

CITY OF LOMA LINDA
CITY COUNCIL AGENDA

REGULAR MEETING OF OCTOBER 13, 2015

A regular meeting of the City Council of the City of Loma Linda is scheduled to be held Tuesday, October 13, 2015 in the City Council Chamber, 25541 Barton Road, Loma Linda, California. *Pursuant to Municipal Code Section 2.08.010, study session or closed session items may begin at 5:30 p.m. or as soon thereafter as possible. The public meeting begins at 7:00 p.m.*

Reports and Documents relating to each agenda item are on file in the Office of the City Clerk and are available for public inspection during normal business hours. The Loma Linda Branch Library is also provided an agenda packet for your convenience. The agenda and reports are also located on the City's Website at www.lomalinda-ca.gov.

Materials related to an item on this Agenda submitted to the City Council after distribution of the agenda packet are available for public inspection in the City Clerk's Office, 25541 Barton Road, Loma Linda, CA during normal business hours. Such documents are also available on the City's website at www.lomalinda-ca.gov subject to staff's ability to post the documents before the meeting.

Persons wishing to speak on an agenda item, including any closed session items, are asked to complete an information card and present it to the City Clerk prior to consideration of the item. When the item is to be considered, please step forward to the podium, the Chair will recognize you and you may offer your comments. The City Council meeting is recorded to assist in the preparation of the Minutes, and you are therefore asked to give your name and address prior to offering testimony.

The Oral Reports/Public Participation portion of the agenda pertains to items NOT on the agenda and is limited to 30 minutes; 3 minutes allotted for each speaker. Pursuant to the Brown Act, no action may be taken by the City Council at this time; however, the City Council may refer your comments/concerns to staff or request that the item be placed on a future agenda.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk at (909) 799-2819. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. Later requests will be accommodated to the extent feasible.

Agenda item requests for the NOVEMBER 10, 2015 meeting must be submitted in writing to the City Clerk no later than NOON, MONDAY, OCTOBER 26, 2015

A. Call To Order

B. Roll Call

C. Invocation and Pledge of Allegiance – Mayor pro tempore Dupper (In keeping with long-standing traditions of legislative invocations, this City Council meeting may include a brief, non-sectarian invocation. Such invocations are not intended to proselytize or advance any one, or to disparage any other, faith or belief. Neither the City nor the City Council endorses any particular religious belief or form of invocation.)

D. Workshop – 5:30 p.m. – Community Room - Progress and status of the LLUMC Campus Transformation and FMO Parking Structure projects

E. Closed Session – 6:30 p.m. – Conference with Legal counsel – Anticipated Litigation (Government Code Section 54956.9(b) – One Case

F. Items To Be Added Or Deleted

G. **Oral Reports/Public Participation - Non-Agenda Items (Limited to 30 minutes; 3 minutes allotted for each speaker)**

H. **Conflict of Interest** Disclosure - Note agenda item that may require member abstentions due to possible conflicts of interest

I. **Consent Calendar**

1. Demands Register
2. Minutes of September 8, 2015
3. August 2015 Treasurer's Report
4. September 2015 Fire Department Report
5. Declare equipment and miscellaneous items surplus and authorize disposal [**Information Systems**]
6. Accept as complete and authorize recordation of a Notice of Completion for:
 - a. Pavement Rehabilitation by Slurry Seal Method at Lawton Avenue, Whittier Avenue, Bryn Mawr Avenue, Hinckley St., and Mt. View Avenue – American Asphalt South, Inc. Contractor [**Public Works**]
 - b. Installation of Fiber Optics between City of Loma Linda and City of Grand Terrace – HHS Communications, Inc., Contractor [**Public Works**]
7. Approve \$5,000.00 Opt.-In fee from Santa Ana Watershed Project Authority Water Conservation Grant [**Public Works**]
8. Agreement for Professional Services between the City and Lilburn Corporation for contract planning services and preparation of environmental documents and technical studies for a proposed six story parking structure and pedestrian bridge (PPD No. 15-100, GPA No. 15-102, and ZC 15-101 [**Community Development**])

J. **Old Business**

K. **New Business**

9. Confirming Action - Agreement between the City and the Veterans Administration for fire services to the VA Medical Center for the period of October 1, 2015 – March 31, 2016 [**Fire Dept.**]
10. Declare as surplus and authorize disposal of the 1992 Central States Fire Engine [**Fire Dept.**]
11. Authorize purchase of fire apparatus and funding from reserves [**Fire Dept.**]

L. **Reports of Councilmen** (This portion of the agenda provides City Council Members an opportunity to provide information relating to other boards/commissions/committees to which City Council Members have been appointed).

M. **Reports Of Officers** (This portion of the agenda provides Staff the opportunity to provide informational items that are of general interest as well as information that has been requested by the City Council).

N. **Adjournment**



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ovidiu Popescu, Councilman
Ronald Dailey, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015

TO: City Council

VIA: T. Jarb Thaipejr, City Manager

FROM: Pamela Byrnes-O'Camb, City Clerk

SUBJECT: Minutes of September 8, 2015

Approved/Continued/Denied By City Council Date _____
--

RECOMMENDATION

It is recommended that the City Council approve the minutes of September 8, 2015.

City of Loma Linda

City Council Minutes

Regular Meeting of September 8, 2015

A regular meeting of the City Council was called to order by Mayor Rigsby at 7:03 p.m., Tuesday, September 8, 2015, in the Council Chamber, 25541 Barton Road, Loma Linda, California.

Councilmen Present:	Mayor Rhodes Rigsby Mayor pro tempore Phill Dupper Ron Dailey John Lenart
Councilmen Absent:	Ovidiu Popescu
Others Present:	Assistant City Manager Konrad Bolowich City Attorney Richard Holdaway

Mayor Rigsby led the invocation and Pledge of Allegiance. No items were added or deleted, and no conflicts of interest were noted.

CC-2015-073 – Oral Reports/Public Participation

Steve Hosford, on behalf of the American Public Works Association Inland Empire Branch presented the Mayor with the Project of the Year Award for the Stewart Street Widening and Pedestrian Bridge Project.

Scheduled and Related Items

CC-2015-074 – Presentation to Eugene Bueno on the occasion of his retirement as Customer Service/Meter Technician, 8/15/1998-9/1/2015

Mayor Rigsby called Mr. Bueno forward and presented him with a lamp engraved with the City Seal, his name, title and years of service. Mr. Bueno acknowledged each Council Member and spoke briefly.

CC-2015-075 – Consent Calendar

Motion by Dailey, seconded by Lenart and unanimously carried to approve the following items. Councilman Popescu absent.

The Demands Register dated August 31, 2015 with commercial demands totaling \$262,611.38.

The Demands Register dated September 8, 2015 with commercial demands totaling \$674,218.59 and payroll demands totaling \$298,629.02.

The Minutes of August 25, 2015 as presented.

The August 2015 Fire Department Report for filing.

Accepted the grant from Firehouse Subs Public Safety Foundation, Inc. in the amount of \$12,300 for the purchase of 9 AED's and authorized the Fire Chief to execute the MOU.

Adopted Council Bill #R-2015-34.

Resolution No. 2866

A Resolution of the City Council of the City of Loma Linda amending Exhibit "A" of Resolution No. 2835 and Resolution No. 2861 pertaining to the Statement of Expenses for the Fall 2014 and Spring 2015 Weed Abatement

Awarded contract for Installation of Sidewalk at Various Locations to Tryco General Engineering of RimForest for \$27,460 and approved a contingency amount of \$2,800; City Staff to provide construction management services and inspection.

Accepted off-site improvements at Redlands Blvd. and Bryn Mawr Avenue.

Awarded contract for pavement Rehabilitation at Bryn Mawr Avenue north of Redlands Blvd. to Vance Corporation of Rialto for \$67,286 and authorized a contingency allocation of \$6,700.

A Lease Agreement between the City and Burtronics System of San Bernardino for the Public Works Engineer's Printers.

New Business

CC-2015-076 – Committee appointment to Parks, Recreation, Beautification Committee

Motion by Dailey, seconded by Dupper and unanimously carried to appoint Carolyn Palmieri to the Parks, Recreation, Beautification Committee for a three-year term expiring June 30, 2018. Councilman Popescu absent.

Reports of Councilmen

Councilman Dailey commented on the fluctuating appearance of the Mt. View/I-10-Freeway on- and off-ramps. City Manager Thaipejr indicated that he recently signed a contract for the Adopted Highway Program which allows for maintenance of the area twice a month pursuant to the permit from Caltrans.

Councilman Dailey also asked about the timing of the traffic signal at Business Center Drive and Mt. View Avenue. City Manager Thaipejr stated he would request service from the company recently awarded a contract for traffic signal maintenance.

Councilman Lenart asked about the timing of the traffic signals at Mt. View and Barton Road. Mr. Thaipejr indicated that the loops had been damaged and repair was almost complete. Subsequently, the timing would be reviewed and set.

The City Council meeting adjourned at 7:17 p.m.

Approved at the meeting _____, 2015.

City Clerk



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ovidiu Popescu, Councilman
Ronald Dailey, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015
TO: City Council
VIA: T. Jarb Thaipejr, City Manager
FROM: Diana De Anda, Finance Director/City Treasurer
SUBJECT: August 2015 Treasurer's Report

Approved/Continued/Denied By City Council Date _____
--

RECOMMENDATION

It is recommended that the City Council receive the report for filing.

CITY OF LOMA LINDA
COMPOSITION OF CASH
AUGUST 2015

DEMAND DEPOSIT ACCOUNTS

CITY - BANK OF AMERICA - MAIN CHECKING ACCOUNT	\$	588,343.42
Outstanding Checks as of month-end		(328,681.76)
CITY - MAIN CHECKING ACCOUNT AVAILABLE BALANCE	\$	259,661.66
 BANK OF AMERICA - PAYROLL	 \$	 11,264.10
 HOUSING AUTHORITY - BANK OF AMERICA - CHECKING ACCOUNT		 177,347.88
Outstanding Checks as of month-end		(207.81)
HOUSING AUTHORITY - CHECKING ACCOUNT AVAILABLE BALANCE	\$	177,140.07
 SUCCESSOR AGENCY - BANK OF AMERICA - CHECKING ACCOUNT		 134,454.45
Outstanding Checks as of month-end		(207.81)
SUCCESSOR AGENCY - CHECKING ACCOUNT AVAILABLE BALANCE	\$	134,246.64

DEMAND DEPOSIT ACCOUNTS - TOTAL \$ 582,312.47

INVESTMENTS

YIELD

LOCAL AGENCY INVESTMENT FUND (LAIF)

CITY	0.330%		\$ 18,074,509.18
SUCCESSOR RDA	0.330%	282,855.62	
SUCCESSOR RDA -Bond Proceeds		4,624,258.46	
SUCCESSOR RDA -Total			4,907,114.08
HOUSING AUTHORIT	0.330%		371,252.96

INVESTMENTS TOTALS \$ 23,352,876.22

OTHER CASH

IMPREST ACCOUNT \$ 500.00

CASH ON HAND 1,350.00

OTHER CASH TOTAL \$ 1,850.00

CASH AND INVESTMENTS - GRAND TOTAL 23,937,038.69

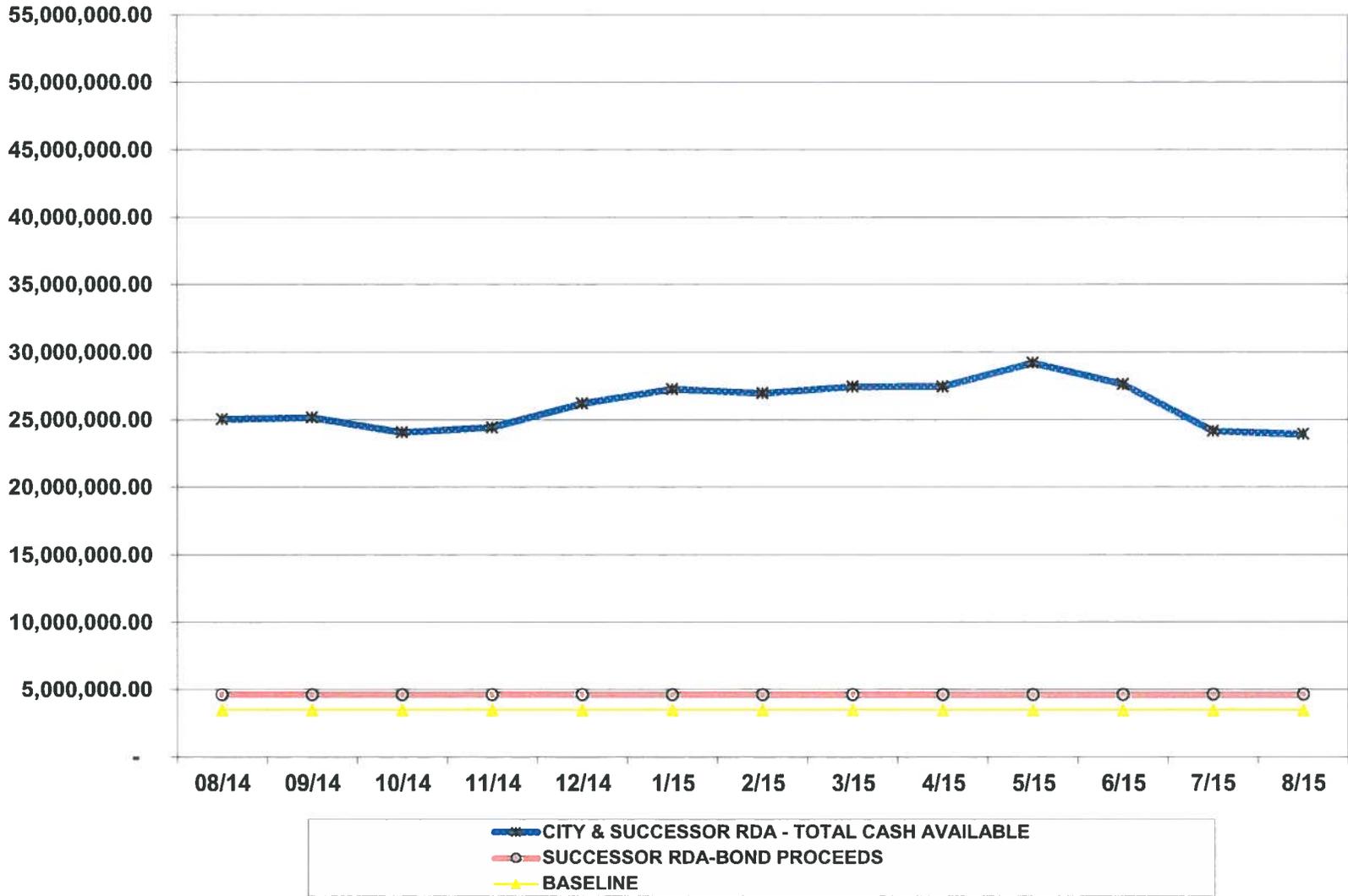
PREVIOUS MONTH 24,165,903.32

CHANGE +/- \$ (228,864.63)

All investments are in accordance with the City Investment Policy, and as such, sufficient funds are available to meet the cash flow requirements of Loma Linda, including the next thirty days' obligations. City and Agency funds are pooled.


Treasurer

CITY OF LOMA LINDA
MONTHLY TREASURER'S REPORT 8/14 - 8/15





City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ovidiu Popescu, Councilmember
Ronald Dailey, Councilmember
John Lenart, Councilmember

COUNCIL AGENDA: October 13, 2015
TO: City Council
VIA: T. Jarb Thaipejr, City Manager
FROM: Jeff Bender, Fire Chief *JB*
SUBJECT: September Fire Department Activity Report

Approved/Continued/Denied
By City Council
Date _____

Operations Division

The Fire Department's Operations Division responded to 342 incidents in September 2015. The alarm types are broken down as follows:

Fire & Rescue	Month		YTD	
Medical Aid (MA)	183	53.5%	1795	56.4%
Traffic Collision (TC)	7	2.0%	123	3.9%
MA + TC	190	55.6%	1918	60.3%
Hazardous Conditions	7	2.0%	34	1.1%
Hazardous Material	0	0.0%	0	0.0%
Mutual/Automatic Aid	35	10.2%	400	12.6%
Public Assistance	17	5.0%	201	6.3%
Rescue	1	0.3%	20	0.6%
Structure Fire	5	1.5%	33	1.0%
Cooking	0	0.0%	7	0.2%
Vegetation Fire	4	1.2%	40	1.3%
Vehicle Fire	1	0.3%	18	0.6%
Refuse Fire	1	0.3%	16	0.5%
All Fires	11	3.2%	114	3.6%
Other	52	15.2%	214	6.7%
Fire Alarm Activation*	29	8.5%	281	8.8%

*Note: Includes accidental activation, burnt food, good intent, system malfunction, malicious, etc.

