services throughout its membership. Successful Proposers servicing the awarded contract to NPP members shall pay a Contract Administration Fee of \$2000 per contract order (or invoice) under the Master Price Agreement as established in the NPP Vendor Administration Agreement (available upon request). A portion of the \$2000 fee is paid to the Western Fire Chiefs Association pursuant to agreements with NPP, Fire Rescue GPO, and Public Safety GPO. Western Fire Chiefs Association also administers the solicitation and bidding processes for the PPA pursuant to a separate Administration Agreement at no cost to the PPA or its members.

#### 1.4 MULTIPLE AWARDS

Multiple awards may be granted to meet the requirements of this Solicitation provided that such awards are differentiated by product make and model, service, and/or distribution regions and capabilities of the successful Proposers. Specifically, the Public Procurement Authority will award separate contracts to Proposers in order to cover all local and national geographical markets, electronic purchasing capabilities, and products and services identified in this Request for Proposal, as well as the diverse and large number of Participating Agencies. The award of multiple contracts is to be determined upon receipt and review of all proposals, and based upon the general criteria provided herein. The Public Procurement Authority may solicit proposals from local qualified companies with or without a national presence provided that the successful Proposer is able to provide the Public Procurement Authority with the products and services requested. Multiple awards will ensure fulfillment of current and future requirements of the diverse and large number of Participating Agencies. In the event a local Proposer with no national distribution capabilities best meets the proposal selection criteria, multiple local and nationwide responsive proposals may be awarded simultaneously in the best interests of local commerce, the Public Procurement Authority's compliance with local laws, and the Participating Agencies nationwide.

Proposers shall be able to serve the needs of the NPP membership on a national basis. However, this requirement shall not exclude local Proposers without a national presence that are capable of meeting the requirements of the Public Procurement Authority within the state of Oregon.

#### 1.5 CONTRACT USAGE

The actual utilization of any Master Price Agreement will be at the sole discretion of the Participating Agencies. It is the intent of this Request for Proposal and resulting Master Price Agreement that members of NPP, FireRescue GPO, and Public Safety GPO (Participating Agencies) may buy directly from Successful Proposers without the need for further solicitation. However, Participating Agencies are urged to seek independent review by their legal counsel to ensure compliance with all local and state solicitation requirements as well as the need of further notice prior to utilizing the Master Price Agreement

#### 1.6 BACKGROUND OF NPP

NPP, owned by two healthcare organizations, provides group purchasing opportunities and purchasing administrative support for governmental entities and nonprofit institutions within its membership. NPP's membership includes participating public and nonprofit entities across North America.

#### 1.7 EQUAL OPPORTUNITY

The Public Procurement Authority encourages Minority and Women-owned Small Business Proposers to submit proposals.

Oregon Public Agencies are prohibited from use of products and services offered under this contract that are already provided by qualified nonprofit agencies for disabled individuals as listed on the Department of Administrative Service's Procurement List pursuant to ORS 279.835-.855. Please see [www.OregonRehabilitation.org/qrf](http://www.OregonRehabilitation.org/qrf) for more information.

### 2.0 SCOPE OF WORK:

#### 2.1 REQUIREMENTS OF PROPOSERS SUBMITTING A RESPONSE:

Proposers must present clear and concise evidence indicating Proposer's ability to comply with the requirements stated herein and to provide and deliver the specified products and services to Participating Agencies.

##### 2.1.1 PROPOSER COMMITMENTS

Each Proposer is required to commit to low pricing, and accurate and timely reporting to NPP pursuant to the reporting requirements identified in the NPP Vendor Administration Agreement. In addition, successful Proposer(s) with a national presence must commit to marketing of the Master Price Agreement nationwide and that the sales force will be trained, engaged and committed to offering NPP pricing to member government agencies nationwide, including the opportunity for NPP to train the Vendor sales staff.

##### 2.1.2 **PROPOSERS MUST COMPLETE "ATTACHMENT B" – PROPOSER PROFILE WORKBOOK".**

#### 2.2 PRODUCTS AND SERVICES:

2.2.1 Provide a description of the FIRE APPARATUS offered as set forth in ATTACHMENT C. The primary objective is for the Proposer(s) to provide the Proposer(s)'s entire product line that are responsive to this RFP so that participating agencies may order a broad range of products and services as appropriate for their needs.

- 2.2.2 All products offered must be new, unused and most current product lines, unless otherwise clearly identified as remanufactured goods.
- 2.2.3 Describe any special programs that Proposer offers that shall improve the ability of the Participating Agencies access to the products, such as retail store availability, expedited delivery intervals, item sourcing, or other unique plans and services.
- 2.2.4 Explain any additional pricing incentives that may be available such as large volume purchases, cash terms, or rebates to Participating Agencies.

### 2.3 PRICING:

- 2.3.1 Pricing for the products and services may be based on "ATTACHMENT D" - PRICING SCHEDULE as follows:
  - A. A fixed percentage (%) off *marked price* based on the Proposer's catalog for each CATEGORY specified in ATTACHMENT D – PRICING SCHEDULE. Proposer shall identify the catalog used.  
  
**Option (A) is preferred.** If option (A) is not feasible proposer may use option (B) provided proposer includes a justification.
  - B. Alternatively, contract pricing may be based upon fixed prices (contingencies for economic price adjustments must be identified in the proposal), or a combination fixed percentage off and firm fixed prices. Proposer may offer additional discounts to purchasers based on volume.
- 2.3.2 If proposer responds with pricing option "B" the following applies. Prices for items listed in the PRICING SCHEDULE ("ATTACHMENT D") shall remain firm for a period of six (6) months. Thereafter, Proposers may request price increases based on manufacturer costs, cost of labor and/or materials which must be supported by appropriate documentation. Proposers may also add or delete products and options identified on the Pricing Schedule, provided that any additions reasonably fall within the intent of the original Pricing Schedule category. If PPA agrees to the price increase or product or option modification, PPA may approve in writing, including electronic mail, without the need for a written amendment to the Master Price Agreement.
- 2.3.3 All pricing proposals shall clearly explain how freight and/or delivery costs are determined as described in ATTACHMENT D PRICING SCHEDULE herein.

### 2.4 TAX:

Proposers shall strictly adhere to all federal, state and local tax requirements applicable to their operation, or to any contract or activity resulting from this solicitation.

## 3.0 SPECIAL TERMS & CONDITIONS:

### 3.1 MASTER PRICE AGREEMENT TERM:

As a result of this Solicitation the successful Proposer(s) shall be awarded a Master Price Agreement for a two (2) year period. Subject to a written agreement signed by the Public Procurement Authority and Successful Proposer, the Master Price Agreement may be extended up to a maximum of ~~three~~ (3), one (1) year periods. At least thirty (30) calendar days prior to the expiration of the current term the Proposer(s) shall be notified in writing by the Public Procurement Authority of the intention to extend the Master Price Agreement.

### 3.2 MASTER PRICE AGREEMENT ACCESS PROVISIONS

Utilization of the Master Price Agreement will be at the discretion of the Public Procurement Authority and Participating Agencies. The Public Procurement Authority shall be under no obligation to purchase off of the Master Price Agreement. Assuming all local competitive solicitation requirements have been met, Participating Agencies may purchase directly from the successful Proposer(s) without the need for further solicitation.

### 3.3 INDEMNIFICATIONS AND INSURANCE:

#### 3.3.1 Indemnification

The successful Proposer shall indemnify the PPA and NPP as specified in the Master Agreement.

#### 3.3.2 Insurance Requirements.

Proposer(s), at Proposer(s)'s own expense, shall purchase and maintain the herein stipulated minimum insurance from a reputable company or companies duly licensed by the State of Oregon. In lieu of State of Oregon licensing, the stipulated insurance may be purchased from a company or companies, which are authorized to do business in the State of Oregon, provided that said insurance companies, meet the approval of the Public Procurement Authority. The form of any insurance policies and forms must be acceptable to the Public Procurement Authority.

Proposer(s)'s insurance shall be primary insurance with respect to the Public Procurement Authority, and any insurance or self-insurance maintained by the Public Procurement Authority shall not contribute to it.

Award of this Solicitation is contingent upon the required insurance policies and/or endorsements identified herein. The Public Procurement Authority shall not be obligated, however, to review such policies and/or endorsements or to advise Proposer(s) of any deficiencies in such policies and endorsements, and such receipt shall not relieve Proposer(s) from, or be deemed a waiver of the Public Procurement Authority's right to insist on strict fulfillment of Proposer(s)'s obligations under this RFP.

The insurance policies required by this RFP, except Workers' Compensation, shall name the Public Procurement Authority, its agents, representatives, officers, directors, officials and employees as an Additional Insured.

The policies required hereunder, except Workers' Compensation, shall contain a waiver of transfer of rights of recovery (subrogation) against the Public Procurement Authority, its agents, representatives, officers, directors, officials and employees for any claims arising out of Proposer(s)'s work or service.

#### 3.3.3 Commercial, automobile and workers' compensation insurance.

3.3.3.1 Commercial General Liability. Proposer(s) shall maintain Commercial General Liability Insurance (CGL) and, if necessary, Commercial Umbrella Insurance. The policy shall include coverage for bodily injury, broad form property damage, personal injury, products and completed operations and blanket contractual coverage including, but not limited to, the liability assumed under the indemnification provisions of the Master Price Agreement.

3.3.3.2 Automobile Liability. Proposer(s) shall maintain Automobile Liability Insurance and, if necessary, Commercial Umbrella Insurance. If hazardous substances, materials, or wastes are to be transported, MCS 90 endorsement shall be included.

3.3.3.3 Workers' Compensation. Proposer(s) shall carry Workers' Compensation insurance to

cover obligations imposed by federal and state statutes having jurisdiction over Proposer(s)'s employees engaged in the performance of the work or services, as well as Employer's Liability insurance.

In case any work is subcontracted, Proposer(s) will require the SubProposer(s) to provide Workers' Compensation and Employer's Liability insurance to at least the same extent as required of Proposer(s).

#### **4.0 SCHEDULE, RESPONSE PREPARATION AND SUBMISSION**

##### **4.1 SCHEDULE OF EVENTS**

###### **4.1.1 Publication of request for proposal**

Publication of this Solicitation conforms with ORS 279, to include Public Notice by publication in a newspaper of general circulation in the area where the Public Procurement Authority is located no less than 30 days prior to the proposal due date, as well as posting of the Public Notice on the web site that typically posts Public Notices concerning the Public Procurement Authority.

**Solicitation Notice Publications: October 27, 2014, January 12, 2015**

###### **4.1.2 Question and answer period**

The PPA will post questions and answers concerning this Solicitation for a period of twenty three (23) days after initial publication of the Notice of Solicitation or November 13, 2014, whichever occurs later. All questions shall be submitted in writing via email to [questions@ProcurementAuthority.org](mailto:questions@ProcurementAuthority.org). The Public Procurement Authority reserves the right to accept and answer questions after the twenty three (23) day question and answer period has expired.

All questions must be submitted via email as directed above. If necessary, questions can be submitted in writing to Public Procurement Authority, c/o Heidi Chames, 25030 SW Parkway Avenue, Suite 330, Wilsonville, OR 97070 or [questions@ProcurementAuthority.org](mailto:questions@ProcurementAuthority.org). All questions and answers will be posted with the original solicitation on the Public Procurement Authority website at [www.ProcurementAuthority.org](http://www.ProcurementAuthority.org)

There will be no mandatory pre-proposal meeting. In lieu of a pre-proposal meeting, an informational webinar shall be held on Thursday, November 13, 2014 at 11:30 A.M. PST. To join the online webinar:

- Go to <https://themeetingson.webex.com/themeetingsonrun/j.php?ED=318348452&UID=2154877612&RT=MiM0>
- Follow the onscreen instructions for completing the login process
- Call in information is: (800-504-8071), passcode: (5887665)
- Meeting number is: 713895916
- You may want to check the link and your computer for compatibility in advance of the scheduled webinar.

4.1.3 Submission of proposals

Deadline for submission of proposals is **5:00 PM PST, on February 12, 2015**. Heidi Chames must receive all proposals before **5:00 PM PST** on the above date in the office of the Public Procurement Authority, c/o Heidi Chames, 25030 SW Parkway Avenue, Suite 330, Wilsonville, OR 97070.

**Approximate opening date: 9:00 AM PST on February 13, 2015** at the office of the Public Procurement Authority, c/o Heidi Chames, 25030 SW Parkway Avenue, Suite 330, Wilsonville, OR 97070. **Proposal selection and negotiation: Approximately February 13, 2015 to March 15, 2015.**

**Approximate award date: April 1, 2015.**

All responses to this proposal become the property of the Public Procurement Authority and (other than pricing) will be held confidential, to the extent permissible by law. The Public Procurement Authority will not be held accountable if parties other than the Public Procurement Authority obtain material from proposal responses without the written consent of the Proposer(s).

4.2 REVIEW, INQUIRIES AND NOTICES:

4.2.1 **The solicitation documents may be reviewed in person at the following address:**

**Public Procurement Authority  
c/o Heidi Chames  
25030 SW Parkway Ave.  
Suite 330  
Wilsonville, OR 97070**

**All inquiries concerning information herein shall be addressed to:**

**Public Procurement Authority  
c/o Heidi Chames  
25030 SW Parkway Ave.  
Suite 330  
Wilsonville, OR 97070**

**Administrative telephone inquiries shall be addressed to:**

**Heidi Chames, 855-524-4572  
Email inquiries shall be addressed to:**

**[questions@ProcurementAuthority.org](mailto:questions@ProcurementAuthority.org)**

**Inquiries may be submitted by telephone but must be followed up in writing. No oral communication is binding on the Public Procurement Authority.**

4.2.2 **Proposal Interpretation of the RFP Documents and Issuance of Addenda**

If any Proposer(s) finds discrepancy in, or omissions from, or is in doubt to the true meaning of any part of the RFP document, he/she shall submit to:

**Public Procurement Authority  
c/o Heidi Chames  
25030 SW Parkway Ave.  
Suite 330  
Wilsonville, OR 97070**



A written request for a clarification or interpretation thereof at least ten (10) calendar days prior to the RFP closing date.

The Public Procurement Authority is not responsible for any explanation, clarification, interpretation, or approval made or given in any manner, except by addenda. Addenda, if necessary, will be issued not later than five (5) days prior to the RFP closing date by publication on the Public Procurement Authority's web site and NPP website.

#### 4.3 INSTRUCTIONS FOR PREPARING AND SUBMITTING PROPOSALS:

Proposers are to provide two (2) hard copies and two (2) electronic copies of the complete proposal. Electronic copies are to be submitted on a USB flash drive with the core response in a file less than 10 MB, when possible. Electronic files may be used by the evaluation committee so they should be organized and named in an easy to understand manner. Proposers are to address proposals identified with return address, solicitation number and title in the following manner:

RFP 1420: FIRE APPARATUS  
**Public Procurement Authority**  
**c/o Heidi Chames**  
**25030 SW Parkway Ave.**  
**Suite 330**  
**Wilsonville, OR 97070**

All prices shall be held firm for a period of sixty (60) days after the Solicitation closing date. Any Proposer may withdraw its proposal if a Master Price Agreement has not been executed within sixty (60) days from the RFP closing date.

#### 4.4 EXCEPTIONS AND DEVIATIONS TO THE RFP

The Proposer shall identify and list all exceptions taken to all sections of this RFP and list these exceptions, referencing the section (paragraph) where the exception exists and stating the proposed revision. The Proposer shall list these exceptions under the heading, "Exception to the Solicitation, RFP Number 1420." Exceptions not listed under the heading, "Exception to the Solicitation, RFP Number 1420." shall be considered invalid. The Public Procurement Authority reserves the right to reject, render the proposal non-responsive, enter into negotiation on any of the Proposer exceptions, or accept them outright.

The Proposer shall detail any and all deviations from specifications, if any, as requested. The Public Procurement Authority may accept or reject deviations, and all Public Procurement Authority decisions shall be final.

#### 4.5 RESPONSE FORMAT AND CONTENT:

To aid in the evaluation, it is desired that all proposals follow the same general format. The proposals are to be submitted in binders and have sections tabbed as follows:

4.5.1 Letter of Transmittal

4.5.2 Table of Contents

4.5.3 Short introduction and executive summary. This section shall contain an outline of the general approach utilized in the proposal.

4.5.4 The proposal should contain a statement of all of the programs and services proposed, including conclusions and generalized recommendations. Proposals should be all-inclusive, detailing the proposer's best offer. Additional related services should be incorporated into the proposal, if applicable.

Format Proposal to specifically address each individual sub-section and sub-set of the SCOPE OF WORK (Section 2.0).

- 4.5.5 Qualifications – This section shall describe the Proposer’s ability and experience related to the programs and services proposed.
- 4.5.6 Exceptions to the Proposal Solicitation, RFP Solicitation Number 1420
- 4.5.7 PRICING SCHEDULE (“ATTACHMENT D”)
- 4.5.8 PROPOSER PROFILE WORKBOOK (“ATTACHMENT B”)
- 4.5.9 Complete, Current Catalog Pricing shall be submitted on a USB flash drive.

## **5.0 EVALUATION AND POST SUBMISSION**

### **5.1 EVALUATION OF PROPOSAL – SELECTION FACTORS:**

A Proposal Analysis Committee will be appointed by the Public Procurement Authority on behalf of its membership to evaluate each Proposal and prepare a scoring of each Proposal. Each Proposal received and reviewed shall be awarded points under each criterion solely on the judgment and determination of the Analysis Committee and the PPA. There is a maximum score of 500 points and proposer’s average total score must be at least 200 points for consideration of an award. Proposals will be evaluated on the following criteria and further defined in the Proposal Evaluation Form (ATTACHMENT E) utilizing the point system indicated on the form

1) Pricing 2) Product Line 3) Conformance 4) Marketing 5) Customer Service 6) Coverage 7) Proven Experience & References

At the Public Procurement Authority’s option, Proposers may be invited to make presentations to the Evaluation Committee. Public Procurement Authority reserves the right to make multiple awards to meet the national membership needs of this Solicitation.

#### **5.1.1 Additional criteria/preferences that are not necessarily awarded points.**

- 5.1.1.1 Pursuant to ORS 279, Lead Contracting Agency shall give preference to the procurement of goods manufactured from recycled materials.
- 5.1.1.2 Pursuant to ORS 279, Lead Contracting Agency shall give preference to goods and services that have been manufactured or produced within the State of Oregon if price, fitness, availability and quality are otherwise equal; and the Lead Contracting Agency shall add a percent increase to the proposal of a nonresident Proposer equal to the percent, if any, of the preference given to the Proposer in the state in which the Proposer resides. All proposers shall identify the state to which it is a resident bidder.
- 5.1.1.3 Proposer shall comply with all federal, state and local laws applicable to the work under the Master Price Agreement awarded as a result of this Solicitation, including, without limitation, the provisions of ORS, as set forth on “ATTACHMENT F”, attached hereto and incorporated herein by this reference.
- 5.1.1.4 Pursuant to Section 1.5, the Lead Contracting Agency encourages Minority and Women-owned Small Business Proposers to submit proposals.

### **5.2 RIGHT OF PUBLIC PROCUREMENT AUTHORITY TO AWARD OR REJECT PROPOSALS**

5.2.1 The Request for Proposal does not commit the Public Procurement Authority to award a Master Price Agreement for the products or services specified within the Request for Proposal document. The Public Procurement Authority may cancel the procurement or reject any or all proposals in accordance with ORS 279. Under no circumstance will the Public Procurement Authority pay the costs incurred in the preparation of a response to this request.

5.2.2 The Public Procurement Authority reserves the right to:

5.2.2.1 Accept or reject any or all proposals received as a result of the Request for Proposals;

5.2.2.2 Negotiate with any qualified Proposer(s);

5.2.2.3 Accept a proposal and subsequent offers for a Master Price Agreement from other than the lowest cost proposer;

5.2.2.4 Waive or modify any irregularities in proposals received, after prior notifications to the Proposer(s).

5.2.3 Oral interpretations or statements cannot modify the provisions of this Request for Proposal. If inquiries or comments by Proposers raise issues that require clarification by the Public Procurement Authority, or the Public Procurement Authority decides to revise any part of this Request for Proposal, addenda will be provided to all persons who receive the Request for Proposal. Receipt of an addendum must be acknowledged by signing and returning it with the proposal.

5.2.4 The award, if there is one, will be made to that Proposer(s) who is determined to be the most qualified, responsible and responsive within a competitive price range based upon the evaluation of the information furnished under this RFP.

### 5.3 WITHDRAWAL OF PROPOSAL

At any time prior to the hour and date set for the receipt of proposals, the Proposer(s) may withdraw its proposal. Withdrawal will not preclude the submission of another proposal prior to the deadline.

### 5.4 PROTEST PROCESS

A prospective Proposer may protest the procurement process of the Solicitation Document for an Agreement solicited under ORS 279. Before seeking judicial review, a prospective Proposer must file a written protest with the Public Procurement Authority and exhaust all administrative remedies. Written protests must be delivered to the Public Procurement Authority at 25030 SW Parkway Avenue, Suite 330, Wilsonville, OR 97070 not less than ten (10) days prior to the date upon which all proposals are due. The written protest shall contain a statement of the desired changes to the procurement process or solicitation document that the protester believes will remedy the conditions upon which the protest is based. The Public Procurement Authority shall consider the protest if it is timely filed and meets the conditions set forth in ORS 279. The Public Procurement Authority shall respond pursuant to ORS 279. If the Public Procurement Authority upholds the protest, in whole or in part, the Public Procurement Authority may in its sole discretion either issue an Addendum reflecting its disposition or cancel the procurement or solicitation. The Public Procurement Authority may extend the due date of proposals if it determines an extension is necessary to consider and respond to the protest.

A Proposer may protest the Award of the Contract, or the intent to Award the Contract, if the conditions set forth in ORS 279 are satisfied. Judicial review of the protest and the Public Procurement Authority's decision shall be governed by ORS 279.

### 5.5 NON-ASSIGNMENT

If a Master Price Agreement is awarded, it shall not be assigned in part or in total.

5.6 POST AWARD MEETING:

The successful Proposer(s) may be required to attend a post-award meeting with the PPA to discuss the terms and conditions of the Master Price Agreement.

5.7 PROPOSAL FINAL CERTIFICATION

The Proposer must certify the following:

a) I hereby certify, that the Proposal contained herein, fully and exactly complies with the instruction for proposers and specifications as they appear in this Notice of Solicitation.

b) I hereby further certify that I am authorized by the Board of Directors or Corporate Officers of the Corporation to sign the Requests for Proposals and proposals in the name of the corporation listed below:

Proposer Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Name Typed: \_\_\_\_\_ Title: \_\_\_\_\_

Proposer is a resident bidder of the state of \_\_\_\_\_

Date: \_\_\_\_\_

## **ATTACHMENT A**

### **INTERGOVERNMENTAL COOPERATIVE PURCHASING AGREEMENT**

This Intergovernmental Agreement (Agreement) is by and between the “Lead Contracting Agency” and participating government entities (“Participating Agencies”), that are members of National Purchasing Partners (“NPP”), including members of FireRescue GPO and Public Safety GPO, that agree to the terms and conditions of this Agreement. The Lead Contracting Agency and all Participating Agencies shall be considered as “parties” to this agreement.

WHEREAS, upon completion of a formal competitive solicitation and selection process, the Lead Contracting Agency has entered into Master Price Agreements with one or more Vendors to provide goods and services, often based on national sales volume projections;

WHEREAS, NPP provides group purchasing, marketing and administrative support for governmental entities. NPP’s marketing and administrative services are free to its membership, which includes participating public entities and nonprofit institutions throughout North America.

WHEREAS, NPP has instituted a cooperative purchasing program under which member Participating Agencies may reciprocally utilize competitively solicited Master Price Agreements awarded by the Lead Contracting Agency;

WHEREAS, the Master Price Agreements provide that all qualified government members of NPP may purchase goods and services on the same terms, conditions and pricing as the Lead Contracting Agency, subject to applicable local and state laws of the Participating Agencies;

WHEREAS, the parties agree to comply with the requirements of the Intergovernmental Cooperation Act as may be applicable to the local and state laws of the Participating Agencies;

WHEREAS, the parties desire to conserve and leverage resources, and to improve the efficiency and economy of the procurement process while reducing solicitation and procurement costs;

WHEREAS, the parties are authorized and eligible to contract with governmental bodies and Vendors to perform governmental functions and services, including the purchase of goods and services; and

WHEREAS, the parties desire to contract with Vendors under the terms of the Master Price Agreements;

NOW, THEREFORE, the parties agree as follows:

## **ARTICLE 1: LEGAL AUTHORITY**

Each party represents and warrants that it is eligible to participate in this Agreement because it is a local government created and operated to provide one or more governmental functions and possesses adequate legal authority to enter into this Agreement.

## **ARTICLE 2: APPLICABLE LAWS**

The procurement of goods and services subject to this Agreement shall be conducted in accordance with and subject to the relevant statutes, ordinances, rules, and regulations that govern each party's procurement policies. Competitive Solicitations are intended to meet the public contracting requirements of the Lead Contracting Agency and may not be appropriate under, or satisfy Participating Agencies' procurement laws. It is the responsibility of each party to ensure it has met all applicable solicitation and procurement requirements. Participating Agencies are urged to seek independent review by their legal counsel to ensure compliance with all local and state solicitation requirements.

## **ARTICLE 3: USE OF BID, PROPOSAL OR PRICE AGREEMENT**

- a. A "procuring party" is defined as the Lead Contracting Agency or any Participating Agency that desires to purchase from the Master Price Agreements awarded by the Lead Contracting Agency.
- b. Each procuring party shall be solely responsible for their own purchase of goods and services under this Agreement. A non-procuring party shall not be liable in any fashion for any violation of law or contract by a procuring party, and the procuring party shall hold non-procuring parties and all unrelated procuring parties harmless from any liability that may arise from action or inaction of the procuring party.
- c. The procuring party shall not use this agreement as a method for obtaining additional concessions or reduced prices for similar goods and services outside the scope of the Master Price Agreement.
- d. The exercise of any rights or remedies by the procuring party shall be the exclusive obligation of such procuring party.
- e. The cooperative use of bids, proposals or price agreements obtained by a party to this Agreement shall be in accordance with the terms and conditions of the bid, proposal or price agreement, except as modified where otherwise allowed or required by applicable law, and does not relieve the party of its other solicitation requirements under state law or local policies.

#### **ARTICLE 4: PAYMENT OBLIGATIONS**

The procuring party will make timely payments to Vendors for goods and services received in accordance with the terms and conditions of the procurement. Payment for goods and services, inspections and acceptance of goods and services ordered by the procuring party shall be the exclusive obligation of such procuring party. Disputes between procuring party and Vendor shall be resolved in accordance with the law and venue rules of the state of the procuring party.

#### **ARTICLE 5: COMMENCEMENT DATE**

This Agreement shall take effect after execution of the "Lead Contracting Agency Endorsement and Authorization" or "Participating Agency Endorsement and Authorization," as applicable.

#### **ARTICLE 6: TERMINATION OF AGREEMENT**

This Agreement shall remain in effect until terminated by a party giving 30 days written notice to "Lead Contracting Agency"

#### **ARTICLE 7: ENTIRE AGREEMENT**

This Agreement and any attachments, as provided herein, constitute the complete Agreement between the parties hereto, and supersede any and all oral and written agreements between the parties relating to matters herein.

#### **ARTICLE 8: CHANGES AND AMENDMENTS**

This Agreement may be amended only by a written amendment executed by all parties, except that any alterations, additions, or deletions of this Agreement which are required by changes in Federal and State law or regulations are automatically incorporated into this Agreement without written amendment hereto and shall become effective on the date designated by such law or regulation.

#### **ARTICLE 9: SEVERABILITY**

All parties agree that should any provision of this Agreement be determined to be invalid or unenforceable, such determination shall not affect any other term of this Agreement, which shall continue in full force and effect.

**THIS INSTRUMENT HAS BEEN EXECUTED IN TWO OR MORE ORIGINALS BY EXECUTION AND ATTACHMENT OF "THE LEAD CONTRACTING AGENCY ENDORSEMENT AND AUTHORIZATION" OR "PARTICIPATING AGENCY ENDORSEMENT AND AUTHORIZATION," AS APPLICABLE. ONCE EXECUTED, IT IS THE RESPONSIBILITY OF EACH PARTY TO FILE THIS AGREEMENT WITH THE PROPER AGENCY IF REQUIRED BY LOCAL OR STATE LAW.**

**SAMPLE**

**PUBLIC PROCUREMENT AUTHORITY  
ENDORSEMENT AND AUTHORIZATION**

The undersigned acknowledges, on behalf of the Public Procurement Authority ("Lead Contracting Agency") that he/she has read and agrees to the general terms and conditions set forth in the enclosed Intergovernmental Cooperative Purchasing Agreement regulating use of the Master Price Agreements and purchase of goods and services that from time to time are made available by the Public Procurement Authority to Participating Agencies locally, regionally, and nationally through NPP. Copies of Master Price Agreements and any amendments thereto made available by the Public Procurement Authority will be provided to Participating Agencies and NPP to facilitate use by Participating Agencies.

The undersigned understands that the purchase of goods and services under the provisions of the Intergovernmental Cooperative Purchasing Agreement is at the absolute discretion of the Participating Agencies.

The undersigned affirms that he/she is an agent of the Public Procurement Authority and is duly authorized to sign this Public Procurement Authority Endorsement and Authorization.

**SAMPLE**

\_\_\_\_\_  
BY: \_\_\_\_\_  
ITS: \_\_\_\_\_

Date: \_\_\_\_\_

**Public Procurement Authority Contact Information:**

Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Email: \_\_\_\_\_



**SAMPLE – DO NOT SIGN**

**PARTICIPATING AGENCY  
ENDORSEMENT AND AUTHORIZATION**

The undersigned acknowledges, on behalf of \_\_\_\_\_ (“Participating Agency”) that he/she has read and agrees to the general terms and conditions set forth in the enclosed Intergovernmental Cooperative Purchasing Agreement regulating use of the Master Price Agreements and purchase of goods and services that from time to time are made available by the Lead Contracting Agency to Participating Agencies locally, regionally, and nationally through NPP.

The undersigned further acknowledges that the purchase of goods and services under the provisions of the Intergovernmental Cooperative Purchasing Agreement is at the absolute discretion of the Participating Agency and that neither the Lead Contracting Agency nor NPP shall be held liable for any costs or damages incurred by or as a result of the actions of the Vendor or any other Participating Agency. Upon award of contract, the Vendor shall deal directly with the Participating Agency concerning the placement of orders, disputes, invoicing and payment.

The undersigned affirms that he/she is an agent of \_\_\_\_\_ and is duly authorized to sign this Participating Agency Endorsement and Authorization.

**SAMPLE – DO NOT SIGN**

\_\_\_\_\_  
BY: \_\_\_\_\_  
ITS: \_\_\_\_\_

Date: \_\_\_\_\_

**Participating Agency Contact Information:**

Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Email: \_\_\_\_\_

## ATTACHMENT B

### Proposer Profile Workbook to be completed by all responders as directed herein

**1.0 General questions (Section 1.1 only to be completed by vendors with a national presence; i.e. vendors with a sales territory in 25 states or more).**

1.1 The "Yes" or "No" questions below are to help evaluators familiarize themselves with national vendors. Circle "Yes" or "No" as it applies to your company.

- ✓ Do you have a national sales force adequate in size to meet the demands of multiple agencies and their unique needs for the products and services listed herein?  
Yes or No
- ✓ Do you have a national distribution network?  
Yes or No
- ✓ Can you provide product availability to meet the requirements for materials and services listed herein for government and nonprofit agencies nationwide in a timely manner?  
Yes or No
- ✓ Does your company have the ability to provide toll-free telephone/fax access, and an online presence?  
Yes or No
- ✓ Can you provide a single point of contact (National Account Manager) to interact with the lead agency and NPP staff?  
Yes or No
- ✓ Are you a strong competitor in the industry with a minimum of three consecutive years of demonstrated success in all business practices and pursuits?  
Yes or No

**1.2 Additional Information:**

- 1.2.1 Provide at least three references of government agencies within the United States that have purchased products/services from Proposer similar to those specified in this solicitation within the last year. Include:
  - 1.2.3.1.1 Agency name and address
  - 1.2.3.1.2 Contact name, phone and/or email
  - 1.2.3.1.3 Description of products/services sold and date.
  - 1.2.3.1.4 PPA may use other information, however learned, in evaluation of the response.
- 1.2.2 OPTIONAL: If a Dun and Bradstreet Comprehensive Report (or similar) for your company is available, please submit it with your response.
- 1.2.3 OPTIONAL: Attach any case studies, white papers and/or testimonials supporting your company and products/services.

**2.0 ABOUT PROPOSER:**

2.1 Complete Exhibit 1

2.2 Complete the following table

2.2.1 State of incorporation:	
2.2.2 Federal Tax Identification Number:	
2.2.3 If applicable to the product(s) and/or service(s), describe the Proposer's ability to conduct	

E-commerce. [Insert response in box below]
2.2.4 Describe Proposer's system for processing orders from point of customer contact through delivery and billing. [Insert response in box below]
2.2.5 Describe Proposer's ability to provide detailed electronic reporting of quarterly sales correlated with NPP member ID numbers of Participating Agency purchases as set forth in Addendum A to Vendor Administration Agreement (VAA), a copy of which is available upon request from the PPA. [Insert response in box below]
2.2.6 Describe the capacity of Proposer to meet Minority and Women Business Enterprises (MWBE) preferences, which may vary among Participating Agencies. [Insert response in box below]

### 3.0 DISTRIBUTION SYSTEM:

3.1 Describe distribution of products and services through Proposer's distribution system (including Alaska and Hawaii if applicable). [Insert response in box below]
3.2 Provide Proposer's shipping and delivery policy, including standard delivery time and any options and costs for expedited delivery and return policies. [Insert response in box below]
3.3 If applicable, detail the sub-contracting process (ordering, shipment, invoicing) for those products not carried in Proposer's distribution center. The process shall be transparent to the Participating Agencies. [Insert response in box below]
3.4 What is Proposer's backorder policy? Is your policy to classify as "immediate or cancel" (requiring the Participating Agency to reorder if item is backordered) or "good until cancelled"? [Insert response in box below]

### 4.0 MARKETING:

4.1 Outline Proposer's plan for marketing the Products and Services to the Participating Agencies on a local and national basis. Include any marketing incentives such as committed dollars for advertising, conferences/travel and custom marketing materials. [may attach marketing plan or insert response in box below]

4.2 Explain how Proposer will educate its local and national sales force about the use of the Master Price Agreement. [Insert response in box below]

**5.0 Proposer point of contact (POC) who will administer, coordinate, and manage this program with NPP and the Public Procurement Authority.**

<b>Contact Person:</b>		<b>Title:</b>	
<b>Mailing Address:</b>			
<b>City:</b>		<b>State &amp; Zip:</b>	
<b>Email Address:</b>			
<b>Phone #:</b>		<b>Fax #:</b>	

\* Attach current resume of National Account Manager that will be the POC managing this contract.