Training Division Highlights:

- Monthly Emergency Medical Services (EMS) Training
 - Monthly EMS Training, CQI
 - Advanced Resuscitation Techniques (ART) for All Shift personnel
 - EMS Lecture
- Electrical Safety Awareness
- New Captain's Orientation
- San Bernardino County ECS
- Multi-Agency Hazardous Material Drill

Public Education/Relations Detail:

- Luke's Pride Autism Community Day in Loma Linda
- Loma Linda Provided 9/11 Memorial Tours
- Ronald McDonald House Ground Breaking Ceremony
- Fire Safety presentation at Mission Elementary

SUBJECT: September 2015 Fire Department Activity Report Continued

Fire Prevention Division:

The Fire Departments Prevention Division monthly activity report is as follows:

Certificate Of Occupancy Inspection	
Commercial UL-300 Hood Inspections	
Construction Site Inspection	26
Fire Alarm System Test & Inspection (# of trips)	8
Fire Building Final Inspection	1
Fire Flow Test (Hydrant Testing)	10
Fire Sprinkler Final – Commercial	
Fire Sprinkler Final – Residential	
Fire Sprinkler Rough – Commercial	2
Fire Sprinkler Rough – Residential	
Fire Underground – Inspection, test, flush	15
Five Year FS System Certification – Observe Flush	
Knox Box Placement/Inspection	6
New Tenant Inspection	3
Over-Head Hydro – Commercial	
Over-Head Hydro – Residential	
Plan Check Review / Project Review (hours)	42
Smoke Alarm Check	
Solar Panel Inspection	7
Underground Flam. Liquid Tank Inspection	
EOC Training or Activation (hours)	
Evacuation / Fire Drills, LLUMC, Schools	
Fire Code Research (hours)	33
Meetings	23
Public Education (hours)	
Public Hearings / Council Meetings	3
Training Classes (hours)	4
Annual Fire Inspections	1
Engine Co. Computer / RMS (Hours)	
Engine Company Follow-up Inspection (hours)	7
Field Investigation / Inquiries	20
Fire / Arson / Illegal Burn Investigation	2
Special Events – July 4 th Fireworks Patrol	
State Fire Marshal Permits Issued	1
State Fire Marshal Title 19 Inspections: RCF's	9
Weed Abatement Administrative Time (hours)	25
Weed Abatement, Parcels Inspected	600



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ronald Dailey, Councilman
Ovidiu Popescu, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015

TO: City Council

FROM: T. Jarb Thaipejr, City Manager

SUBJECT: Declare Equipment and Miscellaneous Items Surplus and Authorize Disposal

Approved/Continued/Denied By City Council Date _____
--

RECOMMENDATION

It is recommended that the City Council declare the attached list of vehicles, equipment and miscellaneous items surplus and authorize the items be appropriately disposed and the remaining items auctioned off as surplus.

BACKGROUND

The City Council, on two separate meetings, declared a list of several items of vehicles and equipment as surplus. Several more equipment items that are no longer in use or in normal operations of the Information Technology were discovered and requested to be deemed surplus.

ANALYSIS

These surplus items will be appropriately recycled at no cost to the City.

FINANCIAL IMPACT

No financial impact.

Attachment: Proposed Surplus List

I:\Public Works Admin\Staff Reports\2015 Surplus Equipment III - 10-13-15.doc

EQUIPMENT DISPOSITION FORM

(This form is to be completed upon the disposition of fixed assets, with the exception of equipment for surplus)

Date of Disposition August 20, 2015	
Department INFORMATION SYSTEMS	Division _____

Justification for Disposition: Equipment is nonfunctional and or obsolete
Authorized Signature _____

Item #	Asset Tag #	Serial #	Description
1	3214	usb626r1pk	SAN Switch
2	3213	USB626R1PP	SAN Switch
3	2286	USM63201ZE	CLL-SV-VOICE / SHORETEL SERVER
4	2294	EN21PGK171	HP ProliantDL585
5	3137	8LS7Z61	Dell Server
6			
7			
8			
9			
10			
11			
12			

Check One:
<input type="checkbox"/> Sold (Please attach supporting documentation.)
<input type="checkbox"/> Lost (Please include complete description of circumstances surrounding loss.)
<input type="checkbox"/> Donated to outside organization (Please attach supporting documentation.)
<input type="checkbox"/> Traded In (Please attach supporting documentation.)
<input type="checkbox"/> Reassigned for use as source of parts
<input type="checkbox"/> Stolen (Please attach police report or complete description of circumstances.)
<input type="checkbox"/> Destroyed (Please include complete description of circumstances.)
<input type="checkbox"/> Other, Please explain will recycle

EQUIPMENT DISPOSITION FORM

(This form is to be completed upon the disposition of fixed assets, with the exception of equipment for surplus)

Date of Disposition August 17, 2015	
Department Information Systems	Division _____

Justification for Disposition: Equipment is nonfunctional and or obsolete. RMA
Authorized Signature _____

Item #	Asset Tag #	Serial #	Description
1	2410/ 03169	0836G-80525	Extreme Summit X450e-48P

Check One:
<input type="checkbox"/> Sold (Please attach supporting documentation.)
<input type="checkbox"/> Lost (Please include complete description of circumstances surrounding loss.)
<input type="checkbox"/> Donated to outside organization (Please attach supporting documentation.)
<input type="checkbox"/> Traded In (Please attach supporting documentation.)
<input type="checkbox"/> Reassigned for use as source of parts
<input type="checkbox"/> Stolen (Please attach police report or complete description of circumstances.)
<input type="checkbox"/> Destroyed (Please include complete description of circumstances.)
<input type="checkbox"/> Other, Please explain _____



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ronald Dailey, Councilman
Ovidiu Popescu, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015

TO: City Council

FROM: T. Jarb Thaipejr, City Manager/Public Works Director *T.J.T*

SUBJECT: Notice of Completion of the Pavement Rehabilitation by Slurry Seal Method at Lawton Avenue, Whittier Avenue, Bryn Mawr Avenue, Hinckley Street and Mountain View Avenue. (CIP 15-168)

Approved/Continued/Denied By City Council Date _____
--

RECOMMENDATION

It is recommended that the City Council accept this project as substantially complete and authorize the City Clerk to file the Notice of Completion.

BACKGROUND

On July 28, 2015, City Council awarded the contract for the pavement rehabilitation by slurry seal to American Asphalt South, Inc. of Fontana in the amount of \$232,495 and approved a contingency of \$23,000. City staff provided the construction management services and inspections.

All work was completed satisfactorily. The final project cost was \$252,495, which expended part of the approved \$23,000 contingency. The additional cost was for labor and material costs to pave and stripe additional streets and parking areas to the project, which included Lozano Pl., Largo Ct. and City Hall & Fire Department parking lots.

Attached is the Notice of Completion for the subject project. Upon City Council authorization, the City Clerk will submit the Notice of Completion for recordation. The one (1) year warranty provided by the contractor will commence from the date of recordation.

FINANCIAL IMPACT

Funding for the project is from Account No. 26-5340-8500.

I:\Public Works Admin\Staff Reports\Notice of Completion\Slurry Seal 2015.10-13-15.doc

RECORDING REQUESTED BY: AND WHEN RECORDED MAIL TO: CITY CLERK CITY OF LOMA LINDA 25541 BARTON ROAD LOMA LINDA CA 92354	
--	--

SPACE ABOVE THIS LINE FOR RECORDER'S USE
EXEMPT FROM FILING FEES, GOVERNMENT CODE SECTION 6103

NOTICE OF COMPLETION
NOTICE IS HEREBY GIVEN THAT:

1. The undersigned is OWNER or agent of the OWNER of the interest or estate stated below in the property hereinafter described:
2. The FULL NAME of the OWNER is City of Loma Linda
3. The FULL ADDRESS of the OWNER is 25541 Barton Road, Loma Linda, CA 92354
4. The NATURE OF THE INTEREST or ESTATE of the undersigned is: In fee.

(If other than fee, strike "in fee" and insert, for example "purchaser under contract of purchase" or "lessee.")

5. The FULL NAMES and FULL ADDRESSES of ALL PERSONS, if any, WHO HOLD SUCH INTEREST or ESTATE with the undersigned as JOINT TENANTS or as TENANTS IN COMMON are:
- | Names | Addresses |
|-------|-----------|
| | |

6. The full names and full addresses of the predecessors in interest of the undersigned if the property was transferred subsequent to the commencement of the work of improvement herein referred to:
- | Names | Addresses |
|-------|-----------|
| | |

7. A work of improvement on the property hereinafter described was COMPLETED September 17, 2015

8. The work of improvement completed is described as follows: Pavement Rehabilitation by Slurry Seal method at Lawton Ave., Whittier Ave., Bryn Mawr Ave., Hinckley St, & Mountain View Ave.

9. The NAME OF THE ORIGINAL CONTRACTOR, if any, for such work of improvement is American Asphalt South, Inc. , 14436 Santa Ana Ave., Fontana, CA 92337

10. The street address of said property is Various streets as specified in the project description and specifications.

11. The property on which said work of improvement was completed is in the City of Loma Linda County of San Bernardino, State of California, and is described as follows:
Pavement Rehabilitation by Slurry Seal method at Lawton Ave., Whittier Ave., Bryn Mawr Ave., Hinckley St, & Mountain View Ave. (CIP 15-168)

Signature of Owner or Agent Owner _____ Date: _____

Verification of INDIVIDUAL owner _____: I, the undersigned, declare under penalty of perjury under the laws of the State of California that I am the owner of the aforesaid interest or estate in the property described in the above notice; that I have read said notice, that I know and understand the contents thereof, and that the facts stated therein are true and correct.

Date and Place

(Signature of owner named in paragraph 2)

Verification for NON-INDIVIDUAL owner: I, the undersigned, declare under penalty of perjury under the laws of the State of California that I am the _____ of the aforesaid interest or "PRESIDENT, PARTNER, MANAGER, AGENT, ETC."

in the above notice; that I have read the said notice, that I know and understand the contents thereof, and that the facts stated therein are true and correct.

Date and Place

(Signature of person signing on behalf of owner)



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ronald Dailey, Councilman
Ovidiu Popescu, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015

TO: City Council

FROM: Konrad Bolowich, Information Systems Director

SUBJECT: Notice of Completion of the Installation of Fiber Optics between
City of Loma Linda and City of Grand Terrace

Approved/Continued/Denied
By City Council
Date _____

RECOMMENDATION

It is recommended that the City Council accept this project as substantially complete and authorize the City Clerk to file the Notice of Completion.

BACKGROUND

In September 2011, the City was awarded a Small Business Administration grant in the amount of \$900,000 for the installation of fiber optics from Loma Linda to City of Grand Terrace. This project was the result of congressional interest to expand and interconnect high speed internet services to communities in the Inland Empire. It will provide a stimulus for business expansion and coordination between the two cities, allow for shared technology resources between the communities, and provide access to an expanded commercial customer base for the LLCCP program.

On July 22, 2014, City Council awarded the contract for the extension of fiber optics between the cities of Loma Linda and Grand Terrace to HHS Construction of Ontario in the amount of \$792,531. City staff provided the construction management and inspection services.

All work was completed satisfactorily. The final project cost was \$792,531. The City is in the process of submitting the appropriate grant paperwork for reimbursement.

Attached is the Notice of Completion for the subject project. Upon City Council authorization, the City Clerk will submit the Notice of Completion for recordation. The one (1) year warranty provided by the contractor will commence from the date of recordation.

FINANCIAL IMPACT

Funding for the project is from Account No. 37-5360-8500.

I:\Public Works Admin\Staff Reports\Notice of Completion\Fiber Optic Expansion.10-13-15.doc

<p>RECORDING REQUESTED BY:</p> <p style="text-align: center;">AND</p> <p>WHEN RECORDED MAIL TO:</p> <p>CITY CLERK CITY OF LOMA LINDA 25541 BARTON ROAD LOMA LINDA CA 92354</p>	
--	--

SPACE ABOVE THIS LINE FOR RECORDER'S USE
EXEMPT FROM FILING FEES, GOVERNMENT CODE SECTION 6103

NOTICE OF COMPLETION
NOTICE IS HEREBY GIVEN THAT:

1. The undersigned is OWNER or agent of the OWNER of the interest or estate stated below in the property hereinafter described:
2. The FULL NAME of the OWNER is City of Loma Linda
3. The FULL ADDRESS of the OWNER is 25541 Barton Road, Loma Linda, CA 92354
4. The NATURE OF THE INTEREST or ESTATE of the undersigned is: In fee.

(If other than fee, strike "in fee" and insert, for example "purchaser under contract of purchase" or "lessee.")

5. The FULL NAMES and FULL ADDRESSES of ALL PERSONS, if any, WHO HOLD SUCH INTEREST or ESTATE with the undersigned as JOINT TENANTS or as TENANTS IN COMMON are:
- | Names | Addresses |
|-------|-----------|
| | |

6. The full names and full addresses of the predecessors in interest of the undersigned if the property was transferred subsequent to the commencement of the work of improvement herein referred to:
- | Names | Addresses |
|-------|-----------|
| | |

7. A work of improvement on the property hereinafter described was COMPLETED September 1, 2015
8. The work of improvement completed is described as follows: Installation of Fiber Optics between City of Loma Linda and City of Grand Terrace
9. The NAME OF THE ORIGINAL CONTRACTOR, if any, for such work of improvement is HHS Construction, Inc., 2042 S. Grove Ave., Ontario, CA 91767
10. The street address of said property is Between City of Loma Linda and City of Grand Terrace
11. The property on which said work of improvement was completed is in the City of Loma Linda County of San Bernardino, State of California, and is described as follows: Installation of Fiber Optics between City of Loma Linda and City of Grand Terrace

Signature of Owner or Agent Owner _____ Date: _____

Verification of INDIVIDUAL owner _____: I, the undersigned, declare under penalty of perjury under the laws of the State of California that I am the owner of the aforesaid interest or estate in the property described in the above notice; that I have read said notice, that I know and understand the contents thereof, and that the facts stated therein are true and correct.

Date and Place

(Signature of owner named in paragraph 2)

Verification for NON-INDIVIDUAL owner: I, the undersigned, declare under penalty of perjury under the laws of the State of California that I am the _____ of the aforesaid interest or "PRESIDENT, PARTNER, MANAGER, AGENT, ETC."

in the above notice; that I have read the said notice, that I know and understand the contents thereof, and that the facts stated therein are true and correct.

Date and Place

(Signature of person signing on behalf of owner)



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ronald Dailey, Councilman
Ovidiu Popescu, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015

TO: City Council

FROM: T. Jarb Thaipejr, City Manager/Public Works Director *T.J.T*

SUBJECT: Approve \$5,000 Opt-In Fee for Santa Ana Watershed Project Authority Water Conservation Grant

Approved/Continued/Denied By City Council Date _____
--

RECOMMENDATION:

It is recommended that the City Council approve a \$5,000 opt-in fee for Santa Ana Watershed Project Authority Water Conservation Grant and authorize the City Manager to sign the associated agreement and documents.

BACKGROUND:

Santa Ana Watershed Project Authority (SAWPA) is working with its member agencies and local water companies to use grant funding provided by the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Prop. 84) to implement the Emergency Drought Grant Program. The Program includes a component to assist retain water agencies in reducing overall water consumption in response to the current drought condition.

SAWPA has authorized up to \$1.5M to implement web based water consumption, analytics and customer engagement tools to assist agencies in educating customers on water conservation and consumption consistent with the Emergency Drought Program. We are one of 80 agencies eligible to participate in this phase of the grant. Unfortunately, the first phase is limited to 20 agencies. There may be additional phases depending on success and funding.

ANALYSIS:

The State has mandated the City to reduce consumption by 32%, same month over 2013. The City has experienced mixed results ranging from 22% to 28%. September was a 26% reduction. The State is requiring a demonstrated best effort from all reporting agencies not meeting their goal. The vendor for this grant is recognized by the State as providing the majority of the available best effort practices. The grant covers approximately \$35,000 of costs for the \$5,000 opt-in fee. Past results from previous programs this vendor has instituted range from 3% to 6% reduction. The City's educated, responsive and connected customer base is a good fit for the program.

FINANCIAL:

Funding for this opt-in fee is available from Account for 65-7000-1820.



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ovidiu Popescu, Councilman
Ronald Dailey, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015
TO: City Council
VIA: T. Jarb Thaipejr, City Manager
FROM: Konrad Bolowich, Assistant City Manager
SUBJECT: Request for Approval of Agreement for Professional Services

Approved/Continued/Denied
By City Council
Date _____

between the City and Lilburn Corporation for contract planning services and preparation of environmental documents and technical studies for a proposed six story parking structure and pedestrian bridge (PPD No. 15-100, GPA No. 15-102, and ZC 15-101).

RECOMMENDATION

It is recommended that the City Council takes the following actions:

1. Approve the Agreement for Professional Support Services with Lilburn Corporation to process a general plan amendment, zone change, a precise plan of design application, and preparation of the associated environmental analysis, including associated technical studies for a proposed six-story parking structure and pedestrian bridge; and,
2. Approve the use of funds to be deposited in the amount of \$40,128 (includes the 10% contingency fee) as a pass through fee paid for by the applicant to cover the costs of contract planning services and the environmental analysis

BACKGROUND

On August 13, 2015, planning staff sent out a Request for Proposal to provide contract planning services and to prepare the related environmental documents for a proposed six-story parking structure and pedestrian bridge for the property located at 11370 Anderson Street. Staff sent out proposals to five consultants, and received proposals from two and rated each one on their scope of work, time of completion, and cost estimates, and based on these factors, Lilburn was selected to provide professional support services and perform the environmental analysis and associated technical studies for the proposed project.

FINANCIAL IMPACT

The proposed Agreement for Professional Services with Lilburn Corporation to prepare the process the applications, environmental analysis, and technical studies for the proposed six-story parking structure and pedestrian bridge will not result in any financial impacts to the City. The associated costs will be borne by the project applicant, as indicated by the request to use funds deposited by the applicant as a pass through fee.

ATTACHMENT

1. Agreement for Professional Services (Includes Scope of Services and Cost Estimate)

**PROPOSAL FOR CONSULTANT SERVICES
CITY OF LOMA LINDA PPD – 14-100, GPA 15-102, ZC 15-101**

Approach and Scope of Work

Our methodology for preparation of the technical studies, CEQA Initial Study, and project planning staff, as requested in the City's RFP is described herein. Our scope of work will lead to the City's adoption of a CEQA document that will provide for future development of the project site as designed. The project as currently proposed consists of a 6-story parking structure and a pedestrian bridge crossing from the north side of Barton Road to connect to the medical center, and demolition of buildings on two residential properties.

The City currently expects that the proposed project would comply with CEQA with preparation of technical studies and an Initial Study/Mitigated Negative Declaration. Our overall approach is summarized below. Following this summary, the tasks required are described in detail.

- Meet with City and Applicant to Review Proposed Project
- Prepare a Comprehensive Project Description for use in the Initial Study
- Prepare Technical Studies Requested:
 - Traffic Impact Study
 - Noise Study
 - Air Quality/Greenhouse Gas Assessment
 - Cultural/Historic Investigation and Assistance with SB-18 Compliance
- Develop a Draft Initial Study
- Prepare Notice of Intent (NOI) and Assist Staff to Develop List of Responsible and Interested Parties for Public Review Period
- Review and Discuss Comments Received on Document; Determine Need for Responses
- Prepare Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for City adoption
- Prepare Final Negative or Mitigated Negative Declaration
- Prepare Staff Reports & Public Hearing Presentations
- Present Findings to Planning Commission and/or City Council

TASK 1: MEET WITH PROJECT APPLICANT AND CITY; REVIEW PROPOSED PROJECT AND OBJECTIVES

The purpose of this task is to collect and review all pertinent background data necessary to conduct the environmental analysis. It will be necessary to obtain sufficient design detail and site disturbance information in order to conduct an adequate environmental evaluation. We will require at a minimum, the Proposed Project's hydrology study, Storm Water Pollution Prevention Plan, Water Quality Management Plan, grading plan, and landscape design. We will identify the need to obtain any other focused technical studies that should be incorporated into the Initial Study.

This task will also include a site visit with project team members to assess and document surrounding land uses as well as current site conditions.

TASK 2: DEVELOP PROJECT DESCRIPTION

In this task we will prepare a Project Description for use in the Initial Study and for initiating the technical reports. The Project Description will be developed in cooperation with City staff and the Applicant. The Project Description will include a summary of the project as proposed, a discussion of the site plan, and the project's history and need for expansion.

We will prepare graphics for use in the Initial Study, based in part on exhibits prepared to date by the project designers and engineers. Final approval of the project description will be provided by the City.

TASK 3: PREPARE TECHNICAL REPORTS

Task 3.1 Cultural Resources Research and SB-18 Compliance

This task will be completed by Jeanette McKenna of McKenna et al. under subcontract to Lilburn Corporation. A recent review of aerial photographs shows the property was developed as an orchard between the 1930s and c. 1965 when the orchards and associated residence were removed and the current buildings constructed c. 1977 – 1980. In order to comply with the requirements of CEQA, including compliance for SB-18, McKenna et al. would accomplish the following tasks:

1. Conduct an updated historical/archaeological resources records search for San Bernardino County at CSU Fullerton repository for San Bernardino County Museum, Archaeological Information Center records;
2. Conduct general historical background research using early maps (and archival materials) to ascertain previous land uses and development trends within and around the project area;
3. Request a sacred lands record search from the Native American Heritage Commission and contact local Native American representatives regarding Native American resources in and around the project area;
4. Conduct a brief field survey of the project area
5. Prepare analysis and report to document the findings and provide conclusions and recommendations.

SB-18 is a program involving government-to-government consultation. However, upon authorization from the City, McKenna et al. can initiate SB-18 consultation during the standard NAHC consultation process. In doing such, McKenna et al. will inform the local Native American representatives to consult with the City. This will satisfy the requirements for the General Plan Amendment as well as AB-52 which requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, and to consider tribal cultural values in determining significance levels. A Tribal Cultural Resource (TCR) is a site feature, place, cultural landscape, sacred place or object, which is of cultural value to a Tribe and is either: on or eligible for the California Historic Register or a local historic register, or the lead agency, at its discretion, chooses to treat the resource as a TCR.

Task 3.2: Focused Traffic Study

The focused traffic analysis will consist of preparing an objective report adequate for the City's review of the proposed project. The report will be prepared in accordance with accepted professional transportation engineering standards. The final illustrated report will summarize the focused traffic analysis findings, methodology, and supportive data. It will quantify existing traffic conditions, traffic conditions upon project completion, and recommend mitigation measures. Specifically, the focused traffic analysis will consist of: (1) discussing the project description with the City and receiving concurrence regarding the number of intersections and roadway segments to be analyzed; (2) conducting a field survey; (3) documenting existing traffic conditions; (4) determining project trip generation; (5) distributing the project trip generation to the street system; (6) determining the project's traffic impacts in relation to Measure V; (7) examining internal circulation including emergency vehicle access; and (8) mitigating the impacts. Mitigation measures will include roadway sizing recommendations, intersection controls, and special treatments such as left turn pockets and right turn lanes as might be required by the project.

The focused traffic analysis will include calculation of intersection delay utilizing the Highway Capacity Manual (HCM) at up to eighteen (18) intersections in the project vicinity during the peak hours for existing conditions as well as with the proposed project. Following discussions with City staff, the number of intersections to be included may increase or decrease.

Deliverable: Traffic Impact Analysis Report.

Task 3.3: Noise Assessment

The FHWA highway noise model ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108) will be used to describe existing noise levels in the project vicinity. We will make one long-term (24-hour) and up to two 10-minute ambient noise measurements near the project site to establish existing noise levels. Residential areas are located south of the project site and include single-family homes. Community noise standards relevant to this project are contained in the City of Loma Linda Noise Element and Noise Ordinance. Standards for the jurisdiction will be summarized and their relevance to the project discussed.

The potential noise impacts can be divided into short-term construction noise and long-term impacts on surrounding land uses. We will determine short-term noise impacts due to construction noise. The types of construction equipment that will likely be used and the duration of construction will be identified. Typical construction noise levels will be presented for nearby areas. The projected noise levels will be compared to the Noise Ordinance limits and to ambient noise levels to determine noise impacts. The application of the City Noise Ordinance to control construction noise will be discussed.

We will determine long-term noise impacts due to the project-generated traffic. The noise impacts associated with the project's traffic on adjacent land uses will be assessed in terms of the CNEL noise scale. The increase in noise levels due to the project will be determined. Areas that will experience a significant noise increase will be identified. For the project scenario, the absolute noise levels experienced in these areas will then be determined, and the resulting land use/noise compatibility discussed. The projected noise levels will be compared to the ambient noise levels and the requirements of the Noise Ordinance to determine impacts.

As necessary, mitigation strategies will be identified as needed for the control of noise levels generated by the project. We will specify any measures to mitigate traffic noise levels at the project site. Measures will be developed as necessary to mitigate off-site noise impacts.

Deliverable: Noise Assessment Report.

Task 3.4: Air Quality/Greenhouse Gas Assessment

An emissions inventory for criteria pollutants and an assessment of the estimated emissions as compared to existing South Coast Air Quality Management District (SCAQMD) CEQA significance thresholds will be prepared upon completion of the Traffic Impact Study. The inventory will be based on a short-term construction phase, the number of project-related vehicle miles driven, and the operational elements of the proposed project. The estimated emissions will be calculated using the SCAQMD computer model CalEEMod. The potential project and cumulative emissions will also be analyzed for consistency with the current Air Quality Management Plan and the City's General Plan. Depending on the degree of the potential impacts, mitigation measures will be recommended for implementation. These measures will reduce potential emissions. These would mainly be complying with standard measures required to control construction dust and reduce exhaust emissions.

The CalEEMod model generates emissions from construction activities, vehicular usage, and from operational activities for each of the gases that make up the group of pollutants that are believed to contribute to the greenhouse effect. Carbon dioxide (CO₂) is the major pollutant of concern for most greenhouse impacts. Electrical generation and natural gas combustion emissions are included in the operational emissions. If specific usage rates are provided by the Engineer or Architect, they will be used for the projections; otherwise general estimates from the CalEEMod will be used to estimate natural gas and electricity consumption. The South Coast Air Quality Management District's 3,000 MTCO₂e threshold of significance will be used to compare the projected emissions for determining the level of significance. Compliance with GHG voluntary reduction strategies will be determined to allow project operations to be in compliance by reducing (to the extent feasible) global climate change. Potential conditions of approval that may also be required to reduce project GHG emissions as suggested by the California Air Resources Board would be reviewed for their applicability to the proposed project and any applicable measures would be presented for the City's consideration.

Deliverable: Air Quality/Greenhouse Gas Assessment Report.

TASK 4: PREPARE INITIAL STUDY AND NOTICES

Based on the findings of the technical studies prepared and reviewed, and the information contained in the Project Description, we will prepare a screen check Draft Initial Study to evaluate all potential environmental impacts associated with the proposed project. We will utilize the City's format for an Initial Study.

We will submit three copies (and one CD) of the screen check Initial Study/Environmental Checklist to the City for review. The City will then make the determination as to whether the Negative Declaration/Mitigated Negative Declaration is ready for public review. Following completion of the review by staff, we will revise the document.

Assuming the determination is made that a MND is the appropriate document, Lilburn Corporation will compile a distribution list of responsible and trustee agencies that should receive a copy of the Initial Study along with a Notice of Intent (NOI) to Adopt a Negative

Declaration. We will also prepare a Notice of Availability (NOA) for distribution to any additional agencies and interested parties, as well surrounding property owners.

Following the City's review of the package, we will prepare the NOI according to CEQA and the City's specifications for the public review period. Distribution will be handled by the City.

At completion of the public review period, we will review any comments received and discuss the need for any changes to the project or the Initial Study with City staff. Once the document is finalized, we will provide final documents including the staff report.

TASK 5: PREPARE FINAL DOCUMENTS

Upon completion of the environmental analysis we will prepare a Mitigation Monitoring and Reporting Program (MMRP) to include mitigation measures identified in the screen check Draft Initial Study and as a result of public input. Mitigation Measures may be amended or supplemented as a result of public comments received and City responses to comments. Five copies (and one CD copy) of the Draft MMRP will be provided for staff's internal review and comment.

The MMRP will be prepared in the City's preferred format and will contain at a minimum:

- Description of impact to be mitigated.
- Mitigation measure.
- Action to be taken to verify fulfillment of the measure.
- Identity of the agency and/or department responsible for implementing the action.
- Presentation of one mitigation measure per page of the MMP.

Once the MMRP is approved, we will provide one copy on CD and master copy to the City. The MMRP will be considered along with the Negative Declaration for adoption by the City Planning Commission and City Council.

TASK 6: STAFF REPORTS AND PUBLIC HEARING PRESENTATIONS

We will provide a project summary, CEQA findings and the staff report for inclusion in agenda packets of both the Planning Commission and the City Council. Lilburn Corporation will provide drafts of the staff reports and public hearing presentations to City staff for review. Final versions will incorporate any comments from staff.

TASK 7: PUBLIC HEARINGS

Coordination with City staff will be regularly initiated via telephone and email to discuss results of analyses, resolve scope of work conflicts, obtain additional information as necessary, resolve any contract administration issues, and provide schedule updates. We do not anticipate a need for meetings with staff following the kick-off meeting.

We will prepare a presentation of findings and make the staff presentation at up to two public hearings scheduled for consideration of the project.

Project Schedule

The schedule we propose is based on an assumed contract approval date of October 13, 2015. This provides for adoption of a Mitigated Negative Declaration in April 2016. This assumes that

changes to the project proposal are not made after we begin work. The schedule for the completion is however flexible and can be shortened or lengthened depending on a number of factors including the amount of time the City will need to review the technical studies and provide input, and the number of comments received on the Draft Initial Study.

Milestones for each of the major tasks identified in our Scope of Work are shown on the following schedule (Table 3). We are committed to meeting these milestone dates assuming no constraints to the schedule occur that are outside of our control. Key personnel listed in this proposal will be assigned to the project. All personnel have the capabilities to perform the work and their present workload has been accounted for in the schedule provided herein.

**Table 3
Project Schedule for CEQA and Planning Services
Parking Structure & Pedestrian Bridge**

Tasks	Duration	Target
Site Visit, Kickoff Meeting	1 day	October 15, 2015
Prepare Project Description	1 week	October 22, 2015
Prepare Focused Studies	8 weeks	December 17, 2015
Prepare Initial Study (duration following receipt of focused studies)	4 weeks	January 14, 2016
City Review of Initial Study	1 week	January 21, 2016
Revise Initial Study per City Comments and Print Copies of IS for Noticing/Circulation	1 week	January 28, 2016
Public Review Period	30 days	March 3, 2016
Prepare MMRP, Notices, and Staff Report	1 week	March 10, 2016
1 st PC Public Hearing	1 day	April 6, 2016

Availability of Personnel/Work Plan

Lilburn Corporation staff size currently totals ten employees. We have historically maintained a backlog of project work equivalent to 12 – 18 months of revenue; our current backlog of project work is equivalent to 6 months. We are therefore able to commit to project schedules that are on a fast track.

All Lilburn Corporation project personnel are involved in the preparation and production of environmental analyses and land use permitting documents. Most staff members have expertise in several different areas and are able to serve as key staff or project managers. Each CEQA or NEPA document requires specific staffing plans that may range from two to five staff. The majority of CEQA Initial Studies we prepare are completed by a Senior Environmental Analyst with oversight and QA/QC provided by a Project Director. For this project, the organization chart shown as Figure 1 indicates the resources that will be made available to this project.

For all work products associated with the project, Lilburn Corporation will be the key point of contact for City staff and will be responsible for the quality and timeliness of all subconsultants' work products. Following the initial kick-off meeting, confirmation of the project description, and discussions with City staff, Lilburn Corporation's Key Project Team Members will confirm the scope of the project to minimize future logistical problem that may lead to Change Orders.

Lilburn Corporation assigns a Principal of the firm to all projects to provide quality control/quality assurance. All documents are reviewed for technical accuracy and completeness before submittal to the client for review. The principals of the firm each have over 36 years of

professional experience and each have over 30 years of experience working on environmental compliance projects in southern California.

Project Cost

The estimated costs to complete the tasks described above are shown in the following Table 4. The total fee is estimated from the number of hours estimated for each employee classification and subconsultant costs per task. The total not-to-exceed cost for completion of the project as defined herein is **Thirty-six Thousand Four Hundred Eighty Dollars (\$36,480.00)**. This cost estimate provides for meeting attendance, travel costs, and document reproduction, as noted in the Scope of Work. Hourly fees by labor classification include salary plus 167% overhead which covers benefits, payroll taxes, indirect labor/expenses, other direct costs, plus an average 10% profit margin.

We propose to initiate a meeting with City staff to discuss the various assumptions included in our proposed Scope of Work in order to determine a negotiated contract price. The purpose of this meeting would be to finalize the terms and conditions of the contract.

The hourly billing rates included on the cost Table 4 and on Lilburn Corporation's Rate Schedule (Table 5) become effective at the initiation of this project and will be valid through the estimated duration of the project or for a period of 18 months, whichever is shorter.

Contract Management

Lilburn Corporation will comply with the standard provisions of the City's Professional Services Agreement. The RFP is incorporated in its entirety as part of this proposal and we agree to its use in development of a Professional Services Agreement between the City and Lilburn Corporation. We take no exception to any existing City contract terms.



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ovidiu Popescu, Councilman
Ronald Dailey, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015
TO: City Council
VIA: T. Jarb Thaipejr, City Manager
FROM: Jeff Bender, Fire Chief 
SUBJECT: VA Medical Center Fire Services Agreement

Approved/Continued/Denied By City Council Date _____
--

RECOMMENDATION

It is recommended that the City Council approve the agreement between the City and the Veterans Administration for fire services to the VA Medical Center for the period of October 1, 2015 – March 31, 2016.

BACKGROUND

The VA Medical Center has maintained a Fire Services Agreement with the City since its beginning nearly forty years ago. This agreement was put in place to assure that Fire Department could maintain appropriate resources to meet the VA Medical Center response criteria as well as provide a form of economic impact mitigation. It was realized that the chosen location and footprint of the VA Medical Center would, in effect, remove thirty seven acres of commercial land with Barton Road frontage from the City's tax base.

When the extension of the agreement came up for discussion this year, the VA advised that its contracting officers now require further justification of the need for a Fire Services agreement. When evaluating this history of the agreement, we collaboratively agreed that its cost basis was archaic and both parties would benefit from an updated pricing methodology.

Timing issues at the VA Contracting Office required the City to expedite execution of this six month agreement and necessitated an urgency signature by the Mayor. Approving this agreement will confirm the urgent action of the Mayor.

ANALYSIS

The City contracted Revenue & Cost Specialists out of Fullerton CA to conduct an analysis and make recommendations for an updated pricing methodology. The consultant considered an appropriate portion of the overall cost of the Fire Department as well as a portion of lost tax revenue. After weighting the allocations they result in a recommended total allocation of \$234,908 per year.

FISCAL IMPACT

This agreement covers the next six months, during which a multi-year agreement will be finalized. This pricing recognizes the updated cost methodology. Updated cost allocation will result in an annual increase of \$44,830 over the previous year's cost basis and agreement.

Attachments: Consultant Summary
Contract

CC AGENDA ITEM 9

August 27, 2015

TO: Chief Jeff Bender

FROM: Eric Johnson, RCS

RE: Allocation of Fire Operations to the Veterans Affairs Hospital

To determine an appropriate allocation of the cost of the Loma Linda Fire Operations to the Loma Linda Veterans Affairs Hospital I was asked to conduct an analysis of this allocation.

Historically, the agreement was instituted to both capture the response costs as well as the opportunity cost of the hospital property not being part of the City's tax base. Therefore, the attached allocation includes both the number of calls and the percent of the commercial acreage as the factors.

The VA Hospital has averaged almost 41 calls per year over the last 5 years, which represents 1.47% of the total number of responses. This allocation factor was chosen because there is a definite nexus between the number of responses and the share of the overall cost of the department. This also recognizes not only the actual response cost, but also the standby cost to have units trained and ready to respond.

The VA Hospital's 37 acres represents 9.14% of the total commercial acreage in the City. This is an important consideration because of the lost opportunity cost of the VA Hospital property not being on the tax roll and generating taxes. Currently, the sales tax per acre that is generated in the City of Loma Linda is about \$14,600 per commercial acre. The City's share of these sales taxes could, of course, be used to help fund Fire Operations, not to speak of additional property taxes. Therefore, I used the percent of commercial acreage as an allocation factor to account for these lost tax revenues.

I then weighted the number of calls higher than the percent of commercial acreage to take into account that call response should be a more important part of the allocation, but not the entire allocation.

These weighted allocations have resulted in a total allocation \$234,908 per year. These numbers should also be updated annually to continue to allocate the current costs.

**SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS
OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30**

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE 10-01-2015	4. ORDER NO. VA262-15-P-8356	1. REQUISITION NO. 605-16-1-6083-0001	PAGE 1 OF 16
-----------------	---------------------------------------	---------------------------------	--	--------------

7. FOR SOLICITATION INFORMATION CALL: a. NAME FREDY A ARTEAGA	b. TELEPHONE NO. (No Collect Calls) 562-766-2224	8. OFFER DUE DATE/LOCAL TIME
---	---	------------------------------

9. ISSUED BY Department of Veterans Affairs Network Contracting Office 22 4811 Airport Plaza Drive Suite 600 Long Beach CA 90815	CODE 00262	10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED OR <input type="checkbox"/> SET ASIDE: _____ % FOR: <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOMEN-OWNED SMALL BUSINESS PROGRAM NAICS: 922160 <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> EDWOSB <input type="checkbox"/> SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS <input type="checkbox"/> (V/A) SIZE STANDARD:
---	---------------	---

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE	12. DISCOUNT TERMS	13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) <input type="checkbox"/>	13b. RATING N/A 14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input type="checkbox"/> RFP
--	--------------------	---	--

15. DELIVER TO Department of Veterans Affairs VAMC LOMA LINDA 11201 BENTON STREET LOMA LINDA CA 92357	CODE	16. ADMINISTERED BY Department of Veterans Affairs Network Contracting Office 22 4811 Airport Plaza Drive Suite 600 Long Beach CA 90815
---	------	--

17a. CONTRACTOR/OFFEROR LOMA LINDA, CITY OF 25541 BARTON RD LOMA LINDA CA 92354 TELEPHONE NO. _____ DUNS: 070940887DUNS+4	CODE	FACILITY CODE	18a. PAYMENT WILL BE MADE BY Department of Veterans Affairs Financial Services Center P.O. Box 149971 Austin TX 78714-9971 PHONE: _____ FAX: _____
---	------	---------------	---

<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER	<input type="checkbox"/> 18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM
--	--

19. ITEM NO.	20. See CONTINUATION Page SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	PLEASE SEE SCHEDULE AND STATEMENT OF WORK FOR REQUESTED SERVICES. PERIOD OF PERFORMANCE SHALL BE FOR OCTOBER 1, 2015 TO MARCH 31, 2016. VA POC: Marshall Prude (909) 825-7084 Ext 2889 *****USE OBLIGATION NUMBER FOR PAYMENT PROCESSING***** SUBMIT INVOICES TO: http://www.tungsten-network.com/us/en/veteransaffairs PLEASE ENSURE THE FOLLOWING INFORMATION IS REFERENCED ON ALL CORRESPONDENCE, SHIPPING DOCUMENTS AND INVOICES: CONTRACT NUMBER: VA262-15-P-8356 OBLIGATION NUMBER: 605-C60011 (Use Reverse and/or Attach Additional Sheets as Necessary)				

25. ACCOUNTING AND APPROPRIATION DATA See CONTINUATION Page 605-3660162-6083-850300-2580 0100501X1	26. TOTAL AWARD AMOUNT (For Govt. Use Only) \$118,204.00
--	---

<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA <input checked="" type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA	<input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED. <input type="checkbox"/> ARE <input checked="" type="checkbox"/> ARE NOT ATTACHED
--	--

<input checked="" type="checkbox"/> 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN _____ COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED	<input type="checkbox"/> 29. AWARD OF CONTRACT. REF. QUOTE/MEMO OFFER DATED 08-27-2015 YOUR OFFER ON SOLICITATION (BLOCK 6), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN IS ACCEPTED AS TO ITEMS.
---	--

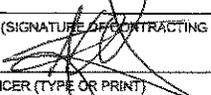
30a. SIGNATURE OF OFFEROR/CONTRACTOR 	31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER) 
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT) R. L. Rigsby, MD, Mayor	31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) FREDY A ARTEAGA CONTRACTING OFFICER
30c. DATE SIGNED 9/30/15	31c. DATE SIGNED 10/5/2015

Table of Contents

SECTION A..... 1

- A.1 SF 1449 SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS..... 1
- A.2 Price/Cost Schedule 4
 - Item Information..... 4
- A.3 Statement of Work 5
- A.4 Wage Determination 8

ADDITIONAL SIMPLIFIED ACQUISITION TERMS AND CONDITIONS 9

- A.5 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS—COMMERCIAL ITEMS (MAY 2015)..... 9
- A.6 VAAR 852.237-70 CONTRACTOR RESPONSIBILITIES (APR 1984)..... 15
- A.7 VAAR 852.232-72 ELECTRONIC SUBMISSION OF PAYMENT REQUESTS (NOV 2012) 15
- A.8 NOTICE LISTING CLAUSES INCORPORATED BY REFERENCE..... 16

CONTINUATION PAGE

(Continuation of Standard Form 1449, block 20)

1. Contract Administration: All contract administration matters will be handled by the following individuals:

a. GOVERNMENT: Fredy A Arteaga – Contract Officer
Department of Veterans Affairs
VISN 22 - Network Contracting Office (00262)
4811 Airport Plaza Drive, Suite 600
Long Beach, CA 90815

b. Contractor: CITY OF LOMA LINDA

2. CONTRACTOR REMITTANCE ADDRESS: All payments by the Government to the contractor will be made in accordance with:

52.232-33, Payment by Electronic Funds Transfer—System For Award Management, or

3. INVOICES: Invoices shall be submitted in arrears:

- a. Quarterly
- b. Semi Annually
- c. Other Monthly

4. GOVERNMENT INVOICE ADDRESS: All Invoices from the contractor shall be submitted electronically in accordance with VAAR Clause 852.232-72 Electronic Submission of Payment Requests.

Department of Veterans Affairs
Financial Services Center
P.O. Box 149971
Austin TX 78714-9971
<http://www.tungsten-network.com/us/en/veteransaffairs>

Monthly invoices shall be submitted to the VA no later than 10 days past the last day of the billing period. Contractor shall submit electronic invoices via Tungsten network or other acceptable system by VA FSC. Invoices submitted to VA FSC other than the electronic, will **NOT** be processed for payment.

Contractor may contact (877) 353-9791 for invoice inquiries. Incomplete and incorrect invoices shall be returned for correction.

A.2 Price/Cost Schedule

Item Information

ITEM NUMBER	DESCRIPTION OF SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	<p>PERIOD OF PERFORMANCE SHALL BE FOR OCTOBER 1, 2015 TO MARCH 31, 2016.</p> <p>CONTRACTOR SHALL PROVIDE FIRE PROTECTION SERVICES TO THE DEPARTMENT OF VETERANS AFFAIRS LOMA LINDA HEALTHCARE SYSTEM LOCATED 11201 BENTON STREET, LOMA LINDA, CA 92357.</p> <p>FIRE PROTECTION SERVICES -</p> <p>NON-RECURRING SERVICES: SHALL BE RENDERED AS SPECIFIED UNDER THE STAEMENT OF WORK AND ALL CITY, COUNTY, AND STATE REGULATIONS PERTAINING TO EMERGENCY RESPONSE.</p>	6.00	MO	\$19,575.6666	\$117,454.00
2	<p>FIRE HYDRANT TESTING – RECURRING</p> <p>SERVICES: INSPECTION SHALL TAKE PLACE PRIOR TO MARCH 31, 2016.</p> <p>1) ONE TEST PER YEAR OF TEN (10) FIRE HYDRANTS LOCATED</p>	10.00	EA	\$75.0000	\$750.00

THROUGHOUT THE FACILITY GROUNDS (AS SPECIFIED IN ATTACHMENT C). TESTS SHALL BE CONDUCTED IN THE MONTH OF NOVEMBER AND SCHEDULED AT LEAST TEN (10) DAYS IN ADVANCE WITH THE COR.

2) TEST SHALL BE CONDUCTED FOR STATIC PRESSURE, RESIDUAL PRESSURE, RATE OF FLOW AND FIRE FLOW TEST FOR EAST AND WEST SIDE OF BUILDING.

GRAND TOTAL	\$118,204.00
--------------------	---------------------

A.3 Statement of Work

I. DESCRIPTION/SPECIFICATIONS/WORK STATEMENT AND REQUIREMENTS

NON-RECURRING SERVICES

1. Contractor shall respond after receipt of alarm enunciator located at the Jerry L. Pettis Medical Center and report directly to the scene of the fire emergency. Contractor shall immediately notify the Contracting Officer's Representative (COR) or designee for preliminary information, if unable to make contact with the COTR, contact the Plant Operator, Graphic Control.
2. The initial alarm response shall consist of not less than the following equipment and manpower in a ready status:

- 2- Engine Companies
- 1-Chief Officer
- 6-Fire Fighters

Upon initial alarm response the Chief Officer, based on his assessment, shall provide additional equipment within eighteen (18) minutes:

- 2- Arial ladder Companies
- 9-12 Firefighters
- 1-Chief Officer
- 2 – 2 ¼" Hose Lines

3. The Contractor shall extinguish fires as necessary and provide rescue of persons, animals and equipment in their order as feasible. Contractor shall provide cleanup of the area affected by fire and extinguishing services to the extent that all person, animals, equipment and records are retrievable.
4. The Contractor shall provide ventilation and other first aid to fire victims until facility personnel are able to provide relief. The Contractor shall verbally provide all requested information that is known regarding the fire incident to the COTR upon completion of emergency work.
5. The Contractor shall provide emergency hazardous materials (HAZMAT) team response to spills or releases of hazardous materials or substances occurring on the Medical Center campus. The response includes, but is not limited to, entry into contaminated areas of the Medical Center for the purpose of isolating contamination sources or containing liquid spills. HAZMAT team notification of need for services may be by fire alarm, telephone call from the Safety Officer (COTR), or the Plant Operator, Graphic Control technician on duty. All hazardous material collected during cleanup operations shall be turned over to the Safety Officer or designated representative for proper containment and disposal.

RECURRING SERVICES

Fire Hydrant Testing:

1. One test per year of ten (10) fire hydrants located throughout the facility grounds (As specified in Attachment A). Tests shall be conducted in the month of November and scheduled at least ten (10) days in advance with the COR.
2. Test shall be conducted for static pressure, residual pressure, rate of flow and fire flow test for East and West side of building.

SPECIAL CONDITIONS

1. Excepted Equipment: The Government shall maintain a direct connection from the facility Fire Alarm System to Apple Valley Communications of Apple Valley, California from which a call shall be immediately placed to the Contractor. The Contractor shall respond upon receipt of notification from the switchboard operator at Apple Valley Communications. An interrupting switch shall be maintained and utilized by the facility when conducting fire drills.
2. The Government shall furnish and maintain fire hydrants for the Contractor's use. The facility shall inspect, maintain and utilize fire hydrants when conducting fire drills.

REQUIRED DOCUMENTATION

Reports: The Contractor shall provide a Fire Hydrant Testing report on a "Fire Hydrant Record Data Sheet" (Attachment A) immediately upon completion of testing. (Form shall be provided by the facility). A cover letter shall be attached stating the results from the test, as to the capability of fighting a fire at the most remote part of the facility.

QUALIFICATIONS

The Contractor must be a trained professional firefighting and rescue organization which currently provides such services to an incorporated municipality with response time of three to five minutes to this facility upon notification by Veteran Affairs Personnel. There are three different types of methods that the contractor shall be notified by in case of an emergency or services are required: alarm enunciator, Apple Valley Communications of Apple Valley, CA or Veterans Affairs Personnel.

ALARM MONITORING COMPANY

Apple Valley Communications
21805 Highway 18
Apple Valley, CA 92307

Phone: 760-247-2668
Fax: 760-247-0087
CA, Contractor #542642 C
Alarm License #ACO 3056

SECURITY REQUIREMENTS

All personnel employed by the Contractor in the performance of this contract, or any representative of the Contractor entering the Veterans Affairs Loma Linda Healthcare System (VALLHS), shall abide by all the terms and conditions of this contract.

AUTHORIZED SERVICES

Only those services specified herein are authorized under this contract. Before performing any service of a non-contract nature, the Contracting Officer must be advised of the reason(s) for this additional work. The Contracting Officer shall authorize the additional services under a separate purchase authorization. Contractor shall be cautioned that only the Contracting Officer may authorize additional services and that reimbursement shall not be made unless prior authorization is obtained.

HOURS OF SERVICE

This contract is a full service contract to provide 24 hours per day, 7 days per week fire protection services, including National Holidays.

NATIONAL HOLIDAYS:

New Year's Day	1 January
Martin Luther King's Birthday	Third Monday in January
President's Day	Third Monday in February
Memorial Day	Last Monday in May
Independence Day	4 July
Labor Day	First Monday in September
Columbus Day	Second Monday in October
Veterans Day	11 November
Thanksgiving Day	4 th Thursday in November
Christmas Day	25 December

When a holiday falls on Sunday, the following Monday shall be observed as a legal holiday by U.S. Government agencies. When a holiday falls on a Saturday, the preceding Friday shall be observed as a legal holiday. Also included would be any day specifically declared by the President of the United States of America to be a National Holiday.

CONTRACTING OFFICERS TECHNICAL REPRESENTATIVE (COTR)

Delegation of Authority letters shall be forwarded to the using service and the Contractor after agreement has been signed, identifying the individual(s) as the COTR(s). No service shall be provided without the approval of the COTR or his/her designee of this contract. If unable to make contact with the COTR, contact the Administrator Officer of the Day (AOD).

The Contractor shall not accept any instructions issued by any other person(s) other than the Contracting Officer or his/her delegated representative acting within the limits of his/her authority.

CONTRACTOR PERSONNEL

All Contractor personnel assigned to the performance of this contract shall wear a Contractor-provided uniform that clearly identifies the individual as a Contractor.

Contractor personnel shall be required to speak fluently and comprehend the English language.

A.4 Wage Determination

The DOL Wage Determination for the specific locality applies to this solicitation and any contract awarded is available at www.wdol.gov. Please note the listing below is not all inclusive wage determination of each area of performance. It is the contractor's responsible to obtain and evaluate each wage determination locality.

Wage Determination No.: 05-2053

Revision No.: 19

Date of Revision: 07/14/2015

ADDITIONAL SIMPLIFIED ACQUISITION TERMS AND CONDITIONS

A.5 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS—COMMERCIAL ITEMS (MAY 2015)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.209-10, Prohibition on Contracting with Inverted Domestic Corporations (Dec 2014)

(2) 52.233-3, Protest After Award (Aug 1996) (31 U.S.C. 3553).

(3) 52.233-4, Applicable Law for Breach of Contract Claim (Oct 2004) (Public Laws 108-77 and 108-78 (19 U.S.C. 3805 note)).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.203-6, Restrictions on Subcontractor Sales to the Government (Sept 2006), with Alternate I (Oct 1995) (41 U.S.C. 4704 and 10 U.S.C. 2402).

(2) 52.203-13, Contractor Code of Business Ethics and Conduct (APR 2010)(41 U.S.C. 3509).

(3) 52.203-15, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (JUN 2010) (Section 1553 of Pub. L. 111-5). (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009.)

(4) 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards (Jul 2013) (Pub. L. 109-282) (31 U.S.C. 6101 note).

(5) [Reserved]

(6) 52.204-14, Service Contract Reporting Requirements (JAN 2014) (Pub. L. 111-117, section 743 of Div. C).

(7) 52.204-15, Service Contract Reporting Requirements for Indefinite-Delivery Contracts (JAN 2014) (Pub. L. 111-117, section 743 of Div. C).

(8) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment. (Aug 2013) (31 U.S.C. 6101 note).

(9) 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matters (Jul 2013) (41 U.S.C. 2313).

- (10) [Reserved]
- (11)(i) 52.219-3, Notice of HUBZone Set-Aside or Sole-Source Award (NOV 2011) (15 U.S.C. 657a).
 - (ii) Alternate I (NOV 2011) of 52.219-3.
- (12)(i) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (OCT 2014) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).
 - (ii) Alternate I (JAN 2011) of 52.219-4.
- (13) [Reserved]
- (14)(i) 52.219-6, Notice of Total Small Business Set-Aside (NOV 2011) (15 U.S.C. 644).
 - (ii) Alternate I (NOV 2011).
 - (iii) Alternate II (NOV 2011).
- (15)(i) 52.219-7, Notice of Partial Small Business Set-Aside (June 2003) (15 U.S.C. 644).
 - (ii) Alternate I (Oct 1995) of 52.219-7.
 - (iii) Alternate II (Mar 2004) of 52.219-7.
- (16) 52.219-8, Utilization of Small Business Concerns (OCT 2014) (15 U.S.C. 637(d)(2) and (3)).
- (17)(i) 52.219-9, Small Business Subcontracting Plan (OCT 2014) (15 U.S.C. 637(d)(4)).
 - (ii) Alternate I (Oct 2001) of 52.219-9.
 - (iii) Alternate II (Oct 2001) of 52.219-9.
 - (iv) Alternate III (OCT 2014) of 52.219-9.
- (18) 52.219-13, Notice of Set-Aside of Orders (NOV 2011) (15 U.S.C. 644(r)).
- (19) 52.219-14, Limitations on Subcontracting (NOV 2011) (15 U.S.C. 637(a)(14)).
- (20) 52.219-16, Liquidated Damages—Subcontracting Plan (Jan 1999) (15 U.S.C. 637(d)(4)(F)(i)).
- (21) 52.219-27, Notice of Service-Disabled Veteran-Owned Small Business Set-Aside (NOV 2011) (15 U.S.C. 657f).
- (22) 52.219-28, Post Award Small Business Program Rerepresentation (Jul 2013) (15 U.S.C. 632(a)(2)).
- (23) 52.219-29, Notice of Set-Aside for Economically Disadvantaged Women-Owned Small Business (EDWOSB) Concerns (Jul 2013) (15 U.S.C. 637(m)).
- (24) 52.219-30, Notice of Set-Aside for Women-Owned Small Business (WOSB) Concerns Eligible Under the WOSB Program (Jul 2013) (15 U.S.C. 637(m)).