**6.0 CUSTOMER SUPPORT SERVICES:**

Explain Proposer's policy regarding each of the following if applicable to product(s) and/or service(s):

6.1 Auditing for order completeness. [Insert response in box below]						
6.2 Replacement policy (i.e., damaged or defective goods). [Insert response in box below]						
6.3 Minimum order requirement (e.g., Individual item vs. case lot). [Insert response in box below]						
6.4 Customer service hours/days of operation [Insert response in boxes below]						
Monday:	Tuesday:	Wednesday:	Thursday:	Friday:	Saturday:	Sunday:
6.5 Special Orders. [Insert response in box below]						
6.6 Post sale services issues. [Insert response in box below]						
6.7 Repair services, including repair warranty programs, if any. Proposer shall identify, where applicable, authorized factory repair facilities that will honor the warranty of items on contract. [Insert response in box below]						
6.8 Technical support services Proposer provides. [Insert response in box below]						
6.9 Product substitution policy. [Insert response in box below]						
6.10 Identify trade-in program criteria (if applicable). [Insert response in box below]						
6.11. After hours service (including weekends and holidays) [Insert response in boxes below]						
Monday:	Tuesday:	Wednesday:	Thursday:	Friday:	Saturday:	Sunday:
6.12 Shipment tracking. [Insert response in box below]						
6.13 Back order tracking process. [Insert response in box below]						

6.14 Return Item process, including any/all associated fees (e.g., restocking, shipping, turnaround time on returns). [Insert response in box below]
6.15 Electronic billing. [Insert response in box below]
6.16 Explain how Proposer will resolve complaints, issues, or challenges. [Insert response in box below]
6.17 Other services not already covered. [Insert response in box below]

**7.0 DELIVERY AND FREIGHT CHARGES:**

7.1 Identify delivery and/or shipping costs or provide a shipping rate schedule based on weight, item, and/or destination for all items ordered within the continental U.S. (and Hawaii/Alaska) The Proposer shall identify all exceptions to this shipping rate schedule. [Insert response in box below]
7.2 Identify policy for transfer of product ownership (delivery) and damage/issue resolution. [Insert response in box below]

**Exhibit 1**  
**Product/Service Coverage**  
**FIRE APPARATUS**  
**RETAIL, DISTRIBUTION AND SERVICE/SUPPORT LOCATIONS**

	Number of retail stores in each state? (leave blank for none)	Number of distribution centers in each state? (leave blank for none)	Number of support locations in each state? (leave blank for none)
ALABAMA			
ALASKA			
ARIZONA			
ARKANSAS			
CALIFORNIA			
COLORADO			
CONNECTICUT			
DELAWARE			
FLORIDA			
GEORGIA			
HAWAII			
IDAHO			
ILLINOIS			
INDIANA			
IOWA			
KANSAS			
KENTUCKY			
LOUISIANA			
MAINE			
MARYLAND			
MASSACHUSETTS			
MICHIGAN			
MINNESOTA			
MISSISSIPPI			
MISSOURI			
MONTANA			
NEBRASKA			
NEVADA			
NEW HAMPSHIRE			
NEW JERSEY			
NEW MEXICO			
NEW YORK			
NORTH CAROLINA			
NORTH DAKOTA			
OHIO			
OKLAHOMA			
OREGON			
PENNSYLVANIA			
RHODE ISLAND			

SOUTH CAROLINA			
SOUTH DAKOTA			
TENNESSEE			
TEXAS			
UTAH			
VERMONT			
VIRGINIA			
WASHINGTON			
WEST VIRGINIA			
WISCONSIN			
WYOMING			

**THIS FORM MUST BE SIGNED AND RETURNED WITH SOLICITATION RESPONSE**

Exhibit 2

**Declaration of Non Collusion**

The undersigned does hereby declare that there has been no collusion between the undersigned, the Public Procurement Authority, and National Purchasing Partners, and in further support of said Declaration, states as follows:

The person, firm, association, co-partnership or corporation herein named has not, either directly or indirectly, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding or solicitation in the preparation and submission of a proposal to the Public Procurement Authority for consideration in the award of a contract or Master Price Agreement negotiated as a result of this Request for Proposal.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
(Name of Firm)

By: \_\_\_\_\_  
(Authorized Signature)

Title: \_\_\_\_\_



## **ATTACHMENT C SPECIFICATIONS**

### **FIRE APPARATUS**

Proposers should respond with pricing for all equipment and options they wish to be considered in the evaluation for a possible award and master price agreement.

Response should include any and all fire apparatus proposer wishes to be considered for contract including but not limited to:

Pumper Fire Apparatus  
Initial Attack Fire Apparatus  
Mobile Water Supply Fire Apparatus  
Aerial Fire Apparatus  
Quint Fire Apparatus  
Special Service Fire Apparatus  
Mobile Foam Fire Apparatus

Apparatus must meet the general guidelines and specifications required in the latest edition of the National Fire Protection Association (NFPA) Standard for Automotive Fire Apparatus (NFPA 1901) and any standards referenced therein. All proposed apparatus must also comply with all applicable federal licensing, rules and regulations including but not limited to:

- American National Standards Institute (ANSI)
- American Society of Mechanical Engineers (ASME)
- American Society for Nondestructive Testing (ASNT)
- American Society for Testing Materials (ASTM)
- American Welding Society (AWS)
- Department of Transportation (DOT)
- Environmental Protection Agency (EPA)
- Federal Motor Vehicle Safety Standards (FMVSS)
- Institute of Electrical and Electronics Engineers (IEEE)
- National Institute for Occupational Safety and Health (NIOSH)
- Occupational Safety and Health Administration (OSHA)
- Society of Automotive Engineers (SAE)
- Underwriters Laboratory (UL)

Additionally, all proposed apparatus must meet applicable state DOT, licensing, rules and regulations in states covered by the response.

Because the specifications of this RFP are general in nature in order to meet the needs of the PPA and all members of the Government Division of National Purchasing Partners, it is incumbent upon the proposer to provide specifications and details for all apparatus and options in their response.

All responses must outline all related aspects of the vehicle sale including but not limited to sales (through authorized dealers), pre-delivery costs (including up to 3 factory visits), delivery, training, manuals, warranty, and service.

## **ATTACHMENT D**

### **FIRE APPARATUS PRICING SCHEDULE**

The intent is for each Proposer to submit their complete product line so that Participating Agencies may order a wide array of products and services as appropriate for their needs. Proposer is encouraged but is not required to respond to all possible categories. Proposer may subcontract items Proposer does not supply. The Proposer should not necessarily limit the proposal to the performance of the services in accordance with this document but should outline any additional services and their costs if the Proposer deems them necessary to accomplish the needs of the cooperative purchasing program.

Pricing and resulting relative discount to PPA and NPP membership shall be clearly delineated on each proposal. Contract pricing shall be based upon:

- 1) Fixed discount(s) off published price list(s) or catalog(s)
- 2) Firm fixed price with economic adjustment (contingencies for economic price adjustments must be identified in the proposal)
- 3) A combination of the above.

#### **Vehicle Models**

Proposers shall provide pricing on all apparatus vehicle models they wish to be considered including, but not limited to, the following categories where applicable:

- Chassis/cab builder
- Cab designs (2/4 door, tilt cab, etc.)
- Cab/body sheet metals (e.g., Stainless steel, aluminum, galvanized)
- Rear axle configuration (single/tandem/tandem front steering/triple rear)
- Fire pump capacities & mounting locations (e.g., 1250/1500/2500 GPM Pump, rear/mid-mounted)
- Body configurations (e.g., Walk-In/Non-Walk-In body)
- Aerial categories (e.g., Construction/turntable positions/aerial device functions)

#### **Options**

Proposers shall provide pricing on all options, modifications, and accessories in a format that best represents their product line and pricing structure. This may include specific pricing for some options and may also include general pricing/discounts for categories of options. Proposer may also indicate availability and pricing of all other non-specified options. The intent is to provide proposers the opportunity to present as much product as possible in the format that fits within their individual formatting needs so that the resulting award allows PPA and NPP members the greatest number of procurement options. Options which replace standard equipment on a proposed vehicle model should be priced net of any credit due for the replaced item.

The following is *one example* of how pricing could be represented in proposer's response:

FIRE APPARATUS PRICING SCHEDULE	
<i><b>NOTE: Be sure to provide ALL models for each particular type of apparatus vehicle to be considered. Add/Insert additional lines as necessary. The following categories are just suggested; it is anticipated the name, number, and name of actual categories provided by proposer will vary significantly</b></i>	Percentage (%) off List Price* ( <b>OR</b> fixed price if % off pricing is not available)
<b>PUMPER</b>	
<b>Example:</b> Ford F-550 2-Door, Pumper, Stainless Steel Body, Single Axle, 1250 GPM Pump, Mid-Mounted	<b>Example:</b> 15% off List  <b>OR</b> \$550,000
<b>Options for each vehicle model or type may be listed here or as a separate options table</b>	
<b>INITIAL ATTACK</b>	
<b>Options for each vehicle model or type may be listed here or as a separate options table</b>	
<b>MOBILE WATER SUPPLY</b>	
<b>Options for each vehicle model or type may be listed here or as a separate options table</b>	

<b>AERIAL</b>	
<b>Options for each vehicle model or type may be listed here or as a separate options table</b>	
<b>QUINT</b>	
<b>Options for each vehicle model or type may be listed here or as a separate options table</b>	
<b>SPECIAL SERVICE</b>	
<b>Options for each vehicle model or type may be listed here or as a separate options table</b>	
<b>MOBILE FOAM</b>	
<b>Options for each vehicle model or type may be listed here or as a separate options table</b>	

\* Identify source of list price and publication date or expiration date.

Example FIRE APPARATUS OPTIONS TABLE	
<p><i><b>NOTE: provide all options to be considered. Add/Insert additional lines as necessary. The following categories are just suggested; it is anticipated the name, number, and name of actual categories provided by proposer will vary significantly</b></i></p>	<p>Percentage (%) off List Price* (<b>OR</b> fixed price if % off pricing is not available)</p>
<b>OPTION DESCRIPTION</b>	<b>PRICING</b>
<b>Example:</b> Entire catalog of options	<b>Example:</b> 10% Off List
<b>Example:</b> Chrome wheel upgrade, single axle	<b>Example:</b> \$8,000
<p><b>The next section could be used to represent other options not specifically listed above, including manufacturer and dealer installed options. These options may be included as a general category or as option categories.</b></p>	
<b>Example:</b> "All other non-specified options available from the manufacturer"	<b>Example:</b> 5% Off List
<b>Example:</b> "All other non-specified options available from the dealer"	<b>Example:</b> List Price
<b>Example:</b> "All other non-specified emergency lighting options"	<b>Example:</b> At least 10% Off List

\* Identify source of list price and publication date or expiration date.

## ATTACHMENT E PROPOSAL EVALUATION FORM

**Proposals will be evaluated using a two-step process.**

**The first step** evaluates the responsiveness of the proposer and determines 1) if the proposer is deemed fully responsive enabling the proposal to move to the second step and 2) if the proposal will be evaluated as a local response (within the State of Oregon) or a national response (covering the entire U.S. or a large region of the U.S.).

**The second step** of the evaluation process will only occur with proposals deemed fully responsive from the first step. The second step fully evaluates the proposers response based on the criteria found in the proposal evaluation form.

### **STEP 1**

#### **Proposal Responsiveness**

Component	YES	NO
Submitted on time		
Proposal signed		
Completed Proposer Workbook		
Included pricing structure		
Included references		
Deemed Fully Responsive	YES	NO
Categorized as Local or National	Local	National

## Proposal Evaluation Form

### STEP 2

#### Full Evaluation of Proposal

##### Point Value Definitions

- 5- Excellent – Substantially exceeds requirements
- 4-Very Good- Meet all requirements
- 3- Good – Meets most requirements
- 2- Satisfactory – Minimally meets requirements
- 1- Unsatisfactory – Requirements essentially not met
- 0- No Response provided

Component Evaluated	Weight	Possible Points (0-5)	Total Points (Weight x PP)	Evaluator's Comments
<u>Pricing:</u> Product price analysis and discounts proposed including favorable pricing for cooperative purchasing.	20			Comments:
<u>Product Line:</u> Product line offered in indicated coverage area, considering geographic distribution limitations, warranties, any sub-proposers and coordination of manufacturer and distribution in response.	25			Comments:
<u>Conformance:</u> Completeness of proposal and the degree to which the Proposer responds to the terms and all requirements of the RFP requirements and specifications.	10			Comments:

<u>Marketing:</u> The Proposer's marketing plan to promote the resulting contractual agreement and ability to incorporate use of agreement in their sales system throughout indicated coverage region.	20			Comments:
<u>Customer Service:</u> Support dedicated to Lead Contracting and Participating Agencies. Ability to conduct e-commerce and meet promised delivery timelines.	5			Comments
<u>Coverage:</u> Ability to provide products and services for indicated coverage region including distribution, retail & service facilities and staff availability. <i>*Note Exhibit 1 from PPW</i>	10			Comments:
<u>Proven Experience &amp; References:</u> Proposer's success in providing products and services in a timely manner including Past Performance Information (PPI) review.	10			Comments:
<b><u>TOTAL</u></b>	100			General Comments:

Name of Evaluator \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_



## ATTACHMENT F

### ORS CHAPTERS 279 (AS MAY BE AMENDED) REQUIREMENTS

Successful Proposer (Contractor) shall comply with the requirements of this ATTACHMENT F to the extent required by any applicable federal or state law.

- (1) Contractor shall pay promptly, as due, all persons supplying labor or materials for the prosecution of the work provided for in the contract, and shall be responsible for such payment of all persons supplying such labor or material to any Subcontractor.
- (2) Contractor shall promptly pay all contributions or amounts due the Industrial Accident Fund from such Contractor or Subcontractor incurred in the performance of the contract.
- (3) Contractor shall not permit any lien or claim to be filed or prosecuted against the District on account of any labor or material furnished and agrees to assume responsibility for satisfaction of any such lien so filed or prosecuted.
- (4) Contractor and any Subcontractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.617.
- (5) If Contractor fails, neglects or refuses to make prompt payment of any claim for labor or materials furnished to the Contractor or a Subcontractor by any person in connection with the contract as such claim becomes due, the District may pay such claim to the persons furnishing the labor or material and charge the amount of payment against funds due or to become due Contractor by reason of the contract. The payment of a claim in the manner authorized hereby shall not relieve the Contractor or his surety from his or its obligation with respect to any unpaid claim. If the District is unable to determine the validity of any claim for labor or material furnished, the District may withhold from any current payment due Contractor an amount equal to said claim until its validity is determined and the claim, if valid, is paid.
- (6) Contractor shall promptly, as due, make payment to any person, co-partnership, association, or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to employees of such Contractor, of all sums which the Contractor agrees to pay for such services and all monies and sums which the Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying for such service.
- (7) Contractor shall pay employees for overtime work performed under the contract in accordance with ORS 653.010 to 653.261 and the Fair Labor Standards Act of 1938 (29 USC 201, *et seq.*)
- (8) The Contractor must give notice to employees who work on this contract in writing, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and the days per week that the employees may be required to work.
- (9) All subject employers working under the contractor either employers that will comply with ORS 656.017, or employers that are exempt under ORS 656.126.
- (10) All sums due the State Unemployment Compensation Fund from the Contractor or any Subcontractor in connection with the performance of the contract shall be promptly so paid.
- (11) The contract may be canceled at the election of District for any willful failure on the part of Contractor to faithfully perform the contract according to its terms.
- (12) Contractor certifies compliance with all applicable Oregon tax laws, in accordance with ORS 305.385.
- (13) Contractor certifies that it has not discriminated against minorities, women or emerging small business enterprises in obtaining any required subcontractors.

**ATTACHMENT G**  
**WIPHE RESPONSE FORM**

**THIS FORM MUST BE RETURNED WITH SOLICITATION RESPONSE**

Vendor servicing Washington State AGREES to sell items included in this solicitation to WIPHE institutions at prices offered, unless otherwise noted below:

\_\_\_\_\_ DOES NOT agree to sell to WIPHE Institutions.

\_\_\_\_\_ AGREES to sell to WIPHE Institutions at same prices and discounts, with the following exceptions: (attach additional pages as necessary)

*Vendor must state geographic areas or specific institution(s) listed below within the State of Washington that are EXCLUDED from the contract(s) resulting from this solicitation:*

**Washington Institutions of Public Higher Education (WIPHE).** See list on following page.

If Vendor agrees to sell to the WIPHE Institutions, a WIPHE Contract number will be assigned and the information will be reported to the Council of Presidents. The Council of Presidents notifies all the other schools when a WIPHE contract has been awarded and a master list will be maintained and the WIPHE website updated. WIPHE shall determine, at its absolute discretion, whether it shall accept and/or utilize the contract resulting from the Request for Proposal

## **Washington Institutions of Public Higher Education (WIPHE)**

### **FOUR-YEAR UNIVERSITIES**

CENTRAL WASHINGTON UNIVERSITY  
EASTERN WASHINGTON UNIVERSITY  
THE EVERGREEN STATE COLLEGE  
UNIVERSITY OF WASHINGTON  
WASHINGTON STATE UNIVERSITY  
WESTERN WASHINGTON UNIVERSITY  
COMMUNITY AND TECHNICAL COLLEGES:  
BATES Technical College  
BELLEVUE Community College  
BELLINGHAM Technical College  
BIG BEND Community College  
CASCADE Community College  
CASCADIA College  
CENTRALIA College  
CLARK College  
CLOVER PARK Technical College  
COLUMBIA BASIN College  
EDMONDS Community College  
EVERETT Community College

GRAYS HARBOR College  
GREEN RIVER Community College  
HIGHLINE Community College  
LAKE WASHINGTON Technical College  
LOWER COLUMBIA College  
OLYMPIC College  
PENINSULA College  
PIERCE College  
RENTON Technical College  
SEATTLE CENTRAL Community Colleges  
SHORELINE Community College  
SKAGIT Valley College  
SOUTH PUGET SOUND Community College  
SPOKANE Community Colleges  
STATE BOARD for Technical & Community Colleges  
WENATCHEE Valley College  
YAKIMA Valley Community College  
WHATCOM Community College

### **Miscellaneous local agencies within Washington State\***

ADAMS COUNTY  
PUYALLUP SCHOOL DIST 3  
KITSAP COUNTY  
FIFE SCHOOL DIST 417  
RIVERVIEW SCHOOL DIST 407  
GONZAGA UNIVERSITY  
PLANNED PARENTHOOD OF WESTERN WASHINGTON  
SNOHOMISH COUNTY  
MASON COUNTY  
FEDERAL WAY SCHOOL DIST  
SPOKANE COUNTY  
ISSAQUAH SCHOOL DIST 411  
ADAMS COUNTY FIRE DISTRICT  
ADAMS COUNTY HEALTH DISTRICT  
AFFILIATED HEALTH SERVICES  
ALDERWOOD WATER DISTRICT  
ANACORTES PORT OF  
ANACORTES SCHOOL DISTRICT 103  
ANNAPOLIS WATER DISTRICT  
ASOTIN COUNTY  
AUBURN SCHOOL DISTRICT 408  
BAINBRIDGE IS SCHOOL DISTRICT 303  
BAINBRIDGE ISLAND FIRE DEPARTMENT  
BAINBRIDGE ISLAND PARKS  
BATTLE GROUND SCHOOL DISTRICT 119  
BELLEVUE SCHOOL DISTRICT 405  
BELLINGHAM PORT OF  
BELLINGHAM SCHOOL DISTRICT 501  
BENTON COUNTY  
BENTON COUNTY FIRE DISTRICT

BENTON COUNTY PUD  
BENTON FRANKLIN COUNTY  
BENTON FRANKLIN PRIVE INDUST CNCL  
BENTON PORT OF  
BETHEL SCHOOL DISTRICT 403  
BIG BROTHERS BIG SISTERS OF KING CO  
BIRCH BAY WATER & SEWER DISTRICT  
BLANCHET SCHOOL DISTRICT  
BREMERTON KITSAP CO HEALTH DISTRICT  
BREMERTON PORT OF  
BREMERTON SCHOOL DISTRICT 100  
BURLINGTON EDISON SCHOOL DIST 100  
CANCER RESEARCH AND BOISTATISTICS  
CASCADE BLUE MT FD SHR  
CASCADE IRRIGATION DISTRICT  
CASHMERE SCHOOL DISTRICT 222  
CATHOLIC COMM SVCS OF KING CO  
CENTRAL KITSAP SCHOOL DISTRICT 401  
CENTRAL WAS COMP MENTAL HEALTH  
CENTRALIA SCHOOL DISTRICT 40  
CHEHALIS SCHOOL DISTRICT 302  
CHELAN COUNTY  
CHELAN COUNTY COMMUNITY HOSPITAL  
CHELAN COUNTY FIRE DISTRICT  
CHELAN COUNTY PUD 1  
CHELAN DOUGLAS COUNTY HEALTH DIST  
CHENEY CARE CENTER  
CHILD CARE RESOURCE & REFERRAL  
CHILDRENS THERAPY CENTER  
CHIMACUM SCHOOL DISTRICT 49  
CLALLAM COUNTY

CLALLAM COUNTY FIRE DISTRICT  
CLALLAM COUNTY HOSPITAL DISTRICT  
CLALLAM COUNTY PUD  
CLARK COUNTY  
CLARK COUNTY FIRE DISTRICT  
CLARK COUNTY PUD  
CLE ELUM-ROSLYN SCHOOL DISTRICT 404  
CLOVER PARK SCHOOL DISTRICT 400  
CNTRL WHIDBEY FIRE & RESCUE  
COAL CREEK UTILITY DISTRICT  
COALITION AGAINST DOMESTIC VIOLENCE  
COLUMBIA COUNTY  
COLUMBIA IRRIGATION DISTRICT  
COLUMBIA MOSQUITO CONTROL DISTRICT  
COMMUNITY CHRISTIAN ACADEMY  
COMMUNITY PSYCHIATRIC CLINIC  
COMMUNITY TRANSIT  
CONFEDERATED TRIBES OF CHEHALIS  
CONSOLIDATED DIKING IMPROVEMENT DIST  
CONSOLIDATED IRRIGATION  
COWLITZ COUNTY  
COWLITZ COUNTY FIRE DISTRICT  
COWLITZ COUNTY PUD  
CROSS VALLEY WATER DISTRICT  
DAYTON SCHOOL DISTRICT 2  
DOUGLAS COUNTY  
DOUGLAS COUNTY FIRE DISTRICT  
DOUGLAS COUNTY PUD  
DRUG ABUSE PREVENTION CENTER  
E COLUMBIA BASIN IRRIGATION DIST  
EAST WENATCHEE WATER  
EATONVILLE SCHOOL DIST 404  
EDMONDS SCHOOL DISTRICT 15  
EDUCATIONAL SERVICE DIST 114  
EDUCATIONAL SERVICE DISTRICT 113  
ELLENSBURG SCHOOL DIST 401  
ENUMCLAW SCHOOL DIST  
EVERETT PORT OF  
EVERETT PUBLIC FACILITIES DIST  
EVERGREEN MANOR INC  
EVERGREEN SCHOOL DIST 114  
FEDERAL WAY FD  
FERRY COUNTY  
FERRY COUNTY PUBLIC HOSPITAL  
FERRY OKAHOGAN FPD  
FOSS WATERWAY DEVELOPMENT AUTHORITY  
FRANKLIN COUNTY  
FRANKLIN COUNTY PUD  
FRANKLIN PIERCE SCHOOL DIST 402  
FRIDAY HARBOR PORT OF  
GARDENA FARMS IRRIGATION DIST 13  
GARFIELD COUNTY  
GRAND COULEE PROJECT  
GRANDVIEW SCHOOL DIST 116/200  
GRANITE FALLS SCHOOL DIST 332  
GRANT COUNTY  
GRANT COUNTY HEALTH DIST

GRANT COUNTY PUD  
GRAYS HARBOR COUNTY  
GRAYS HARBOR COUNTY FIRE DIST  
GRAYS HARBOR COUNTY PUD # 1  
GRAYS HARBOR PORT OF  
GRAYS HARBOR PUB DEV AUTH  
GRAYS HARBOR TRANSIT  
GRIFFIN SCHOOL DIST 324  
HARBORVIEW MEDICAL CENTER  
HAZEL DELL SEWER DIST  
HEALTHY MOTHERS HEALTHY BABIES COAL  
HIGHLINE SCHOOL DIST 401  
HIGHLINE WATER DIST  
HOMESIGHT  
HOPELINK  
HOQUIAM SCHOOL DIST 28  
HOUSING AUTHORITY OF PORTLAND  
ILWACO PORT OF  
INCHELIUM SCHOOL DIST 70  
ISLAND COUNTY  
ISLAND COUNTY FIRE DIST  
JEFFERSON COUNTY  
JEFFERSON COUNTY FIRE DIST  
JEFFERSON COUNTY LIBRARY  
JEFFERSON COUNTY PUD  
JEFFERSON GENERAL HOSPITAL  
KARCHER CREEK SEWER DIST  
KELSO SCHOOL DIST 458  
KENNEWICK GENERAL HOSPITAL  
KENNEWICK SCHOOL DISTRICT 17  
KENT SCHOOL DIST 415  
KETTLE FALLS SCHOOL DIST 212  
KING COUNTY  
KING COUNTY FIRE DIST  
KING COUNTY HOUSING AUTHORITY  
KING COUNTY LIBRARY  
KING COUNTY WATER SEWER  
KINGSTON PORT OF  
KITSAP COUNTY FIRE & RESCUE  
KITSAP COUNTY LIBRARY  
KITSAP COUNTY PUD 1  
KITITITAS COUNTY  
KITITITAS COUNTY PUD  
KITITITAS COUNTY RECLAMATION DIST  
KLICKITAT COUNTY  
KLICKITAT COUNTY PUD  
LAKE CHELAN RECLAMATION DIST  
LAKE STEVENS SCHOOL DIST 4  
LAKE WASHINGTON SCHOOL DIST 414  
LAKEHAVEN UTILITY DIST  
LAKEWOOD SCHOOL DIST 306  
LEWIS CO PUD 1  
LEWIS COUNTY  
LEWIS COUNTY FIRE DIST  
LEWIS PUBLIC TRANSPORTATION  
LIBERTY LAKE SEWER & WATER DIST  
LINCOLN COUNTY

LINCOLN COUNTY FIRE DIST  
LONGVIEW PORT OF  
LONGVIEW SCHOOL DIST 122  
LOTT WASTEWATER ALLIANCE  
LUMMI INDIAN NATION  
MANCHESTER WATER DIST  
MARYSVILLE SCHOOL DIST 25  
MASON COUNTY FIRE DIST  
MASON COUNTY PUD  
MEAD SCHOOL DIST 354  
METRO PARK DISTRICT OF TACOMA  
MID COLUMBIA LIBRARY  
MIDWAY SEWER DISTRICT  
MONROE SCHOOL DIST 103  
MORTON SCHOOL DIST 214  
MOSES LAKE PORT OF  
MOUNT BAKER SCHOOL DIST  
MT VERNON SCHOOL DISTRICT 320  
MUKILTEO SCHOOL DIST 6  
MUKILTEO WATER DIST  
NAVAL STATION EVERETT  
NE TRI COUNTY HEALTH DIST  
NORTH CENTRAL REGIONAL LIBRARY DIST  
NORTH KITSAP SCHOOL DIST 400  
NORTH SHORE UTILITY DISTRICT  
NORTH THURSTON SCHOOL DISTRICT  
NORTHSHORE SCHOOL DIST 417  
NORTHWEST KIDNEY CTR  
NORTHWEST WORK FORCE DEVELOPMENT CO  
NW REGIONAL COUNCIL  
OAK HARBOR SCHOOL DIST 201  
OAKVILLE SCHOOL DIST 400  
OCOSTA SCHOOL DIST 172  
OKANOGAN COUNTY  
OKANOGAN COUNTY FIRE DIST  
OKANOGAN COUNTY PUD  
OKANOGAN SCHOOL DISTRICT  
OLYMPIA PORT OF  
OLYMPIA SCHOOL DISTRICT 111  
OLYMPIA THURSTON CHAMBER FOUNDATION  
OLYMPIC AREA AGENCY ON AGING  
OLYMPIC MEMORIAL HOSPITAL DIST  
OLYMPIC REGION CLEAN AIR AGENCY  
OLYMPIC VIEW WATER & SEWER DIST  
OLYMPUS TERRACE SEWER DIST  
PACIFIC COUNTY  
PACIFIC COUNTY FIRE  
PARATRANSIT SERVICES  
PASCO SCHOOL DIST  
PEND OREILLE COUNTY CONSERV DIST  
PEND OREILLE COUNTY PUB HOSP DIST  
PEND OREILLE COUNTY PUD  
PENINSULA SCHOOL DISTRICT 401  
PERRY TECHNICAL INSTITUTE  
PIERCE COUNTY  
PIERCE COUNTY FIRE DIST  
PORT ANGELES PORT OF

PORT ANGELES SCHOOL DISTRICT 121  
PRESCOTT SCHOOL DIST  
PUGET SOUND CLEAN AIR AGENCY  
PUGET SOUND SCHOOL DIST  
QUINCY COLUMBIA BASIN IRRIG DIST  
RICHLAND SCHOOL DIST 400  
S KITSAP SCHOOL DISTRICT 402  
S SNOHOMISH CO PUBLIC FAC DIST  
SAFEPLACE  
SAMISH WATER DIST  
SAMMAMISH WATER AND SEWER DIST  
SAN JUAN COUNTY  
SAN JUAN COUNTY FIRE DIST  
SEA MAR COMM HEALTH CTR  
SEATTLE JEWISH PRIMARY SCHOOL  
SEATTLE PORT OF  
SEATTLE SCHOOL DIST 1  
SEATTLE UNIVERSITY  
SECOND AMENDMENT FOUNDATION  
SECOND CHANCE INC  
SENIOR OPPORTUNITY SERVICES  
SHELTON SCHOOL DISTRICT 309  
SILVERDALE WATER  
SKAGIT COUNTY  
SKAGIT COUNTY CONSERVATION DIST  
SKAGIT COUNTY FIRE DIST  
SKAGIT COUNTY ISLAND HOSPITAL  
SKAGIT COUNTY PORT OF  
SKAGIT COUNTY PUD 1  
SKAGIT TRANSIT  
SKAMANIA COUNTY  
SKOOKUM INC  
SNOHOMISH COUNTY LIBRARY  
SNOHOMISH COUNTY PUD  
SNOHOMISH HEALTH DISTRICT  
SNOHOMISH SCHOOL DISTRICT 201  
SOAP LAKE SCHOOL DISTRICT 156  
SOOS CREEK WATER AND SEWER DIST  
SOUND TRANSIT  
SOUTH COLUMBIA BASIN IRRIG DIST  
SOUTH EAST EFFECTIVE DEVELOPMENT  
SOUTH SOUND MENTAL HEALTH SERVICES  
SOUTHWEST YOUTH & FAMILY SERVICES  
SPECIAL MOBILITY SERVICES INC  
SPOKANE CO AIR POLLUTION CNTRL  
AUTHORITY  
SPOKANE COUNTY FIRE DIST  
SPOKANE COUNTY LIBRARY  
SPOKANE SCHOOL DISTRICT 81  
ST JOSEPH/MARQUETTE SCHOOL  
STANWOOD SCHOOL DIST 410  
STEVENS COUNTY  
STEVENS COUNTY PUD  
STILLAGUAMISH TRIBE OF INDIANS  
SUMNER SCHOOL DISTRICT 320  
SUNNYSIDE PORT OF  
SUNNYSIDE SCHOOL DISTRICT 201

SUQUAMISH TRIBE  
 SW CLEAN AIR AGENCY  
 SWINOMISH TRIBE  
 TACOMA DAY CHILD CARE AND PRESCHOOL  
 TACOMA MUSICAL PLAYHOUSE  
 TACOMA PORT OF  
 TACOMA SCHOOL DISTRICT 10  
 TACOMA-PIERCE CO  
 TAHOMA SCHOOL DISTRICT 409  
 TERRACE HEIGHTS SEWER DISTRICT  
 THURSTON COMMUNITY TELEVISION  
 THURSTON COUNTY  
 THURSTON COUNTY CONSERVATION DIST  
 THURSTON COUNTY FIRE DISTRICT  
 TOPPENISH SCHOOL DISTRICT 202  
 TOUCHET SD 300  
 TRIUMPH TREATMENT SERVICES  
 TUKWILA SCHOOL DIST 406  
 TUMWATER SCHOOL DISTRICT 33  
 U S DEPARTMENT OF TRANSPORTATION  
 UNITED WAY OF KING COUNTY  
 UNIVERSITY PLACE SCHOOL DIST  
 UPPER SKAGIT INDIAN TRIBE  
 VAL VUE SEWER DISTRICT  
 VALLEY TRANSIT  
 VALLEY WATER DISTRICT  
 VANCOUVER PORT OF  
 VANCOUVER SCHOOL DISTRICT 37  
 VASHON ISLAND SCHOOL DISTRICT 402  
 VERA IRRIGATION  
 VETERANS ADMINISTRATION  
 VOLUNTEERS OF AMERICA  
 WA ASSOC OF SCHOOL ADMINISTRATORS  
 WA ASSOC SHERIFFS & POLICE CHIEFS  
 WA GOVERNMENTAL ENTITY POOL  
 WA LABOR COUNCIL AFL-CIO  
 WA PUBLIC PORTS ASSOCIATION  
 WA RESEARCH COUNCIL  
 WA ST ASSOCIATION OF COUNTIES

WA STATE PUBLIC STADIUM AUTHORITY  
 WAHIAKUM COUNTY  
 WALLA WALLA COLLEGE  
 WALLA WALLA COUNTY  
 WALLA WALLA COUNTY FIRE DISTRICT  
 WALLA WALLA PORT OF  
 WALLA WALLA SD 140  
 WASHINGTON ASSOCIATION  
 WASHINGTON COUNTIES RISK POOL  
 WASHINGTON FIRE COMMISSIONERS ASSOC  
 WASHINGTON HEALTH CARE ASSOCIATION  
 WASHINGTON PUBLIC AFFAIRS NETWORK  
 WASHINGTON STATE MIGRANT COUNCIL  
 WEST VALLEY SCHOOL DISTRICT 208  
 WEST VALLEY SCHOOL DISTRICT 363  
 WESTERN FOUNDATION THE  
 WHATCOM CONSERVATION DIST  
 WHATCOM COUNTY  
 WHATCOM COUNTY FIRE DISTRICT  
 WHATCOM COUNTY RURAL LIBRARY DIST  
 WHIDBEY GENERAL HOSPITAL  
 WHITMAN COUNTY  
 WHITWORTH WATER  
 WILLAPA COUNSELING CENTER  
 WILLAPA VALLEY SCHOOL DISTRICT 160  
 WILLAPA VALLEY WATER DISTRICT  
 WINLOCK SCHOOL DISTRICT 232  
 WOODINVILLE FIRE & LIFE SAFETY DIST  
 WOODLAND PORT OF  
 YAKIMA COUNTY  
 YAKIMA COUNTY FIRE DISTRICT  
 YAKIMA COUNTY REGIONAL LIBRARY  
 YAKIMA SCHOOL DISTRICT 7  
 YAKIMA VALLEY FARMWORKERS CLINIC  
 YAKIMA-TIETON IRRIGATION DISTRICT  
 YELM COMMUNITY SCHOOL DISTRICT  
 YMCA - TACOMA PIERCE COUNTY  
 YMCA OF GREATER SEATTLE

\*Washington State cities and other unnamed Washington State local and municipal agencies may also utilize the resulting Master Price Agreement; provided they enter into the Intergovernmental Cooperative Purchasing Agreement.

## ATTACHMENT H LOCAL GOVERNMENT UNITS BY STATE

### Oregon's Incorporated Cities

Adair Village	Donald	John Day	Nyssa	Tangent
Adams	Drain	Johnson City	Oakland	The Dalles
Adrian	Dufur	Jordan Valley	Oakridge	Tigard
Albany	Dundee	Joseph	Ontario	Tillamook
Amity	Dunes City	Junction City	Oregon City	Toledo
Antelope	Durham	Keizer	Paisley	Troutdale
Arlington	Eagle Point	King City	Pendleton	Tualatin
Ashland	Echo	Klamath Falls	Philomath	Turner
Astoria	Elgin	La Grande	Phoenix	Ukiah
Athena	Elkton	La Pine	Pilot Rock	Umatilla
Aumsville	Enterprise	Lafayette	Port Orford	Union
Aurora	Estacada	Lake Oswego	Portland	Unity
Baker City	Eugene	Lakeside	Powers	Vale
Bandon	Fairview	Lakeview	Prairie City	Veneta
Banks	Falls City	Lebanon	Prescott	Vernonia
Barlow	Florence	Lexington	Prineville	Waldport
Bay City	Forest Grove	Lincoln City	Rainier	Wallowa
Beaverton	Fossil	Lonerock	Redmond	Warrenton
Bend	Garbaldi	Long Creek	Reedsport	Wasco
Boardman	Gaston	Lostine	Richland	Waterloo
Bonanza	Gates	Lowell	Riddle	West Linn
Brookings	Gearhart	Lyons	Rivergrove	Westfir
Brownsville	Gervais	Madras	Rockaway	Weston
Burns	Gladstone	Malin	Rogue Beach	Wheeler
Butte Falls	Glendale	Manzanita	Roseburg	Willamina
Canby	Gold Beach	Maupin	Rufus	Wilsonville
Cannon Beach	Gold Hill	Maywood Park	Salem	Winston
Canyon City	Granite	McMinnville	Scappoose	Wood Village
Canyonville	Grants Pass	Medford	Scio	Woodburn
Carlton	Grass Valley	Merrill	Scott Mills	Yachats
Cascade Locks	Greenhorn	Metolius	Seaside	Yamhill
Cave Junction	Gresham	Mill City	Seneca	Yoncalla
Central Point	Haines	Millersburg	Shady Cove	
Chiloquin	Halfway	Milton-Freewater	Shaniko	
Clatskanie	Halsey	Milwaukie	Sheridan	
Coburg	Harrisburg	Mitchell	Sherwood	
Columbia City	Helix	Molalla	Siletz	
Condon	Heppner	Monmouth	Silverton	
Coos Bay	Hermiston	Monroe	Sisters	
Coquille	Hillsboro	Monument	Sodaville	
Cornelius	Hines	Moro	Spray	
Corvallis	Hood River	Mosier	Springfield	
Cottage Grove	Hubbard	Mt. Angel	St. Helens	
Cove	Huntington	Mt. Vernon	St. Paul	
Creswell	Idanha	Myrtle Creek	Stanfield	
Culver	Imbler	Myrtle Point	Stayton	
Dallas	Independence	Nehalem	Sublimity	
Damascas	Ione	Newberg	Summerville	
Dayton	Irrigon	Newport	Sumpter	
Dayville	Island City	North Bend	Sutherlin	
Depoe Bay	Jacksonville	North Plains	Sweet Home	
Detroit	Jefferson	North Powder	Talent	

### Idaho's Incorporated Cities

Acequia	Dover	Idaho City	Mountain Home	Shoshone
Albion	Downey	Idaho Falls	Murray	Soda Springs
American Falls	Driggs	Island Park	Nampa	Spirit Lake
Ammon	Eagle	Aberdeen	Donnelly	Horseshoe Bend
Arco	Elk City	Juliaetta	New Plymouth	St. Maries
Ashton	Emmett	Kamiah	Nezperce	Stanley
Bancroft	Fairfield	Kellogg	Orofino	Star
Bellevue	Franklin	Ketchum	Parma	Stites
Boise	Fruitland	Kimberly	Payette	Sugar City
Bonnors Ferry	Garden City	Kooskia	Pierce	Sun Valley
Buhl	Garden Valley	Kuna	Pocatello	Tetonia
Burley	Genesee	Lava Hot Springs	Post Falls	Troy
Caldwell	Glenns Ferry	Lewiston	Potlatch	Twin Falls
Cambridge	Gooding	MacKay	Preston	Victor
Carey	Grandjean	Malad	Priest River	Wallace
Cascade	Grace	Malta	Rathdrum	Wardner
Challis	Grangeville	Marsing	Rexburg	Weippe
Chubbuck	Hailey	McCall	Richfield	Weiser
Coeur d' Alene	Harrison	McCammon	Rigby	Wendell
Cottonwood	Hauser	Melba	Riggins	Whitebird
Council	Hayden	Meridian	Rupert	Moscow
Dalton Gardens	Heyburn	Middleton	Salmon	
Dietrich	Hidden Springs	Montpelier	Sandpoint	

This is not a complete list of all Idaho cities, but all other Idaho cities shall be incorporated by this reference.

### Idaho's Counties

Ada	Bonneville	Custer	Kootenai	Owyhee
Adams	Boundary	Elmore	Latah	Payette
Bannock	Butte	Franklin	Lemhi	Power
Bear Lake	Camas	Fremont	Lewis	Shoshone
Benewah	Canyon	Gem	Lincoln	Teton
Bingham	Caribou	Gooding	Madison	Twin Falls
Blaine	Cassia	Idaho	Minidoka	Valley
Boise	Clark	Jefferson	Nez Perce	Washington
Bonner	Clearwater	Jerome	Oneida	

All other Idaho local government units shall be incorporated by this reference.



**Fifth Amendment to Fire Apparatus  
Master Price Agreement**

**Product Addition and Price Correction**

This Amendment to the Master Price Agreement is entered into this 29<sup>th</sup> day of May 2017 by PUBLIC PROCUREMENT AUTHORITY ("Purchaser") and PIERCE MANUFACTURING, INC. ("Vendor") based upon the sales and/or service of Fire Apparatus.

**RECITALS**

WHEREAS, Purchaser and Vendor entered into a Master Price Agreement on or about August 13, 2015 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into an Amendment to the Master Price Agreement on or about February 13, 2016 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into a Second Amendment to the Master Price Agreement on or about March 28, 2016 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into a Third Amendment to the Master Price Agreement on or about October 31, 2016 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into a Fourth Amendment to the Master Price Agreement on or about January 31, 2017 and by this reference incorporated herein; and

WHEREAS, Vendor included the Arrow XT Aerial Product Line in its Proposal; and

WHEREAS, new Arrow XT Aerial Products have become available; and

WHEREAS, Vendor has provided notice, on or about May 2, 2017, to include the new Arrow XT Aerial Products at comparable pricing offered for existing Arrow XT Aerial Products in the Master Price Agreement; and

WHEREAS, Vendor adjusted Price List on or about January 31, 2017; and

WHEREAS, Vendor has provided notice on or about April 25, 2017 to correct a scrivener error on the price of an Aerial Product from the January 31, 2017 Price List Update; and

WHEREAS, Purchaser and Vendor desire that the Master Price Agreement shall be amended in part to reflect the product addition and price list correction.

NOW, THEREFORE, Purchaser and Vendor enter into the following:

## AMENDMENT TO MASTER PRICE AGREEMENT

1. **Product Addition and Price List Correction.** Attachment A to the Master Price Agreement shall be amended in part to reflect the following product addition and price list correction:

### 1.0 Aerial Product

ID#	Description	Price
1.27	Arrow XT, Single, 1500 Pump, 107' Aerial	\$975,930.00
1.28	Arrow XT, Single, 2000 Pump, 110' Platform	\$993,564.00
1.29	Arrow XT, Ascendant Tiller NPNT	\$1,244,946.00
1.30	Arrow XT, Ascendant Tiller Quint	\$1,333,686.00

2. **Full Force and Effect.** In each and every other respect, the terms of the Master Price Agreement, as amended, entered into between the parties on or about August 13, 2015 shall remain in full force and effect during the term of the agreement and the parties hereto hereby ratify said Master Price Agreement in its entirety, as if fully set out herein, along with the modifications identified herein.

**IN WITNESS WHEREOF**, the parties have hereto signed this Amendment on the day and year first above written.

PUBLIC PROCUREMENT AUTHORITY

*Heidi Arnold*

Date 5/29/17

BY: Heidi Arnold  
ITS: Contract Manager

PIERCE MANUFACTURING, INC.

*Christina Spang*

Date 5 29 17

BY: *Christina Spang*  
ITS: *Sr Sales Operations Manager*

## **Fourth Amendment to Fire Apparatus Master Price Agreement**

### **Pricing Adjustment**

This Amendment to the Master Price Agreement is effective this 31<sup>st</sup> day of January, 2017 by the PUBLIC PROCUREMENT AUTHORITY ("Purchaser") and Pierce Manufacturing Inc. ("Vendor") based upon the sales and/or service of Fire Apparatus.

### **RECITALS**

WHEREAS, Purchaser and Vendor entered into a Master Price Agreement on or about August 13, 2015 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into an Amendment to the Master Price Agreement on or about February 13, 2016 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into a Second Amendment to the Master Price Agreement on or about March 28, 2016 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into a Third Amendment to the Master Price Agreement on or about October 31, 2016 and by this reference incorporated herein; and

WHEREAS, Article 4.1 of the Master Price Agreement provides for price adjustments in six (6) month increments; and

WHEREAS, Vendor has provided notice of pricing adjustment on or about September 9, 2016; and

WHEREAS, Purchaser and Vendor desire that the Master Price Agreement shall be amended in part to reflect the price adjustment;

NOW, THEREFORE, Purchaser and Vendor enter into the following:

### **FOURTH AMENDMENT TO FIRE APPARATUS MASTER PRICE AGREEMENT**

1. Adjustment to Pricing on Fire Apparatus. Attachment A to the Master Price Agreement shall be amended in its entirety to read as follows:

## **“ATTACHMENT A**

to Master Price Agreement by and between **VENDOR** and **PURCHASER**.

### **PRODUCTS, SERVICES, SPECIFICATIONS AND PRICES**

#### ATTACHMENT A PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING

##### BASE MODEL SPECIFICATIONS

##### 1.0 AERIAL PRODUCT

<b>ID #</b>	<b>DESCRIPTION</b>	<b>PIERCE PRICE 2017</b>
1.1	Saber, Alum, Single, 1500 Pump, 75' HD Aluminum ladder Quint	\$ 688,322.00
1.2	Arrow XT XT, Alum, Single, 1500 Pump, 75' HD, Aluminum Ladder, Quint	\$ 751,058.00
1.3	Arrow XT XT, Alum, Tandem, 1500 Pump, 105' HD Steel Ladder, Quint	\$ 860,820.00
1.4	Arrow XT XT, Alum, Tandem, No Pump, 105' HD Steel Ladder	\$ 795,287.00
1.5	Arrow XT XT, Alum, Single, 100' HD Steel Ladder, Tiller	\$ 976,286.00
1.6	Arrow XT XT, Alum, Tandem, 1500 Pump, 75' HD Steel Ladder, Quint	\$ 762,294.00
1.7	Arrow XT XT, Alum, Single, 1500 Pump, 75' HD Steel Ladder, Quint	\$ 740,976.00
1.8	Arrow XT XT, Alum, Tandem, 1500 Pump, 100' HD Aluminum Ladder, Quint	\$ 915,538.00
1.9	Arrow XT, Alum, Tandem, No Pump, 100' HD Aluminum Ladder	\$ 851,184.00
1.10	Arrow XT, Alum, Tandem, 1500 Pump, 85' Steel Platform, Quint	\$ 944,688.00
1.11	Arrow XT, Alum, Tandem, No Pump, 85' Steel Platform	\$ 877,853.00
1.12	Arrow XT, Alum, Tandem, 1500 Pump, 100' Steel Platform, Quint	\$ 1,030,412.00
1.13	Arrow XT, Alum, Tandem, No Pump, 100' Steel Platform	\$ 956,389.00
1.14	Arrow XT, Alum, Tandem, 1500 Pump, 100' Aluminum Platform, Quint	\$ 1,096,757.00
1.15	Arrow XT, Alum, Tandem, No Pump, 100' Aluminum Platform	\$ 1,023,601.00
1.16	Arrow XT, Alum, Tandem, 2000 Pump, 95' Mid-Mount Steel Platform	\$ 1,090,054.00

1.17	Arrow XT, Alum, Tandem, No Pump, 95' Mid-Mount Steel Platform	\$ 1,022,895.00
1.18	Arrow XT, Alum, Tandem, 2000 Pump, 100' Mid-Mount Steel Ladder, Quint	\$ 962,136.00
1.19	Arrow XT, Alum, Tandem, No Pump, 100' Mid-Mount Steel Ladder	\$ 896,298.00
1.20	Saber FR, Alum, Single, 1250 Pump, 61'/55/ Sky-Boom	\$ 571,998.00
1.21	Arrow XT, Alum, Single, 1250 Pump, 61'/55/ Sky-Boom	\$ 634,438.00
1.22	Impel, Alum, Single, 1250 Pump, 50' Snozzle	\$ 594,321.00
1.23	Saber, Alum, Single, 1500 Pump, 50' Snozzle	\$ 558,702.00
1.24	Arrow XT, Alum, Single, 75' HAL PUC Quint	\$ 777,830.00
1.25	Arrow XT, Alum, Tandem, 105' HD Steel Ladder PUC	\$ 895,361.00
1.26	Arrow XT, Alum, Tandem, 100' Steel Platform PUC	\$ 1,062,160.00
1.27	Arrow XT, Single, 1500 Pump, 107' Aerial	\$ 698,278.20

## 2.0 PUMPER PRODUCT

ID #	DESCRIPTION	PIERCE PRICE 2017
2.1	Saber FR, Alum, Single, 1250 Pumper, 750 Water	\$ 346,510.00
2.2	Impel, Alum, Single, 1250 Pump, 750 Water	\$ 387,104.00
2.3	Impel, Alum, Single, 1500 Pump, PUC, 750 Water	\$ 451,581.00
2.5	Freightliner M2-106, 2-Door, Alum, Single, 1250 Pump, 750 Water	\$ 214,396.00
2.6	International 4400, 2-door, Alum, Single, 1250 Pump, 750 Water	\$ 223,226.00
2.7	Kenworth T370, 2-Door, Alum, Single, 1250 Pump, 750 Water	\$ 222,186.00
2.8	Peterbilt 337, 2-Door, Alum, Single, 1250 Pump, 750 Water	\$ 230,802.00
2.9	Freightliner M2-106, 4-Door, Galv, Single, 1000 Pump, 4x4 Wildland	\$ 346,857.00
2.10	Ford F550 Super Duty, 2-Door Ext, Alum, Single, 120 Pump, Patrol Brush Truck	\$ 139,052.00

## 3.0 RESCUE

ID #	DESCRIPTION	PIERCE PRICE 2017
3.1	Arrow, Alum, Single, Non-Walk-In, HDR	\$ 399,331.00
3.2	Saber FR, Alum, Single, Non-Walk-In HDR	\$ 330,025.00

3.3	Freightliner M2-106, 2-Door, Alum, Single, Non-Walk-In, HDR	\$	231,369.00
3.4	International 7400, 2-Door, Alum, Single, Non-Walk-In, HDR	\$	206,573.00
3.5	Kenworth T370, 2-Door, Alum, Single, Non-Walk-In, HDR	\$	207,999.00
3.6	Peterbilt 337, 2-Door, Alum, Single, Non-Walk-In, HDR	\$	216,312.00
3.7	Saber FR, Alum, Single, Walk-In, HDR	\$	356,654.00
3.8	Arrow XT, Alum, Single, Walk-In, HDR	\$	435,264.00
3.9	Freightliner M2-106, 2-Door, Alum, Single, Walk-In HDR	\$	231,362.00
3.10	International 7400, 2-Door, Alum, Single, Walk-In, HDR	\$	238,898.00
3.11	Kenworth T370, 2-Door, Alum, Single, Walk-In, HDR	\$	231,114.00
3.12	Peterbilt 337, 2-Door, Alum, Single, Walk-In, HDR	\$	248,161.00
3.13	Ford F550, 4-Door, Alum, Single, 12' Non-Walk-In	\$	143,443.00
3.14	Freightliner M2-106, 2-Door, Alum, Single, ENCORE	\$	178,562.00

#### 4.0 TANKER

ID #	DESCRIPTION	PIERCE PRICE 2017
4.1	Freightliner M2-106, 2-Dr, Alum, Tandem, 500 Pump, 3000 Water, DX	\$ 225,834.00
4.2	Impel, Alum, Tandem, 1250 Pump, 2000 Water, Tanker/Pumper	\$ 468,963.00
4.3	Freightliner M2-106, 2-Dr, Single, 1000 Pump, 2100 Water DX	\$ 215,807.00
4.4	International 4400, 2-Dr, Single, 1000 Pump, 2100 Water, DX	\$ 222,141.00
4.5	Kenworth T370, 2-Dr, Single, 1000 Pump, 2100 Water, DX	\$ 218,622.00
4.6	Saber FR, 4-Dr, Single, 1500 Pump, 1800 Water, Pumper/Tanker	\$ 363,247.00
4.7	Impel, Aluminum, Tandem, 1250 Pump, 2500 Water, Elliptical	\$ 462,775.00
4.8	Saber FR, Aluminum, Single, 1250 Pump, 1800 Water, Elliptical	\$ 401,508.00
4.9	Peterbilt 348, 2-Dr, Alum, Tandem, 500 Pump, 3000 Water, DX	\$ 245,900.00
4.10	Kenworth T370, 2Dr, Alum, Tandem, 500 Pump, 3000 Water, DX	\$ 233,337.00
4.11	International 7500, 2-Dr, Alum, Tandem Rear, 500 pump, 3000 Water, DX	\$ 245,742.00

**ATTACHMENT A**  
**PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING**

**OPTION CATALOG PRICING: SAMPLING**

*Note:* We have provided a price range for several option categories. The reason for this is the extensive volume of options Pierce offers along with the variety of options within and across product categories. For example, Pierce manufactures 7 different custom cabs. In each cab family, there are up to 10 different configurations which are tied to options specific to a certain product offering (e.g. Pumper, Aerial, Rescue, Tanker, etc.). The price range encompasses the low and high end for that particular category. This is a sampling of what we offer as our order configurator includes over 30,000 options. This number of options is too extensive to list individually.

**1.0 CUSTOM CHASSIS**

<b>PUBLISHED OPTIONS:</b>		<b>PRICE RANGE</b>	
562564	Various Arrow XT Cabs	53,706.00	73,505.00
689045	Various Dash CF Cabs	53,274.00	58,904.00
625652	Various Enforcer Cabs	47,219.00	60,417.00
647271	Various Impel FR Cabs	47,446.00	72,435.00
559725	Various Quantum Cabs	55,200.00	64,235.00
625654	Various Saber FR Cabs	45,146.00	59,416.00
647244	Various Velocity FR Cabs	50,840.00	75,091.00

**2.0 AXLE,FRONT**

<b>PUBLISHED OPTIONS:</b>		<b>PRICE RANGE</b>	
566636	Axle, Front, Dana, 16,000 - 23,000 lb	8,406.00	9,041.00
637708	Axle, Front, Meritor 18,000 - 21,500 lb,	10,260.00	37,888.00
624947	Axle, Front, Marmon Herrington 21,500 (FWD)	33,769.00	37,886.00
30262	Axle, Front, Oshkosh TAK-4, Non Drive, 19,500 - 24,000 lb	28,051.00	30,807.00

**3.0 AXLE,REAR**

<b>PUBLISHED OPTIONS:</b>		<b>PRICE RANGE</b>	
690933	Axle, Front, Dana, 16,000 - 40,000 lb	9,013.00	26,998.00
10404	Axle, Rear, Eaton, 24,000 - 31,000 (FWD)	23,256.00	30,729.00
37001	Axle, Tiller, Meritor 34,000 - 48,000 lb	25,510.00	31,371.00
52481	Axle, Tiller Trailer, Oshkosh TAK-4, 26,000 - 52,000	46,872.00	78,959.00
530472	Axle, Rear, Meritor, 17,000 - 60,000 lb	8,537.00	41,571.00
644866	Axle, Rear, Oshkosh TAK-4 T3, 26,000 - 52,000 lb, Rear Steer	14,261.00	17,892.00

#### 4.0 BRAKES

PUBLISHED OPTIONS:		PRICE RANGE	
20674	ABS Brake Systems, Tandem Rear Axle	6,407.00	12,458.00
10670	ABS Brake Systems , Single rear axle	5,728.00	10,610.00
705	Brakes, Cam, Front,	666.00	917.00
740	Brakes, Cam, Rear (single - Tandem)	683.00	1,465.00
508676	Brakes, EX225, 17", Disc Plus, Front (and or TAK-4)	666.00	1,286.00
509206	Brakes, Meritor, EX225, Disc Plus, Rear (single - tandem)	835.00	1,661.00
593759	ESC/ABS/ATC Brake System (single - tandem)	10,610.00	11,288.00

#### 5.0 COMPARTMENTS ACCESSORIES

PUBLISHED OPTIONS:		PRICE RANGE	
4002	Matting, .13" Rubber in Compt per	59.00	
3934	Dust Filter, All Compt Louvers per	99.00	
4005	Alum Treadplate on Compt Floor per	147.00	
3990	Grating, Wood in Compt per	226.00	
539811	Box, Poly Tool per	288.00	
13919	Partition, Adjustable, Vertical Compt	418.00	
562776	Toolboard, .188" Alum, Rr Wall Compt,w/Track, No Holes, Painted	743.00	
27093	Rack, Air Bags inside Compt, 6-Slot	1,157.00	
558501	Drawer Assembly, CTECH, Four Drawers, Up To 24" Wide	2,108.00	

#### 6.0 COMPARTMENT, PUMPERS

PUBLISHED OPTIONS:		PRICE RANGE	
83648	Med Body, Roll/Lap, Various Heights & Depths	2,842.00	16,832.00
83661	Long Body, Roll/Lap, Various Heights & Depths	5,669.00	23,060.00
585287	PUC Body, Roll/Lap, Various Lengths, Heights & Depths	7,636.00	36,859.00
6708	HDRP Body, Roll/LAP, Various Length, Heights & Depths	14,934.00	15,643.00

#### 7.0 COMPARTMENT, TANKERS

PUBLISHED OPTIONS:		PRICE RANGE	
231	Long Tanker Body, Rollup/Lap, Various Heights & Depths	1,246.00	15,991.00
63851	Extended Tanker Body, Rollup/Lap, Various Heights & Depths	4,081.00	27,663.00

#### 8.0 ENGINE

PUBLISHED OPTIONS:		PRICE RANGE	
623882	Engine, Cummins ISL9, 350 - 450 hp, 1150 - 1250 ft-lb W/OBD	81,177.00	98,408.00
623942	Engine, Cummins ISX12, 400 - 600 hp, 1550 ft-lb, W/OBD	111,877.00	127,612.00
610863	Engine, DDC DD13, 450 - 525 hp	100,137.00	118,057.00



## 9.0 FOAM SYSTEMS

PUBLISHED OPTIONS:		PRICE RANGE	
5414	Foam Sys, Eductor	7,494.00	7,840.00
65417	Foam Sys, 1600 - 2002	9,074.00	21,632.00
592633	Foam Sys, Husky 3, Single Agent	10,558.00	
95358	Foam Sys, Husky 12, (Single Agent)	18,891.00	
95353	Foam Sys, Husky 12, (Dual Agent)	21,477.00	
676901	Foam Sys, Husky Single Agent, Industrial	36,623.00	110,324.00

## 10.0 Foam Cells

PUBLISHED OPTIONS:		PRICE RANGE	
5446	Foam Cell, 20 - 60 Gallon	1,618.00	2,487.00
88466	Foam Tank, 1000 - 2500 Gallon	10,933.00	24,228.00

## 11.0 GENERATORS

PUBLISHED OPTIONS:		PRICE RANGE	
684098	Generator, Gas,	2,085.00	7,794.00
20947	Generator, Diesel	15,708.00	30,946.00
649150	Generator, Hydraulic	19,540.00	45,201.00

## 12.0 GRAPHICS

PUBLISHED OPTIONS:		PRICE RANGE	
684084	Lettering, Vinyl, 1.00 - 4.00 (1 - 160)	198.00	1,689.00
686417	Lettering, Gold Leaf, 1.00 - 11.00 (1 - 160)	495.00	6,327.00

## 13.0 LADDER STORAGE

PUBLISHED OPTIONS:		PRICE RANGE	
4296	Rack, Ladders in Hosebed/Between Tank & Side Sheet	1,052.00	5,661.00
14308	Rack, Quic-Lift	6,996.00	8,767.00
2773	Rack, Laddr, Hydraulic	10,685.00	13,151.00

## 14.0 LIGHTING

PUBLISHED OPTIONS:		PRICE RANGE	
0006372	Lightbar, Various Brand, Length & Function	766.00	7,199.00
0689545	Lights, Compt, LED	116.00	6,339.00
647803	Lights, Clearance/Marker/ID	127.00	228.00
648293	Light, Directional, Front	370.00	1,087.00
0058128	Lights, Front, Warning	94.00	6,532.00
0041878	Lights, Front Zone Lower	483.00	2,080.00
644038	Lights, Perimeter Scene, Cab	196.00	1,470.00
65704	Lights, Rear Scene	58.00	639.00
41634	Light, Side Zone Upper	396.00	2,898.00

**15.0 LIGHT TOWERS**

<b>PUBLISHED OPTIONS:</b>		<b>PRICE RANGE</b>
0636216	Light Tower, NS2.3-1500 MAG, 2-750W Magnafire Lts, 120 VAC Cld 7.5'	9,267.00
0636206	Light Tower, NS2.3-6000 OPT, 4-1500W Optimum Lts, 240 VAC Cld 7.5'	10,542.00
0642218	Light Tower KL450, 6-500W Lights, 120 Volt AC, Cld	13,378.00
0636195	Light Tower, NS4.5-6000 OPT, 4-1500W Optimum Lts, 240 VAC Cld 15'	16,162.00
0523461	Light Vertical Tower, IWM 7-25-9000 OPT 6-1500W 240V Optimum 25'	21,185.00

**16.0 SAFETY SYSTEMS**

<b>PUBLISHED OPTIONS:</b>		<b>PRICE RANGE</b>
583042	Side Roll and Frontal Impact Protection	12,272.00
583040	Frontal Impact Protection	2,997.00
583041	Side Roll Protection	9,615.00

**17.0 SHEVELING/TRAYS**

<b>PUBLISHED OPTIONS:</b>		<b>PRICE RANGE</b>
0687079	Shelves, Adjustable, 500 lb Capacity, Full Width (each)	207.00
647042	Tray, Floor Mounted, Slide-Out, w/ Side Slides, 200lb, 2.00" Sides (each)	683.00
3984	Tray, 250 lb Slide-out, 2" Sides - Adj. Height (each)	562.00
3983	Tray, 500 lb Slide-out, 2" Sides - Adj. Height (each)	973.00
83986	Tray, 215 lb, Tilt/Slide-Out, 30 Deg, Adj (each)	726.00

**18.0 TRANSMISSION**

<b>PUBLISHED OPTIONS:</b>		<b>PRICE RANGE</b>
642569	Trans, Allison 5th Gen, 3000 EVS P, With Prognostics	24,807.00
642574	Trans, Allison 5th Gen, 3000 EVS PR, With Prognostics	38,236.00
642579	Trans, Allison 5th Gen, 4000 EVS P, With Prognostics	36,540.00
642594	Trans, Allison 5th Gen, 4000 EVS PR, With Prognostics	48,194.00
642532	Trans, Allison 5th Gen, 4500 EVS P	39,212.00
642601	Trans, Allison 5th Gen, 4500 EVS PR, With Prognostics	50,938.00

**19.0 UNDERCOATING**

<b>PUBLISHED OPTIONS:</b>		<b>PRICE RANGE</b>
695507	Rust Proof, Torque Box	306.00
599008	Rust Proof/Undercoat, Custom Chassis	598.00
7379	Undercoating, Pumper/Rescue/Tanker	662.00
631674	E-Coat, TAK-4 Components, Front Axle, Black	672.00
646119	E-Coat, TAK-4 Components, Tiller Axle, Black	672.00
652945	E-Coat, Under Body/Chassis Component Package	1,883.00
25070	Corrosion Prevention Treatment, Dissimilar Metal	2,287.00

20.0 Water Tanks

PUBLISHED OPTIONS		PRICE RANGE	
9308	Tank, Water, 200 - 500 Gallon, Poly, Aerial	7,345.00	9,888.00
28244	Tank, Water, 500 - 30000 Gallon, Poly	7,380.00	26,772.00

The pricing above is current as of February 1, 2017.

2. **Full Force and Effect.** In each and every other respect, the terms of the Master Price Agreement, as amended, entered into between the parties on or about August 13, 2015 shall remain in full force and effect during the term of the agreement and the parties hereto hereby ratify said Master Price Agreement in its entirety, as if fully set out herein, along with the modifications identified herein.

IN WITNESS WHEREOF, the parties have hereto signed this Amendment on the day and year first above written.

PUBLIC PROCUREMENT AUTHORITY:

Heidi Arnold Date 12/26/16  
BY: Heidi Arnold  
ITS: Contract Manager

PIERCE MANUFACTURING INC.:

[Signature] Date 12/26/16  
BY: [Signature]  
ITS: VP Finance

**Third Amendment to Fire Apparatus  
Master Price Agreement**

**Dealer List Adjustment**

This Amendment to the Master Price Agreement is entered into this 31<sup>st</sup> day of October, 2016 by PUBLIC PROCUREMENT AUTHORITY ("Purchaser") and PIERCE MANUFACTURING, INC. ("Vendor") based upon the sales and/or service of Fire Apparatus.

**RECITALS**

WHEREAS, Purchaser and Vendor entered into a Master Price Agreement on or about August 13, 2015 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into an Amendment to the Master Price Agreement on or about February 13, 2016 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into a Second Amendment to the Master Price Agreement on or about March 28, 2016 and by this reference incorporated herein; and

WHEREAS, Vendor has provided a list of dealers authorized to sell Fire Apparatus under the terms of the Master Price Agreement; and

WHEREAS, Vendor has provided notice, on or about September 19, 2016, that the list of authorized dealers has been updated and can be found electronically online; and

WHEREAS Vendor desires to provide a link where the current list of dealers authorized to sell Fire Apparatus under the terms of the Master Price Agreement can be found online; and

WHEREAS, Purchaser and Vendor desire that the Master Price Agreement shall be amended in part to reflect the addition of the dealer link;

NOW, THEREFORE, Purchaser and Vendor enter into the following:

**AMENDMENT TO MASTER PRICE AGREEMENT**

1. **Dealer list for Fire Apparatus.** Attachment A to the Master Price Agreement shall be amended in part to include the following link where the current list of

dealers authorized to sell Fire Apparatus under the terms of the Master Price Agreement can be found online:

<http://www.piercemfg.com/find-a-dealer>

2. **Full Force and Effect.** In each and every other respect, the terms of the Master Price Agreement, as amended, entered into between the parties on or about August 13, 2015 shall remain in full force and effect during the term of the agreement and the parties hereto hereby ratify said Master Price Agreement in its entirety, as if fully set out herein, along with the modifications identified herein.