- (25) 52.222-3, Convict Labor (June 2003) (E.O. 11755).
- (26) 52.222-19, Child Labor—Cooperation with Authorities and Remedies (JAN 2014) (E.O. 13126).
- (27) 52.222-21, Prohibition of Segregated Facilities (APR 2015).
- (28) 52.222-26, Equal Opportunity (APR 2015) (E.O. 11246).
- (29) 52.222-35, Equal Opportunity for Veterans (JUL 2014) (38 U.S.C. 4212).
- (30) 52.222-36, Equal Opportunity for Workers with Disabilities (JUL 2014) (29 U.S.C. 793).
- (31) 52.222-37, Employment Reports on Veterans (JUL 2014) (38 U.S.C. 4212).
- (32) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496).
- (33)(i) 52.222-50, Combating Trafficking in Persons (MAR 2015) (22 U.S.C. chapter 78 and E.O. 13627).
- (ii) Alternate I (MAR 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- (34) 52.222-54, Employment Eligibility Verification (AUG 2013). (Executive Order 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)
- (35)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008) (42 U.S.C.6962(c)(3)(A)(ii)). (Not applicable to the acquisition of commercially available off-the-shelf items.)
- (ii) Alternate I (MAY 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). (Not applicable to the acquisition of commercially available off-the-shelf items.)
- (36)(i) 52.223-13, Acquisition of EPEAT®-Registered Imaging Equipment (JUN 2014) (E.O.s 13423 and 13514).
- (ii) Alternate I (JUN 2014) of 52.223-13.
- (37)(i) 52.223-14, Acquisition of EPEAT®-Registered Televisions (JUN 2014) (E.O.s 13423 and 13514).
- (ii) Alternate I (JUN 2014) of 52.223-14.
- (38) 52.223-15, Energy Efficiency in Energy-Consuming Products (DEC 2007)(42 U.S.C. 8259b).
- (39)(i) 52.223-16, Acquisition of EPEAT®-Registered Personal Computer Products (JUN 2014) (E.O.s 13423 and 13514).
- (ii) Alternate I (JUN 2014) of 52.223-16.
- (40) 52.223-18, Encouraging Contractor Policies to Ban Text Messaging While Driving (AUG 2011)

- (41) 52.225-1, Buy American—Supplies (MAY 2014) (41 U.S.C. chapter 83).
 - (42)(i) 52.225-3, Buy American—Free Trade Agreements—Israeli Trade Act (MAY 2014) (41 U.S.C. chapter 83, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, 19 U.S.C. 3805 note, 19 U.S.C. 4001 note, Pub. L. 103-182, 108-77, 108-78, 108-286, 108-302, 109-53, 109-169, 109-283, 110-138, 112-41, 112-42, and 112-43).
 - (ii) Alternate I (MAY 2014) of 52.225-3.
 - (iii) Alternate II (MAY 2014) of 52.225-3.
 - (iv) Alternate III (MAY 2014) of 52.225-3.
 - (43) 52.225-5, Trade Agreements (NOV 2013) (19 U.S.C. 2501, *et seq.*, 19 U.S.C. 3301 note).
 - (44) 52.225-13, Restrictions on Certain Foreign Purchases (JUN 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).
 - (45) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Jul 2013) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).
 - (46) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (Nov 2007) (42 U.S.C. 5150).
 - (47) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (Nov 2007) (42 U.S.C. 5150).
 - (48) 52.232-29, Terms for Financing of Purchases of Commercial Items (Feb 2002) (41 U.S.C. 4505, 10 U.S.C. 2307(f)).
 - (49) 52.232-30, Installment Payments for Commercial Items (Oct 1995) (41 U.S.C. 4505, 10 U.S.C. 2307(f)).
 - (50) 52.232-33, Payment by Electronic Funds Transfer—System for Award Management (Jul 2013) (31 U.S.C. 3332).
 - (51) 52.232-34, Payment by Electronic Funds Transfer—Other than System for Award Management (Jul 2013) (31 U.S.C. 3332).
 - (52) 52.232-36, Payment by Third Party (MAY 2014) (31 U.S.C. 3332).
 - (53) 52.239-1, Privacy or Security Safeguards (Aug 1996) (5 U.S.C. 552a).
 - (54)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631).
 - (ii) Alternate I (Apr 2003) of 52.247-64.
- (c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:
- (1) 52.222-17, Nondisplacement of Qualified Workers (MAY 2014) (E.O. 13495).

(2) 52.222-41, Service Contract Labor Standards (MAY 2014) (41 U.S.C. chapter 67).

(3) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

Employee Class

Monetary Wage-Fringe Benefits

(4) 52.222-43, Fair Labor Standards Act and Service Contract Labor Standards—Price Adjustment (Multiple Year and Option Contracts) (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

(5) 52.222-44, Fair Labor Standards Act and Service Contract Labor Standards—Price Adjustment (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

(6) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment—Requirements (MAY 2014) (41 U.S.C. chapter 67).

(7) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services—Requirements (MAY 2014) (41 U.S.C. chapter 67).

(8) 52.222-55, Minimum Wages Under Executive Order 13658 (DEC 2014) (Executive Order 13658).

(9) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (MAY 2014) (42 U.S.C. 1792).

(10) 52.237-11, Accepting and Dispensing of \$1 Coin (SEP 2008) (31 U.S.C. 5112(p)(1)).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records—Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—

- (i) 52.203-13, Contractor Code of Business Ethics and Conduct (APR 2010) (41 U.S.C. 3509).
- (ii) 52.219-8, Utilization of Small Business Concerns (OCT 2014) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$650,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.
- (iii) 52.222-17, Nondisplacement of Qualified Workers (MAY 2014) (E.O. 13495). Flow down required in accordance with paragraph (l) of FAR clause 52.222-17.
- (iv) 52.222-21, Prohibition of Segregated Facilities (APR 2015).
- (v) 52.222-26, Equal Opportunity (APR 2015) (E.O. 11246).
- (vi) 52.222-35, Equal Opportunity for Veterans (JUL 2014) (38 U.S.C. 4212).
- (vii) 52.222-36, Equal Opportunity for Workers with Disabilities (JUL 2014) (29 U.S.C. 793).
- (viii) 52.222-37, Employment Reports on Veterans (JUL 2014) (38 U.S.C. 4212).
- (ix) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.
- (x) 52.222-41, Service Contract Labor Standards (MAY 2014) (41 U.S.C. chapter 67).
- (xi)(A) 52.222-50, Combating Trafficking in Persons (MAR 2015) (22 U.S.C. chapter 78 and E.O. 13627).
- (B) Alternate I (MAR 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- (xii) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment—Requirements (MAY 2014) (41 U.S.C. chapter 67).
- (xiii) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services—Requirements (MAY 2014) (41 U.S.C. chapter 67).
- (xiv) 52.222-54, Employment Eligibility Verification (AUG 2013).
- (xv) 52.222-55, Minimum Wages Under Executive Order 13658 (DEC 2014) (E.O. 13658).
- (xvi) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Jul 2013) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).
- (xvii) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (MAY 2014) (42 U.S.C. 1792). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xviii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of Clause)

A.6 VAAR 852.237-70 CONTRACTOR RESPONSIBILITIES (APR 1984)

The contractor shall obtain all necessary licenses and/or permits required to perform this work. He/she shall take all reasonable precautions necessary to protect persons and property from injury or damage during the performance of this contract. He/she shall be responsible for any injury to himself/herself, his/her employees, as well as for any damage to personal or public property that occurs during the performance of this contract that is caused by his/her employees fault or negligence, and shall maintain personal liability and property damage insurance having coverage for a limit as required by the laws of the State of . Further, it is agreed that any negligence of the Government, its officers, agents, servants and employees, shall not be the responsibility of the contractor hereunder with the regard to any claims, loss, damage, injury, and liability resulting there from.

(End of Clause)

A.7 VAAR 852.232-72 ELECTRONIC SUBMISSION OF PAYMENT REQUESTS (NOV 2012)

(a) *Definitions.* As used in this clause—

(1) *Contract financing payment* has the meaning given in FAR 32.001.

(2) *Designated agency office* has the meaning given in 5 CFR 1315.2(m).

(3) *Electronic form* means an automated system transmitting information electronically according to the

Accepted electronic data transmission methods and formats identified in paragraph (c) of this clause. Facsimile, email, and scanned documents are not acceptable electronic forms for submission of payment requests.

(4) *Invoice payment* has the meaning given in FAR 32.001.

(5) *Payment request* means any request for contract financing payment or invoice payment submitted by the contractor under this contract.

(b) *Electronic payment requests.* Except as provided in paragraph (e) of this clause, the contractor shall submit payment requests in electronic form. Purchases paid with a Government-wide commercial purchase card are considered to be an electronic transaction for purposes of this rule, and therefore no additional electronic invoice submission is required.

(c) *Data transmission.* A contractor must ensure that the data transmission method and format are through one of the following:

(1) VA's Electronic Invoice Presentment and Payment System. (See Web site at <http://www.fsc.va.gov/einvoice.asp>.)

(2) Any system that conforms to the X12 electronic data interchange (EDI) formats established by the Accredited Standards Center (ASC) and chartered by the American National Standards Institute (ANSI). The X12 EDI Web site (<http://www.x12.org>) includes additional information on EDI 810 and 811 formats.

(d) *Invoice requirements.* Invoices shall comply with FAR 32.905.

(e) *Exceptions.* If, based on one of the circumstances below, the contracting officer directs that payment requests be made by mail, the contractor shall submit payment requests by mail through the United States Postal Service to the designated agency office. Submission of payment requests by mail may be required for:

(1) Awards made to foreign vendors for work performed outside the United States;

(2) Classified contracts or purchases when electronic submission and processing of payment requests could compromise the safeguarding of classified or privacy information;

(3) Contracts awarded by contracting officers in the conduct of emergency operations, such as responses to national emergencies;

(4) Solicitations or contracts in which the designated agency office is a VA entity other than the VA Financial Services Center in Austin, Texas; or

(5) Solicitations or contracts in which the VA designated agency office does not have electronic invoicing capability as described above.

(End of Clause)

A.8 NOTICE LISTING CLAUSES INCORPORATED BY REFERENCE

The following clauses are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" contained in this document. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

<u>FAR Number</u>	<u>FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1) Title</u>	<u>Date</u>
52.228-5	INSURANCE—WORK ON A GOVERNMENT INSTALLATION	JAN 1997
52.232-40	PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS	DEC 2013
52.237-2	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION	APR 1984
852.203-70	COMMERCIAL ADVERTISING	JAN 2008



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ovidiu Popescu, Councilman
Ronald Dailey, Councilman
John Lenart, Councilman

COUNCIL AGENDA: October 13, 2015
TO: City Council
VIA: T. Jarb Thaipejr, City Manager
FROM: Jeff Bender, Fire Chief 
SUBJECT: Declare Surplus Vehicle, Authorize Disposition of proceeds.

Approved/Continued/Denied
By City Council
Date _____

RECOMMENDATION

It is recommended that the City Council declare the Fire Departments 1992 Central States engine surplus, and authorize it to be sold via third party used apparatus dealer. It is also recommended that the City Council authorized proceeds to be deposited in the Reserve for Equipment Replacement account 01-4012 to be used for future fire apparatus needs.

BACKGROUND

The 1992 Central States engine has served the City well for 23 years. This engine was the primary wildland response unit for 17 years. Due to its configuration meeting both type 2 & type 3 specifications, the department was able to use the engine in a reserve capacity as both pumper and wildland unit. The Department was forced to recently place this unit in an out of service status based on mechanical problems as well as its inability to pass annual pump certification testing.

ANALYSIS

The volume of significant mechanical problems along with inability to perform pump certification testing resulted in an out of service status. This engine has exceeded its expected service life and truly allowed the Fire Department to maximize its value to the City. The Fire Department believes that it is more beneficial to attempt to sell surplus through used apparatus dealer rather than dispose through government surplus equipment auction process.

FINANCIAL IMPACT

It is estimated that the City could receive proceeds in the range of \$12,000-\$18,000. Depositing proceeds in Reserve for Equipment Replacement Account 01-4012 will help offset the impact of future apparatus replacement expenses.



City of Loma Linda Official Report

Rhodes Rigsby, Mayor
Phillip Dupper, Mayor pro tempore
Ovidiu Popescu, Councilman
Ronald Dailey, Councilman
John Lenart, Councilman

Approved/Continued/Denied
By City Council
Date _____

COUNCIL AGENDA:

DATE: October 13, 2015
TO: City Council
VIA: T. Jarb Thaipejr, City Manager
FROM: Jeff Bender, Fire Chief *JB*
SUBJECT: Award Contract for Purchase of Fire Engine

RECOMMENDATION

It is recommended that the City Council approve a supplemental appropriation for the purchase and authorize the City Manager to execute the agreement for one Type 1 Fire Pumper from Smeal Fire Apparatus of Snyder, NE in the amount of \$594,200.

BACKGROUND

The current front-line engine, ME-251, was manufactured in 1996. This engine has served the City well for nearly 20 years but is experiencing an increase in mechanical problems consistent with its age. The most recent was a transmission failure which required a lengthy repair. Although this engine is at its expected service life, the Fire Department believes it can continue to serve the City in a reserve capacity. Serving in a reserve capacity is actually a critical need as the Fire Department has taken the 1992 Central States engine out of service.

ANALYSIS

This purchase will both stabilize the Fire Department's front-line fleet and provide capable reserve apparatus to meet the Departments current needs. Fire Pumpers have an expected service life of fifteen years front-line and five years reserve for a total service life of twenty years. This purchase will provide the ability to place the 1996 KME engine (19 yrs.) into reserve capacity and declare the 1992 Central States engine (23 yrs.). The Department has been able to maximize the service life of both of these units.

The Fire Department sought bids from three apparatus manufacturers: KME, Pierce, and Smeal. All three manufacturers responded with the following pricing:

Kovatch Mobile Equipment	Nesquehoning, PA	\$538,171
Pierce Manufacturing Inc.	Appleton, WI	\$500,601
Smeal Fire Equipment	Snyder, NE	\$516,083

Staff recommends awarding bid to Smeal Fire Equipment based on their bid pricing, parts pricing and availability, ability to provide required equipment in a timely manner, and fleet uniformity as well as our internal experience with Smeal fleet performance.

FINANCIAL IMPACT

In addition to the bid price for the Smeal Type 1 pumper, a total price includes:

Radio & MDC docking station	\$ 5,250
Loose Equipment	\$19,804
Contingency	\$ 9,000
Sales Tax @ 8.00%	<u>\$44,011</u>
	\$78,065

Appropriate a total of \$594,200 from General Fund Balance, of which \$270,000 has already been reserved for the purchase of fire apparatus in the Balance Sheet Account 01-4012. The break down for the supplemental appropriation is \$567,100 to expenditure account 01-2110-8210 (Automotive Equipment) and \$27,100 to expenditure account 01-2110-8220 (Machinery & Equipment).



PH: (714) 357-9706 Email: Fasfire@gmail.com

Address: 2763 S. Vista Ave., Bloomington, CA 92316

Proposal for Type 1 Fire Apparatus

August 28, 2015

Loma Linda Fire Department
25541 Barton Road
Loma Linda, CA 92354



WE BUILD RESPECT.

The undersigned is prepared to furnish Loma Linda Fire Department with a Smeal Type 1 Pumper, upon approval by customer and the acceptance by Smeal Fire Apparatus, Inc., at its corporate office in Snyder, Nebraska. The apparatus and equipment herein named and for the following prices:

	Qty	Total	Chassis Prepaid Discounted	Total Prepaid Discounted
Smeal Type 1 Pumper	1	\$516,083.00	\$516,083.00	\$516,083.00
Pre-Construction Meeting (to be performed at FAS or Station)	1	\$0.00	\$0.00	\$0.00
Pre-Paint Inspection (per each individual to attend at factory)	3	Included	Included	Included
Final Inspection (to be performed at FAS or Station)	1	\$0.00	\$0.00	\$0.00
Contingencies	1	\$9,000.00	\$9,000.00	\$9,000.00
Radio & Installation	1	\$5,250.00	\$5,250.00	\$5,250.00
Loose Equipment	(See List)	\$19,804.00	\$19,804.00	\$19,804.00
Apparatus Cost without Tax	1	\$550,137.00	\$550,137.00	\$550,137.00
Sales Tax @ 8.00% (sales tax rate may be subject to change upon vehicle delivery date)	1	\$44,011.00	\$44,011.00	\$44,011.00
Discounts	1	\$0.00	-\$8,000.00	-\$16,500.00
Total Purchase Price		\$594,148.00	\$586,148.00	\$577,648.00

PLEASE NOTE THE FOLLOWING IN REGARDS TO THIS QUOTATION:

Sales tax rate may be subject to change. The sales tax is an estimate of the current tax rate of California as of August 28, 2015. However if the tax rates changes before time of delivery, difference will be required.

All of which are to be built in accordance with the Smeal proposed specifications attached, and which are made a part of this proposal agreement. Vehicle to be delivered within **270-330 calendar days** after date of receipt and approval of all submitted documents affiliated with order placement with Smeal Fire Apparatus Co., properly executed, subject to all causes beyond our control, and to be delivered to you at **Loma Linda, CA**.

The specifications herein contained shall form a part of the final contract and are subject to changes desired by purchaser, provide such alterations are interlined prior to acceptance by the company of the order to purchase, and provided such alternations do not materially affect the cost of the construction of the apparatus.

Thank you,

William Kalmikov
Smeal Fire Apparatus
Sales Representative

BID PROPOSAL

Loma Linda Fire Dept.

11325 Loma Linda Dr.
Loma Linda, CA 92354



SMEAL FIRE APPARATUS CO.

610 West 4th Street
Snyder, NE 68664

402.568.2224

www.smeal.com

WE BUILD RESPECT.



610 WEST 4TH ST. - P.O. BOX 8
SNYDER, NEBRASKA 68664

smeal.com
(402) 568-2224

WE BUILD RESPECT.