**IN WITNESS WHEREOF**, the parties have hereto signed this Amendment on the day and year first above written.

PUBLIC PROCUREMENT AUTHORITY:

Heidi Arnold Date 10/31/16  
BY: Heidi Arnold  
ITS: contract Manager

PIERCE MANUFACTURING, INC.:

[Signature] Date 10/28/16  
BY:  
ITS:

## **Second Amendment to Fire Apparatus Master Price Agreement**

### **Product Line Addition and Dealer List Update**

This Amendment to the Master Price Agreement is entered into this 6th day of March, 2016 by PUBLIC PROCUREMENT AUTHORITY ("Purchaser") and PIERCE MANUFACTURING, INC. ("Vendor") based upon the sales and/or service of Fire Apparatus.

### **RECITALS**

WHEREAS, Purchaser and Vendor entered into a Master Price Agreement on or about August 13, 2015 and by this reference incorporated herein; and

WHEREAS, Purchaser and Vendor entered into an Amendment to the Master Price Agreement on or about February 13, 2016 and by this reference incorporated herein; and

WHEREAS, Vendor included the Arrow XT Aerial Product Line in its Proposal; and

WHEREAS, a new Arrow XT Aerial Product has become available; and

WHEREAS, Vendor has provided notice, on or about February 29, 2016, to include the new Arrow XT Aerial Product at comparable pricing offered for existing Arrow XT Aerial Products in the Master Price Agreement; and

WHEREAS, A list of authorized dealers for Vendor is identified in the Master Price Agreement; and

WHEREAS, Vendor has provided notice that the list of authorized dealers has been updated on or about March 6, 2016; and

WHEREAS, Purchaser and Vendor desire that the Master Price Agreement shall be amended in part to reflect the product line addition and authorized dealer list update.

NOW, THEREFORE, Purchaser and Vendor enter into the following:

### **AMENDMENT TO MASTER PRICE AGREEMENT**

1. **Product Addition.** Attachment A to the Master Price Agreement shall be amended in part to reflect the following product addition:

**1.0 Aerial Product**

ID#	Description	Price
1.27	Arrow XT, Single, 1500 Pump, 107' Aerial	\$759,891.00

2. **Dealer List for Fire Apparatus.** Attachment A to the Master Price Agreement shall be amended in part to replace the list of authorized dealers with the one below:

Force Dealer/Authorized Dealer	Principal	Telephone	Fax	Mailing Address	E-mail Address
ATLANTIC EMERGENCY SOLUTIONS INC	JOE PACH	(703) 399-9111	(703) 399-9284	12351 RANDOLPH RIDGE LANE, MANASSAS VA 20108	joe.p@atlanticemergency.com
CHURCHVILLE FIRE EQUIPMENT CORP	STEVE GULYEN	(505) 283-1888	(505) 283-1833	340 SAMFORD RD S, CHURCHVILLE NY 14228-9548	stevegulyen@churchvillefire.com
CONRAD FIRE EQUIPMENT INC	PAUL SCHULTZ	(513) 780-6211	(513) 780-6251	887 N JEFFERSON COURT, CLATHE KS 66061	paul@conradfire.com
EMERGENCY EQUIPMENT PROFESSIONALS	JEFF KUNTZ	(662) 280-7299	(662) 342-7251	PO Box 1726, SOUTHAVEN MS 38671	juntz@eeproc.com
EMERGENCY VEHICLE SPECIALIST	ROBERT WHARTON, JR	(501) 327-5200	(501) 327-5200	PO BOX 287, MEMPHIS TN 38101	rwharton@evs-specialist.com
FINLEY FIRE EQUIPMENT CO INC	JOHN W FINLEY	(740) 964-3301	(740) 962-5122	20 SOUTH 5TH STREET, MCCOMBVILLE OH 43066	jfinley@finleyfs.com
FIRE & SAFETY SERVICES LTD	DAVE RUSSELL	(609) 402-8917	(609) 428-8113	280 RYAN STREET, SOUTH PLAINFIELD NJ 07080	dave@fss-usa.com
FIRE APPARATUS & EQUIPMENT INC	LESLIE NILES	(930) 574-3118	(930) 574-5112	P.O. BOX 297, APPLETON WI 54912-0297	lniles@le@gmail.com
FIREMATIC	PETER CHANDLEY	(617) 353-1811	(617) 353-6202	PO BOX 187, YAPHANK NY 11980-0187	chandley@firematic.com
FRONT RANGE FIRE APPARATUS LTD	DUANE DOUCETTE	(303) 448-9911	(303) 448-1203	7600 MILLER COURT, LONGMONT CO 80501	duaned@frontrangefire.com
GLICK FIRE EQUIPMENT CO INC	DOUG GLICK	(717) 259-1201	(717) 259-1201	PO BOX 98, BICKETOWN PA 17004-0098	dglick@firematic.com
GLOBAL EMERGENCY PRODUCTS	MIKE MCKOLA, JR.	(630) 894-1985	(630) 878-1555	1401 N FARMINGTON AVE, AURORA IL 60505-1511	mmckola@emcol.com
GOLDEN STATE FIRE APPARATUS INC	RYAN WRIGHT	(209) 520-4122	(209) 520-4951	1241 DOKER DRIVE, MODESTO CA 95351	ryan@GoldenStateFire.com
HALT FIRE INC	TODD LINCOLN	(248) 689-0010	(248) 689-0120	50168 WEST MONTICUT TRAIL, UNIT 6, WILCOMB MI 48363	lincoln@haltfire.net
HUGHES FIRE EQUIPMENT INC	BOB HUGHES	(541) 740-0072	(541) 740-0073	910 WELLEY ST, SPRINGFIELD OR 97477	rhughes@hughesfire.com
MINUTEMAN FIRE AND RESCUE APPARATUS	JEFF FOURNER	(508) 688-1112	(508) 321-6636	2181 PROVIDENCE HIGHWAY, WALPOLE MA 01901	jfourner@minutemanfire.com
NORTH STAR FIRE APPARATUS	BRAD WHITE	(603) 488-8894	(603) 482-2617	3800 AMERICAN DRIVE, APPLETON WI 54914	brad@nstarfire.com
RELIANT FIRE APPARATUS INC	SCOTT RUEGER	(262) 297-6020	(262) 297-6722	950 ENTERPRISE DRIVE, PO BOX 430, SLEINGER WI 53088	scott@reliantfire.com
ROSS EQUIPMENT COMPANY INC	MERED CROSS	(801) 556-2437	(801) 556-5871	7285 SOUTH 700 W, MIDVALE UT 84047	mross@rosscorp.com
SCHUMACHER FIRE EQUIPMENT LLC	JOHN SCHUMACHER	(616) 333-9007	(616) 339-7930	2600 E 6TH STREET, WASHINGTON MO 63090	john342@stbcglobal.net
SIDCO'S NORTH EMERGENCY GROUP INC	PAT SIDCOBS	(281) 442-6600	(281) 442-6650	14233 INTERDRIVE WEST, HOUSTON TX 77062	pat.sidcobs@sidcofire.com
SOUTH COAST FIRE EQUIP INC	KEVIN NEWELL	(903) 873-9500	(903) 873-9700	2020 S BAKER AVE, ONTARIO CA 91761	kevin@southcoastfire.net
SPARTAN FIRE & EMERGENCY APPARATUS	ROBERT E FORD IV	(864) 282-2110	(864) 282-2177	319 SOUTHPORT ROAD, ROEBUCK NC 28376	rford@spartanfire.com
TEN-8 FIRE EQUIPMENT INC	DANN BOWLER	(941) 766-7719	(941) 766-5990	2904 59TH AVE DR E, BRADENTON FL 34203-6312	dannbowler@ten8fire.com

3. **Full Force and Effect.** In each and every other respect, the terms of the Master Price Agreement, as amended, entered into between the parties on or about August 13, 2015 shall remain in full force and effect during the term of the agreement and the parties hereto hereby ratify said Master Price Agreement in its entirety, as if fully set out herein, along with the modifications identified herein.

IN WITNESS WHEREOF, the parties have hereto signed this Amendment on the day and year first above written.



PUBLIC PROCUREMENT AUTHORITY

Heidi Arnold

Date 3/28/16

BY: Heidi Arnold  
ITS: Contract Manager

PIERCE MANUFACTURING, INC.

Michael E. Pack

Date 3/22/16

BY: Michael E. Pack  
ITS: VP Finance

## **Amendment to Fire Apparatus Master Price Agreement**

### **Pricing Adjustment**

This Amendment to the Master Price Agreement is effective as of the 13th day of February, 2016 by the Public Procurement Authority ("Purchaser") and Pierce Manufacturing Inc. ("Vendor") based upon the sales and/or service of Fire Apparatus.

### **RECITALS**

WHEREAS, Purchaser and Vendor entered into a Master Price Agreement on or about August 13, 2015 and by this reference incorporated herein; and

WHEREAS, Article 4.1 of the Master Price Agreement provides for price adjustments in six (6) month increments; and

WHEREAS, Vendor has provided notice of pricing adjustment on or about December 10, 2016; and

WHEREAS, Purchaser and Vendor desire that the Master Price Agreement shall be amended in part to reflect the price adjustment;

\* NOW, THEREFORE, Purchaser and Vendor enter into the following:

### **AMENDMENT TO FIRE APPARATUS MASTER PRICE AGREEMENT**

1. Adjustment to Pricing on Fire Apparatus. Attachment A to the Master Price Agreement shall be amended in its entirety to read as follows:

#### **"ATTACHMENT A**

to Master Price Agreement by and between VENDOR and PURCHASER,

PRODUCTS, SERVICES, SPECIFICATIONS AND PRICES

First Amendment Price List has been removed, but is available upon request. Current price list is included in the Attachment A in the Amendment set forth at the beginning of this document.

The pricing above is current as of February 13, 2016.

2. Full Force and Effect. In each and every other respect, the terms of the Master Price Agreement, as amended, entered into between the parties on or about August 13, 2016 shall remain in full force and effect during the term of the agreement and the parties hereto hereby ratify said Master Price Agreement in its entirety, as if fully set out herein, along with the modifications identified herein.

IN WITNESS WHEREOF, the parties have hereto signed this Amendment on the day and year first above written.

PUBLIC PROCUREMENT AUTHORITY

Heidi Arnold Date 1/27/16  
BY: Heidi Arnold  
ITS: Contract Manager

PIERCE MANUFACTURING INC.

Michael E. Pack Date 1/27/16  
BY: Michael E. Pack  
ITS: VP Finance

**PUBLIC PROCUREMENT AUTHORITY**  
**MASTER PRICE AGREEMENT**

This Master Price Agreement is effective as of the date of the last signature below (the "Effective Date") by and between the PUBLIC PROCUREMENT AUTHORITY ("PPA" or "Purchaser") and PIERCE MANUFACTURING INC. ("Vendor").

**RECITALS**

WHEREAS, the Vendor is in the business of selling certain FIRE APPARATUS and related products and services, as further described herein; and

WHEREAS, the Vendor desires to sell and the Purchaser desires to purchase certain products and related services all upon and subject to the terms and conditions set forth herein; and

WHEREAS, Purchaser and Vendor desires to extend the terms of this Master Price Agreement to benefit other qualified government members of National Purchasing Partners, LLC dba FireRescue GPO, dba Public Safety GPO, dba Law Enforcement GPO and dba NPPGov;

NOW, THEREFORE, Vendor and Purchaser, intending to be legally bound, hereby agree as follows:

**ARTICLE 1 – CERTAIN DEFINITIONS**

- 1.1 "Parties" shall mean the Purchaser and Vendor.
- 1.2 "Agreement" shall mean this Master Price Agreement, including the main body of this Agreement and Attachments A-F attached hereto and by this reference incorporated herein, including Purchaser's Request for Proposal RFP No.1420 (herein "RFP") and Vendor's Proposal submitted in response to the RFP (herein "Vendor's Proposal") as referenced and incorporated herein as though fully set forth (sometimes referred to collectively as the "Contract Documents").
- 1.3 "Applicable Law(s)" shall mean all applicable federal, state, and local laws, statutes, ordinances, codes, rules, regulations, standards, orders, and other governmental requirements of any kind.
- 1.4 "Employee Taxes" shall mean all taxes, assessments, charges and other amounts whatsoever payable in respect of, and measured by the wages of, the Vendor's employees (or subcontractors), as required by the Federal Social Security Act and all amendments thereto and/or any other applicable federal, state or local law.
- 1.5 "Purchaser's Destination" shall mean such delivery location(s) or destination(s) as Purchaser may prescribe from time to time.
- 1.6 "Products and Services" shall mean the products and/or services to be sold by Vendor hereunder as identified and described on Attachment A hereto and incorporated herein, as may be updated from time to time by Vendor to reflect products and/or services offered by Vendor generally to its customers.
- 1.7 "Purchase Order" shall mean any authorized written, electronic, or fax order sent or made by Purchaser pursuant hereto, including, but not limited to, written purchase orders, requisitions sent by fax machine,

and orders in such other form and/or mode of transmission as Purchaser and Vendor may from time to time agree. In addition, the parties agree that this Agreement and accepted Purchase Orders constitute a contract for the sale of goods and/or services and satisfy all statutory and legal formalities of a contract.

- 1.8 "Unemployment Insurance" shall mean the contribution required of Vendor, as an employer, in respect of, and measured by, the wages of its employees (or subcontractors) as required by any applicable federal, state or local unemployment insurance law or regulation.
- 1.9 "National Purchasing Partners (NPP)" is a subsidiary of two nonprofit health care systems. The Government Division of NPP, herein after referred to as "NPPGov," provides group purchasing marketing and administrative support for governmental entities within the membership. NPPGov's membership includes participating public entities across North America.
- 1.10 "Lead Contracting Agency" shall mean the Public Procurement Authority, which is the governmental entity that issued the Request for Proposal and awarded this resulting Master Price Agreement.
- 1.11 "Participating Agencies" shall mean members of National Purchasing Partners for which Vendor has agreed to extend the terms of this Master Price Agreement pursuant to Article 2.5 and Attachment C herein. For purposes of cooperative procurement, "Participating Agency" shall be considered "Purchaser" under the terms of this agreement.

## **ARTICLE 2 – AGREEMENT TO SELL**

- 2.1 Vendor hereby agrees to sell to Purchaser such Products and Services as Purchaser may order from time to time by Purchase Order and accepted in writing by vendor, all in accordance with and subject to the terms, covenants, and conditions of this Agreement. Products and services may be sold through any authorized Vendor dealer as indicated in Vendor's Proposal and listed in Attachment A. Vendor's current authorized dealer list as amended will be available on Vendor website. Purchaser agrees to purchase those Products and Services ordered by Purchaser by Purchase Order in accordance with and subject to the terms, covenants, and conditions of this Agreement. In lieu of a Purchase Order, the customer or vendor contract may be acceptable.
- 2.2 All Purchase Orders issued by Purchaser to Vendor for Products during the Term (as hereinafter defined) of this Agreement are subject to the provisions of this Agreement as though fully set forth in such Purchase Order. The vendor holds authority to negotiate above and beyond the terms of this agreement to meet the customer or vendor contract requirements. In the event that the provisions of this Agreement conflict with any Purchase Order issued by Purchaser to Vendor, the provisions of this Agreement shall govern. No other terms and conditions, including, but not limited to, those contained in Vendor's standard printed terms and conditions, on Vendor's order acknowledgment, invoices or otherwise, shall have any application to or effect upon or be deemed to constitute an amendment to or to be incorporated into this Agreement, any Purchase Order, or any transactions occurring pursuant hereto or thereto, unless this Agreement shall be specifically amended to adopt such other terms and conditions in writing by the parties.
- 2.3 Notwithstanding any other provision of this Agreement to the contrary, Purchaser shall have no obligation to order or purchase any Products and Services hereunder and the placement of any Purchase Order shall be in the sole discretion of Purchaser. This Agreement is not exclusive. Vendor expressly acknowledges and agrees that Purchaser may purchase at its sole discretion, Products and Services which are identical or similar to the Products and Services described in this Agreement from any third party.

2.4 Except as otherwise expressly set forth herein, in case of any conflict or inconsistency between any of the Contract Documents, the documents shall prevail and apply in the following order of priority:

- (i) This Agreement;
- (ii) Vendor's Proposal; and
- (iii) The RFP.

Vendor has provided a list of Exceptions to the RFP Solicitation identified in Vendor's Proposal. Vendor's Exceptions to the RFP are hereby **approved** and by this reference incorporated herein.

Notwithstanding the foregoing, to the extent there is any conflict between any provision set forth in the main body of this Agreement and any pricing provisions, information and/or schedule(s) set forth in Vendor's Proposal incorporated as Attachment D, the pricing provisions, information and/or schedule(s) set forth in the Vendor's Proposal shall control.

2.5 Extension of contract terms to National Purchasing Partners, LLC

2.5.1 Pursuant to Section 1.0 of the RFP, Vendor agrees to extend the same terms, covenants and conditions available to Purchaser under this Agreement to other government agencies and non-profit entities that are members of National Purchasing Partners, that have executed an Intergovernmental Cooperative Purchasing Agreement (IGA) as a Participating Agency as may be required by the government agency's local regulations, and that wish to access this Agreement in accordance with Attachment C which is attached hereto and incorporated herein by reference. Each Participating Agency will be exclusively responsible for and deal directly with Vendor on matters relating to ordering, delivery, inspection, acceptance, invoicing, and payment for Products and Services in accordance with the terms and conditions of this Agreement as if it were "Purchaser" hereunder. Any disputes between a Participating Agency and Vendor will be resolved directly between them under and in accordance with the laws of the State in which the Participating Agency exists. Pursuant to the IGA, the Lead Contracting Agency shall not incur any liability as a result of the access and utilization of this Agreement by other Participating Agencies.

2.5.2 *This Solicitation meets the public contracting requirements of the Purchaser and may not be appropriate under or meet Participating Agencies' procurement laws. Participating Agencies are urged to seek independent review by their legal counsel to ensure compliance with all local and state solicitation requirements.*

2.5.3 Vendor acknowledges execution of a Vendor Administration Fee Agreement with National Purchasing Partners, LLC, pursuant to the terms of the RFP.

2.6 Oregon Public Agencies are prohibited from use of products and services offered under this contract that are already provided by qualified nonprofit agencies for disabled individuals as listed on the Department of Administrative Service's Procurement List ("Procurement List") pursuant to ORS 279.835-.855. See [www.OregonRehabilitation.org/qrf](http://www.OregonRehabilitation.org/qrf) for more information. Vendor shall not sell products and services identified on the Procurement List (e.g., reconditioned toner cartridges) to Purchaser or Participating Agencies within the state of Oregon or to public institutions in other states with similar restrictions.

### **ARTICLE 3 – TERM AND TERMINATION**

- 3.1 The initial contract term shall be for two (2) calendar years from the effective date of this Agreement. Upon termination of the original two (2) year term, this Agreement shall extend for up to three (3) successive one (1) year periods; provided that the Lead Contracting Agency and/or the proposer may opt to decline extension of the MPA by providing notification in writing at least thirty (30) calendar days prior to the annual extension anniversary of the original term.
- 3.2 Either party may terminate this Agreement by written notice to the other party if the other party breaches any of its obligations hereunder and fails to remedy the breach within thirty (30) days after receiving written notice of such breach from the non-breaching party.

### **ARTICLE 4 – PRICING, INVOICES, PAYMENT, AND DELIVERY**

- 4.1 Purchaser shall pay Vendor for all Products and Services ordered and delivered in compliance with the terms and conditions of this Agreement on the terms and at the pricing specified for each such Product and Service on Attachment A. The pricing schedule for Products and Services set forth on Attachment A hereto shall remain fixed for the initial six (6) months of the Agreement and will be reviewed and updated by Vendor in six (6) month increments based on the next manufacturer price increase or other indicators that warrant price adjustments. This may include but not limited to changes in the National Fire Protection Association (NFPA) standards and/or Environmental Protection Agency (EPA) requirements.
- Pricing contained in Attachment A shall be extended to all NPPGov, FireRescue GPO and Law Enforcement GPO members upon execution of the IGA.
- 4.2 Vendor shall submit original invoices to Purchaser in form and substance and format reasonably acceptable to Purchaser. All invoices must reference the Purchaser's Purchase Order number, contain an itemization of amounts for Products and Services purchased during the applicable invoice period and any other information reasonably requested by Purchaser, and must otherwise comply with the provisions of this Agreement and such reasonable requirements as may be prescribed by Purchaser from time to time. Invoices shall be addressed as directed by Purchaser.
- 4.3 Unless otherwise specified, Purchaser is responsible for any and all applicable sales taxes. Applicable sales tax may be added to the Vendor pricing, in which case the Purchaser is not required to pay sales tax direct to the purchaser's state.
- 4.4 Purchaser shall not be responsible for any additional costs or expenses incurred by Vendor in connection with the Products and Services except those set forth in Attachment A and Attachment F, including (but not limited to) the "Pre-Delivery Expenses" section of Attachment F.
- 4.5 Price reductions or discount increases may be offered at any time during the contract term and shall become effective upon notice of acceptance from Purchaser.
- 4.6 Unless otherwise expressly agreed upon in writing by the parties (in a Purchase Order or otherwise), and as set forth in Attachments D and F herein, Vendor shall deliver Products to the requesting Participating Agency FOB Manufacturer's facility. As set forth in Attachment F, Vendor will, upon Participating Agency's request, assist with coordinating transportation of the Product, provided that such shipping/delivery costs are not included in the pricing and will be the sole responsibility of the Participating Agency.

- 4.7 Vendor shall have the risk of loss of or damage to any Products until delivery to Purchaser at shipping point (FOB Manufacturer's facility). Purchaser shall have the risk of loss of or damage to the Products after delivery to Purchaser. Notwithstanding the foregoing, and unless otherwise expressly agreed to by the Parties in writing, title to Products shall not transfer to Purchaser until Purchaser has fully satisfied all of its payment obligations hereunder. Note: final payment is different than an elected pre-payment, and cannot to be used interchangeable.

#### **ARTICLE 5 – INSURANCE**

- 5.1 During the term of this Agreement, Vendor shall maintain at its own cost and expense (and shall cause any subcontractor to maintain) insurance policies providing insurance of the kind and in the amounts generally carried by reasonably prudent manufacturers in the industry, with one or more reputable insurance companies licensed to do business in Oregon and any other state or jurisdiction where Products and Services are sold hereunder. Such certificates of insurance shall be made available to the PPA within thirty (30) days of request.  
BY SIGNING THE AGREEMENT PAGE THE VENDOR AGREES TO THIS REQUIREMENT AND FAILURE TO MEET THIS REQUIREMENT WILL RESULT IN CANCELLATION OF THIS MASTER PRICE AGREEMENT.
- 5.2 All insurance required herein shall be maintained in full force and effect until all work or service required to be performed under the terms of the Master Price Agreement is satisfactorily completed and formally accepted. Any failure to comply with the claim reporting provisions of the insurance policies or any breach of an insurance policy warranty shall not affect coverage afforded under the insurance policies to protect the Public Procurement Authority. The insurance policies may provide coverage that contains deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall not be applicable with respect to the coverage provided to the Public Procurement Authority under such policies. Vendor shall be solely responsible for the deductible and/or self-insured retention and the Public Procurement Authority, at its option, may require Vendor to secure payment of such deductibles or self-insured retentions by a surety bond or an irrevocable and unconditional letter of credit.
- 5.3 Vendor shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over Vendor's employees engaged in the performance of the work or services, as well as Employer's Liability insurance. Vendor waives all rights against the Public Procurement Authority and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the Workers' Compensation and Employer's Liability or commercial umbrella liability insurance obtained by Vendor pursuant to this agreement.
- 5.4 Insurance required herein shall not be permitted to expire, be canceled, or materially changed without prior written notice to the Public Procurement Authority. The Public Procurement Authority will be sent an updated certificate of insurance twice annually with current effective policies.
- 5.5 Notwithstanding the foregoing, to the extent there is any conflict between any provision set forth in Article 5 of this Agreement and any insurance provisions, information and/or certificate(s) set forth in or attached to Vendor's Proposal incorporated as Attachment D, the insurance provisions, information and/or certificate(s) set forth in or attached to Vendor's Proposal shall control.



## **ARTICLE 6 – INDEMNIFICATION AND HOLD HARMLESS**

- 6.1 Vendor agrees that it shall indemnify, defend and hold harmless Purchaser, its respective officials, directors, employees and agents (collectively, the “Indemnities”), and National Purchasing Partners, LLC from and against any and all damages, claims, proceedings, losses, expenses, costs, obligations and liabilities (including without limitation reasonable attorney’s fees), suffered directly or indirectly by any of the Indemnities to the extent, or arising out of any third-party claim alleging: (i) any breach of any covenant, representation or warranty made by Vendor in this Agreement, (ii) any failure by Vendor to perform or fulfill any of its obligations, covenants or agreements set forth in this Agreement, (iii) the negligence or intentional misconduct of Vendor, any subcontractor of Vendor, or any of their respective employees or agents, (iv) any failure of Vendor, its subcontractors, or their respective employees to comply with any Applicable Law, (v) any litigation, proceeding or claim by any third party relating in any way to the obligations of Vendor under this Agreement or Vendor’s performance under this Agreement, (vi) any Employee Taxes or Unemployment Insurance, or (vii) any claim alleging that the Products and Services or any part thereof infringe any third party’s U.S. patent, copyright, trademark, trade secret or other intellectual property interest. Such obligation to indemnify shall not apply where the damage, claim, loss, expense, cost, obligation or liability is due to the breach of this Agreement by, or negligence or willful misconduct of, Purchaser or its officials, directors, employees, agents or contractors. In addition, Vendor shall not be liable for infringement claims related to nonstandard or special-order product, the design of which is provided to Vendor by Purchaser. The amount and type of insurance coverage requirements set forth herein will in no way be construed as limiting the scope of the indemnity in this paragraph. The provisions of this Article shall survive the expiration or termination of this Agreement.
- 6.2 **LIMITATION OF LIABILITY: IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES IN CONNECTION WITH OR ARISING OUT OF THIS AGREEMENT, INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR INJURIES TO PERSONS OR TO PROPERTY OR LOSS OF PROFITS OR LOSS OF FUTURE BUSINESS OR REPUTATION, WHETHER BASED ON TORT OR BREACH OF CONTRACT OR OTHER BASIS, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**
- 6.3 The same terms, conditions and pricing of this Agreement may be extended to government members of National Purchasing Partners, LLC. In the event the terms of this Agreement is extended to other government members, each government member (procuring party) shall be solely responsible for the ordering of goods and services under this Agreement. A non-procuring party shall not be liable in any fashion for any violation by a procuring party, and the procuring party shall hold non-procuring parties or unrelated purchasing parties harmless from any liability that may arise from action or inaction of the procuring party.

## **ARTICLE 7 – WARRANTIES**

Purchaser shall refer to Vendor’s Proposal for all Vendor and manufacturer express warranties, as well as those warranties provided under Attachment B herein. Warranties tie to the specific unit purchased at time of sale.

## **ARTICLE 8 - INSPECTION AND REJECTION**

- 8.1 Purchaser shall have the right to inspect and test Products at any time prior to shipment from Manufacturer's facility. Products for which a written notice of defect has not been delivered to the Vendor within fifteen (15) days prior to delivery shall be deemed accepted by Purchaser. The payment for Products shall in no way impair the right of Purchaser to reject nonconforming Products, or to avail itself of any other remedies to which it may be entitled.
- 8.2 If any of the Products are found at any time to be materially defective in material or workmanship, damaged, or otherwise not in conformity with the requirements of this Agreement or any applicable Purchase Order, and a written notice of defect has been delivered to the Vendor within fifteen (15) days of delivery, as its exclusive remedy, Purchaser may at its option and at Vendor's sole cost and expense, elect either to (i) return any damaged, non-conforming or defective Products to Vendor for correction or replacement, or (ii) require Vendor to inspect the Products and remove or replace damaged, non-conforming or defective Products with conforming Products. If Purchaser elects option (ii) in the preceding sentence and Vendor fails within thirty (30) days of written notice thereof to initiate the necessary inspection, removal and replacement, Purchaser, at its option, may inspect the Products and Vendor shall bear the cost thereof. Payment by Purchaser of any invoice shall not constitute acceptance of the Products covered by such invoice, and acceptance by Purchaser shall not relieve Vendor of its warranties or other obligations under this Agreement.
- 8.3 The provisions of this Article shall survive the expiration or termination of this Agreement.

## **ARTICLE 9 – SUBSTITUTIONS**

Except as otherwise permitted hereunder, Vendor may not make any substitutions of Products, or any portion thereof, of any kind without the prior written consent of Purchaser. However vendor substitutions that do not change the fit, form, and/or function of the product and are insignificant in nature, such as cosmetic changes, do not require prior written consent.

## **ARTICLE 10 - COMPLIANCE WITH LAWS**

- 10.1 Vendor agrees to comply with all Applicable Laws. At Vendor's expense, secure and maintain in full force during the term of this Agreement, all licenses, permits, approvals, authorizations, registrations and certificates, if any, required by Applicable Laws in connection with the performance of its obligations hereunder. At Purchaser's request, Vendor shall provide to Purchaser copies of any or all such licenses, permits, approvals, authorizations, registrations and certificates.
- 10.2 Purchaser has taken all required governmental action to authorize its execution of this Agreement and there is no governmental or legal impediment against Purchaser's execution of this Agreement or performance of its obligations hereunder.

## **ARTICLE 11 – PUBLICITY / CONFIDENTIALITY**

- 11.1 Except as otherwise expressly authorized herein, no news releases, public announcements, advertising materials, or confirmation of same, concerning any part of this Agreement or any Purchase Order issued hereunder shall be issued or made without the prior written approval of the parties or the commencement of the agreement to the public forum. Neither party shall in any advertising, sales materials or in any other

way use any of the names or logos of the other party without the prior written approval of the other party or the commencement of the agreement to the public forum. The vendor is to market this program as an avenue to procure fire apparatus and will require marketing material to promptly initiate awareness including but not limited to names and logos. Notwithstanding the foregoing, following the completion of a sale to any Participating Agency hereunder, Vendor shall have the right to make general news releases and/or public announcements confirming the sale of a Product to such Participating Agency without the prior written approval of the parties, so long as such general news release and/or public announcement do not reference this Agreement (and/or any of the terms, covenants, and conditions set forth herein).

- 11.2 Any knowledge or information which Vendor or any of its affiliates shall have disclosed or may hereafter disclose to Purchaser, and which in any way relates to the Products and Services covered by this Agreement shall not, unless otherwise designated by Vendor, be deemed to be confidential information, and shall be acquired by Purchaser, free from any confidentiality restrictions, as part of the consideration for this Agreement. Note: designation of confidential material required and to be retained by Vendor.

#### **ARTICLE 12 - RIGHT TO AUDIT**

Subject to Vendor's reasonable security and confidentiality procedures, Purchaser, or any third party retained by Purchaser, may at any time upon prior reasonable notice to Vendor, during normal business hours, audit the books, records and accounts of Vendor to the extent that such books, records and accounts pertain to sale of any Products and Services hereunder or otherwise relate to the performance of this Agreement by Vendor and are related to a sale which has been made hereunder this agreement. Vendor shall maintain all such books, records, and accounts for a period of at least three (3) years after the date of expiration or termination of this Agreement. The Purchaser's right to audit under this Article 12 and Purchaser's rights hereunder shall survive the expiration or termination of this Agreement for a period of three (3) years after the date of such expiration or termination.

#### **ARTICLE 13 - REMEDIES**

Except as otherwise provided herein, any right or remedy of Vendor or Purchaser set forth in this Agreement shall not be exclusive, and, in addition thereto, Vendor and Purchaser shall have all rights and remedies under applicable law, including without limitation, equitable relief. The provisions of this Article shall survive the expiration or termination of this Agreement.

#### **ARTICLE 14 - RELATIONSHIP OF PARTIES**

Vendor is an independent contractor and is not an agent, servant, employee, legal representative, partner or joint venturer of Purchaser. Nothing herein shall be deemed or construed as creating a joint venture or partnership between Vendor and Purchaser. Neither party has the power or authority to bind or commit the other.

#### **ARTICLE 15 - NOTICES**

All notices required or permitted to be given or made in this Agreement shall be in writing. Such notice(s) shall be deemed to be duly given or made if delivered by hand, by certified or registered mail or by nationally recognized overnight courier to the address specified below:

If to Purchaser:  
Public Procurement Authority  
25030 SW Parkway Ave.  
Suite 330  
Wilsonville OR 97070  
ATTN: Heidi Arnold

If to Vendor:  
Pierce Manufacturing Company  
2600 American Drive  
Appleton, WI 54914  
ATTN: Mark Smith

Either party may change its notice address by giving the other party written notice of such change in the manner specified above.

#### **ARTICLE 16 - FORCE MAJEURE**

Delay in performance or non-performance of any obligation contained herein shall be excused to the extent such failure or non-performance is caused by force majeure. For purposes of this Agreement, "force majeure" shall mean any cause or agency preventing performance of an obligation which is beyond the reasonable control of either party hereto, including without limitation, fire, flood, sabotage, shipwreck, embargo, strike, explosion, labor trouble, accident, riot, acts of governmental authority (including, without limitation, acts based on laws or regulations now in existence as well as those enacted in the future), acts of God, and delays or failure in obtaining raw materials, supplies or transportation. A party affected by force majeure shall promptly provide notice to the other, explaining the nature and expected duration thereof, and shall act diligently to remedy the interruption or delay if it is reasonably capable of being remedied. In the event of a force majeure situation, deliveries or acceptance of deliveries that have been suspended shall not be required to be made upon the resumption of performance.

#### **ARTICLE 17 - WAIVER**

No delay or failure by either party to exercise any right, remedy or power herein shall impair such party's right to exercise such right, remedy or power or be construed to be a waiver of any default or an acquiescence therein; and any single or partial exercise of any such right, remedy or power shall not preclude any other or further exercise thereof or the exercise of any other right, remedy or power. No waiver hereunder shall be valid unless set forth in writing executed by the waiving party and then only to the extent expressly set forth in such writing.

#### **ARTICLE 18 - PARTIES BOUND; ASSIGNMENT**

This Agreement shall inure to the benefit of and shall be binding upon the respective successors and assigns of the parties hereto, but it may not be assigned in whole or in part by Vendor without the prior written consent of Purchaser which shall not be unreasonably withheld or delayed. Vendor shall not delegate its duties under this Agreement nor assign monies due or to become due to it hereunder without prior written consent of Purchaser. Purchaser may freely assign this Agreement to an instrumentality thereof or to a third party responsible for administering this Agreement on behalf of Purchaser.

#### **ARTICLE 19 - SEVERABILITY**

To the extent possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Agreement is declared invalid or unenforceable, by judicial determination or otherwise, such provision shall not invalidate or render unenforceable the entire Agreement, but rather the entire Agreement shall be construed as if not containing the particular invalid or unenforceable provision or provisions and the rights and obligations of the parties shall be construed and enforced accordingly.

#### **ARTICLE 20 - INCORPORATION: ENTIRE AGREEMENT**

- 20.1 All the provisions of the Attachments hereto are hereby incorporated herein and made a part of this Agreement. In the event of any apparent conflict between any provision set forth in the main body of this Agreement and any provision set forth in the Attachments, including the RFP and/or Vendor's Proposal, the provisions shall be interpreted, to the extent possible, as if they do not conflict. In the event that such an interpretation is not possible, the provisions set forth in the main body of this Agreement shall control; provided, however, that, notwithstanding the foregoing, to the extent there is any conflict between any provision set forth in the main body of this Agreement and any pricing provisions, information and/or schedule(s) set forth in Vendor's Proposal incorporated as Attachment D, the pricing provisions, information and/or schedule(s) set forth in the Vendor's Proposal shall control.
- 20.2 This Agreement (including Attachments and Contract Documents hereto) constitutes the entire agreement of the parties relating to the subject matter hereof and supersedes any and all prior written and oral agreements or understandings relating to such subject matter.

#### **ARTICLE 21 - HEADINGS**

Headings used in this Agreement are for convenience of reference only and shall in no way be used to construe or limit the provisions set forth in this Agreement.

#### **ARTICLE 22 - MODIFICATIONS**

This Agreement may be modified or amended only in writing executed by both parties hereto.

#### **ARTICLE 23 - GOVERNING LAW**

This Agreement shall be governed by and interpreted in accordance with the laws of the state of Oregon or in the case of a Participating Agency's use of this agreement, the laws of the state in which the Participating Agency exists, without regard to its choice of law provisions.

**ARTICLE 24 - COUNTERPARTS**

This Agreement may be executed in counterparts all of which together shall constitute one and the same Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year last written below.

**PURCHASER:**

Signature: \_\_\_\_\_

*Heidi Arnold*

Printed Name: \_\_\_\_\_

*Heidi Arnold*

Title: \_\_\_\_\_

*Contracts Manager*

Public Procurement Authority

Dated: \_\_\_\_\_

*Aug 13, 2015*

**VENDOR:**

Signature: \_\_\_\_\_

*Michael Pack*

Printed Name: \_\_\_\_\_

*Michael Pack*

Title: \_\_\_\_\_

*VP Finance*

Pierce Manufacturing Company

Dated: \_\_\_\_\_

*8-13-15*

## **ATTACHMENT A**

**to Master Price Agreement by and between VENDOR and PURCHASER.**

### **PRODUCTS, SERVICES, SPECIFICATIONS AND PRICES**

Original Price List has been removed but is available upon request. Current Price List is included in Attachment A in the Amendment set forth at the beginning of this document.

## **ATTACHMENT B**

**to Master Price Agreement by and between VENDOR and PURCHASER.**

### **ADDITIONAL SELLER WARRANTIES**

To the extent possible, Vendor will make available all warranties from third party manufacturers of Products not manufactured by Vendor, as well as any warranties identified in this Agreement and Vendor's Proposal.

**Warranty**

<b>Option #</b>	<b>Description</b>	<b>Category</b>
0652758	Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	Warranty, ABS, Custom
0057002	Warranty, Structure, 10 Year, Aerial Device, Sky Arm, WA0053	Warranty, Aerial Device
0006999	Warranty, Structure, 20 Year, Aerial Device, WA0052	Warranty, Aerial Device
0685727	Warranty, Hydraulic System and Components, 3 Year/5 Year, WA0200	Warranty, Aerial Device, Added
0632349	Warranty, Aerial Device, Snuzzle, WR0007	Warranty, Aerial Device, Snuzzle
0595780	Warranty, Service, 1 Year, Refurb, WA0032	Warranty, Body, Structural
0596025	Warranty, Structure, 10 Year, Body, WA0009	Warranty, Body, Structural
0596022	Warranty, Structure, 10 Year, Encore Rescue, WA0016	Warranty, Body, Structural
0596023	Warranty, Structure, 10 Year, PMFD Rescue, WA0015	Warranty, Body, Structural
0596024	Warranty, Structure, 15 Year, HDR, WA0010	Warranty, Body, Structural
0596027	Warranty, Structure, 2 Year, Mini Pumper, WA0001	Warranty, Body, Structural
0596026	Warranty, Structure, 5 Year, Tanker/Pumper, WA0005	Warranty, Body, Structural
0019914	Warranty, Structure, 10 Year, Custom Cab, WA0012	Warranty, Cab
0695416	Warranty, Pierce Camera System, WA0188	Warranty, Camera System
0553301	Warranty, Chassis, 3 Year, Velocity/Impel, WA0037	Warranty, Chassis
0596017	Warranty, Frame, 50 Year, Custom Chassis, WA0013	Warranty, Chassis Frame
0681622	Warranty, Basic Vehicle, 1 yr or 100,000 Miles, KW-T800	Warranty, Chassis, Commercial
0681665	Warranty, Basic Vehicle, 1 yr or 100,000 Miles, Peterbilt 367	Warranty, Chassis, Commercial
0681666	Warranty, Basic Vehicle, 1 yr, IHC 7400/7500/7600	Warranty, Chassis, Commercial
0681667	Warranty, Basic Vehicle, 1 yr, KW-T370	Warranty, Chassis, Commercial
0648597	Warranty, Basic Vehicle, Severe Service, 1 yr or 50,000 Miles Peterbilt	Warranty, Chassis, Commercial
0648403	Warranty, Basic Vehicle, Severe Service, 1 yr or 50,000 Miles, Kenworth	Warranty, Chassis, Commercial
0648375	Warranty, Basic Vehicle, Severe Service, 1 yr or 80,000 Km, Canada, Kenworth	Warranty, Chassis, Commercial
0648376	Warranty, Basic Vehicle, Severe Service, 1 yr or 80,000 Km, Canada, Peterbilt	Warranty, Chassis, Commercial
0638262	Warranty, Basic Vehicle, 5 yrs/100,000 Miles, FXP	Warranty, Chassis, Commercial
0553455	Warranty, Electronics, 5 Year, MUX, WA0014	Warranty, Command Zone Body
0647720	Warranty, Pierce LED Strip Lights, WA0203	Warranty, Compartment Lights



Option #	Description	Category
0696698	Warranty, Engine, Cummins, 5 Year, WA0181	Warranty, Engine
0696696	Warranty, Engine, Detroit DD13, 5 Year, WA0180	Warranty, Engine
0030008	Warranty, Basic, 1 Year, Apparatus, WA0008	Warranty, Fire Apparatus
0080020	Warranty, Commercial Chassis, Statement Not Required	Warranty, Fire Apparatus
0657846	Warranty, Foam System, Husky 12, WA0231	Warranty, Foam System
0657990	Warranty, Foam System, Husky 3, WA0231	Warranty, Foam System
0595424	Warranty, Frame, 10 Year, Encore Rescue, WA0017	Warranty, Frame, Encore Rescue, Commercial Chassis
0663011	Warranty, Axle, 1 Year, Marmon Harrington, General Service	Warranty, Front Axle
0530523	Warranty, Axle, 2 Year, Meritor, General Service, WA0046	Warranty, Front Axle
0595698	Warranty, Axle, 3 Year, TAK-4, WA0050	Warranty, Front Axle
0696094	Warranty, Axle, Eaton/Dana, 3 Year Parts and Labor, WA0184	Warranty, Front Axle
0595421	Warranty, Goldstar, 3 Year, Apparatus, WA0018	Warranty, Graphics
0595412	Warranty, Graphics Lamination, 1 Year, Apparatus, WA0168	Warranty, Graphics
0524627	Warranty, Electronics, 5 Year, MUX, WA0014	Warranty, Multiplexed Electrical System
0661058	Warranty, Electronics, Weldon V-MUX	Warranty, Multiplexed Electrical System
0595860	Warranty, Paint, 4 Year, Aerial Device, Pro-Rated, WA0047	Warranty, Paint, Aerial Device
0595820	Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	Warranty, Paint, Body
0595547	Warranty, Paint, 12 Year, S/S Body, Pro-Rate, WA0058	Warranty, Paint, Body
0595282	Warranty, Cab Paint, As Provided By Chassis Manufacturer, Commercial	Warranty, Paint, Cab
0595813	Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	Warranty, Paint, Cab
0648675	Warranty, 10 Year S/S Plumbing, WA0035	Warranty, Plumbing
0035034	Warranty, Plumbing, Standard	Warranty, Plumbing
0582298	Warranty, Pump, Darley, 3 Year Parts, 3 Year Labor, WA0179	Warranty, Pump
0582368	Warranty, Pump, Darley, 6 Year Parts, 3 Year Labor, WA0179	Warranty, Pump
0639206	Warranty, Pump, Hale, 1 Year Parts, WA0248	Warranty, Pump
0639211	Warranty, Pump, Hale, 5 Year Parts, 2 Year Labor, WA0248	Warranty, Pump
0516693	Warranty, Pump, Pierce, PJC, 6 Year, WA0039	Warranty, Pump
0004575	Warranty, Pump, Waterous, 2 Year Parts, WA0227	Warranty, Pump
0063510	Warranty, Pump, Waterous, 5 Year Parts, WA0225	Warranty, Pump

Option #	Description	Category
0530524	Warranty, Axle, 2 Year, Meritor, General Service, WA0046	Warranty, Rear Axle
0644874	Warranty, Axle, 3 Year, TAK-4, IRS, WA0249	Warranty, Rear Axle
0564751	Warranty, Axle, Eaton/Dana, 3 Year Parts and Labor, WA0184	Warranty, Rear Axle
0693126	Warranty, AMDOR, Roll-up Door, 10 Year/5 Year Painted, WA0185	Warranty, Roll-up Doors
0693127	Warranty, Gortite, Roll-up Door, 6 Year, WA0190	Warranty, Roll-up Doors
0681118	Warranty, ROM, Roll-up Door, 7 Year, WA0206	Warranty, Roll-up Doors
0684953	Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	Warranty, Steering Gear
0684952	Warranty, Steering Gear, TRW Ross TAS, 1 Year WA0202	Warranty, Steering Gear
0687388	Warranty, Swivels, 5 Year, Aerial Device, WA0197	Warranty, Swivels, Aerial Device
0001508	Warranty, 1-year Transmission (std MT)	Warranty, Transmission
0021516	Warranty, 5-Year EVS Transmission, Standard Comm, WA0187	Warranty, Transmission
0060356	Warranty, Transmission, Standard Ford	Warranty, Transmission
0685945	Warranty, Transmission Cooler, WA0216	Warranty, Transmission Cooler
0688798	Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	Warranty, Water Tank

### **ATTACHMENT C**

**to Master Price Agreement by and between VENDOR and PURCHASER.**

#### **PARTICIPATING AGENCIES**

Purchaser served as the Lead Contracting Agency in cooperation with National Purchasing Partners and on behalf of other government agencies that desire to access the Master price Agreement. Vendor must deal directly with any Participating Agency concerning the placement of orders, issuance of the purchase orders, contractual disputes, invoicing, and payment. The Purchaser is acting as "Lead Contracting Agency" for the Participating Agencies and shall not be held liable for any costs, damages, etc., incurred by any Participating Agency.

The subsequent contract shall be construed to be in accordance with and governed by the laws of the state in which the Participating Agency exists. Each Participating Agency is required to execute an Intergovernmental Cooperative Purchasing Agreement ("IGA"), as set forth on the National Purchasing Partners web site, [www.nppgov.com](http://www.nppgov.com) and [www.firerescue-gpo.com](http://www.firerescue-gpo.com). The IGA allows the Participating Agency to purchase Products and Services from the Vendor in accordance with each Participating Agency's legal requirements.

**ATTACHMENT D**

**to Master Price Agreement by and between VENDOR and PURCHASER.**

Pierce Manufacturing, Inc's proposal in response to PPA RFP #1420 FIRE APPARATUS, published on October 22, 2014 and submitted on February 12, 2015 to the Public Procurement Authority is not attached hereto but is incorporated by reference herein.

**ATTACHMENT E**

**to Master Price Agreement by and between VENDOR and PURCHASER.**

Public Procurement Authority's Request for Proposal #1420 FIRE APPARATUS, published on October 22, 2014 and closing on February 12, 2015 is not attached hereto but is incorporated by reference herein.

## **ATTACHMENT F**

to Master Price Agreement by and between VENDOR and PURCHASER.

### **ADDITIONAL VENDOR TERMS OF PURCHASE**

This attachment includes the following:

- Performance Bonds
- Pre-Payment Discount
- Pre-Delivery Expenses
- Transportation Expenses
- Manuals
- Service
- Training

#### **Performance Bonds**

A performance bond is a surety bond issued to guarantee satisfactory completion of a project by a contractor. In other words, it is a guarantee that if a Manufacturer goes out of business or bankrupt the Fire Department will not be at a loss. This is especially important if pre-payment options are elected. If a customer does not require a performance bond and makes any payment in advance, the customer could potentially be out those funds and not receive the apparatus they purchased. The rate for a performance bond is set for a given manufacturer by a surety company that has evaluated the manufacturer's ability to satisfy contractual obligations, the lower the rate the more confidence the surety company is expressing in the manufacturer. Pierce Manufacturing Inc. can currently provide a performance bond at a cost of \$2.70 per \$1,000.00 of contract amount. The actual rate will vary from time to time.

#### **Payment & pricing options:**

*Chassis Progress Payment Discount:* Discount of approximately 2.5% to 3% of custom chassis price is offered if chassis progress payment is made three (3) months prior to the RFP (ready for pick up from the factory) date. Example: Chassis progress payment in the amount of \$220,714.00 could earn a discount of (\$6,621.00). This discount is not available for Commercial chassis products.

*Aerial Device Progress Payment Discount:* Discount of approximately 1.5% to 2% of aerial device price is offered if aerial device progress payment is made two (2) months prior to the RFP (ready for pick up from the factory) date. Example: Aerial device progress payment in the amount of \$310,385.00 could earn a discount of (\$6,207.00).

#### **Pre-Payment Discount**

Discount amount varies dependent upon apparatus price, delivery schedule, and extent of pre-payment and applicable rate. If elected, payment for the entire contract amount is due within thirty (30) days of contract

execution. This deduction is in addition to all other discounts listed above. If this option is elected, final payment for any changes processed during manufacturing is due prior to the unit leaving the factory for delivery.

#### Multi-Unit Purchase Discount:

Discounts may be available for identical multi-unit purchases. Discount varies dependent upon number of identical units purchased and will be handled on a case by case basis.

#### Pre-Delivery Expenses

Dealer provided options can be added to the apparatus contract upon request and will be handled by the Pierce authorized dealer. Dealer provided options can vary depending upon the customer's request and can include but are not limited to the items listed below. Pricing will be provided to each customer upon request and varies by dealership and customer location.

- Factory inspection trips
- Weekly construction photo progress reports beginning at the cab weld stage and typically ending one week prior to the RFP date. Includes approximately 6 reports.
- Orientation DVD specific to your apparatus
- Loose Equipment
- Engine and or transmission diagnostic software
- Monitors
- Hose
- Intercom System
- Radio Equipment
- Rescue Tools and Equipment
- Pre delivery service consisting of basic fluid and filter's
- Custom fabrication for tool mounting and communication equipment
- Other items as requested by customer

#### Transportation Expenses

Prices quoted in PPA RFP #1420 are FOB Manufacturer's facility. Transportation of the apparatus from the factory to the customer's facility can be added to the contract. In most cases the apparatus is delivered to the Pierce authorized dealer facility in your area for a Pre-Delivery inspection and the installation of any dealer provided options, if applicable. If there is not a Pierce authorized dealer facility in close proximity to your location the apparatus may be delivered directly to your facility. The cost for this transportation varies dependent upon the type of apparatus and the proximity of your facility to the location of the manufacturer's facility. Delivery is conducted in accordance with DOT regulations.

Delivery charges can vary from as low as \$1,000.00 to as high as \$15,000.00 or more if flatbed, barge, or container ship transport is required.

If delivery is added to the contract, upon arrival of the apparatus from the factory at the authorized dealer

facility, a pre-delivery inspection is conducted to address any issues that may have arisen during transportation from the factory. Below is an example of the in-depth inspection provided by Hughes Fire Equipment, Inc. on apparatus sold within their authorized sales territory. Pre-delivery inspections may vary slightly among Pierce authorized dealerships.

1. Fill Water Tank, monitor tank level gauge for accuracy, check for leaks or seepage into foam tanks
2. Check all engine and drive train fluid levels, such as engine oil, transmission fluid, differential oil, power steering fluid, wheel hub oil, engine coolant; pump transmission fluid, cab lift fluid, windshield wiper fluid, ladder rack fluid etc.
3. Check all compartment doors for adjustment
4. Check all compartment lighting
5. Operate all equipment racks and reels for proper extension and retraction
6. Check calibration of CZ II time and temperature, set for local time zone
7. Fill foam cells with water, add dye packet or soap solution, and check for external leaks as well as seepage into the water tank. Monitor foam level gauge for accuracy.
8. Check tire pressure, set as needed
9. Torque all wheel lug nuts
10. Torque suspension U-bolts to manufacturer spec's
11. Grease chassis
12. Inspect hoses and wiring harnesses for proper routing and signs of abrasion
13. Verify operation of all water pump components including primer pump fluid level, dry vacuum test, pressure governor/relief valve, transfer valve, cap all discharges and check for gauge accuracy
14. Verify operation of all foam system components (use dyed water or soap solution to simulate foam) including foam system hydraulic fluid level, while discharging water operate system, verify color/bubbly water in each discharge plumbed for foam, flush system, verify operation of fill pump if equipped
15. Operate generator or inverter including check hydraulic fluid level (PTO driven), check engine oil (engine driven), operate all 120v lighting and appliances, verify power at all cord reels
16. Operate all external lights and warning systems including headlights, turn signals, hazards, brake lights, backup lights, emergency lighting, 12v scene lighting, perimeter (step/pump panel) lighting, siren/air horn/electric horn
17. Verify the operation of all interior controls in the cab including heater/ac, windshield wipers, electric mirrors, electric windows, high idle, verify warning alarm and light, "do not move truck"
18. Drain water tank, foam cells and water pump prior to delivery to customer
19. Burnish brakes, custom chassis only
20. Address any issues that developed during transportation of apparatus from factory
21. Fill fuel tank prior to delivery to customer
22. Wash and detail
23. Delivery apparatus to customer facility if required by contract

If any warranty repair items arise during the Pre-delivery inspection they are addressed and repaired prior to delivery of the apparatus to the customer when possible. If delivery of the apparatus to the customer's facility occurs prior to completion of an open warranty item a service technician is sent to the customer's facility to complete such repairs under warranty when possible.



### Manuals

The manufacturer shall supply at time of delivery, complete operation and maintenance manuals covering the complete apparatus as delivered. A permanent plate shall be mounted in the driver's compartment which specifies the quantity and type of fluid required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.

### Service

The authorized Pierce dealer is able to render prompt service and furnish replacement parts in addition to operating a factory authorized service center and parts repository capable of satisfying the warranty service requirements and parts requirements of the vehicle(s) being purchased.

The Pierce authorized Dealer has staffing of factory-trained mechanics, well versed in all aspects of service for all major components of the apparatus.

As the manufacturer, facilities are available in Appleton, WI, Weyauwega, WI, and Bradenton, FL. These facilities are equipped with factory personnel and inventory in excess of \$5 million in inventory dedicated to service and replacement parts to ensure quick response and minimize down time.

Furthermore, Pierce Manufacturing Inc. houses inventory in a dedicated facility, with a dedicated shipping area that ensures service parts are given priority and extends a customized, Pierce aftermarket website for authorized Dealers to conduct business in real-time.

Parts identification is provided to both the dealer and the Fire Department through an on line web based application for the specific truck. Access will be granted using the specific VIN number of the vehicle and the online web application provides the ability to view complete bills of materials, digital photographs, parts drawings, assembly drawings, and access to all current operation, maintenance and service publications. The end user can access this information via the Guest Login.

Pierce Manufacturing Inc. maintain a 24 hour/ 7 day a week, toll free emergency hot line and employs a staff of 30+ dedicated individuals to troubleshooting and parts support.

Both Pierce and their authorized Dealers are capable of providing both in-house and on-site service for the apparatus along with training per request.

Replacement parts and various levels of service after delivery are available from your local Pierce authorized dealer, including but not limited to those shown below:

#### SERVICE:

- Warranty repair for Pierce product line for all items with the exception of those that must be handled directly by the component manufacture such as engine etc.
- Direct access to Pierce technical support
- Routine preventative maintenance
- Annual aerial ladder testing

- Pump testing
- Ground ladder testing
- NFPA 1911 annual inspections maintenance and testing
- Repairs from small minor issues to major overhauls and many other services
- Dealer repair services extend to most other fire and emergency rescue product lines in addition to Pierce Manufacturing
- Service provided by EVT, ASE, Pierce and industry specific certified technicians
- All Pierce authorized sales and service dealer have access to Pierce's extensive level of technical and customer service support staff

#### PARTS:

- OEM supplier of large assortment of products supplied with fire and emergency rescue vehicles
- Large inventory of parts on-site - Example: Hughes Fire facilities inventory over \$400,000.00 worth of over 2000 of the most commonly required parts and components required for apparatus repair. This level of inventory enables "out of service" time to be kept to a bare minimum.
- All Pierce authorized sales and service dealers have access to Pierce's extensive level of replacement parts inventory, which is in excess of \$5M as well as any Pierce required fabrication services

#### Training

Every aerial product purchase has training included with a Pierce certified trainer that performs onsite operational training.

Customer Service also offers operational and maintenance training throughout the calendar year at regional locations for a nominal fee per person. List of classes offered can be viewed at any time and registered online at [www.pierceparts.com](http://www.pierceparts.com).

ATTACHMENT A  
PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING

BASE MODEL SPECIFICATIONS

**1.0 AERIAL PRODUCT**

<b>ID #</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
1.1	Saber FR, Alum, Single, 1500 Pump, 75' HD Aluminum ladder Quint	\$688,322.00
1.2	Arrow XT , Alum, Single, 1500 Pump, 75' HD, Aluminum Ladder, Quint	\$751,058.00
1.3	Arrow XT , Alum, Tandem, 1500 Pump, 105' HD Steel Ladder, Quint	\$860,820.00
1.4	Arrow XT , Alum, Tandem, No Pump, 105' HD Steel Ladder	\$795,287.00
1.5	Arrow XT , Alum, Single, 100' HD Steel Ladder, Tiller	\$976,286.00
1.6	Arrow XT , Alum, Tandem, 1500 Pump, 75' HD Steel Ladder, Quint	\$762,294.00
1.7	Arrow XT , Alum, Single, 1500 Pump, 75' HD Steel Ladder, Quint	\$740,976.00
1.8	Arrow XT , Alum, Tandem, 1500 Pump, 100' HD Aluminum Ladder, Quint	\$915,538.00
1.9	Arrow XT, Alum, Tandem, No Pump, 100' HD Aluminum Ladder	\$851,184.00
1.10	Arrow XT, Alum, Tandem, 1500 Pump, 85' Steel Platform, Quint	\$944,688.00
1.11	Arrow XT, Alum, Tandem, No Pump, 85' Steel Platform	\$877,853.00
1.12	Arrow XT, Alum, Tandem, 1500 Pump, 100' Steel Platform, Quint	\$1,030,412.00
1.13	Arrow XT, Alum, Tandem, No Pump, 100' Steel Platform	\$956,389.00
1.14	Arrow XT, Alum, Tandem, 1500 Pump, 100' Aluminum Platform, Quint	\$1,096,757.00
1.15	Arrow XT, Alum, Tandem, No Pump, 100' Aluminum Platform	\$1,023,601.00
1.16	Arrow XT, Alum, Tandem, 2000 Pump, 95' Mid-Mount Steel Platform	\$1,090,054.00
1.17	Arrow XT, Alum, Tandem, No Pump, 95' Mid-Mount Steel Platform	\$1,022,895.00
1.18	Arrow XT, Alum, Tandem, 2000 Pump, 100' Mid-Mount Steel Ladder, Quint	\$962,136.00
1.19	Arrow XT, Alum, Tandem, No Pump, 100' Mid-Mount Steel Ladder	\$896,298.00
1.20	Saber FR, Alum, Single, 1250 Pump, 61'/55/ Sky-Boom	\$571,998.00
1.21	Arrow XT, Alum, Single, 1250 Pump, 61'/55/ Sky-Boom	\$634,438.00
1.22	Impel, Alum, Single, 1250 Pump, 50' Snozzle	\$594,321.00
1.23	Saber FR, Alum, Single, 1500 Pump, 50' Snozzle	\$558,702.00
1.24	Arrow XT, Alum, Single, 75' HAL PUC Quint	\$777,830.00
1.25	Arrow XT, Alum, Tandem, 105' HD Steel Ladder PUC	\$895,361.00
1.26	Arrow XT, Alum, Tandem, 100' Steel Platform PUC	\$1,062,160.00

**ATTACHMENT A  
PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING**

**BASE MODEL SPECIFICATIONS**

1.27	Arrow XT, Single, 1500 Pump, 107' Aerial	\$975,930.00
1.28	Arrow XT, Single, 2000 Pump, 110' Platform	\$993,564.00
1.29	Arrow XT, Ascendant Tiller NPNT	\$1,244,946.00
1.3	Arrow XT, Ascendant Tiller Quint	\$1,333,686.00

**2.0 PUMPER PRODUCT**

<b>ID #</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
2.1	Saber FR, Alum, Single, 1250 Pumper, 750 Water	\$346,510.00
2.2	Impel, Alum, Single, 1250 Pump, 750 Water	\$387,104.00
2.3	Impel, Alum, Single, 1500 Pump, PUC, 750 Water	\$451,581.00
2.5	Freightliner M2-106, 2-Door, Alum, Single, 1250 Pump, 750 Water	\$214,396.00
2.6	International 4400, 2-door, Alum, Single, 1250 Pump, 750 Water	\$223,226.00
2.7	Kenworth T370, 2-Door, Alum, Single, 1250 Pump, 750 Water	\$222,186.00
2.8	Peterbilt 337, 2-Door, Alum, Single, 1250 Pump, 750 Water	\$230,802.00
2.9	Freightliner M2-106, 4-Door, Galv, Single, 1000 Pump, 4x4 Wildland	\$346,857.00
2.10	Ford F550 Super Duty, 2-Door Ext, Alum, Single, 120 Pump, Patrol Brush Truck	\$139,052.00

**3.0 RESCUE**

<b>ID #</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
3.1	Arrow XT, Alum, Single, Non-Walk-In, HDR	\$399,331.00
3.2	Saber FR, Alum, Single, Non-Walk-In HDR	\$330,025.00
3.3	Freightliner M2-106, 2-Door, Alum, Single, Non-Walk-In, HDR	\$231,369.00
3.4	International 7400, 2-Door, Alum, Single, Non-Walk-In, HDR	\$206,573.00
3.5	Kenworth T370, 2-Door, Alum, Single, Non-Walk-In, HDR	\$207,999.00
3.6	Peterbilt 337, 2-Door, Alum, Single, Non-Walk-In, HDR	\$216,312.00
3.7	Saber FR, Alum, Single, Walk-In, HDR	\$356,654.00
3.8	Arrow XT, Alum, Single, Walk-In, HDR	\$435,264.00
3.9	Freightliner M2-106, 2-Door, Alum, Single, Walk-In HDR	\$231,362.00
3.10	International 7400, 2-Door, Alum, Single, Walk-In, HDR	\$238,898.00
3.11	Kenworth T370, 2-Door, Alum, Single, Walk-In, HDR	\$231,114.00
3.12	Peterbilt 337, 2-Door, Alum, Single, Walk-In, HDR	\$248,161.00
3.13	Ford F550, 4-Door, Alum, Single, 12' Non-Walk-In	\$143,443.00
3.14	Freightliner M2-106, 2-Door, Alum, Single, ENCORE	\$178,562.00

**ATTACHMENT A  
PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING**

**BASE MODEL SPECIFICATIONS**

**4.0 TANKER**

<b>ID #</b>	<b>DESCRIPTION</b>	<b>PRICE</b>
4.1	Freightliner M2-106, 2-Dr, Alum, Tandem, 500 Pump, 3000 Water, DX	\$225,834.00
4.2	Impel, Alum, Tandem, 1250 Pump, 2000 Water, Tanker/Pumper	\$468,963.00
4.3	Freightliner M2-106, 2-Dr, Single, 1000 Pump, 2100 Water DX	\$215,807.00
4.4	International 4400, 2-Dr, Single, 1000 Pump, 2100 Water, DX	\$222,141.00
4.5	Kenworth T370, 2-Dr, Single, 1000 Pump, 2100 Water, DX	\$218,622.00
4.6	Saber FR, 4-Dr, Single, 1500 Pump, 1800 Water, Pumper/Tanker	\$363,247.00
4.7	Impel, Aluminum, Tandem, 1250 Pump, 2500 Water, Elliptical	\$462,775.00
4.8	Saber FR, Aluminum, Single, 1250 Pump, 1800 Water, Elliptical	\$401,508.00
4.9	Peterbilt 348, 2-Dr, Alum, Tandem, 500 Pump, 3000 Water, DX	\$245,900.00
4.10	Kenworth T370, 2Dr, Alum, Tandem, 500 Pump, 3000 Water, DX	\$233,337.00
4.11	International 7500, 2-Dr, Alum, Tandem Rear, 500 pump, 3000 Water, DX	\$245,742.00

**ATTACHMENT A  
PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING**

**OPTION CATALOG PRICING: SAMPLING**

**Note:** We have provided a price range for several option categories. The reason for this is the extensive volume of options Pierce offers along with the variety of options within and across product categories. For example, Pierce manufactures 7 different custom cabs. In each cab family, there are up to 10 different configurations which are tied to options specific to a certain product offering (e.g. Pumper, Aerial, Rescue, Tanker, etc.). The price range encompasses the low and high end for that particular category. This is a sampling of what we offer as our order configurator includes over 30,000 options. This number of options is too extensive to list individually.