SALES CONTRACT

(California)

This Sales Contract is made and entered into by and between Smeal Fire Apparatus Co. of Snyder, Nebraska, Seller and Loma Linda Fire Dept. Buyer

PRODUCT DESCRIPTION:

One (1) Tag on to Butte County Contract number X21335 dated 7/21/2014, second year pricing \$441,730. 00 See Attached Butte County Contract One (1) Smeal Custom Sidemount pumper mounted on a Spartan Metrostar chassis. \$441,730. 00

ADD: Change Chassis to a 2016 Spartan Gladiator Chassis to include Cummins ISX Engine, 4000 Evs Allison Transmission, upgraded powertrain & IFS suspension - see attached Specifications \$83,011

ADD: Change Smeal custom side mount pumper 1500 GPM Hale pump, specified radios, equipment (see addendum list) and contingencies allotment - See Attached Specifications \$25,396

PURCHASE. Buyer does hereby agree to purchase and accept delivery of the apparatus described in the Smeal Fire Apparatus Co. Proposal attached hereto, which is made a part hereof by this reference, upon the following terms and conditions:

1. **ACCEPTANCE.** This Sales Contract shall become a contract and a binding obligation only when accepted by the Seller as provided in paragraph 9 hereof.
2. **COMPLETION.** The Smeal Fire Apparatus Co. supplied apparatus and equipment, excluding dealership supplied equipment, covered by this contract will be completed in Snyder, Nebraska within approximately 270-330 calendar days after written acceptance of this Sales Contract by the Seller, or as soon thereafter as is consistent with good workmanship and subject to any and all delays resulting from causes beyond the control of Seller, and contingencies set out in paragraph 11 hereof. It is understood by both the Seller and the Buyer that *Change Orders* executed after contract acceptance will delay delivery.
3. **SPECIFICATIONS.** The attached Smeal Fire Apparatus Co. Proposal, shall control the construction of the apparatus and be binding upon both Buyer and Seller, notwithstanding any other specifications or proposals whether written or oral heretofore supplied, considered or discussed. If there is any conflict between Buyer's specifications and the attached Proposal, the attached Proposal and specifications will control and prevail.
4. **WARRANTY.** The attached warranty or warranties shall apply to this agreement:

See attached Warranty Documentation (Copies may be attached.)



610 WEST 4TH ST. - P.O. BOX 8
SNYDER, NEBRASKA 68664

smeal.com
(402) 568-2224

WE BUILD RESPECT.

SALES CONTRACT

(California)

5. PERFORMANCE BOND. The following bonding provisions are applicable:

Performance Bond NOT required.

Performance Bond Required - Performance Bond (Surety Bond) will cover standard one year warranty period only and will not cover extended warranties offered by seller or other component manufacturer.

EXCEPT AS SPECIFICALLY PROVIDED ABOVE, SELLER DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND WARRANTIES THAT ARISE BY OPERATION OF LAW, COURSE OF TRADE, COURSE OF PERFORMANCE, OR USAGE OF TRADE.

6. LIMITATION OF REMEDIES. In no event shall Seller be liable for special, incidental, or consequential damages nor for any damages which exceed the purchase price of the apparatus.

7. PRICE. Buyer agrees to pay for the apparatus described herein the total sum of:

Five Hundred Fifty Thousand One Hundred Thirty-Seven Dollars

Dollars \$550,137.

State and local sales taxes, if any, are not included in the purchase price. It is understood by both the buyer and the seller that *Change Orders* executed after contract acceptance may increase or decrease the price. The purchase price herein is based upon all applicable state and federal manufacturing law, regulations, orders, mandates and standards in effect as of the date of this Agreement (hereinafter "Standards") such as, for example, the Standards mandated by the National Fire Protection Association, tentative interim amendments to the National Fire Protection Association Standard, Underwriters Laboratories of Canada, and the Environmental Protection Agency. The purchase price shall be subject to increase due to any state or federal Standards that are adopted, issued or mandated following the date of this Agreement that require the apparatus(es) described above to be manufactured and/or delivered in compliance with such Standard(s).

7.1 California Taxes. The total above does not include applicable California State and Local sales tax. All applicable California State and Local sales tax will be added to the number above and invoiced at the time of completion of the apparatus. Based on the purchase price above and using current tax rates the tax on the purchase price of the apparatus would be .

8. PAYMENT. The purchase price shall be paid in the following manner:

Net due 21 days after completion of the apparatus



610 WEST 4TH ST. - P.O. BOX 8
SNYDER, NEBRASKA 68664

smeal.com
(402) 568-2224

WE BUILD RESPECT.

SALES CONTRACT

(California)

Chassis payment Discount - If \$268, 692.00 is paid within 7 days of chassis arrival at Smeal Fire Apparatus Co. a discount of \$8,021.00 Will be deducted from the final invoice amount.

All checks must be made payable to Smeal Fire Apparatus Co. only and delivered to Seller at its offices in Snyder, Nebraska. Under no circumstances shall payment be made to a dealer or any one else as Seller's agent. Smeal Fire Apparatus Co. is the only authorized payee. Any representation that payment is to be made to any other party is absolutely unauthorized.

9. SELLER'S REPRESENTATIONS. All representations made and/or actions taken by a dealer or agent either before or after execution of this Sales Contract are not binding on the Seller. This Sales Contract in order to be effective and binding upon Seller must be signed and accepted by an authorized officer of Seller. The effective date of this Sales Contract will be the date it is signed and accepted by the Seller.

10. BUYER'S REPRESENTATIONS. Buyer is a Municipality,

and has the power and authority to enter into this Sales Contract and perform its obligations hereunder; this Agreement has been duly authorized, executed and delivered by Buyer and is the valid, enforceable and binding obligation of Buyer; and Buyer represents that there are no warranties, agreements or understandings, written or oral, which in any manner alter, abridge or conflict with the terms of this Sales Contract. Buyer represents that the individuals listed below have authority to sign all documents including but not limited to, all change orders on behalf of Buyer.

11. DELAY ON PERFORMANCE. Seller's Performance under this Sales Contract is subject to delays resulting from strike, insurrection, war, accidents, fires, floods, commandeering of plant or other demands of governmental authority, delays in transportation, or materials, delays in receipt of information when clarifications are requested, and all other causes beyond the control of Seller.

12. TESTING. In the event Buyer wishes to test the apparatus, such test shall be made within ten (10) days after arrival of the apparatus at its destination. A written report of any and all tests shall be promptly forwarded to Seller. If Buyer fails to test within this time limit and/or fails to forward test results to Seller, the apparatus shall be considered as fully complying with contract specifications as described in paragraph 3.

13. TITLE. All apparatus shall remain the property of Seller until the purchase price is paid in full. In the event of default in payment, Seller may take full possession of all apparatus sold



610 WEST 4TH ST. - P.O. BOX 8
SNYDER, NEBRASKA 68664

smeal.com
(402) 568-2224

WE BUILD RESPECT.

SALES CONTRACT

(California)

hereunder and any payments that have been made shall be forfeited and/or considered as rental for the use of the apparatus up to date of taking possession.

14. MISCELLANEOUS. The following miscellaneous provisions shall apply to this Sales Contract:

14.1 Entire Agreement. This Sales Contract, and the specifications and warranty attached hereto sets forth the entire agreement between the parties and there are no promises, agreements, conditions or understandings, either oral or written between them that are other than as herein set forth. Except as herein otherwise provided, no subject alteration, amendment, change or addition to this Sales Contract shall be binding upon either Seller or Buyer unless reduced to writing and signed by them.

14.2 Severability. If any term, covenant or condition of this Sales Contract, or any application thereof to any person or circumstance, shall, to any extent, be invalid or unenforceable, the remainder of this Sales Contract or application of such term, covenant or condition to persons or circumstances other than those as to which it is held as invalid or unenforceable, shall not be affected thereby and each term, covenant or condition of this Sales Contract shall be valid and enforceable to the fullest extent permitted by law.

14.3 Binding Effect. This Sales Contract shall be binding upon and inure to the benefit of the parties and their respective successors and assigns. Except with the written consent of the other party hereto, no person shall take any action which will allow any right hereunder to be assigned or held by any other person.

IN WITNESS WHEREOF, this Sales Contract has been duly executed by the parties hereto on the date set forth opposite their name.



610 WEST 4TH ST. - P.O. BOX 8
SNYDER, NEBRASKA 68664

smeal.com
(402) 568-2224

WE BUILD RESPECT.

SALES CONTRACT

(California)

To be completed by the Authorized Smeal Distributor

By: x _____

Date: ____/____/____

Fire Apparatus Solutions

William Kalmikov
President

Mailing Address of Customer: Loma Linda Fire Dept.
11325 Loma Linda Dr.
Loma Linda, CA 92354

Jeff Bender Title: Chief

Business Telephone Number: 909-799-2850



610 WEST 4TH ST. - P.O. BOX 8
SNYDER, NEBRASKA 68664

smeal.com
(402) 568-2224

WE BUILD RESPECT.

SALES CONTRACT

(California)

To be completed by the Purchasing Entity

Printed Name: _____ Title: _____

Signature: _____ Date: ____/____/____

Printed Name: _____ Title: _____

Signature: _____ Date: ____/____/____

Printed Name: _____ Title: _____

Signature: _____ Date: ____/____/____

Printed Name: _____

Title: _____

Signature: _____ Date: ____/____/____

Attests: _____ *Date:* ____/____/____



610 WEST 4TH ST. - P.O. BOX 8
SNYDER, NEBRASKA 68664

smeal.com
(402) 568-2224

WE BUILD RESPECT.

SALES CONTRACT

(California)

To be completed by Smeal Fire Apparatus Co.

By: _____ Date of Acceptance: ____/____/____

Smeal Fire Apparatus Co.

Mark Denniston Huber, President

Attests: _____ Date: ____/____/____

Smeal Fire Apparatus Co.

Spec Text

NFPA 1901-2009

The National Fire Protection Association "Standard for Automotive Fire Apparatus", 2009 edition, is hereby adopted and made a part of these specifications, the same as if it were written out in full detail, with the exception of the section dealing with "Equipment Recommended for Various Types of Apparatus". Bidders shall provide the equipment requested herein and the buyer shall supply the rest before the apparatus is put into service. It is the intent of the purchaser to purchase an apparatus that meets 100% of the minimum standards defined and outlined in NFPA 1901-2009 edition. There are to be no exceptions to this requirement.

PREREQUISITE BIDDING REQUIREMENTS

Any manufacturer submitting a proposal or bid, to these specifications, shall meet the following conditions:

- The manufacturer of the apparatus herein specified, shall be wholly owned (100%) and managed by a Company, Corporation, and/or Parent Company that is wholly based and permanently resides in the United States of America.
- The Company, Corporation, and/or Parent Company, and all assets belonging to such, shall be wholly owned and managed (100%) by the entities specified above.
- Any proposal, bid, or response to these specifications by any foreign based, owned, or managed (in part or in whole) Company, Corporation, and/or Parent Company shall be cause for immediate rejection.
- Any proposal, bid, or response to these specifications by any Company, Corporation, and/or Parent Company, that is owned, operated, managed, or held in contract, in part or wholly by a partnership or other agreement, shall be cause for immediate rejection.

Exceptions to these conditions will not be allowed under any circumstances.

CONSTRUCTION DOCUMENTATION

The contractor shall supply, at the time of delivery, at least one (1) copy of the following documents:

1. The manufacturers record of apparatus construction details, including the following information:

- Owners name and address
- Apparatus manufacturer, model, and serial number
- Chassis make, model, and serial number
- GAWR of front and rear axles
- Front tire size and total rated capacity in pounds or kilograms
- Rear tire size and total rated capacity in pounds or kilograms
- Chassis weight distribution in pounds with water and manufacturer mounted equipment (front and rear)

Smeal Fire Apparatus Co.

- Engine make, model, serial number, rated horsepower and related speed, and governed speed
- Type of fuel and fuel tank capacity
- Electrical system voltage and alternator output in amps
- Battery make, model, and capacity in cold cranking amps (CCA)
- Chassis transmission make, model, and serial number; and if so equipped, chassis transmission PTO(s) make, model, and gear ratio
- If applicable, the pump make, model, rated capacity in gallons or liters per minute, and serial number
- Pump transmission make, model, serial number, and gear ratio, if unit is equipped with a pump
- If applicable, the auxiliary pump make, model, rated capacity in gallons or liters per minute, and serial number
- Water tank certified capacity in gallons or liters
- On aerial apparatus, the device type, rated vertical height in feet or meters, rated horizontal reach in feet or meters, and rated capacity in pounds or kilograms
- Paint manufacturer and paint number(s)
- Company name and signature of responsible company representative

2. Certification of slip resistance of all stepping, standing, and walking surfaces

3. If the apparatus has a fire pump, a copy of the following shall be provided: pump manufacturers certification of suction capability, apparatus manufacturers approval for stationary pumping applications, engine manufacturers certified brake horsepower curve showing the maximum governed speed, pump manufacturers certification of the hydrostatic test, and the certification of inspection and test for the fire pump

4. If the apparatus has an aerial device, the certification of inspection and test for the aerial device, and all the technical information required for inspections to comply with NFPA 1914, Standard for Testing Fire Department Aerial Devices

5. If the apparatus has a fixed line voltage power source, the certification of the test for the fixed power source

6. If the apparatus is equipped with an air system, test results of the air quality, the SCBA fill station, and the air system installation

7. Weight documents from a certified scale showing actual loading on the front axle, rear axle(s), and overall fire apparatus (with the water tank full but without personnel, equipment, and hose)

8. Written load analysis and results of the electrical system performance tests

9. When the apparatus is equipped with a water tank, the certification of water tank capacity

OPERATION AND SERVICE DOCUMENTATION

The contractor shall supply, at time of delivery, at least two (2) sets of complete operation and service documentation covering the completed apparatus as delivered and accepted. The documentation shall address at least the inspection, service, and operations of the fire apparatus and all major components thereof. The contractor shall also provide documentation of the following items for the entire apparatus and each major operating system or major component of the apparatus:

Smeal Fire Apparatus Co.

1. Manufacturers name and address
2. Country of manufacturer
3. Source of service and technical information
4. Parts and replacement information
5. Descriptions, specifications, and ratings of the chassis, pump, and aerial device
6. Wiring diagrams for low voltage and line voltage systems to include the following information: representations of circuit logic for all electrical components and wiring, circuit identification, connector pin identification, zone location of electrical components, safety interlocks, alternator-battery power distribution circuits, and input/output assignment sheets or equivalent circuit logic implemented in multiplexing systems
7. Lubrication charts
8. Operating instructions for the chassis, any major components such as a pump or aerial device, and any auxiliary systems
9. Precautions related to multiple configurations of aerial devices, if applicable
10. Instructions regarding the frequency and procedure for recommended maintenance
11. Overall apparatus operating instructions
12. Safety considerations
13. Limitations of use
14. Inspection procedures
15. Recommended service procedures
16. Troubleshooting guide
17. Apparatus body, chassis, and other component manufacturers warranties
18. Special data required by this standard
19. Copies of required manufacturer test data or reports, manufacturer certifications, and independent third-party certifications of test results
20. A material safety data sheet (MSDS) for any fluid that is specified for use on the apparatus

The contractor shall deliver with the apparatus all manufacturers operations and service documents supplied with components and equipment that are installed or supplied by the contractor.

STATEMENT OF EXCEPTIONS

The proposed apparatus as described in this specification document and all related material with the bid package shall meet or exceed all applicable sections for the category of apparatus as defined by NFPA 1901, unless specifically noted within this specification or other official documents associated with this bid.

Should any area, section or portion of the apparatus not meet the intent and applicable requirements, a clearly defined listing or explanation of what and why compliance was not achieved shall be provided to the purchaser at the time of delivery.

Smeal Fire Apparatus Co.

INTENT OF SPECIFICATIONS

It is the intent of these specifications to cover the furnishing and delivery to the purchaser of a complete apparatus equipped as herein specified. With a view to obtaining the best results and the most acceptable apparatus for service in the fire department, these specifications cover the general requirements as to the type of construction, together with certain details as to finish, equipment, and appliances with which the successful bidder must conform. Minor details of construction and materials where not otherwise specified are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in business for a minimum of 50 years.

Each bidder shall furnish satisfactory evidence of his ability to construct the apparatus specified, and shall state the location of the factory where the apparatus is to be built. The bidder shall also show that they are in a position to render prompt service and furnish replacement parts for said apparatus.

CONTRACTOR'S SPECIFICATIONS

Each bid shall be accompanied by a set of "Contractor's Specifications" consisting of a detailed description of the apparatus and equipment proposed and to which the apparatus furnished under contract must conform.

These specifications shall indicate size, type, model, and make of all component parts and equipment.

TIMELY PROPOSALS

It is the bidder's responsibility to see that their proposals arrive on time. Late proposals, facsimiles, e-mails, telegram, or telephone bids shall not be considered.

DRAWINGS

All bid drawings shall be stamped PROPOSAL.

- A total of six (6) packets of 11" x 17" drawings, each packet complete with a single view drawing for each side of the apparatus shall be supplied
- All drawings shall be drawn and printed to an appropriate scale to maximize the size of the apparatus on each 11" x 17" sheet of paper.
- Compartment door opening dimensions shall be shown in each compartment.
- Drawings shall be five (5) views. (left, right, front, rear, top) with the exception of chassis that are not always available as AutoCAD drawings
- Rear plumbing, such as 2-1/2" discharges, rear steamers, and direct tank fills, shall be shown
- Ladders shall be labeled with a letter designation referring to the table for an explanation of the ladder type
- OAL (overall length) in feet & inches -

Estimated length shall be rounded up to the nearest inch

- OAH (overall height) in feet & inches

Estimated height shall be rounded up to the nearest inch

Smeal Fire Apparatus Co.

- Body dimensions shown - pump house width & front of the body to centerline of the rear axle
- Wheelbase in inches
- Estimated in-service weight
- Turning clearance radius
- Front and rear overhang in inches
- No pump panel or instrument panel controls, discharges or inlets. To be blank and labeled "Pump Panel"
- Water tank outline
- Foam tank(s) fill towers
- Exterior mounted hard suction hose
- Warning lights
- D.O.T. lights
- Generator outline
- No front bumper layout
- Rollup doors will be shown in open position. Lap doors will be shown in the closed position
- Compartment depth break over measurement. The measurement where the compartment switches from full depth to shallow depth
- Angle of approach and departure
- Top view of chassis

Text Block Items

- Chassis model
- Water tank capacity
- Foam tank capacity
- Hose bed capacity in cubic feet
- Total compartment cubic feet
- Drawing box is to read "BID" and utilize the bid number
- Drawings shall be printed on white paper with black ink; blue line drawings shall not be acceptable.

PURCHASER'S OBLIGATIONS

The purchaser reserves the right to accept or reject any or all bids on such basis as the purchaser deems to be in its best interest. All bidders shall be advised that the purchaser is not bound in any manner to automatically accept the lowest bid. The purchaser shall only be obligated to purchase the lowest bid that meets these detailed specifications as closely as possible.

Smeal Fire Apparatus Co.

SAFETY REQUIREMENTS

It is required that the bidder shall meet all State and Federal safety standards and laws that are in effect on the date of the bid for the item(s) that are being specified and the particular use for which they are meant.

ACQUAINTANCE WITH SPECIFICATIONS

It is the responsibility of the bidder to review all of the bidding requirements. Failure of a bidder to be acquainted with this information shall not relieve them from any obligations of the bid requirements.

QUALITY AND WORKMANSHIP

The design of the apparatus shall embody the latest approved automotive engineering practices. Experimental designs and methods shall not be acceptable.

The workmanship shall be of the highest quality in its respective field. Special consideration shall be given to the following points: accessibility of the various units that require periodic maintenance, ease of operation (including both pumping and driving), and symmetrical proportions.

GENERAL CONSTRUCTION

The complete apparatus, assemblies, subassemblies, component parts, and so on, shall be designed and constructed with due consideration to the nature and distribution of the load to be sustained and to the general character of the service to which the apparatus is to be subjected when placed in service.

All parts of the apparatus shall be strong enough to withstand the general service under full load. The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment and repair.

The apparatus shall be designed and constructed, and the equipment so mounted, with due consideration to distribution of the load between the front and rear axles, and side to side loading that all specified equipment, including a full complement of specified ground ladders, full water tank, loose equipment, and firefighters; shall be carried without overloading or damaging the apparatus as per requirements defined in NFPA 1901.

The main apparatus body structure shall have an approximate width of 100" in order to maximize the enclosed compartment space of the apparatus. The 100" wide measurement represents the main body structure measured from the bottom, outermost rear corners of the apparatus body structure. Components affixed or fastened to the apparatus will increase the body width proportionately.

LIABILITY

The bidder, if their bid is accepted, shall defend any and all suits and assume all liability for the use of any patented process, device or article forming a part of the apparatus or any appliance furnished under the contract.

WARRANTY

A copy of the warranties for the chassis, pump, body, paint, and water tank shall be furnished with each bidder's proposal.

BID FORMS / SPECIFICATIONS

All bid forms shall be submitted on the attached bid form. The bid form and/or these specifications shall be filled out by checking either the "YES" or "NO" column for each and every section/paragraph. Failure to use this form and/or these specifications shall be cause for immediate rejection of any bid.

Smeal Fire Apparatus Co.

EXCEPTION TO SPECIFICATIONS

The following chassis, pump, and body specifications shall be strictly adhered to. Exceptions shall be allowed if they are equal to or superior to that specified (as judged by the customer), and provided they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS". Exception lists shall refer to the specification page number. Each check in the "NO" column shall be listed and fully explained. Where no check is made in a particular paragraph with either "YES" or "NO", it shall be assumed the bidder is taking exception to that paragraph. If a paragraph contains an empty column, where the bidder neglected to check the proper "YES" or "NO" column, it is assumed the bidder is not conforming to the requirements of this paragraph. If no explanation is given in the "EXCEPTIONS TO SPECIFICATIONS" document, the bid is subject to immediate rejection.

PROPOSALS TAKING TOTAL EXCEPTION TO THESE SPECIFICATIONS WILL BE IMMEDIATELY REJECTED.

The buyer is aware that all bidders shall have to take some exceptions therefore; BIDDERS THAT TAKE NO EXCEPTIONS shall BE REQUIRED TO MEET EVERY PARAGRAPH TO THE FULLEST EXTENT SHOULD THEIR BID BE ACCEPTED. It is the intent of the purchaser to receive bids that do not require telephone calls or other communications to ascertain what a bidder is intending to supply.

Upon delivery, the apparatus shall be inspected against THESE specifications and not those supplied by the bidder with their proposal. Deviations shall not be acceptable unless they were noted as exceptions at the time of bid and the apparatus shall be rejected until said deviations are corrected to the satisfaction of the buyer.

Decisions regarding equal to or better than, shall be the sole responsibility of the recipient of the bids rather than those companies submitting bids. All deviations, regardless of significance must be explained in the "EXCEPTIONS TO SPECIFICATIONS" section of the bid.

When exceptions are not taken but inconsistencies are noted in the submitted detailed specifications, the bid may be subject to rejection.

ROADABILITY

The apparatus, when fully equipped and loaded, shall be capable of the following performance while on dry paved roads that are in good condition:

- From a standing start, the apparatus shall be able to attain a speed of 35 mph (55 kmph) within 25 seconds on a level road.
- The apparatus shall be able to attain a minimum top speed of 50 mph (80 kmph) on a level road.
- The apparatus shall be able to maintain a speed of at least 20 mph (30 kmph) on any grade up to and including 6 percent.

The maximum top speed of the apparatus shall not exceed the tire manufacturer's maximum speed rating for the tires installed on the apparatus.

FAILURE TO MEET TESTS

In the event the apparatus fails to meet the test requirements of these specifications on the first trials, second trials may be made at the option of the bidder within 30 days of the date of the first trials.

Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection. Failure to comply with changes as required to conform to any clause of the specifications within 30 days after notice is given to the bidder of such changes, shall be cause for rejection of the apparatus.

Smeal Fire Apparatus Co.

Permission to keep or store the apparatus in any building owned or occupied by the Department during the specified period, with the permission of the bidder, shall not constitute acceptance. No Exceptions

PROPOSAL SEQUENCE

Bid specifications shall be submitted in the same sequence as these specifications for ease of checking compliance. There shall be no exceptions allowed to this requirement. The apparatus committee intends to be thorough during the evaluation of bids process. In order to maximize efficiency and minimize the time it takes to thoroughly evaluate all received bids this requirement must be strictly adhered to.

AWARD OF CONTRACT

All bids submitted shall be good for a minimum of 30 days during which time bid securities submitted with the proposals shall be held by the purchaser. Criteria for the award shall include, but not be limited to, the following:

- Apparatus Performance And Safety Levels / Considerations
- Completeness of proposal
- Accuracy of accompanying data
- Past performance of bidder
- Compliance with the detailed specifications
- Compliance with purchasers request(s) for personnel qualifications or certifications
- Exceptions and clarifications
- Financial stability of bidder
- Local representation of the manufacturer
- Serviceability of the proposed apparatus
- Service capabilities of the bidder's local representative
- Compliance with NFPA 1901
- Any other factor the purchaser deems relevant

After the evaluation and award process is complete, all bidders shall be notified of the results and securities shall be returned.

OVERALL HEIGHT

The actual overall height of the vehicle shall be approximately 116" from the ground. This measurement shall be taken with the tires properly inflated with the apparatus in the unloaded condition. The actual measurement shall be taken at the highest point of the apparatus.

OVERALL LENGTH

The actual overall length of the vehicle shall be approximately 353".

WHEELBASE

Smeal Fire Apparatus Co.

The actual wheelbase of the vehicle shall be approximately 181".

ANGLE OF APPROACH

The actual angle of approach of the vehicle shall be approximately 14 degrees.

ANGLE OF A DEPARTURE

The actual angle of departure of the vehicle shall be approximately 19 degrees.

VEHICLE TOP SPEED

The apparatus Gross Vehicle Weight Rating (GVWR) is over 26,000 lbs. The vehicle's top speed shall be 68 mph.

MISCELLANEOUS EQUIPMENT ALLOWANCE

The Gross Axle Weight Rating (GAWR) and the Gross Combined Weight Rating (GCWR) or Gross Vehicle Weight Rating (GVWR) of the chassis shall be adequate to carry the weight of the unequipped apparatus with the water tank and other tanks full, specified hose load, unequipped personnel weight, ground ladders, and miscellaneous equipment allowance of 2,000 pounds.

MISCELLANEOUS EQUIPMENT

Miscellaneous equipment, as defined by NFPA 1901, sections 5.8.2 and 5.8.3, shall be the responsibility of the customer. The apparatus shall be designed and manufactured in such a manner as to provide ample enclosed space for which to store such equipment.

OWNER'S MANUAL

There shall be an owner's manual containing the construction, operation, and service documentation provided on a USB Drive. There shall be one (1) copy of the USB provided with the apparatus.

ELECTRICAL MANUAL

A complete electrical manual for the apparatus shall also be provided on the USB Drive. This manual shall be specifically prepared for this individual unit rather than a generic schematic manual designed to accommodate all apparatus. The electrical manual shall also include electrical schematics, harness layouts, V-Mux specifications (including Node Input/output Spreadsheet and Node Relationship Spreadsheet), and Master Wire Listing. A contact letter shall also be provided by the electrical engineer, who built the manual, with instructions on using the manual and contact information for assistance with electrical manual questions.

ELECTRICAL SCHEMATICS

There shall be a section of the electrical manual that shall include schematics of the electrical system and components on the apparatus. These schematics shall be specifically prepared for this individual unit rather than a generic schematic designed to accommodate all apparatus.

PUMP PLUMBING SCHEMATICS (if applicable)

There shall be a section of the electrical manual that shall include a schematic of the pump plumbing. This schematic shall be specifically prepared for this individual unit rather than a generic schematic designed to accommodate all apparatus.

HYDRAULIC SCHEMATICS (if applicable)

Smeal Fire Apparatus Co.

There shall be a section of the electrical manual that shall include schematics of the hydraulic components on the apparatus including but not limited to:

- Ladder Rack(s) and Hose Bed Door(s) (if applicable)
- Aerial – Retraction/Extension (if applicable)
- Aerial – Rotation (if applicable)
- Tiller – HVAC Hydraulics System (if applicable)

PRE-CONSTRUCTION MEETING

There shall be a pre-construction meeting held at a location agreed upon between department officials and the dealership. The pre-construction meeting is the most important meeting during the after-sale production process. The purpose of this meeting is to finalize all aspects of the specifications, discuss and clarify all design details of the apparatus and to share or provide all information so all parties are in agreement on the apparatus being constructed. The ultimate goal of the pre-construction meeting is for the purchaser and dealer representative(s) to discuss and clarify all aspects of the proposed apparatus and to provide all necessary information to the apparatus manufacturer that shall ensure the apparatus is built to the satisfaction of all parties involved.

The apparatus manufacturer shall create and forward to the dealer a "Pre-construction" document containing the following items:

- Complete specifications of the apparatus including the chassis
- Detailed amp draw report
- Listing of clarifications or questions from the manufacturer that require attention (shelf locations, lettering details, etc.)
- A total of six (6) packets of 11" x 17" drawings, each packet complete with a single view drawing for each side of the apparatus shall be supplied
- All drawings shall be drawn and printed to an appropriate scale to maximize the size of the apparatus on each 11" x 17" sheet of paper.

During this pre-construction meeting, any changes or clarifications must be documented on a manufacturer issued change order. The change order shall be signed by the customer and dealership and ultimately by the apparatus manufacturer. The change order becomes an extension of the contract with the official signatures of all three parties. All change order items resulting from the pre-construction meeting shall be implemented into the official shop order document.

PRE-PAINT INSPECTION

There shall be an inspection of the apparatus at the pre-paint stage of production by the customer at the apparatus manufacturer's showroom. The customer shall be given the opportunity to visually inspect the chassis, pump panel, plumbing, and all other body options so that any discrepancies may be addressed prior to the painting process. A company representative shall be present at the inspection to answer all questions. Adequate notice shall be given to the dealer as to when the apparatus will be available for inspection.

FINAL INSPECTION

The customer and/or dealer representative will inspect the final apparatus prior to it leaving the apparatus body manufacturer's facility. This will allow any changes that may be required, to be done so in a timely and inexpensive

Smeal Fire Apparatus Co.

manner. After leaving the facility, all repairs or alterations will be performed by either the Dealer or an OEM approved service center.

INSPECTION CERTIFICATE - NFPA 1901 COMPLIANCE

A third party inspection certificate for the apparatus shall be furnished upon delivery. The purpose of this NFPA 1901 compliance inspection shall be to serve as proof to the customer that all applicable standards have been met or exceeded by the responsible manufacturer.

The following objectives shall be achieved as a result (this listing shall not be construed as being all inclusive):

- Ensure that understanding of all parties respective responsibilities have been addressed by the actual referencing of NFPA 1901 and the amendments in these specifications and the purchase contract and documentation.
- Ensure that only structural materials complying with appropriate standards and codes are used for construction.
- Ensure that applicable standards of design and manufacturing have been met or exceeded.
- Ensure that safety factors have been met or exceeded where required.
- Ensure that applicable standards for testing and inspection have been met or exceeded by personnel with the appropriate qualifications, experience, and certifications.
- Ensure that where applicable components, equipment, and loose equipment carry the appropriate characteristics, classifications, and/or certifications.
- Ensure that in general and as a whole, all applicable requirements set forth in NFPA 1901, and those codes, standards, and specifications referenced by said parties are met, exceeded, and/or addressed.

INDEPENDENT THIRD PARTY PUMP CERTIFICATION

The fire pump shall be tested and certified by Underwriter's Laboratories, a nationally recognized independent third party testing company. Tests shall be conducted so that the pump performs as listed below:

- 100% of rated capacity at 150 pounds net pressure
- 70% of rated capacity at 200 pounds net pressure
- 50% of rated capacity at 250 pounds net pressure
- 100% of rated capacity at 165 pounds net pressure

The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance spots as outlined by NFPA 1901. The pump shall be free from objectionable pulsation and vibration.

PUMP CERTIFICATION

The pump shall be certified in U.S. gallons per minute (GPM).

FOAM PROPORTIONING SYSTEM TESTING

The foam proportioning system shall be tested and certified after final installation as per NFPA 1901.

12 VOLT SYSTEMS TEST

Smeal Fire Apparatus Co.

After completion of the unit, the 12 volt electrical system shall undergo a battery of tests as listed in NFPA 1901. These tests shall include, but not be limited to:

- Reserve capacity test
- Alternator performance test at idle
- Alternator performance test at full load
- Low voltage alarm test

Certification of the results shall be supplied with the apparatus at the time of delivery.

TILT TABLE TESTING

The apparatus shall be tested to verify the stability to 26.5 degrees in both directions. The apparatus shall be tested while loaded with fuel, fire fighting agents, hose, ladders, weight of 250 lbs. per seat, and also weight that is equivalent to the miscellaneous equipment that shall be carried. The weight added to the apparatus for testing purposes shall be distributed approximately to the in-service use, yet not to exceed the manufacturer's compartment ratings.

VEHICLE STABILITY

The apparatus shall comply with the requirements of NFPA 1901 as it applies to vehicle stability. The particular apparatus as described in the specification provided within the bid package shall be classified into one of the following categories:

- The apparatus shall go through actual tilt table testing. This shall be determined by the apparatus manufacturer.
- The apparatus shall be equipped with a rollover stability control system as defined in section 4.13.1.2 of NFPA 1901.
- The apparatus shall be deemed a similar apparatus and meeting the intent of section 4.13.1.1.2 of NFPA 1901.

TEN (10) YEAR WARRANTY BODY STRUCTURAL INTEGRITY

The body shall be free of structural or design failure or workmanship for a period of ten (10) years or 100,000 miles starting thirty (30) days after the original invoice date.

THREE (3) YEAR PAINT LIMITED WARRANTY

The apparatus body and pump house shall be free of blistering, peeling and any other adhesion defect caused by defective manufacturing methods or paint material selection for exterior surfaces for a prorated period of three (3) years starting thirty (30) days after the original invoice date.

Paint on the undercarriage, body interior (Line-X® coating included) or aerial structure related paint, if applicable, is covered only under the Standard One (1) Year Limited Warranty.

TEN (10) YEAR CORROSION LIMITED WARRANTY

The body exterior paint shall be warranted against corrosion perforation for a prorated period of ten (10) years starting thirty (30) days after the original invoice date.

TEN (10) YEAR STAINLESS STEEL PLUMBING LIMITED WARRANTY

Smeal Fire Apparatus Co.

The stainless steel plumbing and piping shall be free from corrosion perforation for a period of ten (10) years starting thirty (30) days after the original invoice date.

PUMP WARRANTY

The fire pump shall be warranted by Hale Products Inc. for a period of five (5) years from the date the product is first placed into service or five and one-half (5-1/2) years from the shipment date by Hale, whichever period shall be first to expire. The warranty shall cover parts and labor for the first two (2) years. The remaining three (3) years of the warranty shall cover parts only.

WATER TANK WARRANTY

The tank shall be complete with a lifetime warranty. The tank manufacturer shall mark the tank and furnish notice that indicates proof of warranty.

TWENTY (20) YEAR GALVANIZED SUBFRAME WARRANTY

The galvanized subframe shall be free of structural or design failure or workmanship for a period of twenty (20) years starting thirty (30) days after the original invoice date.

ONE (1) YEAR BASIC LIMITED PARTS & LABOR WARRANTY - OEM FABRICATED PARTS

OEM fabricated parts shall be free of defects in material and workmanship for a period of one (1) year starting thirty (30) days after the original invoice date.