**1.0 CUSTOM CHASSIS**

<b><u>PUBLISHED OPTIONS:</u></b>		<b><u>PRICE RANGE</u></b>	
562564	Various Arrow XT Cabs	53,706.00	73,505.00
689045	Various Dash CF Cabs	53,274.00	58,904.00
625652	Various Enforcer Cabs	47,219.00	60,417.00
647271	Various Impel FR Cabs	47,446.00	72,435.00
559725	Various Quantum Cabs	55,200.00	64,235.00
625654	Various Saber FR Cabs	45,146.00	59,416.00
647244	Various Velocity FR Cabs	50,840.00	75,091.00

**2.0 AXLE,FRONT**

<b><u>PUBLISHED OPTIONS:</u></b>		<b><u>PRICE RANGE</u></b>	
566636	Axle, Front, Dana, 16,000 - 23,000 lb	8,406.00	9,041.00
637708	Axle, Front, Meritor 18,000 - 21,500 lb,	10,260.00	37,888.00
624947	Axle, Front, Marmon Herrington 21,500 (FWD)	33,769.00	37,886.00
30262	Axle, Front, Oshkosh TAK-4, Non Drive, 19,500 - 24,000 lb	28,051.00	30,807.00

**3.0 AXLE,REAR**

<b><u>PUBLISHED OPTIONS:</u></b>		<b><u>PRICE RANGE</u></b>	
690933	Axle, Front, Dana, 16,000 - 40,000 lb	9,013.00	26,998.00
10404	Axle, Rear, Eaton, 24,000 - 31,000 (FWD)	23,256.00	30,729.00
37001	Axle, Tiller, Meritor 34,000 - 48,000 lb	25,510.00	31,371.00
52481	Axle, Tiller Trailer, Oshkosh TAK-4, 26,000 - 52,000	46,872.00	78,959.00
530472	Axle, Rear, Meritor, 17,000 - 60,000 lb	8,537.00	41,571.00
644866	Axle, Rear, Oshkosh TAK-4 T3, 26,000 - 52,000 lb, Rear Steer	14,261.00	17,892.00

**4.0 BRAKES**

<b><u>PUBLISHED OPTIONS:</u></b>		<b><u>PRICE RANGE</u></b>	
20674	ABS Brake Systems, Tandem Rear Axle	6,407.00	12,458.00
10670	ABS Brake Systems , Single rear axle	5,728.00	10,610.00
705	Brakes, Cam, Front,	666.00	917.00
740	Brakes, Cam, Rear (single - Tandem)	683.00	1,465.00
508676	Brakes, EX225, 17", Disc Plus, Front (and or TAK-4)	666.00	1,286.00
509206	Brakes, Meritor, EX225, Disc Plus, Rear (single - tandem)	835.00	1,661.00
593759	ESC/ABS/ATC Brake System (single - tandem)	10,610.00	11,288.00

ATTACHMENT A  
PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING

OPTION CATALOG PRICING: SAMPLING

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**5.0 COMPARTMENTS ACCESSORIES**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
4002	Matting, .13" Rubber in Compt per	59.00	
3934	Dust Filter, All Compt Louvers per	99.00	
4005	Alum Treadplate on Compt Floor per	147.00	
3990	Grating, Wood in Compt per	226.00	
539811	Box, Poly Tool per	288.00	
13919	Partition, Adjustable, Vertical Compt	418.00	
562776	Toolboard, .188" Alum, Rr Wall Compt,w/Track, No Holes, Painted	743.00	
27093	Rack, Air Bags inside Compt, 6-Slot	1,157.00	
558501	Drawer Assembly, CTECH, Four Drawers, Up To 24" Wide	2,108.00	

**6.0 COMPARTMENT, PUMPERS**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
83648	Med Body, Roll/Lap, Various Heights & Depths	2,842.00	16,832.00
83661	Long Body, Roll/Lap, Various Heights & Depths	5,669.00	23,060.00
585287	PUC Body, Roll/Lap, Various Lengths, Heights & Depths	7,636.00	36,859.00
6708	HDRP Body, Roll/LAP, Various Length, Heights & Depths	14,934.00	15,643.00

**7.0 COMPARTMENT, TANKERS**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
231	Long Tanker Body, Rollup/Lap, Various Heights & Depths	1,246.00	15,991.00
63851	Extended Tanker Body, Rollup/Lap, Various Heights & Depths	4,081.00	27,663.00

**8.0 ENGINE**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
623882	Engine, Cummins ISL9, 350 - 450 hp, 1150 - 1250 ft-lb W/OBD	81,177.00	98,408.00
623942	Engine, Cummins ISX12, 400 - 600 hp, 1550 ft-lb, W/OBD	111,877.00	127,612.00
610863	Engine, DDC DD13, 450 - 525 hp	100,137.00	118,057.00

**9.0 FOAM SYSTEMS**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
5414	Foam Sys, Eductor	7,494.00	7,840.00
65417	Foam Sys, 1600 - 2002	9,074.00	21,632.00
592633	Foam Sys, Husky 3, Single Agent	10,558.00	
95358	Foam Sys, Husky 12, (Single Agent)	18,891.00	
95353	Foam Sys, Husky 12, (Dual Agent)	21,477.00	
676901	Foam Sys, Husky Single Agent, Industrial	36,623.00	110,324.00

**10.0 Foam Cells**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
5446	Foam Cell, 20 - 60 Gallon	1,618.00	2,487.00
88466	Foam Tank, 1000 - 2500 Gallon	10,933.00	24,228.00

**ATTACHMENT A  
PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING**

**OPTION CATALOG PRICING: SAMPLING**

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**11.0 GENERATORS**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
684098	Generator, Gas,	2,085.00	7,794.00
20947	Generator, Diesel	15,708.00	30,946.00
649150	Generator, Hydraulic	19,540.00	45,201.00

**12.0 GRAPHICS**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
684084	Lettering, Vinyl, 1.00 - 4.00 (1 - 160)	198.00	1,689.00
686417	Lettering, Gold Leaf, 1.00 - 11.00 (1 - 160)	495.00	6,327.00

**13.0 LADDER STORAGE**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
4296	Rack, Ladders in Hosebed/Between Tank & Side Sheet	1,052.00	5,661.00
14308	Rack, Quic-Lift	6,996.00	8,767.00
2773	Rack, Ladder, Hydraulic	10,685.00	13,151.00

**14.0 LIGHTING**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
0006372	Lightbar, Various Brand, Length & Function	766.00	7,199.00
0689545	Lights, Compt, LED	116.00	6,339.00
647803	Lights, Clearance/Marker/ID	127.00	228.00
648293	Light, Directional, Front	370.00	1,087.00
0058128	Lights, Front, Warning	94.00	6,532.00
0041878	Lights, Front Zone Lower	483.00	2,080.00
644038	Lights, Perimeter Scene, Cab	196.00	1,470.00
65704	Lights, Rear Scene	58.00	639.00
41634	Light, Side Zone Upper	396.00	2,898.00

**15.0 LIGHT TOWERS**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
0636216	Light Tower, NS2.3-1500 MAG, 2-750W Magnafire Lts, 120 VAC Cld 7.5'	9,267.00	
0636206	Light Tower, NS2.3-6000 OPT, 4-1500W Optimum Lts, 240 VAC Cld 7.5'	10,542.00	
0642218	Light Tower KL450, 6-500W Lights, 120 Volt AC, Cld	13,378.00	
0636195	Light Tower, NS4.5-6000 OPT, 4-1500W Optimum Lts, 240 VAC Cld 15'	16,162.00	
0523461	Light Vertical Tower, IWM 7-25-9000 OPT 6-1500W 240V Optimum 25'	21,185.00	



**ATTACHMENT A  
PRODUCTS, SERVICES, SPECIFICATIONS, AND PRICING**

**OPTION CATALOG PRICING: SAMPLING**

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**16.0 SAFETY SYSTEMS**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>
583042	Side Roll and Frontal Impact Protection	12,272.00
583040	Frontal Impact Protection	2,997.00
583041	Side Roll Protection	9,615.00

**17.0 SHEVELING/TRAYS**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>
0687079	Shelves, Adjustable, 500 lb Capacity, Full Width (each)	207.00
647042	Tray, Floor Mounted, Slide-Out, w/ Side Slides, 200lb, 2.00" Sides (each)	683.00
3984	Tray, 250 lb Slide-out, 2" Sides - Adj. Height (each)	562.00
3983	Tray, 500 lb Slide-out, 2" Sides - Adj. Height (each)	973.00
83986	Tray, 215 lb, Tilt/Slide-Out, 30 Deg, Adj (each)	726.00

**18.0 TRANSMISSION**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>
642569	Trans, Allison 5th Gen, 3000 EVS P, With Prognostics	24,807.00
642574	Trans, Allison 5th Gen, 3000 EVS PR, With Prognostics	38,236.00
642579	Trans, Allison 5th Gen, 4000 EVS P, With Prognostics	36,540.00
642594	Trans, Allison 5th Gen, 4000 EVS PR, With Prognostics	48,194.00
642532	Trans, Allison 5th Gen, 4500 EVS P	39,212.00
642601	Trans, Allison 5th Gen, 4500 EVS PR, With Prognostics	50,938.00

**19.0 UNDERCOATING**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>
695507	Rust Proof, Torque Box	306.00
599008	Rust Proof/Undercoat, Custom Chassis	598.00
7379	Undercoating, Pumper/Rescue/Tanker	662.00
631674	E-Coat, TAK-4 Components, Front Axle, Black	672.00
646119	E-Coat, TAK-4 Components, Tiller Axle, Black	672.00
652945	E-Coat, Under Body/Chassis Component Package	1,883.00
25070	Corrosion Prevention Treatment, Dissimilar Metal	2,287.00

**20.0 Water Tanks**

<u>PUBLISHED OPTIONS:</u>		<u>PRICE RANGE</u>	
9308	Tank, Water, 200 - 500 Gallon, Poly, Aerial	7,345.00	9,868.00
28244	Tank, Water, 500 - 30000 Gallon, Poly	7,380.00	26,772.00

## ADDITIONAL VENDOR TERMS OF PURCHASE

This attachment includes the following:

- Performance Bonds
- Pre-Payment Discount
- Pre-Delivery Expenses
- Transportation Expenses
- Manuals
- Service
- Training

### Performance Bonds

A performance bond is a surety bond issued to guarantee satisfactory completion of a project by a contractor. In other words, it is a guarantee that if a Manufacturer goes out of business or bankrupt the Fire Department will not be at a loss. This is especially important if pre-payment options are elected. If a customer does not require a performance bond and makes any payment in advance, the customer could potentially be out those funds and not receive the apparatus they purchased. The rate for a performance bond is set for a given manufacturer by a surety company that has evaluated the manufacturer's ability to satisfy contractual obligations, the lower the rate the more confidence the surety company is expressing in the manufacturer. Pierce Manufacturing Inc. can currently provide a performance bond at a cost of \$2.70 per \$1,000.00 of contract amount. The actual rate will vary from time to time.

### Payment & pricing options:

*Chassis Progress Payment Discount:* Discount of approximately 2.5% to 3% of custom chassis price is offered if chassis progress payment is made three (3) months prior to the RFP (ready for pick up from the factory) date. Example: Chassis progress payment in the amount of \$220,714.00 could earn a discount of (\$6,621.00). This discount is not available for Commercial chassis products.

*Aerial Device Progress Payment Discount:* Discount of approximately 1.5% to 2% of aerial device price is offered if aerial device progress payment is made two (2) months prior to the RFP (ready for pick up from the factory) date. Example: Aerial device progress payment in the amount of \$310,385.00 could earn a discount of (\$6,207.00).

### Pre-Payment Discount

Discount amount varies dependent upon apparatus price, delivery schedule, and extent of pre-payment and applicable rate. If elected, payment for the entire contract amount is due within thirty (30) days of contract

execution. This deduction is in addition to all other discounts listed above. If this option is elected, final payment for any changes processed during manufacturing is due prior to the unit leaving the factory for delivery.

#### Multi-Unit Purchase Discount:

Discounts may be available for identical multi-unit purchases. Discount varies dependent upon number of identical units purchased and will be handled on a case by case basis.

#### Pre-Delivery Expenses

Dealer provided options can be added to the apparatus contract upon request and will be handled by the Pierce authorized dealer. Dealer provided options can vary depending upon the customer's request and can include but are not limited to the items listed below. Pricing will be provided to each customer upon request and varies by dealership and customer location.

- Factory inspection trips
- Weekly construction photo progress reports beginning at the cab weld stage and typically ending one week prior to the RFP date. Includes approximately 6 reports.
- Orientation DVD specific to your apparatus
- Loose Equipment
- Engine and or transmission diagnostic software
- Monitors
- Hose
- Intercom System
- Radio Equipment
- Rescue Tools and Equipment
- Pre delivery service consisting of basic fluid and filter's
- Custom fabrication for tool mounting and communication equipment
- Other items as requested by customer

#### Transportation Expenses

Prices quoted in PPA RFP #1420 are FOB Manufacturer's facility. Transportation of the apparatus from the factory to the customer's facility can be added to the contract. In most cases the apparatus is delivered to the Pierce authorized dealer facility in your area for a Pre-Delivery inspection and the installation of any dealer provided options, if applicable. If there is not a Pierce authorized dealer facility in close proximity to your location the apparatus may be delivered directly to your facility. The cost for this transportation varies dependent upon the type of apparatus and the proximity of your facility to the location of the manufacturer's facility. Delivery is conducted in accordance with DOT regulations.

Delivery charges can vary from as low as \$1,000.00 to as high as \$15,000.00 or more if flatbed, barge, or container ship transport is required.

If delivery is added to the contract, upon arrival of the apparatus from the factory at the authorized dealer

facility, a pre-delivery inspection is conducted to address any issues that may have arisen during transportation from the factory. Below is an example of the in-depth inspection provided by Hughes Fire Equipment, Inc. on apparatus sold within their authorized sales territory. Pre-delivery inspections may vary slightly among Pierce authorized dealerships.

1. Fill Water Tank, monitor tank level gauge for accuracy, check for leaks or seepage into foam tanks
2. Check all engine and drive train fluid levels, such as engine oil, transmission fluid, differential oil, power steering fluid, wheel hub oil, engine coolant; pump transmission fluid, cab lift fluid, windshield wiper fluid, ladder rack fluid etc.
3. Check all compartment doors for adjustment
4. Check all compartment lighting
5. Operate all equipment racks and reels for proper extension and retraction
6. Check calibration of CZ II time and temperature, set for local time zone
7. Fill foam cells with water, add dye packet or soap solution, and check for external leaks as well as seepage into the water tank. Monitor foam level gauge for accuracy.
8. Check tire pressure, set as needed
9. Torque all wheel lug nuts
10. Torque suspension U-bolts to manufacturer spec's
11. Grease chassis
12. Inspect hoses and wiring harnesses for proper routing and signs of abrasion
13. Verify operation of all water pump components including primer pump fluid level, dry vacuum test, pressure governor/relief valve, transfer valve, cap all discharges and check for gauge accuracy
14. Verify operation of all foam system components (use dyed water or soap solution to simulate foam) including foam system hydraulic fluid level, while discharging water operate system, verify color/bubbly water in each discharge plumbed for foam, flush system, verify operation of fill pump if equipped
15. Operate generator or inverter including check hydraulic fluid level (PTO driven), check engine oil (engine driven), operate all 120v lighting and appliances, verify power at all cord reels
16. Operate all external lights and warning systems including headlights, turn signals, hazards, brake lights, backup lights, emergency lighting, 12v scene lighting, perimeter (step/pump panel) lighting, siren/air horn/electric horn
17. Verify the operation of all interior controls in the cab including heater/ac, windshield wipers, electric mirrors, electric windows, high idle, verify warning alarm and light, "do not move truck"
18. Drain water tank, foam cells and water pump prior to delivery to customer
19. Burnish brakes, custom chassis only
20. Address any issues that developed during transportation of apparatus from factory
21. Fill fuel tank prior to delivery to customer
22. Wash and detail
23. Delivery apparatus to customer facility if required by contract

If any warranty repair items arise during the Pre-delivery inspection they are addressed and repaired prior to delivery of the apparatus to the customer when possible. If delivery of the apparatus to the customer's facility occurs prior to completion of an open warranty item a service technician is sent to the customer's facility to complete such repairs under warranty when possible.

### Manuals

The manufacturer shall supply at time of delivery, complete operation and maintenance manuals covering the complete apparatus as delivered. A permanent plate shall be mounted in the driver's compartment which specifies the quantity and type of fluid required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.

### Service

The authorized Pierce dealer is able to render prompt service and furnish replacement parts in addition to operating a factory authorized service center and parts repository capable of satisfying the warranty service requirements and parts requirements of the vehicle(s) being purchased.

The Pierce authorized Dealer has staffing of factory-trained mechanics, well versed in all aspects of service for all major components of the apparatus.

As the manufacturer, facilities are available in Appleton, WI, Weyauwega, WI, and Bradenton, FL. These facilities are equipped with factory personnel and inventory in excess of \$5 million in inventory dedicated to service and replacement parts to ensure quick response and minimize down time.

Furthermore, Pierce Manufacturing Inc. houses inventory in a dedicated facility, with a dedicated shipping area that ensures service parts are given priority and extends a customized, Pierce aftermarket website for authorized Dealers to conduct business in real-time.

Parts identification is provided to both the dealer and the Fire Department through an on line web based application for the specific truck. Access will be granted using the specific VIN number of the vehicle and the online web application provides the ability to view complete bills of materials, digital photographs, parts drawings, assembly drawings, and access to all current operation, maintenance and service publications. The end user can access this information via the Guest Login.

Pierce Manufacturing Inc. maintain a 24 hour/ 7 day a week, toll free emergency hot line and employs a staff of 30+ dedicated individuals to troubleshooting and parts support.

Both Pierce and their authorized Dealers are capable of providing both in-house and on-site service for the apparatus along with training per request.

Replacement parts and various levels of service after delivery are available from your local Pierce authorized dealer, including but not limited to those shown below:

### SERVICE:

- Warranty repair for Pierce product line for all items with the exception of those that must be handled directly by the component manufacture such as engine etc.
- Direct access to Pierce technical support
- Routine preventative maintenance
- Annual aerial ladder testing

- Pump testing
- Ground ladder testing
- NFPA 1911 annual inspections maintenance and testing
- Repairs from small minor issues to major overhauls and many other services
- Dealer repair services extend to most other fire and emergency rescue product lines in addition to Pierce Manufacturing
- Service provided by EVT, ASE, Pierce and industry specific certified technicians
- All Pierce authorized sales and service dealer have access to Pierce's extensive level of technical and customer service support staff

#### PARTS:

- OEM supplier of large assortment of products supplied with fire and emergency rescue vehicles
- Large inventory of parts on-site - Example: Hughes Fire facilities inventory over \$400,000.00 worth of over 2000 of the most commonly required parts and components required for apparatus repair. This level of inventory enables "out of service" time to be kept to a bare minimum.
- All Pierce authorized sales and service dealers have access to Pierce's extensive level of replacement parts inventory, which is in excess of \$5M as well as any Pierce required fabrication services

#### Training

Every aerial product purchase has training included with a Pierce certified trainer that performs onsite operational training.

Customer Service also offers operational and maintenance training throughout the calendar year at regional locations for a nominal fee per person. List of classes offered can be viewed at any time and registered online at [www.pierceparts.com](http://www.pierceparts.com).

**ORDINANCE NO. 1828****AN ORDINANCE AMENDING BURLINGTON MUNICIPAL  
CODE (BMC) 2.84 PROCUREMENT**

**WHEREAS**, the City Council of the City of Burlington has determined that it is in the best interest of the city of adopt uniform purchasing standards; and

**WHEREAS**, the City Council wishes to amend the purchasing standards to reflect industry standards and best practices.

**NOW, THEREFORE THE CITY COUNCIL OF BURLINGTON, WASHINGTON DO ORDAIN AS  
FOLLOWS :**

1. That Ordinance No. 1814 be repealed and that the purchasing standards be amended as outlined in "Attachment A".

**INTRODUCED AND PASSED** and approved at a regular meeting of the City Council this 10<sup>th</sup> day of March, 2016.

**CITY OF BURLINGTON**

  
Steve Sexton, Mayor

**ATTEST:**

  
Crystil Wooldridge, Finance Director

**APPROVED AS TO FORM:**

  
Lelf Johnson, City Attorney

**FILED WITH THE CITY CLERK: 03/10/2016  
PASSED BY THE CITY COUNCIL: 03/10/2016  
SIGNED BY THE MAYOR: 03/16/2016  
PUBLISHED: 03/15/2016**

## Attachment A

### Chapter 2.84 PROCUREMENT

#### Sections:

#### Article I. General Provisions

- 2.84.010 Purpose.
- 2.84.020 Definitions.
- 2.84.030 Application.
- 2.84.040 Designees.
- 2.84.050 Procedures.
- 2.84.060 Bids and proposals to comply with regulations.
- 2.84.070 Rosters.
- 2.84.080 Annual list of anticipated purchases.
- 2.84.090 Federal funds.
- 2.84.100 Grant application and agreement execution.
- 2.84.110 Related regulation.

#### Article II. Goods, Supplies, Materials and Equipment

- 2.84.120 Definitions.
- 2.84.130 Purchases with an estimated gross cost less than \$500.
- 2.84.140 Purchases with an estimated gross cost between \$500 and \$7,499.
- 2.84.150 Purchases with an estimated gross cost between \$7,500 and \$15,000.
- 2.84.160 Purchases with an estimated gross cost more than \$15,000.

#### Article III. Services

- 2.84.170 Definitions.
- 2.84.180 Professional services with an estimated gross cost less than \$300,000.
- 2.84.190 Professional services with an estimated gross cost more than \$300,000.
- 2.84.200 Consultant services with an estimated gross cost less than \$500.
- 2.84.210 Consultant services with an estimated gross cost between \$500 and \$7,499.
- 2.84.220 Consultant services with an estimated gross cost between \$7,500 and \$15,000.
- 2.84.230 Consultant services with an estimated gross cost more than \$15,000.
- 2.84.240 Purchased services with an estimated gross cost less than \$500.
- 2.84.250 Purchased services with an estimated gross cost between \$500 and \$7,499.
- 2.84.260 Purchased services with an estimated gross cost between \$7,500 and \$15,000.
- 2.84.270 Purchased services with an estimated gross cost more than \$15,000.

#### Article IV. Public Works

- 2.84.280 Definitions.
- 2.84.290 Contracts with community service organization for public improvements.
- 2.84.300 Estimating costs of public works contracts.
- 2.84.310 Determining lowest responsible bidder.
- 2.84.320 Public works projects constructed through city labor force.
- 2.84.330 Public works projects less than bid limit.
- 2.84.340 Limited public works – Projects with an estimated gross cost less than \$35,000.
- 2.84.350 Small works roster – Projects with an estimated gross cost less than \$300,000.
- 2.84.360 Public works with an estimated gross cost more than \$300,000.
- 2.84.370 Retainage.
- 2.84.380 Payment and performance bonds.
- 2.84.390 Prevailing wages on public works and maintenance contracts.



- 2.84.400 Public works change orders and contract amendments.
- 2.84.410 Final acceptance of public works contracts.

#### Article V. Other Procurements

- 2.84.420 Computers and telecommunications systems and equipment.
- 2.84.430 Cooperative purchasing.
- 2.84.440 Purchase at auctions.
- 2.84.450 Sole source procurement.
- 2.84.460 Emergency procurements.
- 2.84.470 Multi-term contracts.

#### Article I. General Provisions

##### 2.84.010 Purpose.

The purpose of this chapter is to protect and advance the public interest by:

- A. **Fairness and Objectivity:** Providing a fair, objective, and equitable selection and contracting environment for all individuals and firms seeking to do business or contracting with the City.
- B. **Ensuring Reasonable Costs:** Promoting competition, and negotiating (where applicable), to ensure that the City receives the most favorable prices and terms in its contracts.
- C. **Efficiency:** Ensuring that supplies and services (consultant, construction, etc.) are obtained efficiently and effectively.
- D. **Accountability:** Promoting accountability of contracting actions by City employees and encouraging employees to protect the City's financial and other interests.
- E. **Value-Added Procurement:** Facilitating a procurement process that provides service and value to the City in obtaining goods and services.
- F. **Ethical Standards:** Ensuring that the City's procurement activities are implemented with the highest regard for integrity, avoidance of conflicts of interest, and consistent with applicable ethical standards.
- G. **Legal Consideration:** Complying with all applicable federal, state, and local statutes and regulations.

##### 2.84.020 Definitions.

As used in this chapter, the following terms and phrases shall have the following meanings:

- A. **"Contract"** means an agreement between two or more parties creating obligations to do, or not to do, certain things when such obligations are enforceable or otherwise recognizable at law. A contract means purchase order, agreement, contract, etc.
- B. **"Gross cost"** means the total cost to acquire a good or service, including but not limited to labor, equipment, materials, overhead, profit, bonding, insurance, taxes, license fees, transportation fees, and warranty fees.

##### 2.84.030 Application.

This chapter applies to contracts by the city of Burlington for: (1) purchases of goods, materials, supplies, and equipment, (2) professional services, (3) consultant services, (4) purchased services, (5) public works. This chapter does not apply to:

- A. The acquisition of real property.
- B. Utility bills (Water, Sewer, Electricity, Natural Gas, and other regulated utility expenses).

- C. Postage and other purchases from the U.S. Postal Service.
- D. Licenses, permits, and fees from governmental or regulatory entities at the federal, state or local level.
- E. Purchases from other governmental entities (federal, state, city, local, port districts, Public Development Authorities [PDAs], housing authorities, state colleges and universities, state hospitals, etc.) where the governmental entity provides goods or services not available from the private sector.
- F. Service or use fees paid to governmental cooperative purchasing organizations.
- G. Fuel card charges for gasoline and diesel purchases for official City business on personal credit card while on City travel status.
- H. Legal settlements of disputed matters, and judgment claims against the City (for use only with approval by the City Administrator).
- I. Traffic control (flagging) by off-duty police officers (only when required).
- J. Travel expenses for City employees necessary to conduct City business.
- K. Training registration fees and tuition for pre-established, non-City specific, off-site classes, seminars, workshops, etc. for City employees.
- L. Testing and travel expenses of employment applicants (including expenses for eligible personnel). This includes travel expenses of certain out-of-state job applicants. Travel expenses of job applicants shall be approved by the applicable Department Director and by the Finance Director.
- M. Conference and convention expenses and fees for the City employees conducting City business.
- N. Advertisement for employment opportunities, purchasing and contracting solicitations, sale of surplus items, public announcements and outreach, etc. (all media). This exception does not include printing, design, or graphics services.
- O. Freight bills, express shipping, common carriers, and delivery services.
- P. Honoraria and stipends,
- Q. Entertainment such as speakers, lecturers, musicians, and performing artists. Only when such expenses are permitted by the grant funding the activity.
- R. Insurance deductible and/or retained losses (requires approval of Finance Director).
- S. Taxi, public transportation, and toll fare; mileage and incidental parking expenses.
- T. Publications and subscriptions (newspapers, magazines, books, pre-printed materials, reprints, publishers page charges, electronic publications, online subscription services, pre-recorded audio or video cassettes, slide presentations, tapes, CDs, diskettes when purchased from the publisher or producer; etc.).
- U. Mailing lists (print or electronic).
- V. Professional association membership dues, fees, licenses, accreditations, and certifications.
- W. Royalties, broadcast rights, and film rentals from the producer or protected distributors.
- X. Petty cash purchases and reimbursements less than \$50.

**2.84.040 Designees.**

A. Any reference to the mayor, city administrator, or finance director includes their respective designees who are authorized through a memorandum of delegation of authority signed by the mayor, city administrator, or finance director.

**2.84.050 Procedures.**

The city administrator is authorized to establish procedures to implement this chapter.

**2.84.060 Bids and proposals to comply with regulations.**

All bids and proposals offered by persons, associations or corporations desiring to sell or supply material, equipment, supplies, or services to, or to construct a public work or improvement for, the city, shall comply with all relevant federal, state, and local laws and regulations, the terms of which shall be deemed included in such solicitations whether or not they are expressly set out therein.

**2.84.070 Rosters:** The city utilizes the Municipal Research and Services Center (MRSC) for its Vendor Roster, Consultant Roster, and Small Works Roster. The city is authorized to maintain a roster or to utilize another agency's roster.

**2.84.080 Annual list of anticipated purchases.**

A. Using historical data of purchases from the previous year and estimated purchases by city departments of "like items" or groups of like items, the city finance director shall develop an annual estimate of the city's cumulative requirements for such items. These purchases shall include purchases of goods, supplies, equipment, materials, and purchased services as defined in section 2.84.150. The city shall advertise for competitive bids for all such items on the list when the gross cost of obtaining such like items exceeds \$15,000 for the year, except that for items on the list of anticipated purchases greater than \$7,500 but less than \$15,000, the city may solicit bids from firms on the Vendor Roster described in Section 2.84.150. The list of anticipated purchases shall be compiled by the finance director and distributed to the proper officers of the city.

B. "Like items" means goods or services that are of a similar nature such that the goods or services may reasonably be grouped together in order to facilitate bulk purchasing. In determining whether or not goods and/or services are to be construed to be a "like item," the following criteria shall be examined:

1. Whether or not a single vendor is likely to be able to supply all of the goods or services, or whether competition would be enhanced by attracting multiple vendors for different goods or services;
2. Whether the goods or services will be used for similar purposes such that different staff members from different departments will have similar concerns as to the attributes of the products;
3. Whether or not there are limitations on the available storage space for the product;
4. Whether or not there are limitations on the shelf life of a good or product that would preclude bulk purchasing;
5. Whether or not there is an expected change in a product line, and the city prefers not to commit to any more of the product than is necessary before the new product becomes available;
6. Whether or not the goods or services may all be identified at the time of bidding with sufficient clarity so as to allow the creation of clear and concise specifications;
7. Whether or not there are other business or programmatic reasons for purchasing the goods or services at a frequent interval.

**2.84.090 Federal funds.**

When a procurement involves the expenditure of federal funds, procurement and contracting shall be conducted in accordance with any applicable federal law or regulation, which applicable federal law or regulation shall supersede the provisions of this chapter to the extent inconsistent. For the purposes of this section, the term "federal law or regulation" shall include those rules and regulations adopted by any state agency and made applicable to the city, or made applicable to a particular purchase to be made by the city, in order to conform either with federal law or to enable the city of Burlington or the state to remain eligible for federal grant funding.

**2.84.100 Grant Application and agreement execution.**

A. Definitions: As used in this section, the following terms and phrases shall have the following meanings:

1. "Grant match" shall mean money, or in-kind contributions, provided by the City to match requested funding from grant program.

B. Coordination of grant terms and city requirements: Nothing in this chapter shall prevent the city from complying with the terms and conditions of any grant, gift or bequest which is otherwise consistent with law.

C. Application for city match grants:

1. Grant applications with a city match that have been approved by city council through annual budget appropriation and/or capital improvement plan: The mayor is authorized to approve applications for grants in any amount; provided, that the finance director certifies that funds are available for any required city match
2. Grant applications with a city match that have not been approved by city council through annual budget appropriation and/or capital improvement plan: For grant applications with a city match of not more than \$15,000, the mayor is authorized to approve application for said grants and shall notify the city council at the next scheduled city council meeting. Grant applications with a city match in excess of \$15,000 shall be approved by city council prior to submittal.
3. If a grant opportunity arises that requires submittal of the grant prior to the next scheduled city council meeting for a project that has prior council approval or positive recommendation from the finance committee, the mayor is authorized to apply for the grant. Council shall be notified no later than the next scheduled city council meeting.

D. Execution of grant agreements:

1. Grants with a city match that have been approved by city council through annual budget appropriation and/or capital improvement plan: The mayor is authorized to execute grant agreements in any amount; provided, that the finance director certifies that the city match funds are available.
2. Grants with a city match that have not been approved by city council through annual budget appropriation and/or capital improvement plan: For grant agreements with a city match of not more than \$15,000, the mayor is authorized to execute said agreements and shall notify the city council at the next scheduled city council meeting. Grant agreements with a city match in excess of \$15,000 shall be approved by the city council prior to execution.

**2.84.110 Related regulation.**

The following chapters of the Burlington Municipal Code and regulations are related to this Procurement Policy:

1. Asset Management Policy and Procedures
2. Administrative Procedures for Right of Way and Property Acquisition
3. Burlington Municipal Code Chapter 2.100 Credit Cards

#### 4. Petty Cash, Change and Investigative Funds

### Article II. Goods, Supplies, Materials and Equipment

**2.84.120 Definitions.** As used in this section, the following terms and phrases shall have the following meanings:

A. Goods, supplies, materials and equipment are considered tangible items which are manufactured and are movable at the time of purchase. Examples: Office supplies, off the shelf software, hardware, vehicles, construction and industrial machinery, copy machines, auto parts, gravel, janitorial supplies, etc. This also includes equipment that is procured through lease.

B. "Minor Contract" shall mean, for the purposes of this section, a contract that involves a gross cost of \$7,500 or less within a 12-month period and has not been identified on the finance director's annual list of anticipated purchases pursuant to section 2.84.080.

**2.84.130 Purchases with an estimated gross cost less than \$500.**

A. Procurement - Quotes are recommended but not required for goods, materials, supplies, and equipment with a gross cost of less than \$500.00.

B. Contract Execution - The city council hereby directs and authorizes the mayor to execute Minor Contracts for goods, materials, supplies or equipment. The finance director is authorized to attest such signature. The mayor may, upon his or her own volition, place any specific contract on the agenda for council authorization as he or she may see fit.

**2.84.140 Purchases with an estimated gross cost between \$500 and \$7,499.**

A. Procurement - Quotes are required for goods, materials, supplies, and equipment with an estimated gross cost between \$500 and \$7,499. Whenever possible, a city representative shall contact at least three (3) vendors to obtain quotes. If less than three (3) quotes are obtained, written justification shall be required as to why the three (3) quote minimum was not met.

B. Contract Execution - The city council hereby directs and authorizes the mayor to execute Minor Contracts for goods, materials, supplies or equipment. The finance director is authorized to attest such signatures. The mayor may, upon his or her own volition, place any specific contract on the agenda for council authorization as he or she may see fit.

**2.84.150 Purchases with an estimated gross cost between \$7,500 and \$15,000.**

A. Procurement - Goods, materials, supplies, and equipment shall be acquired by the city through the use of formal sealed bidding procedures if the gross cost of such goods, materials, supplies, or equipment, including tax and freight, is greater than \$7,500; provided, that the purchase of goods, materials, supplies, or equipment with an estimated gross cost between \$7,500 and \$15,000 may be accomplished utilizing the Vendor Roster procedures set forth in subsections (1) through (2) of this section.

1. Publication of Notice. At least twice a year notice of the existence of the roster of vendors for goods, materials, supplies, and equipment shall be published in the city's official newspaper and shall solicit names of vendors for the Vendor Roster.

2. Request for quotes off of the Vendor Roster. The city shall use the following process to obtain quotations from vendors for the purchase of goods, materials, supplies, or equipment:

- a. A written description shall be drafted of the specific goods, materials, supplies, or equipment to be purchased, including the number, quantity, quality, and type desired, the proposed delivery date, and any other significant terms of purchase;
  - b. A city representative shall contact at least three (3) of the vendors on the Vendor Roster and obtain telephone or written quotations from the vendors on the required goods, materials, supplies, or equipment;
  - c. At the time such quotations are solicited, the city representative shall not inform a vendor of any other vendor's bid on the goods, materials, supplies, or equipment;
  - d. For telephone quotations, a written record shall be made by the city representative of each vendor's bid on the goods, materials, supplies, or equipment, and of any conditions imposed on the bid by such vendor;
  - e. Copies of bid documents for purchases equal to \$7,500 and less than \$15,000 shall be submitted to the finance director prior to solicitation.
- B. Contract Execution – The mayor shall have the authority to execute any contract for goods, materials, supplies or equipment that is not subject to advertised competitive bidding requirements; provided, that the acquisition of such goods has been approved by city council through annual budget appropriation and/or capital plan. The finance director is authorized to attest such signature.

**2.84.160 Purchases with an estimated gross cost more than \$15,000.**

A. Procurement – Purchases of goods, materials, supplies or equipment more than \$15,000 shall be through an advertised competitive and sealed bid process.

1. Bid Process

- a. Invitation For Bids (IFB) shall contain, at a minimum, the following:
  - 1. Description of item(s) to be purchased.
  - 2. Specifications covering the item(s) needed.
  - 3. Terms and conditions of the contract.
  - 4. General and special instruction to bidders.
  - 5. Whether the "lowest bid" will be computed by (1) line item; (2) groups of items; (3) the entire bid; (4) if the City has the discretion to make that determination independently.
  - 6. Price sheets for the vendors to submit prices.
  - 7. Offer and acceptance sheet for the bidder to sign.
- b. Bid documents. Bid documents shall be developed to promote full and unrestricted competition through setting forth a detailed description of the goods, supplies, equipment, or materials to be acquired.
- c. Public notice. A notice of the description of the purchase shall be published in the official newspaper with the following requirements.
  - 1. Published a minimum of one (1) time.
  - 2. Published at least thirteen days prior to the last date upon which bids will be received.
  - 3. Generally state a description of the items to be purchased.
  - 4. Invite sealed bids for the purchase.
  - 5. State where to submit the bids.
  - 6. State deadline for receipt of bids (day and hour).
- d. Bid amendments. If, after issuance of a bid, changes shall be made in quantity, specifications, delivery schedule, or closing date, or if corrections are needed because of defects or ambiguities, an amendment to the bid shall be issued. The amendment shall be in writing. Consider the time set for receipt of bids and the necessity or desirability of extending the closing date. Inform potential bidders of such extensions by telephone and then send written confirmation via an addendum by mail or electronically. All firms to whom the original bid was sent shall be notified of all changes and time extensions.

- e. Bid receipt and opening. Bids are to be received at the time, date, and location specified in the bid documents.
- f. Time and Date Stamped -- Upon receipt, un-opened bids are to be time and date stamped to validate the time of receipt. Late bids shall not be considered and will be returned un-opened to the bidder.
- g. Bid evaluation. Bids shall be reviewed and checked for accuracy.

B. Contract Execution - Staff shall present the results of the bid evaluation to city council for consideration. Upon award by the city council, a "Notice of Award" shall be sent to the selected vendor. City council may reject all bids for good cause and re-advertise or award the contract to the lowest bidder. Immediately after the award is made, the bid quotations obtained shall be recorded, open to public inspection, and shall be available by telephone inquiry.

### Article III. Services

#### 2.84.170 Definitions.

A. "Professional services" shall mean architectural, landscape architectural, land surveying, and engineering services (RCW 39.80).

B. "Consultant services" shall mean those services in which a consultant provides advice, recommendations, reports, analyses, evaluations, audits, surveys, or other products of cognitive processes or expert services.

C. "Purchased services" shall mean a contract in which the contractor provides services to the city in the form of physical labor, and which labor is not subject to the supervision and control of city employees, and which labor does not constitute a public work. Purchased services which constitute maintenance as defined in section 2.84.280(B) are subject to prevailing wages.

D. "Minor Contract" shall mean for the purposes of this section a contract that involves a gross cost of \$15,000 or less within a 12-month period and has not been identified as a like item pursuant to section 2.84.070.

#### 2.84.180 Professional Services with an estimated gross cost less than \$300,000.

A. Procurement -- Professional services with an estimated gross cost of less than \$300,000 will be accomplished utilizing the Consultant Roster procedures set forth in this section.

1. Publication of Notice. At least once a year notice will be published in the city's official newspaper encouraging professional services firms to submit their statement of qualifications and performance data (RCW 39.80.040).
2. Request for qualifications off of the Consultant Roster. The city shall use the following process to obtain statements of qualifications from businesses for the acquisition of professional services:
  - a. A written scope of work description shall be drafted for the specific services to be acquired, including deliverables, completion date, and any other significant terms of procurement;
  - b. A city representative shall contact appropriate businesses on the Consultant Roster according to subsection (1) of this section and obtain proposals from the businesses on the applicable consultant services.

#### B. Contract Execution

1. Professional services contracts with an estimated gross cost less than \$15,000 -- The mayor shall have the authority to execute any contract for professional services with an estimated gross cost less than \$15,000 provided, that the acquisition of such services has been approved by city council through annual budget appropriation and/or capital plan. The finance director is authorized to attest such signature.

2. Professional services contracts with an estimated gross cost of \$15,000 or more – Staff shall present the results of the qualification based selection and contract negotiation to the city council for consideration and contract award.

**2.84.190 Professional Services with an estimated gross cost more than \$300,000.**

A. Procurement – Purchases of professional services contracts with an estimated gross cost over \$300,000 shall be through an advertised competitive selection process.

1. Proposal Process

- a. Requests For Qualifications (RFQ) shall contain, at a minimum, the following:
  1. Description of scope of work of the professional services to be provided.
  2. Terms and conditions of the contract.
- b. Public notice. A notice of the description of the professional services to be provided shall be published in the city's official newspaper with the following requirements.
  1. Published a minimum of one (1) time.
  2. Invite statements of qualifications for the work.
  3. State where to submit the statements of qualifications.
  4. State deadline for receipt of statements of qualifications (day and hour).
- c. Amendments. If, after issuance of the request of qualification, changes shall be made in request for qualifications, an amendment to the RFQ shall be issued. The amendment shall be in writing. Consider the time set for receipt of statements of qualifications and the necessity or desirability of extending the closing date. Inform potential proposers of such extensions by telephone and then send written confirmation via an addendum by mail or electronically. All firms to whom the original request for qualifications was sent shall be notified of all changes and time extensions.
- d. Statement of qualifications receipt. Statements of qualifications are to be received at the time, date, and location specified in the request for qualifications.
- e. Time and Date Stamped – Upon receipt, un-opened statements of qualifications are to be time and date stamped to validate the time of receipt. Late statement of qualifications shall not be considered and will be returned un-opened to the proposer.
- f. Contract Negotiations – After the most qualified firm has been selected, enter into and complete price negotiations with the firm.

B. Contract Execution – Following negotiation of an acceptable price with the most qualified firm, staff shall present the results of the selection and negotiation process to city council for consideration. Upon award by the city council, a "Notice of Award" shall be sent to the selected professional services firm.

**2.84.200 Consultant services with an estimated gross cost less than \$500.**

A. Procurement – Quotes and review of proposals from multiple consultants are recommended but not required for consultant services with a gross cost of less than \$500.00.

B. Contract Execution - The city council hereby directs and authorizes the mayor to execute Minor Contracts for consultant services. The finance director is authorized to attest such signature. The mayor may, upon his or her own volition, place any specific contract on the agenda for council authorization as he or she may see fit.

**2.84.210 Consultant services with a gross cost between \$500 and \$7,499.**

A. Procurement – Quotes and review of proposals are required for consultant services with an estimated gross cost between \$500 and \$7,499. Whenever possible, a city representative shall contact at least three (3) consultants to obtain quotes and review qualifications. If less than three (3) quotes are obtained, written justification shall be required as to why the three (3) quote minimum was not met.

B. Contract Execution – The city council hereby directs and authorizes the mayor to execute Minor Contracts for consultant services. The finance director is authorized to attest such signature. The mayor may, upon his or her own volition, place any specific contract on the agenda for council authorization as he or she may see fit.



**2.84.220 Consultant services with an estimated gross cost between \$7,500 and \$15,000.**

A. Procurement – Consultant services shall only be acquired by the city through the use of advertised proposal procedures when the gross cost is greater than \$7,500; provided, that consultant services estimated to cost between \$7,500 and \$15,000 may be accomplished utilizing the Consultant Roster procedures set forth in subsections (1) through (2) of this section.

1. Publication of Notice. At least twice a year notice of the existence of the consultant roster will be published in the city's official newspaper and shall solicit businesses for the Consultant Roster.
2. Request for proposals off of the Consultant Roster. The city shall use the following process to obtain proposals from businesses for the acquisition of consultant services:
  - a. A written scope of work description shall be drafted for the specific services to be acquired, including deliverables, completion date, and any other significant terms of procurement. The request for proposals shall include the evaluation criteria to be used in evaluating proposals and the weighting for each criterion;
  - b. A city representative shall contact at least three (3) different businesses on the Consultant Roster whenever possible and obtain proposals from the businesses on the required consultant services. If less than three (3) proposals are obtained, written justification shall be required as to why the three (3) proposal minimum was not met;
  - c. At the time such proposals are solicited, the city representative shall not inform a consultant of any other consultant's proposed price;
  - d. Copies of requests for proposals for consultant services equal to or greater than \$7,500 and less than \$15,000 will be submitted to the finance director prior to solicitation.

B. Contract Execution – The mayor shall have the authority to execute any contract for consultant services that is not subject to advertised competitive selection requirements; provided, that the acquisition of such services has been approved by city council through annual budget appropriation and/or capital plan. The finance director is authorized to attest such signature.

**2.84.230 Consultant services with an estimated gross cost more than \$15,000.**

A. Procurement – Purchases of consultant services over \$15,000 shall be through an advertised competitive selection process.

1. Proposal Process

- a. Requests For Proposals (RFP) shall contain, at a minimum, the following:
  1. Description of scope of work of the consultant services to be provided.
  2. Terms and conditions of the contract.
  3. Evaluation criteria to be used in evaluating proposals and the weighting for each criterion.
- b. Public notice. A notice of the description of the consultant services to be provided shall be published in the city's official newspaper with the following requirements.
  1. Published a minimum of one (1) time.
  2. Generally state the consultant services to be provided
  3. Invite proposals for work.
  4. State where to submit the proposals.
  5. State deadline for receipt of proposals (day and hour).
- c. Amendments. If, after issuance of a request for proposals, changes shall be made in request for proposals, an amendment to the RFP shall be issued. The amendment shall be in writing. Consider the time set for receipt of proposals and the necessity or desirability of extending the closing date. Inform potential proposers of such extensions by telephone and then send written confirmation via an addendum by mail or electronically. All firms to whom the original request for proposals was sent shall be notified of all changes and time extensions.

- d. Proposal receipt. Proposals are to be received at the time, date, and location specified in the request for proposals.
- e. Time and Date Stamped – Upon receipt, un-opened proposals are to be time and date stamped to validate the time of receipt. Late proposals shall not be considered and will be returned un-opened to the proposer.

B. Contract Award - Staff shall present the results of the proposal evaluation to city council for consideration. City council may reject all proposals for good cause and re-advertise or award the contract to the highest ranked proposer. Upon award by the city council, a "Notice of Award" shall be sent to the selected consultant.

**2.84.240 Purchased services with an estimated gross cost less than \$500.**

A. Procurement - Quotes or proposals are recommended but not required for purchased services with a gross cost of less than \$500.00.

B. Contract Execution - The city council hereby directs and authorizes the mayor to execute Minor Contracts for purchased services. The finance director is authorized to attest such signature. The mayor may, upon his or her own volition, place any specific contract on the agenda for council authorization as he or she may see fit.

**2.84.250 Purchased services with an estimated gross cost between \$500 and \$7,499.**

A. Procurement – Quotes or proposals are required for purchased services with an estimated gross cost between \$500 and \$7,499. Whenever possible, a city representative shall contact at least (3) three vendors to obtain quotes or proposals. If less than three (3) quotes or proposals are obtained, written justification shall be required as to why the three (3) quote minimum was not met.

B. Contract Execution – The city council hereby directs and authorizes the mayor to execute Minor Contracts for purchased services. The finance director is authorized to attest such signature. The mayor may, upon his or her own volition, place any specific contract on the agenda for council authorization as he or she may see fit.

**2.84.260 Purchased services with an estimated gross cost between \$7,500 and \$15,000.**

A. Procurement -- Purchased services shall only be acquired by the city through a formal advertised competitive selection process when the gross cost is greater than \$7,500; provided, that purchased services estimated to cost between \$7,500 and \$15,000 may be accomplished utilizing applicable vendor roster procedures set forth in subsections (1) through (2) of this section.

1. Publication of Notice. At least twice a year notice of the existence of the vendor roster will be published in the city's official newspaper and shall solicit businesses for the vendor roster.

2. Request for quotes off of the vendor roster. The city shall use the following process to obtain quotations from businesses for the procurement of purchased services:

- a. A written scope of work shall be drafted for the specific services to be purchased, including deliverables and standards;
- b. A city representative shall contact at least three (3) businesses and obtain quotations from the businesses for the required purchased services;
- c. At the time such quotations are solicited, the city representative shall not inform a service provider of any other business's bid;
- d. For telephone quotations, a written record shall be made by the city representative of each vendor's bid and of any conditions imposed on the bid by such service provider;
- e. Copies of bid documents for purchases of greater than \$7,500 and less than \$15,000 shall be submitted to the finance director prior to solicitation.

B. Contract Execution – The mayor shall have the authority to execute any contract for purchased services that is not subject to advertised competitive bidding requirements; provided, that the acquisition of such services has been approved by city council through annual budget appropriation and/or capital plan. The finance director is authorized to attest such signature. Immediately after the award is made, the bid quotations obtained shall be recorded, open to public inspection, and shall be available by telephone inquiry.

**2.84.270 Purchases with an estimated gross cost more than \$15,000**

A. Procurement – Purchases of purchased services over \$15,000 shall be through an advertised competitive selection process.

**1. Bid or Proposal Process**

- a. Invitation For Bids (IFB)/Request for Proposals (RFP). IFB/RFP shall contain, if applicable, the following:
  1. Description of services to be provided.
  2. Terms and conditions of the contract.
  3. Evaluation criteria to be used in evaluating proposals and the weighting for each criterion (only for RFPs).
  4. General and special instruction to bidders.
  5. Whether the "lowest bid" will be computed by (1) line item; (2) groups of items; (3) the entire bid; (4) if the City has the discretion to make that determination independently.
  6. Price sheets for the vendors to submit prices.
  7. Offer and acceptance sheet for the bidder to sign.
- b. Public notice. A notice of the description of the services to be provided shall be published in the official newspaper with the following requirements.
  1. Published a minimum of one (1) time.
  2. Generally state the services to be provided.
  3. Invite sealed bids or proposals.
  4. State where to file the bids or proposals.
  5. State deadline for receipt of bids or proposals (day and hour).
- c. Amendments. If, after issuance of a solicitation, changes shall be made, or if corrections are needed, an amendment to the solicitation shall be issued. The amendment shall be in writing. Consider the time set for receipt of submittals and the necessity or desirability of extending the closing date. Inform potential bidders of such extensions by telephone and then send confirmation by mail or electronically. All firms to whom the original solicitation was sent shall be notified of all changes and time extensions.
- d. Receipt and opening. Bids or proposals are to be received at the time, date, and location specified in the solicitation. Time and Date Stamped – Upon receipt, un-opened bids proposals are to be time and date stamped to validate the time of receipt. Late bids or proposals shall not be considered and will be returned un-opened.
- e. Evaluation. Bids or proposals shall be reviewed and checked for accuracy.

B. Contract Execution - Staff shall present the results of the bid or proposal evaluation to city council for consideration. Upon award by the city council, a "Notice of Award" shall be sent to the selected consultant.

**Article IV. Public Works**

**2.84.280 Definitions.**

A. "Ordinary maintenance" shall mean maintenance work performed by City employees and that is performed on a regularly scheduled basis (e.g., daily, weekly, monthly, seasonally, semiannually, but not less frequently than once per year), to service, check, or replace items that are not broken; or maintenance work performed by City Employees that is not regularly scheduled but is required to maintain the asset so that repair does not become necessary (WAC 296-127-010(7)(b)(iii)).

B. "Maintenance" – Maintenance performed by contract is defined as keeping existing facilities in good usable, operational condition and is subject to prevailing wages requirements.

C. "Public work" shall have the same meaning as set forth in RCW 39.04.010, and shall include all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the city or which is by law a lien or charge on any property therein.

**2.84.290 Contracts with community service organizations for public improvements.**

A. Competition Waived. Pursuant to RCW 35.21.278, the city council may contract with the Chamber of Commerce, a service organization, a community, youth, or athletic association, or similar nonprofit association which is located in and providing service to the immediate neighborhood for drawing design plans; making improvements to a park, school playground, or public square; installing equipment or public art; or providing maintenance services for a public facility as a community or neighborhood project without utilizing a competitive bid process, and the city may reimburse the contracting association its expense.

B. Value of Services or Goods Received. The goods or services received by the city shall be at least equal to three (3) times the city's payment to the association.

C. Annual Limitation. The city's payments for all contracts made to all neighborhood associations pursuant to this section in any one calendar year shall not exceed \$25,000.

**2.84.300 Estimating costs of public works contracts.**

Consistent with RCW 39.04.020, the city shall develop a cost estimate for every public works project prior to soliciting bids. In determining the cost of a public works project, all amounts estimated to be paid for materials, supplies, equipment, sales taxes, and labor on the construction of the project shall be included in the cost estimate.

**2.84.310 Determining lowest responsible bidder.**

The city shall award any contract for a public works project to the lowest responsible bidder with a responsive bid; provided, that the city council may, in its sole discretion, elect to reject all bids. Bidder responsibility is defined in RCW 39.04.350.

**2.84.320 Public works projects constructed through city labor force.** The city may utilize its own labor force to construct public works projects if the estimated gross cost is less than \$40,000 employing a single craft or \$65,000 employing multiple crafts. Any goods, materials, supplies, equipment or services shall be procured in accordance with the city's procurement policy for those types of purchases.

1. For projects in excess of \$25,000, a city shall publish a description of the project and its estimated cost in its official newspaper at least fifteen (15) days before beginning the work (RCW 39.04.020).

**2.84.330 Public Works projects less than the bid limit.** Contracted public works with an estimated gross cost less than \$40,000 employing a single craft or \$65,000 employing multiple crafts.

A. Procurement – The city may waive the bid requirement for these public works projects and select a contractor(s) to negotiate price with.

B. Contract Execution – The mayor shall have the authority to award such public works contracts without the city council's approval, provided, that the city council shall ratify the mayor's approval at the next scheduled council meeting.

**2.84.340 Limited public works – Projects with an estimated gross cost less than \$35,000.**

A. Procurement – Pursuant to RCW 39.04.155(3), and in lieu of awarding contracts through a formal sealed bidding procedure the city may award a contract for a public work estimated to cost less than \$35,000 including tax, using the limited public works process provided under this section. The limited public works process is part of the small works roster process.

1. Public works projects awarded under this section are exempt from the requirement that contracts be awarded after advertisement as provided under RCW 39.04.010, and are exempt from the other requirements of the small works roster process as described in section 2.84.350 below.
2. For limited public works projects, the city shall solicit written quotations from all of the contractors on the appropriate Small Works Roster established pursuant to BMC 2.84.350, and shall award the contract to the lowest responsible bidder as defined under RCW 39.04.010. After an award is made, the quotations shall be open to public inspection and available by electronic request.
3. For limited public works projects the city administrator may waive the payment and performance bond requirements of chapter 39.08 RCW and the retainage requirements of chapter 60.28 RCW, thereby assuming the liability for the contractor's nonpayment of laborers, mechanics, subcontractors, materialmen, suppliers, and taxes imposed under RCW Title 82 that may be due from the contractor for the limited public works project; however, the city shall have the right of recovery against the contractor for any payments made on the contractor's behalf. Any waiver of the bonding and retainage requirements shall be included in the bid documents prior to solicitation of quotations from contractors.
4. The city shall maintain a list of the contractors contacted and the contracts awarded during the previous 24 months under the limited public works process, including the name of the contractor, the contractor's registration number, the amount of the contract, a brief description of the type of work performed, and the date the contract was awarded. (RCW 39.04.155(3))

**B. Contract Execution** - The mayor shall have the authority to award any contract for a public work that is not subject to advertised public competitive bidding requirements, including projects awarded pursuant to a small works roster or limited public work; provided, that such public work project has been approved by the city council in the annual budget; and provided further, that the finance director certifies that funds are available.

**2.84.350 Small works roster – Projects with an estimated gross cost less than \$300,000.**

**A. Procurement - Roster Authorized.** Pursuant to RCW 39.04.155, the city is authorized to utilize a small works roster process to select contractors to perform work involving the construction, building, renovation, remodeling, alteration, repair, or improvement of real property. In accordance with that statute, the small works roster procedures described herein are in lieu of advertising a public works project.

1. **Cost.** The small works roster process described herein may be utilized for those projects involving the construction, building, renovation, remodeling, alteration, repair, or improvement of real property in which the estimated cost of the project does not exceed \$300,000, which estimate shall include the costs of labor, material, equipment, and sales and/or use taxes as applicable. The breaking of any project into units or accomplishing any projects by phases is prohibited if done for the purpose of avoiding the maximum dollar amount of a contract that may be let using the small works roster process.
2. **Bid Security and Performance Bonds.** No bid security, in the form of a bid bond or bid deposit, shall be required for contracts awarded pursuant to the small works roster process. Performance bonds shall be required from all such contractors performing a public work, pursuant to the provisions of RCW 39.08.030.
3. **Quotations.** The city shall obtain written or electronic quotations for public works contracts from contractors on the appropriate small works roster to assure that a competitive price is established and to award contracts to the lowest responsible bidder, as defined in RCW 39.04.010, as follows:
  - a. Invitations for quotations shall include an estimate of the scope and nature of the work to be performed as well as materials and equipment to be furnished. However, detailed plans and specifications need not be included in the invitation. This subsection does not eliminate other requirements for architectural or engineering approvals as to quality and compliance with building codes.
  - b. Quotations will be invited from all appropriate contractors on the appropriate small works roster.

4. A written record shall be made by the city of each contractor's bid on the project. Immediately after an award is made, the bid quotations obtained shall be forwarded to the city administrator's office, recorded, open to public inspection, and available by telephone inquiry. All bid documents will then be stored in the city administrator's office. A copy of the contractor's quotation shall be forwarded with the contractor's first invoice to the finance director.

B. Contract Execution - The mayor shall have the authority to award any contract for a public work that is not subject to advertised public competitive bidding requirements, including projects awarded pursuant to a small works roster or limited public work; provided, that such public work project has been approved by the city council in the annual budget; and provided further, that the finance director certifies that funds are available.

**2.84.360 Public Works with an estimated gross cost more than \$300,000**

A. Procurement - Purchases of Public works over \$300,000 shall be through an advertised competitive bid process.

1. Bid Process

- a. Invitation For Bids (IFB). IFB shall contain, at a minimum, the following:
  1. Description of work to be performed.
  2. Specifications covering the item(s) needed or work required.
  3. Plans and drawings describing the work to be performed.
  4. Terms and conditions of the contract.
  5. General and special instruction to bidders.
  6. Mandatory and supplemental bidder responsibility criteria for evaluating whether the low bidder is a responsible bidder.
  7. Price sheets for the vendors to submit prices.
  8. Offer and acceptance sheet for the bidder to sign.
- b. Bid development, specifications. Specifications shall be developed to promote full and unrestricted competition through setting forth actual, minimum requirements.
- c. Public notice. A notice of the description of the public work will be published in the official newspaper with the following requirements.
  1. Published a minimum of one (1) time.
  2. Published at least thirteen days prior to the last date upon which bids will be received.
  3. Generally state the work to be done.
  4. Invite sealed bids for work.
  5. State where to submit the bids.
  6. State deadline for receipt of bids (day and hour).
- d. Bid amendments. If, after issuance of an IFB, changes shall be made in quantity, specifications, delivery schedule, or closing date, or if corrections are needed because of defects or ambiguities, an amendment to the IFB shall be issued. The amendment shall be in writing. Consider the time set for receipt of bids and the necessity or desirability of extending the closing date. Inform potential bidders of such extensions by telephone and then send confirmation by mail or electronically. All firms to whom the original bid was sent shall be notified of all changes and time extensions through direct correspondence or posted to the city website.
- e. Bids receipt and opening. Bids are to be received at the time, date, and location specified in the bid document. Time and Date Stamped - Upon receipt, un-opened bids are to be time and date stamped to validate the time of receipt. Late bids shall not be considered and will be returned un-opened to the bidder.
- f. Bid evaluation. Bids shall be reviewed and checked for accuracy and for whether the bidder is a responsible bidder based on the mandatory bidder responsibility criteria and any supplemental bidder responsibility criteria included in the bid documents.

B. Contract Execution - Staff shall present the results of the bid evaluation to city council for consideration. Upon award by the city council, a "Notice of Award" shall be sent to the selected contractor.

**2.84.370 Retainage.**

Except as provided under the limited public works process set forth in RCW 39.04.155(3), and pursuant to RCW 60.28.011, the city shall withhold five percent of the money due a contractor for a public work contract until at least 45 days following final acceptance of the contract by the city, provided the city has obtained releases from the state department of revenue, employment security department, and department of labor and industries. In addition, the city shall have received an affidavit of wages paid, approved by the department of labor and industries, from the contractor and all subcontractors.

**2.84.380 Payment and performance bonds.**

Pursuant to RCW 39.08.010, and except as allowed under the limited public works process set forth in RCW 39.04.155(3), the city shall require all contractors entering into a contract with the city for the construction of a public work to submit to the city a payment and performance bond in a form as approved by the city attorney. Such bond shall be in an amount not less than 100 percent of the contract price.

A. Notwithstanding the foregoing, and in accordance with RCW 39.08.010, at the contractor's option and with the approval of the mayor, the city may, for public works projects less than \$35,000, in lieu of a performance and payment bond, retain 50 percent of the contract amount for a period of 45 days after date of final acceptance and settlement of any liens filed under chapter 60.28 RCW.

**2.84.390 Prevailing wages on public works and maintenance contracts.**

The payment of prevailing wages as required by chapter 39.12 RCW shall apply to all contracts for public works and to all maintenance work performed by contract.

**2.84.400 Public works change orders and contract amendments.**

A. The mayor is hereby authorized and directed to approve and execute public works contract change orders for an increase in the compensation or price to be paid under the contract under the following conditions:

1. If the change order does not change basic nature or purpose of the scope of the project; and
2. If the total cumulative increase or decrease in the contract amount, as a result of the current and preceding change orders, does not exceed 10 percent of the bid total stated in the original approved contract; and
3. The finance director verifies that funds have been budgeted and are available.
4. There is sufficient breakdown and documentation of how the change order amount was calculated and negotiated and such calculation is consistent with the contract documents.

B. Where the mayor approves and executes change orders or contract amendments according to the conditions set forth in subsection (A) of this section, the mayor shall forward the change order to the city council for its information within 30 days of the signing of the change order.

C. If the change order does not meet the conditions set forth in subsection (A) of this section, the mayor shall submit the change order to the city council for approval in advance of execution of the change order.

**2.84.410 Final acceptance of public works contracts.**

A. The mayor is authorized to declare final acceptance of public works contracts without action by the city council.

B. No public works contracts shall be deemed to be accepted until such time as the city has obtained releases from the state department of revenue, employment security department, and department of labor and industries.

**Article V. Other Procurements****2.84.420 Computers and telecommunications systems and equipment.**

Notwithstanding any provision of this chapter to the contrary, electronic data processing equipment, including computers, telecommunication equipment, and/or software may be acquired by the city through a competitive negotiation process in accordance with the provisions of RCW 39.04.270.

**2.84.430 Cooperative purchasing.**

To the greatest extent allowed by law, the city is hereby authorized to join in cooperative purchasing arrangements with other public agencies that are similarly authorized to join in cooperative purchasing arrangements, when the best interests of the city would be served thereby.

A. Cooperative purchasing arrangements entered into under the authority of chapter 39.34 RCW, Interlocal Agreements, shall comply with the requirements of that chapter. Any other cooperative purchasing agreement shall set forth fully the purposes, powers, rights, objectives and responsibilities of the contracting parties and shall be governed by the requirements of state law in regard to competitive bidding when applicable.

B. Cooperative purchasing arrangements entered into under the authority of chapter 39.34 RCW shall be approved by the city council and recorded with the finance director of the city.

**2.84.440 Purchase at auctions.**

A. Pursuant to RCW 39.30.045, the mayor and those city of Burlington officers identified in this chapter to whom the mayor has delegated explicit authority may purchase any supplies, equipment, or materials at auctions conducted by the government of the United States or any agency thereof, any agency of the state of Washington, any municipality or other government agency, or any private party without being subject to public bidding requirements if the items can be obtained at a competitive price.

B. For the purposes of this section, a "competitive price" shall be deemed to be the amount of money or other consideration a willing buyer would be reasonably expected to pay to a willing seller for similar goods on the open market, inclusive of taxes, fees, and other expenses inherent in the acquisition of the good or goods, taking consideration of the age, expected useful life, condition, availability of the goods, and other material factors.

C. For those goods which are to be expected to be acquired at auction for a price in excess of \$15,000, the approval of the city council shall be obtained prior to the auction.

**2.84.450 Sole source procurement.**

A. Brand Names. The city of Burlington may procure goods by specifying a particular brand name; provided, that the responsible city officials have exercised their judgment and determined that a certain brand name is of higher quality or is better suited to the municipality's needs.

B. Monopolies and Sole Source. Pursuant to RCW 39.04.280, competitive bidding requirements may be waived for the purchase of goods, material, equipment, or supplies when there is clearly and legitimately only one source capable of supplying the goods in a timely fashion, and when any advertisement for bids would result in a single bid. In accordance with that statute, this section shall serve as the city's written policies governing the acquisition of goods from a sole source vendor.

1. In the event the material, equipment, supplies, or goods are available from only one supplier, written documentation demonstrating the appropriateness of sole source procurement shall be submitted to and approved by the mayor prior to the acquisition of the material, equipment, supplies, or goods. The mayor may delegate the authority to determine the propriety of sole source procurement to the city administrator. Such written documentation shall recite the factual basis for the exception from competitive procurement. The city administrator's approval shall constitute authorization to conduct negotiations as appropriate as to price, delivery, and terms.



2. The mayor may request the city council to waive the requirements for seeking competitive bids when material, equipment, supplies, or goods are available from only one supplier by resolution.

3. Except in the event of an emergency, the contract and the basis for the exception from competitive procurement shall be recorded and open to public inspection immediately after its award.

C. Special Market Conditions. Pursuant to RCW 39.04.280, competitive bidding requirements may be waived for the purchase of goods, material, equipment, or supplies when special market conditions exist. In accordance with that statute, this section shall serve as the city's written policies governing the acquisition of goods when special market conditions exist.

1. In the event that market conditions exist that would allow the city to either take advantage of a favorable price for material, equipment, supplies, or goods for a limited period of time, or prevent the city from incurring additional expenses when prices for material, equipment, supplies or goods are expected to rise prior to the ability of the city to complete a competitive bid process, then the mayor is hereby authorized to waive competitive bidding requirements. Written documentation demonstrating that special market conditions exist shall be submitted to and approved by the city administrator prior to the acquisition of the material, equipment, supplies, or goods. Such written documentation shall recite the factual basis for the exception from competitive procurement. The city administrator's approval shall constitute authorization to conduct negotiations as appropriate as to price, delivery, and terms.

2. The city administrator may request the city council to waive the requirements for seeking competitive bids when a special market condition exists.

3. Except in the event of an emergency, the contract and the basis for the exception from competitive procurement shall be recorded and open to public inspection immediately after its award.

#### **2.84.460 Emergency procurements.**

A. For the purpose of this chapter, an "emergency" shall be defined as unforeseen circumstances beyond the control of the city, its officers and agents, that either: (1) present a real, immediate threat to the proper performance of essential functions; or (2) will likely result in material loss or damage to property, bodily injury, or loss of life if immediate action is not taken.

B. Notwithstanding any other provisions of this chapter, the mayor may make or authorize others to make procurements of public works, materials, supplies, or equipment, without complying with the requirements of this chapter when there exists an emergency; provided, that such emergency procurements shall be made with such competition as is practicable under the circumstances.

1. A written determination of the basis for the emergency and for the selection of the particular contractor shall be included in the contract file located within the city administrator's office.

2. As soon as practicable, a record of each emergency procurement shall be made and shall set forth the contractor's name, the amount and type of the contract, and a listing of the item(s) procured under the contract, which shall be reported to the city council at the next subsequent meeting.

#### **2.84.470 Multi-term contracts.**

A. Specified Period. Unless otherwise provided by law, a contract may be entered into for any period of time deemed to be in the best interests of the city, so long as funds are available for the current budget year at the time of contracting. Payment and performance obligations for succeeding budget years are subject to the availability and appropriation of funds.

B. Determination Prior to Use. Prior to the utilization of a multi-term contract it is to be determined that estimated requirements cover the period of the contract and are reasonably firm and continuing; and that such contract will serve the best interests of the city by encouraging effective competition or otherwise promoting the city's interests.

# Burlington Fire Department



## Aerial Apparatus Specification



# Apparatus Replacement Planning



## ∞ Goals:

- ∞ Maximize vehicle availability
- ∞ Minimize overall fleet cost
- ∞ Provide end users with safe and reliable tools to do their job
- ∞ Plan and budget for short and long term apparatus needs

# Our Fleet



## ∞ Engines (2)



∞ 1811 - 2009 Spartan



1812 - 2003 Pierce

# Our Fleet



∞ Ladder (1), Aid Unit (1)



∞ 1815 - 1996 LTI



1819 - 1997 Braun

# Our Fleet



- Other Vehicles
- Command (2)
- Utility (1)

# Life Cycle Analysis



## ∞ Empirical Methods

- ∞ Utilizes a formal life-cycle cost analysis technique (such as equivalent annual costs) to calculate the least costly life cycle per class of vehicle.



# Life Cycle Analysis



## Qualitative Methods

- Utilizes a survey of best practices from other organizations and recognized standards.

Fire Engines (Pumpers)	24 years (12 years front line, 12 years reserve)
Ladder Trucks (Aerials)	15 years front line
Aid Units	8 years front line
Command Vehicles	12 years front line
Utility Vehicles	Replace as needed

- NFPA 1901 – Apparatus greater than 15 years old that have been properly maintained and that are still in serviceable condition be placed in reserve status and that apparatus that are over 25 years old should be replaced.



# Life Cycle Analysis



## ∞ Weighted Point System

- ∞ Age: One point for every year of age
- ∞ Miles/Hours: One point for each 10,000 miles or 1,000 hours of use
- ∞ Type of Service: One, three, or five based on type
- ∞ Reliability: One, three, or five based on repair frequency
- ∞ M&R Costs: One to five points based on the total life M&R costs
- ∞ Condition: One to five points based on overall condition of apparatus.

# Life Cycle Analysis



## ∞ Weighted Point System

- ∞ Fewer than 18 points = Condition 1 (Excellent)
- ∞ 18 to 22 points = Condition 2 (Good)
- ∞ 23 to 27 points = Condition 3 (Qualifies for Replacement)
- ∞ 28 points and above = Condition 4 (Needs immediate consideration)

# Life Cycle Analysis

FACTOR	POINTS	1811	1812	1815	1819	1801	1802	1803
Age	One point for every year of age.	8	14	21	20	8	14	18
Miles/Hours	One point for each 10,000 miles or 1,000 engine hours of use.							
Type of Service	One, three, or five based on the type of service the unit is exposed to. Emergency Response apparatus would be assigned a five while a purely administrative vehicle would be assigned a one.	5	5	2	13	5	7	10
Reliability	One, three, or five based on the frequency the vehicle is in the shop for repair. A five would be assigned to a vehicle in the shop two or more times per month on average, while a one would be assigned to a vehicle in the shop an average of once every three months or less.							
M&R Cost	One to five points based on the total life M&R costs. A five is assigned to vehicles with life M&R costs equal or greater than the vehicles original purchase price, while a one is given to a vehicle with life M&R costs equal to 20 percent or less that its original purchase Price.	3	3	3	3	1	1	1
Condition	Overall condition including body, interior, rust, accident history, anticipated repairs, etc. A scale of one to five with five being poor condition.	3	4	5	5	1	2	2
Point Ranges	<u>Fewer than 18 points</u> = Condition 1 (Excellent) <u>18 to 22 points</u> = Condition 2 (Good) <u>23 to 27 Points</u> = Condition 3 (Qualifies for Replacement) <u>28 points and above</u> = Condition 4 (Needs immediate consideration)	26	34	39	50	19	29	34

# Life Cycle Analysis - 1815



## ∞ Weighted Point System

- ∞ Age: One point for every year of age - **21**
- ∞ Miles/Hours: One point for each 10,000 miles or 1,000 hours of use - **2**
- ∞ Type of Service: One, three, or five based on type - **5**
- ∞ Reliability: One, three, or five based on repair frequency - **3**
- ∞ M&R Costs: One to five points based on the total life M&R costs - **5**
- ∞ Condition: One to five points based on overall condition of apparatus. - **3**

# Life Cycle Analysis - 1815



## ∞ Weighted Point System - 39

- ∞ Fewer than 18 points = Condition 1 (Excellent)
- ∞ 18 to 22 points = Condition 2 (Good)
- ∞ 23 to 27 points = Condition 3 (Qualifies for Replacement)
- ∞ 28 points and above = Condition 4 (Needs immediate consideration)

# Ladder Truck Purchase



- ∞ The need to purchase a replacement ladder truck was identified in the 2018 Budget.
- ∞ In order to make this purchase we have been working on two concurrent tasks:
  - ∞ Financing
  - ∞ Apparatus Specification

# Ladder Truck Financing



- œ Estimated cost of new apparatus is \$1,250,000
- œ The City saves approximately \$65,000 by purchasing the apparatus with a 90% down payment.
- œ The City saves approximately \$35,000 by purchasing the apparatus in January.
- œ \$945,000 will be needed in 2018 with an additional 300,000 in 2019.
- œ Purchase options include the use of Fire Impact Fees (\$170,000), existing ER&R Funds, and/or Inter-fund Loans.
- œ Purchase will require a budget amendment for \$945,000, Authorization for the Mayor to sign purchase contract, and resolution/ordinance for inter-fund loan if desired.
- œ Purchase will be made via Cooperative Purchasing Agreement.

# Ladder Truck Specification



- Apparatus Committee formed in August of 2018 including representatives from all shifts, AC Toth, and Chief Yengoyan.
- Site visits were conducted to evaluate recent aerial purchases in our region.
- A large emphasis was placed on evaluating operational and staffing needs to serve the City of Burlington for the next 15 years.
- A consultant has been hired to review final specification and assist in construction oversight.



# What is a Quint?



- œ A Quintuple Combination Pumper designed to be part fire engine and part fire truck.
- œ Provide firefighters with five tools to carry out the following firefighting functions:
  - œ Supply fire streams (pump and hoses);
  - œ Provide initial and continuing water supply (**pump, water tank, and hoses**);
  - œ Provide personnel with access to elevated areas (**ground ladder complement and aerial device**);
  - œ Provide elevated master fire stream (pump, hose, and aerial device)

# How does it affect WSRB?



- “ A ladder truck is required when a community has at least 5 buildings with a required fire flow of 4,000 gpm or greater or 3 stories (35 feet) in height.”
- “When regularly operated as a pumper-ladder truck, credit as a pumper in this item and as  $\frac{1}{2}$  a ladder truck in Item 2, or as  $\frac{1}{2}$  a pumper in this item and as a ladder truck in item 2.”
- Age of apparatus:
  - 10% reduction for more than 15 years old
  - Additional 10% reduction for more than 25 years old

# What about annual costs?



- œ From Snohomish County Fire District #7:
- œ Older ladders run between \$28,000 and \$36,000
- œ New ladders run between \$18,000 and \$25,000
- œ Higher cost for new ladders in first year of service when doing installs and modifications. After first year costs go down closer to \$18,000.
- œ Annual Pump Testing - \$250
- œ Annual Hose Testing - \$750

# Ladder Truck Specification

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- œ Pump – 1500 GPM pumping capacity
- œ Water Tank – 300 gallons water plus 20 gallons foam
- œ Hoses –
  - œ Attack Line – 800' of 1.75" , 700' 2.5"
  - œ Supply Line - 800' of 5"
- œ Aerial Device – 107' Ladder
- œ Ground Ladder Complement – 35' , 28' , 20' Roof, 16' Roof, 14' Fresno, 10' Folding

# Ladder Truck Specification





# Ladder Truck Specification



# Ladder Truck Specification

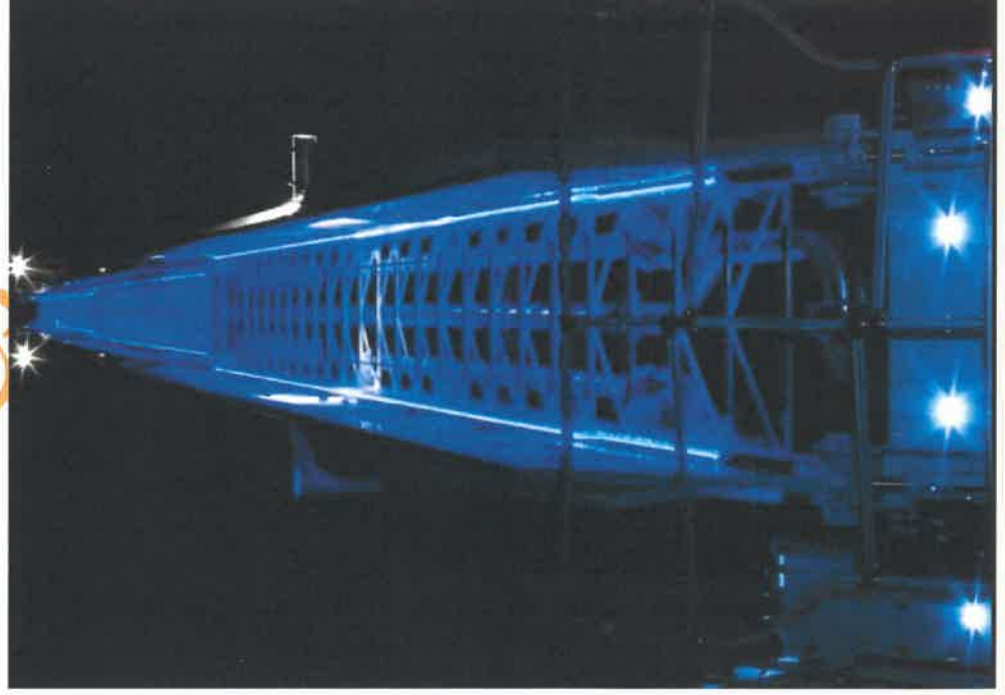


In the Side Roll Protection System, a roll sensor monitors the movement of your rig. The system will position the occupant in the best placement for maximum safety: padding & airbag effect. When it senses a roll, it automatically:

1. Tightens your seatbelt
2. Lowers and locks the seat to its lowest position to eliminate movement
3. Inflates tubular side airbags



# Ladder Truck Specification



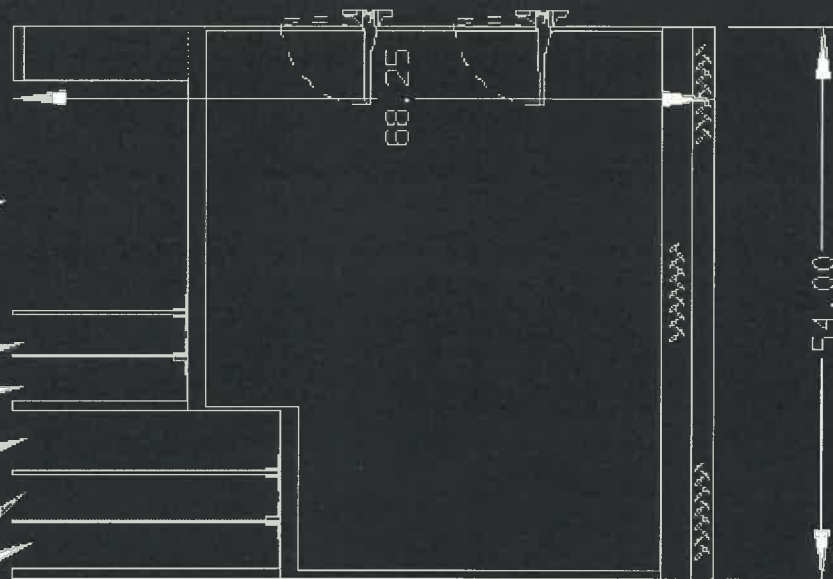


(1) DEADLAY HOSE BED  
FOR 500' OF 2.50" D.J.

(2) DEADLAY HOSE BED  
FOR 150' OF 1.75" D.J.

(2) CROSSLAY HOSE BED  
FOR 200' OF 2.50" D.J.  
WITH SIDE OUTLETS

(2) CROSSLAY HOSE BED  
FOR 200' OF 1.75" D.J.  
WITH SIDE OUTLETS



# Ladder Truck Specification







# Ladder Truck Specification



Motion to amend the budget appropriations as presented in proposed Ordinance XXXX, appropriating \$945,000 in the Equipment Rental & Repair Fund for the purchase of an Aerial Apparatus.

**ORDINANCE NO. XXXX**

**AN ORDINANCE AMENDING THE 2018 BUDGET OF THE CITY OF  
BURLINGTON, WASHINGTON**

**WHEREAS**, the Burlington City Council adopted the 2018 annual budget on December 14, 2017 pursuant to Ordinance No. XXXX; and

**WHEREAS**, the City has identified certain budget expenditures that should be increased to meet critical needs under the 2018 budget; and

**WHEREAS**, the City Council finds that it is necessary to amend the 2016 budget for the City of Burlington, in accordance with the provisions of RCW 35A.33.120(4);

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BURLINGTON DO ORDAIN AS FOLLOWS:**

**SECTION I.** The 2018 budget for the City of Burlington shall be deemed to be and the same is hereby amended as set forth below, and the monies described below are hereby appropriated. A summary of amended revenues and appropriated expenditures for each separate fund and the aggregate totals for all funds are as follows:

<u>Fund Description</u>	<u>Resources</u>		
	<u>Beginning Fund Balances</u>	<u>Resources &amp; Revenues</u>	<u>Total Resources</u>
General Fund	\$ 4,150,000	\$ 13,450,665	\$ 17,600,665
City Street	\$ 600,000	\$ 1,003,790	\$ 1,603,790
Arterial Street	\$ 1,500,000	\$ 2,127,750	\$ 3,627,750
Park Endowment	\$ 32,250	\$ 200	\$ 32,450
Cemetery	\$ 75,000	\$ 54,750	\$ 129,750
Substance Abuse Control	\$ 8,745	\$ 70	\$ 8,815
Lodging Tax	\$ 600,000	\$ 295,500	\$ 895,500
GO Bonds	\$ 230,000	\$ 27,140	\$ 257,140
Current Expense Capital Reserve	\$ 750,000	\$ 430,000	\$ 1,180,000
Capital Improvement	\$ 1,350,000	\$ 231,000	\$ 1,581,000
Parks & Rec Capital Reserves	\$ 1,550,500	\$ 230,000	\$ 1,780,500
Sewer	\$ 2,000,000	\$ 3,317,000	\$ 5,317,000
Sewer Capital Reserve	\$ 2,000,000	\$ 1,585,000	\$ 3,585,000
Storm Drainage	\$ 690,000	\$ 1,040,950	\$ 1,730,950
Storm Capital Reserve	\$ 1,200,000	\$ 102,500	\$ 1,302,500
Equipment Rental & Replacement	\$ 1,731,745	\$ 44,165	\$ 1,775,910
Cemetery Endowment	\$ 346,000	\$ 4,900	\$ 350,900
Total All Funds	\$ 18,814,240	\$ 23,945,380	\$ 42,759,620

<u>Fund Description</u>	<u>Uses &amp; Expenditures</u>		<u>Unappropriated Ending Fund Balances</u>
	<u>Uses &amp; Expenditures</u>	<u>Total Uses</u>	
General Fund	\$ 14,824,600	\$ 14,824,600	\$ 2,776,065
City Street	\$ 865,715	\$ 865,715	\$ 738,075
Arterial Street	\$ 2,730,150	\$ 2,730,150	\$ 897,600
Park Endowment	\$ 3,050	\$ 3,050	\$ 29,400
Cemetery	\$ 87,255	\$ 87,255	\$ 42,495
Substance Abuse Control	\$ 2,850	\$ 2,850	\$ 5,965

Lodging Tax	\$	396,895	\$	396,895	\$	498,605
GO Bonds	\$	23,840	\$	23,840	\$	233,300
Current Expense Capital Reserve	\$	603,000	\$	603,000	\$	577,000
Capital Improvement	\$	-	\$	-	\$	1,581,000
Parks & Rec Capital Reserves	\$	565,000	\$	565,000	\$	1,215,500
Sewer	\$	3,330,330	\$	3,330,330	\$	1,986,670
Sewer Capital Reserve	\$	1,965,000	\$	1,965,000	\$	1,620,000
Storm Drainage	\$	806,200	\$	806,200	\$	924,750
Storm Capital Reserve	\$	452,500	\$	452,500	\$	850,000
Equipment Rental & Replacement	\$	1,385,000	\$	1,385,000	\$	390,910
Cemetery Endowment	\$	-	\$	-	\$	350,900
					\$	-
Total All Funds	\$	28,041,385	\$	28,041,385	\$	14,718,235

**SECTION II.** This ordinance shall take effect five (5) days following its publication as required by law.

**INTRODUCED AND PASSED** and approved at a regular meeting of the City Council this 25<sup>th</sup> day of January, 2018.

**THE CITY OF BURLINGTON**

\_\_\_\_\_  
Steve Sexton, Mayor

ATTEST:

\_\_\_\_\_  
Renee C. Sinclair, Director of Budget & Accounting

APPROVED AS TO FORM:

\_\_\_\_\_  
Leif Johnson, City Attorney

Move to approve the Mayor's signature on the ELPLP Termination Document.



## TERMINATION AGREEMENT

**THIS TERMINATION AGREEMENT** ("*Termination Agreement*") is entered into by and among the undersigned parties to the Interlocal Agreement for Early Learning Public Libraries Partnership (the "*Interlocal Agreement*"), an unsigned copy of which is attached as Exhibit A hereto. Capitalized terms not otherwise defined in this Termination Agreement shall have the meanings set forth in the Interlocal Agreement.

### RECITALS

- A. The undersigned are all of the parties (collectively, the "*Parties*" and each a "*Party*") to the Interlocal Agreement, which was executed pursuant to chapter 39.34 RCW.
- B. The Interlocal Agreement established the Early Learning Public Library Partnership Joint Board (the "*Board*"), which is responsible for administering the purposes of the Interlocal Agreement.
- C. The Parties now desire to terminate the Interlocal Agreement on the terms and conditions set forth in this Termination Agreement.

### AGREEMENTS

For and in consideration of the mutual covenants and promises herein, the Parties agree as follows:

- 1. **Termination of Interlocal Agreement.** In accordance with Section 5 of the Interlocal Agreement, the Parties hereby unanimously agree to terminate the Interlocal Agreement.
- 2. **Disbursement of Funds.** Pursuant to Section 5 of the Interlocal Agreement, the Board shall pay all obligations authorized and incurred by the Board, and disburse any funds remaining among the Parties in the same proportion as the contribution of such funds were made by the Parties; provided, that a Party may request in writing that the Board disburse any funds due to such Party to an entity other than such Party.
- 3. **Counterparts.** This Termination Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall together constitute one and the same agreement. Counterparts of this Termination Agreement may be executed by a Party and delivered to the other Parties in a "pdf" file sent to all other Parties via email. Photocopies and "pdf" files of any signed counterpart of this Assignment are effective and valid for any and all purposes as if they were the original signed copy.
- 4. **Legal Matters.** This Termination Agreement may be amended or modified only by a written instrument executed by all of the Parties hereto. This Termination Agreement and the Exhibit attached hereto constitutes the entire agreement between the Parties and supersedes all prior agreements and understandings among the Parties relating to the subject matter hereof. This Termination Assignment shall be governed by and construed in accordance with the laws of the State of Washington.

IN WITNESS WHEREOF, this Termination Agreement has been executed by and on behalf of the Parties as of the 31st day of December, 2017.

ANACORTES PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ASOTIN COUNTY LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BELLINGHAM PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BURLINGTON PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

CAMAS PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ELLENSBURG PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EVERETT PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

FORT VANCOUVER REGIONAL  
LIBRARY DISTRICT

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

JEFFERSON COUNTY LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

KING COUNTY LIBRARY SYSTEM

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

KITSAP REGIONAL LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

LIBERTY LAKE PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

LONGVIEW PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

LOPEZ ISLAND LIBRARY DISTRICT

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MID-COLUMBIA LIBRARY SYSTEM

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

MOUNT VERNON CITY LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ORCAS ISLAND PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

PIERCE COUNTY LIBRARY SYSTEM

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

PORT TOWNSEND PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

PUYALLUP PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SAN JUAN ISLAND LIBRARY DISTRICT

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SEATTLE PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SEDRO-WOOLLEY PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SNO-ISLE LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SPOKANE COUNTY LIBRARY DISTRICT

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

SPOKANE PUBLIC LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

STEVENS COUNTY RURAL LIBRARY  
DISTRICT

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

TIMBERLAND REGIONAL LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WALLA WALLA RURAL LIBRARY  
DISTRICT

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WASHINGTON STATE LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WHATCOM COUNTY LIBRARY SYSTEM

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

WHITMAN COUNTY LIBRARY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

YAKIMA VALLEY LIBRARIES

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT A**  
**INTERLOCAL AGREEMENT**  
**FOR**  
**EARLY LEARNING PUBLIC LIBRARIES PARTNERSHIP**

INTERLOCAL AGREEMENT  
FOR  
EARLY LEARNING PUBLIC LIBRARIES PARTNERSHIP

This Agreement is entered into as of the \_\_\_\_ day of \_\_\_\_\_, 201\_\_ for Agreement year 2014, by and among the public libraries listed in Exhibit A hereto (collectively, the “Initial Parties,” and, together with all other Washington public libraries made parties hereto by supplement, the “Parties” and each a “Party”). This Agreement is made pursuant to chapter 39.34 RCW (the “Interlocal Cooperation Act”), and has been authorized by the governing body of each Party. Each of the Parties is a “public agency” as defined in the Interlocal Cooperation Act.

RECITALS

WHEREAS, the Parties desire to work together in furtherance of their common interest in the promotion and provision of early learning services; and

WHEREAS, in furtherance of such goal, the Parties intend to obtain and acquire early learning advocacy services; and

WHEREAS, this Agreement may be supplemented from time to time to admit as Parties other Washington public libraries that share the interests of the Initial Parties; and

WHEREAS, the Interlocal Cooperation Act authorizes public agencies to undertake collectively any actions that such public agencies are authorized to undertake alone;

NOW, THEREFORE, THE PARTIES HEREBY AGREE AS FOLLOWS:

1. Purposes. The Parties shall work jointly and cooperatively:
  - a. To obtain early learning advocacy services in furtherance of the following common goals:
    - i. To establish Washington State public libraries in general, and the Parties in particular, as recognized and important providers of early learning services;
    - ii. To leverage funding for public library early learning services in public and tribal libraries;

- iii. To develop strategic partnerships and collaborations with organizations such as Thrive by Five and the Department of Early Learning;
  - iv. To galvanize the library community around early learning and enhance visibility;
  - v. To represent public libraries with the legislature and other governmental entities, as appropriate; and
  - vi. To facilitate creating a public library agenda for early learning funding; and
- b. To acquire such early learning advocacy services by contract with one or more qualified persons or organizations; and
  - c. To undertake other activities in furtherance of the promotion and provision of early learning services.

2. Joint Board. There is hereby created the Early Learning Public Library Partnership Joint Board (the “Board”), which shall be responsible for administering the purposes described above. The Board shall be composed of one voting member designated by and representing each Party. The Board shall meet as often as it deems necessary.

The Board shall have the following powers:

- a. To adopt bylaws concerning the operation of the Board, which bylaws may include, to the extent desirable and without limitation, provisions (i) establishing the Board chair and other Board officers and delineating their powers and the manner by which they are selected; (ii) establishing a steering committee and delineating its powers; and (iii) establishing the manner of calling, holding and conducting Board meetings, and related procedures regarding notice, attendance, quorums and voting;
- b. To establish and adopt a budget for the costs of implementing this Agreement, and to amend the same from time to time as necessary;
- c. To review and approve budget expenditures;

- d. To receive the initial contributions of funds from the Initial Parties, to determine the amount and timing of initial contributions from additional Parties joining in this Agreement as described in Section 6.a and receive the same, and to determine the amount and timing of subsequent contributions by all of the Parties and receive the same, all as described in Section 4 of this Agreement;
  - e. To pay the costs of implementing this Agreement;
  - f. To establish a special fund or funds with a county, city or district treasurer servicing one of the Parties as authorized by RCW 39.34.030(4)(b); and
  - g. To provide resources and assistance and take such other actions as the Board determines appropriate in furtherance of the purposes of this Agreement.
3. Contracts. The Board may, from time to time, contract for early learning advocacy services with one or more qualified persons or organizations, and may also retain such other professional or legal assistance to carry out the purposes of this Agreement. A written contract or engagement letter shall be provided for each such engagement. Any information and materials developed by providers of professional services shall be made available to each Party to this Agreement.
4. Contributions. Each Initial Party shall initially contribute an amount equal to the lesser of (a) one-tenth of one percent (0.1%) of its current operating budget as of the date of its execution of this Agreement, or (b) \$30,000. Total amount shall be due and payable within 30 days following such Initial Party's execution of this Agreement.

Each additional Party joining in this Agreement as described in Section 6.a shall initially contribute an amount equal to the lesser of (a) one-twentieth of one percent (0.05%) of its current operating budget as of the date of its execution of this Agreement, or (b) \$15,000. One half of such amount shall be due and payable within 30 days following such additional Party's execution of this Agreement, and the other half of such amount shall be due and payable on January 1 of the next succeeding year.

The Board shall also determine the amount and timing of any subsequent contributions to be made by all of the Parties, and shall communicate the same in writing to the Parties.

Each Party pledges its best efforts to approve its further contributions in accordance with this Agreement, but no Party shall be liable for any monetary contribution unless and until the governing body of such Party has appropriated funds for such specific purpose.



If any Party to this Agreement shall fail to pay any contribution required of it pursuant to this Agreement in full when due, then such Party shall be in default hereunder, such Party shall refrain from further participation in the Board's business, all of such Party's rights pursuant to this Agreement shall be suspended, and this Agreement shall immediately and automatically be terminated as to such Party.

5. Term of Agreement; Termination. The term of this Agreement shall commence on the date of the Agreement and, unless otherwise agreed by the Parties, shall remain in full force and effect so long as at least two Parties continue the operation of the Agreement. As described in Section 4, this Agreement shall immediately and automatically be terminated as to any Party that has failed to make full and timely payment of its contribution, when due. Additionally, any Party may withdraw from this Agreement and may be discharged from its obligations hereunder, but only if it has paid all outstanding financial contributions and upon not less than sixty (60) days written notice to the Board; provided, that immediately upon notification of an intent to withdraw from this Agreement, the withdrawing Party shall not be liable for any further financial contributions.

Any Parties remaining to the Agreement may unanimously decide to terminate this Agreement. Upon termination of this Agreement after any obligations authorized and incurred by the Board have been paid, any funds remaining shall be disbursed among the Parties in the same proportion as the contribution of such funds were made by the Parties.

6. Miscellaneous Provisions.

- a. This Agreement shall be effective as to each Initial Party upon execution by that Initial Party. The Initial Parties agree that any Washington public library may be made subsequently become a Party to this Agreement upon acceptance by the Board chair on behalf of the Parties of a supplement hereto executed by the new Party in substantially the form of Exhibit B, and payment by the new Party of an initial contribution as described in Section 4.
- b. Supplements hereto for the purpose of adding new Parties to this Agreement, as described in Section 6.a, need only be signed by the new Party and accepted by the Board chair or designee. Otherwise, this Agreement may be amended only by a written instrument signed by at least 75% of the Parties hereto.
- c. The waiver by any Party of any breach of any term, covenant, or condition of this Agreement shall not be deemed a waiver of such term, covenant, or condition or any subsequent breach of the same of any other term, covenant, or condition of this Agreement.

- d. Any Party hereto shall have the right to enjoin any substantial breach or threatened breach of this Agreement by any other Party, and shall have the right to recover damages and to specific performance of any portion of this Agreement.
- e. This Agreement is solely for the benefit of the Parties hereto and no third party shall be entitled to claim or enforce any rights hereunder except as specifically provided herein.
- f. The records and documents with respect to all matters covered by this Agreement shall be subject to audit by the Parties during the term of this Agreement and three (3) years after termination or such other longer period as may be required by applicable law.
- g. If any provision of this Agreement or application thereof to any Party or circumstance, is held invalid by a court of competent jurisdiction, such invalidity shall not affect the other provisions of this Agreement which can be given effect without the invalid provision or application, and to this end the provisions of this Agreement are declared to be severable.
- h. This Agreement shall be effective whether signed by all Parties by manual or facsimile signature, and whether on the same document or in counterparts.
- i. All notices or other communications shall be deemed sufficient hereunder if made in writing and delivered by telefacsimile, email or by first-class mail, postage prepaid, to each Party at its respective address set forth in Exhibit A, or to such other address as such Party may hereafter designate to the others in writing.

IN WITNESS WHEREOF, this Agreement has been executed by each Party as set forth in the following exhibits:

[The remainder of this page intentionally left blank.]

## EXHIBIT A

Initial Parties	Supplemental Parties
Asotin County Library	Anacortes Public Library
Everett Public Library	Bellingham Public Library
Fort Vancouver Regional Library District	Burlington Public Library
Jefferson County Library	Camas Public Library
King County Library	Ellensburg Public Library
Kitsap Regional Library	Liberty Lake Public Library
Longview Public Library	Lopez Island Library District
Mid-Columbia Library System	Port Townsend Library
Mount Vernon City Library	Timberland Regional Library
Orcas Island Public Library	Whatcom County Library System
Pierce County Library System	
Puyallup Public Library	
San Juan Island Library District	
Seattle Public Library	
Sedro-Woolley Public Library	
Sno-Isle Library	
Spokane County Library District	
Spokane Public Library	
Stevens County Rural Library District	
Walla Walla County Rural Library District	
Washington State Library	
Whitman County Library	
Yakima Valley Libraries	

EXHIBIT B

Form of Supplement to Add Additional Parties

The undersigned Washington public library represents that it is a “public agency,” as defined in chapter 39.34 RCW, and hereby agrees to become a “Party”, as that term is defined in that certain Interlocal Agreement for Early Learning Public Library Partnership (the “Agreement”), dated \_\_\_\_\_, 201\_\_, by and among the Parties listed in Exhibit A thereto [and any supplements heretofore delivered], with all of the rights and responsibilities appertaining thereto, and to pay the contributions required of it pursuant to this Agreement in full when due.

IN WITNESS WHEREOF, this supplement to the Agreement has been executed by:

**xxxxxx Public Library**

By \_\_\_\_\_

Its \_\_\_\_\_

At the direction of the governing body thereof  
by motion regularly passed at an open public  
meeting held on \_\_\_\_\_, 20\_\_.

ACCEPTED on behalf of the Early Learning Public Library Partnership Joint Board by:

xxxxxxxxxx, Chair

By \_\_\_\_\_



ITEM #: 60

CHECK ONE:

NEW BUS. X

OLD BUS.       

## AGENDA ITEM

Council Date: January 25, 2018 Subject: Sarah Ward, Library Director

Early Learning Public Libraries Partnership  
request to Board of Directors Concerning  
Disbursement of Funds

Attachments: Disbursement of Funds form  
        
      

Public Hearing Required: YES ( ) NO (X)

### SUMMARY

Representing our public library constituents, the **Public Libraries of Washington (PloW)** consortium advances public library services through the collaborative power of pooled resources including shared expertise. PLoW members are recognized leaders in the state in the areas of libraries, education, technology, and a wide range of community services.

### RECOMMENDATION

Move to approve the attached disbursement of funds form and authorize the Mayor's signature.

**EARLY LEARNING PUBLIC LIBRARIES PARTNERSHIP  
REQUEST TO BOARD OF DIRECTORS  
CONCERNING DISBURSEMENT OF FUNDS**

To: The Early Learning Public Library Partnership Joint Board (the “**Board**”), established by the Interlocal Agreement for Early Learning Public Libraries Partnership (the “**Interlocal Agreement**”)

The Parties to the Interlocal Agreement have unanimously agreed to terminate the Interlocal Agreement through the execution of a Termination Agreement dated as of December 31, 2017 (the “**Termination Agreement**”), in accordance with Section 5 of the Interlocal Agreement.

Section 2 of the Termination Agreement provides that the Board shall disburse the remaining funds managed by the Board to the Parties to the Interlocal Agreement, in the same proportion as the contribution of such funds were made by the Parties. Section 2 of the Termination Agreement further provides that a Party may request in writing that the Board disburse any funds due to such Party to an entity other than such Party.

\_\_\_\_\_ (the “**Library**”) is a Party to the Interlocal Agreement, and is due funds from the Board pursuant to the Section 2 of the Termination Agreement.

The Library hereby directs the Board to transfer the funds due to the Library pursuant to Section 2 of the Termination Agreement, to Public Libraries of Washington, a Washington nonprofit membership corporation, for credit against dues payable by the Library.

DATED as of \_\_\_\_\_, 2018.

[NAME OF LIBRARY]

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_



ITEM #: 7

CHECK ONE:

NEW BUS. X

OLD BUS.       

## AGENDA ITEM

Council Date: January 25, 2018

Subject: Memorandum of Understanding between the City of Burlington and Teamsters Local Union #231

Bryan Harrison, City Administrator

Attachments: Proposed Memorandum of Understanding (MOU)

Public Hearing Required: YES ( ) NO (X)

### SUMMARY

The purpose of the MOU is to set forth the agreement of the parties concerning the language in Article 7, Hours of Work, Section 7.1.1. The language currently reads *Rest and Meal Breaks for regular full time and for regular part time employees shall be as applicable Federal and/or State minimum requirements*. The intent of the language was to address the inclusion of part time personnel into the bargaining unit as described in Article 1, Recognition. The Union and the City are in agreement that during bargaining said language that there would not be a change to the current practice of providing full time staff with a fifteen (15) minute break period for every four (4) hour period of working time. This MOU recognizes the understanding between the City and the Union regarding Article 7, Section 7.1.1.

### RECOMMENDATION

Move to approve the proposed MOU recognizing the understanding between the City and the Union regarding Article 7, Hours of Work, Section 7.1.1 and authorize the Mayor's signature.

# MEMORANDUM OF UNDERSTANDING

by and between  
City of Burlington  
and

Teamsters Union Local # 231

THIS MEMORANDUM OF UNDERSTANDING (MOU) is made and entered into by and between the City of Burlington (hereinafter referred to as "the City") and the Teamsters Local Union No. 231 (hereinafter referred to as "Union")

1. Purpose. The purpose of the MOU is to set forth the agreement of the parties concerning the language in Article 7, Hours Of Work, section 7.1.1.
2. Agreement. The language in Article 7, section 7.1.1 states the following *Rest and meal breaks for regular full time and for regular part time employees shall be as per the applicable Federal and/or State minimum requirements.* The parties agree that the intent of the language was to address the inclusion of part time personnel into the bargaining unit as described in Article 1, Recognition. The Union and the City were in agreement at the time of bargaining said language that there would be no change to the current practice of providing full time staff with a fifteen (15) minute break period for every four (4) hour period of working time. Therefore, this MOU is to clarify that members of Teamsters Union Local 231 working full time shall receive a fifteen (15) minute break for each four (4) hour period of time worked. Rest breaks shall be scheduled as near as possible to the midpoint of the work period unless mutually agreed upon by both parties.
3. Effective Date. This Memorandum records the understanding between the City and the Union and this agreement will be effective January 25, 2018.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2018

\_\_\_\_\_  
Rich Ewing  
Secretary-Treasurer  
Teamsters Union Local 231

Date

\_\_\_\_\_  
Steve Sexton  
Mayor  
City of Burlington

Date