SPARTAN GLADIATOR CHASSIS

The chassis shall be a Spartan Gladiator.

CHASSIS SUPPLIED AND INSTALLED APS

The cab shall have chassis supplied and installed Spartan APS.

MUD FLAPS

In addition to the chassis supplied front mud flaps, there shall be two (2) mud flaps provided rearward of the rear axles on the apparatus. The mud flaps shall be a minimum of 3/8" thick to prevent "sailing."

BATTERY CHARGER

A Pro Charging System Professional Series model PS2, two bank battery charger shall be installed and wired to the shoreline receptacle and the chassis batteries. The battery charger shall be a 120 volt, 30 amp (15 amps per bank), automatic battery charger. The charger shall be a fully automatic waterproof system. Each bank of the charging system shall be capable of producing a charge to bring the batteries back to full charge. The unit shall turn off when the battery is at full charge and turn on automatically if the battery voltage drops. There shall be a charge indicator display provided on the charger. The unit shall have as standard a three year warranty.

CHASSIS SUPPLIED EJECT

The charger eject shall be supplied and installed by the chassis manufacturer.

REMOTE CHARGE INDICATOR

Smeal Fire Apparatus Co.

A Dual Pro Power Remote Charge Indicator shall be provided in a remote location to show what the status of the charge on the batteries.

CHASSIS SUPPLIED SWITCH PANEL

The switch panel shall be supplied and installed by the chassis manufacturer.

HAZARD AND DOOR OPEN WARNING CIRCUIT

There shall be a hazard and "open door" warning circuits tied to a Whelen TIR3™ warning light in the chassis to alert the driver of an unsafe condition for moving the apparatus. The light shall be red and shall be illuminated automatically when the parking brake is not fully engaged and any of the following conditions exist:

- Any equipment compartment door that is not closed (excluding compartments with 4 ft³ (0.1 m³) or less of volume; or have an opening of 144 in2 (92,000 mm2) or less; or doors that do extend sideways beyond the mirrors or up above the top of the fire apparatus).
- Any ladder or equipment rack that is not in the stowed position.
- Any device or component that is permanently attached to the apparatus that is open, extended, or deployed in a manner that is likely to cause damage to the apparatus that has been specified as being tied to the hazard warning circuit.

There shall be a warning placard near the warning light that reads "DO NOT Move Apparatus When Light Is On."

SMALL MAP CONSOLE

There shall be a small map console installed in the chassis cab. The console shall be 6" tall, 13" wide and 10" deep. The console shall hold three (3) binders up to 1-1/2" thick. The map console shall be constructed of aluminum and shall have an abraded finish. The map console shall be mounted between the driver and officer seats.

The component shall have an abraded finish.

FRONT BUMPER OVERLAY

There shall be an aluminum anti-slip tread plate overlay installed on the top surface of the front bumper.

CENTER FRONT BUMPER STORAGE WELL

There shall be a storage well in the center of the extended front bumper. The storage well shall be located between the chassis frame rails. The floor shall be covered with Dri-Dek.

Shop Note: Capacity of 100' of 1-3/4" hose.

STORAGE WELL COVER WITH NOTCH

There shall be an aluminum tread plate cover installed on the storage well. The cover shall be notched to allow for the stored hose to be pre-connected.

Shop Note: The hose well shall be big enough to store 15-18' of 4" nylon hose and coupling.

Smeal Fire Apparatus Co.

STORAGE WELL STRAPS

There shall be two (2) Pac Trac model 1008 straps provided with the storage well. The straps shall be installed over the top of the compartment to retain the hose.

INSTALL CHASSIS SUPPLIED AIRHORNS

The chassis supplied air horns shall be installed by the apparatus manufacturer.

The two (2) components shall be recess mounted in the front bumper, one (1) in the left center and one (1) in the right center.

The air horn shall be controlled by the chassis steering wheel button.

FEDERAL EQ2B ELECTRONIC SIREN

There shall be one (1) Federal EQ2B electronic siren installed on the apparatus. The EQ2B shall combine Digital Signal Processor (DSP) technology with a true 200 watts of speaker output to reproduce genuinely and accurately the distinctive sound of the Q-siren at a fraction of the current draw.

In addition to the recognizable "Q" sound, the EQ2B shall provide all of the functionality of an electronic siren. Additional features shall include a "Q" yelp, "Q" brake, digitally recorded air horn, PA, radio rebroadcast, and a detachable push-to-talk microphone with volume control.

The component shall be mounted in the chassis cab dash board.

FEDERAL SIGNAL SPEAKER

There shall be one (1) Federal Signal model BP200-EF, speaker provided. The compact 200 watt speaker shall feature a neodymium driver for increased service life. The grille of the speaker shall be stainless steel with an Electric F in the center.

The component shall be recess mounted in the center of the front bumper.

MIDSHIP MOUNTED FIRE PUMP

The fire pump shall be a Hale model Qmax 1500 midship mounted unit, rated at 1500 U.S. GPM (5678 LPM).

PUMP GEARBOX

The pump shall have a Hale G series gearbox. The G series gearbox shall be assembled and tested at the pump manufacturer factory. Pump gearbox shall be of sufficient size to withstand up to 16,000 ft. lbs. of torque in road operating conditions. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature. The gearbox drive shafts shall be of heat-treated chrome nickel steel and at least 2-3/4 inches in diameter, on both the input and output drive shafts. They shall withstand the full torque of the engine. All pump drive gears shall be of highest quality electric furnace chrome nickel steel. Bores shall be ground to size and teeth integrated, shaved, hardened and ground to give an extremely accurate gear for long life, smooth quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust. The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected. Oil shall be supplied with the pump gearbox.

SINGLE STAGE FIRE PUMP

Smeal Fire Apparatus Co.

The pump shall be a single stage centrifugal class "A" rated fire pump, designed specifically for the fire service.

The pump shall be rated at 1500 gallons per minute.

PUMP BODY

The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI. All moving parts in contact with water shall be of high quality bronze or stainless steel. Pumps utilizing castings made of lower tensile strength cast iron are not acceptable.

The pump body shall be split, on a single plane in two sections for easy removal of the entire impeller assembly, including wear rings and bearings from beneath the pump, without disturbing piping or the mounting of the pump.

FIRE PUMP MOUNTING

The fire pump shall be mounted within a separate body module that is not directly connected to the apparatus body.

The pump shall be frame mounted; therefore minimizing the likelihood of the pump casing cracking should the apparatus be involved in a collision.

The pump module shall be mounted to the frame in four (4) locations and shall be reinforced appropriately in order to carry the expected load for the life of the apparatus.

PUMP PRIMED BLACK BY PUMP MANUFACTURER

The pump shall be primed black by the pump manufacturer.

ALLOY ANODES

There shall be four (4) Hale alloy anodes provided with the fire pump. The anodes shall aid in preventing galvanic corrosion within the water pump and be easily replaceable. The anodes shall be installed as follows:

- Two (2) in the suction manifold of the fire pump.
- Two (2) in the discharge manifold of the fire pump.

IMPELLER

The pump shall have one (1) double suction impeller. The pump body shall have two (2) opposed discharge volute cutwaters to eliminate radial unbalance.

The pump shaft shall be rigidly supported by three bearings for minimum deflection. One high lead bronze sleeve bearing shall be located immediately adjacent to the impeller. The sleeve bearing shall be lubricated by a force-fed, automatic oil lubricated design, pressure balanced to exclude foreign material. The remaining bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.

MECHANICAL SEAL

The pump shall be equipped with a mechanical seal. Only one (1) shall be required and it shall be located on the suction (inboard) side of the pump. The mechanical seal shall be two (2) inches in diameter and shall be spring loaded, maintenance free and self-adjusting. Mechanical seal construction shall consist of a carbon sealing ring, stainless steel coil spring, Viton® rubber cup, and a carbide seat with Teflon® backup seal.

Smeal Fire Apparatus Co.

AIR OPERATED PUMP SHIFT

The pump shift actuating mechanism shall be air operated from a valve in the cab identified as "PUMP SHIFT". Full instructions for shifting the pump shall be inscribed on the valve plate.

There shall be two (2) green pump system shift indicator lights in the chassis cab. The first light shall become energized when the pump has completed its shift into pump gear and shall be labeled "Pump Engaged". The second light shall become energized when the chassis parking brake has been set and when the pump and the chassis transmissions have been shifted completely into the correct gears for pumping, this light shall be labeled "OK to Pump".

There shall be one (1) green pump system shift indicator light located on the operator's panel. This light shall only become engaged when the chassis parking brake has been set and when the pump and the chassis transmissions have been completely shifted into the correct gears. The light shall be located adjacent to the throttle control and shall be labeled "Warning: Do Not Open Throttle Unless Light Is On".

TRIDENT PRIMING PUMP

The priming pump shall be a Trident Emergency Products, model 31.001.7 three barrel, compressed air powered, high efficiency, multi-stage, venturi based AirPrime™ System. All wetted metallic parts of the priming system are to be of brass and stainless steel construction. There shall be a pressure protection valve installed with the priming pump. A single panel mounted control shall activate the priming pump and open the priming valve to the pump.

PRESSURE GOVERNOR

There shall be a Fire Research Pump Boss 400 pressure governor and monitoring display kit installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control module case shall be waterproof and have dimensions not to exceed 6 3/4" high by 4 5/8" wide by 1 1/2" deep. The control knob shall be 2" in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 1 3/4" from the front of the control module. Inputs for monitored information shall be from a J1939 data bus or independent sensors. Outputs for engine control shall be on the J1939 data bus or engine specific wiring. Inputs to the control module from the pump discharge and intake pressure sensors shall be electrical.

The following continuous displays shall be provided:

- Engine RPM; shown with four daylight bright LED digits more than 1/2" high
- Check engine and stop engine warning LEDs
- Oil pressure; shown on a dual color (green/red) LED bar graph display
- Engine coolant temperature; shown on a dual color (green/red) LED bar graph display
- Transmission Temperature: shown on a dual color (green/red) LED bar graph display
- Battery voltage; shown on a dual color (green/red) LED bar graph display
- Pressure and RPM operating mode LEDs
- Pressure / RPM setting; shown on a dot matrix message display
- Throttle ready LED

Smeal Fire Apparatus Co.

The dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. All LED intensity shall be automatically adjusted for day and night time operation.

The program shall store the accumulated operating hours for the pump and engine to be displayed with the push of a button. The kit shall monitor inputs and support audible and visual warning alarms for the following conditions:

- High Battery Voltage
- Low Battery Voltage (Engine Off)
- Low Battery Voltage (Engine Running)
- High Transmission Temperature
- Low Engine Oil Pressure
- High Engine Coolant Temperature
- Out of Water (visual alarm only)
- No Engine Response (visual alarm only)

The program features shall be accessed via push buttons located on the front of the control module. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.

The governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A throttle ready LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor and monitoring pressure display shall be programmed to interface with a specific engine.

INTAKE RELIEF VALVE

There shall be an Elkhart Brass intake relief valve installed on the suction side of the pump. The valve shall be the preset type, adjustable from 75 to 250 PSI, and shall be designed to prevent vibration from altering the setting. The relief outlet shall be directed below the pump with the discharge terminating in a 2-1/2" male NST connection. The discharge shall be away from the pump operator and labeled "Do Not Cap".

MASTER DRAIN VALVE

A Trident manifold drain valve assembly shall be supplied. This drain shall provide the capability to drain the entire pump by turning a single control. The valve assembly shall consist of a stainless steel plate and shaft in a bronze body with multiple ports. The drain valve control shall be mounted on the left side pump panel and labeled "Master Drain".

THERMAL RELIEF VALVE WITH INDICATOR LIGHT AND BUZZER

Smeal Fire Apparatus Co.

There shall be a thermal relief valve, model TRV-L120, installed on the pump. The relief valve shall automatically relieve water from the pump when the temperature of the pump water exceeds 120° Fahrenheit. The valve shall automatically reset after activation.

A light and buzzer installed on the pump operator's panel shall indicate when the valve has been activated so the pump operator may take corrective action. A "push to test" button shall be installed beneath the indicator lamp to allow the pump operator to test the lamp.

PUMP AND ENGINE COOLING SYSTEM

There shall be a pump and engine cooling system provided on the apparatus. The cooling system shall keep the engine cool when running for long periods of time and the pump cool during long periods of pumping when water is not being discharged. The cooling system shall also be setup in a way that the cooling system lines can be easily drained through the master pump drain.

The cooling system lines shall consist of high-pressure, high-temperature 3/8" (inside diameter) abraded rubber hose. The engine cooling lines shall be installed with one (1) line going from the discharge side of the water pump through a Class 1, model 38BV, quarter turn ball valve and continuing on to the chassis heat exchanger. The return line from the heat exchanger shall then run into the suction side of the pump. The pump cooling lines shall be installed with one (1) line going from the discharge side of the water pump through a Class 1, model 38BV, quarter-turn ball valve up to the water tank. At the water tank, the pump cooling line shall be plumbed into a 3/8" check valve on the "Tank Fill" valve. The check valve shall prevent tank water from back flowing into the pump when the cooling system is not in use. A return line from the water tank shall be plumbed into the water pump.

The engine cooling system valve shall be controlled on the operators panel, and shall be clearly labeled, "Engine Cooler".

The pump cooling system valve shall be controlled on operators panel, and shall be clearly labeled, "Pump Cooler".

PUMP MANUALS

There shall be two (2) Pump Operation and Maintenance manuals provided in CD format with the apparatus.

FOAM SYSTEM

There shall be a FoamPro 2002 single foam system installed on the apparatus. The system shall be an electronic, fully automatic, variable speed, direct injection, and discharge side foam proportioning system. The system shall be capable of handling Class A foam concentrates and most Class B foam concentrates. The foam proportioning operation shall be based on direct measurement of water flows, and remain consistent within the specified flows and pressures. The system shall be equipped with a digital electronic control display, suitable for installation on the pump panel. Incorporated within the control display shall be a microprocessor that receives input from the system flow meter, while also monitoring foam concentrate pump output, comparing values to ensure that the operator preset proportional amount of foam concentrate is injected into the discharge side of the fire pump.

A paddlewheel type flow meter shall be installed in a manifold for the specified foam capable discharges.

The digital computer control display shall enable the pump operator to perform the following control and operation functions for the foam proportioning system:

- Provide push-button control of foam proportioning rates from 0.1% to 9.9% in 0.1% increments.
- Show current gallon-per-minute water flow rate.

Smeal Fire Apparatus Co.

- Show total gallons of water discharged, during and after foam operations are completed.
- Show total gallons of foam concentrate consumed.
- Simulate flow rates for manual operation.
- Perform set-up and diagnostic functions for the computer control microprocessor.
- Flash a "low concentrate" warning when the foam concentrate tank(s) run(s) low.
- Flash a "no concentrate" warning and shut the foam concentrate pump off, preventing damage to the pump, should the foam tank(s) empty.

A 12 volt electric motor driven positive displacement foam concentrate pump, rated up to 5 GPM (18.9 L/min), with operating pressures up to 400 PSI (27.6 BAR), shall be installed in a suitable compartment near the apparatus pump house. A pump motor electronic driver (mounted to the base of the pump) shall receive signals from the computer control display, and power the 3/4 horsepower electric motor directly coupled to the concentrate pump in a variable speed duty cycle to ensure that the correct proportion of concentrate preset by the pump operator is injected into the water stream.

System capacity shall be as follows:

Foam Concentrate Maximum Water Flow GPM (L/Min) 0.2% 2500 (9464) 0.5% 1000 (3785) 1.0% 500 (1893) 3.0% 166 (628)

A full flow check valve shall be provided to prevent foam contamination of fire pump and water tank or water contamination of foam tank.

Components of the complete proportioning system as described above shall include:

- Operator control and display
- One (1) Paddlewheel flow meter
- Pump and electric motor/motor driven
- Wiring harnesses
- Foam injection check valve
- One (1) low-level foam tank switch

An installation and operation manual shall be provided for the unit, along with a one (1) year limited warranty. A system-schematic placard and a system-rating placard shall be supplied and installed in accordance with NFPA standards.

Class "A" foam shall be utilized.

A single foam flush system shall be installed to provide a clean water flush of the foam concentrate pump preventing foam concentrates from mixing and possible jelling. Clean water from the booster tank shall be plumbed to a 1/4 turn valve located on the pump panel. The valve shall be capable of operating pressures to 500 psi.

CUSTOM PLUMBING MANIFOLD

The plumbing manifold shall be a custom design that includes the inlet side manifold and the discharge side manifold. Galvanized Victaulic couplings shall be used wherever possible for ease of maintenance and superior corrosion protection.

Smeal Fire Apparatus Co.

The inlet side of the plumbing manifold shall utilize schedule 10, 304 grade stainless steel tubing and preformed elbows for inlets that are larger than 3". Side auxiliary inlets that are 3" or smaller shall utilize schedule 40, 304 grade stainless steel threaded tubing and preformed elbows. The inlet manifold shall thread into the pump auxiliary inlet ports and each inlet valve shall thread onto the inlet manifold.

The discharge side of the plumbing manifold shall utilize schedule 40, 304 grade stainless steel tubing and preformed elbows to ensure the quality of the manifold where welds are required. The discharge manifold shall connect to the pump discharge ports using 1/2" stainless steel flanges that shall be machined to seat an O-ring to ensure a leak proof seal. Each discharge shall derive from a port on the manifold assembly connected to a discharge valve with 1/2" 304 grade stainless steel flanges. Discharges that terminate in a location other than the pump module (i.e. rear discharges) that do not require welding shall utilize a combination of high pressure flex hose and schedule 10, 304 grade stainless steel tubing to allow flexibility between the body and the pump module.

3" TANK-TO-PUMP

There shall be a 3" tank-to-pump plumbed with a Class 1 flexible hose from the tank to the suction side of the pump.

An Akron Brass model 8830 3" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall also include a necessary B3-SH pump flange adapter, which shall be specifically used for the tank-to-pump line to properly adjust the plumbing based on the pitch of the pump. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a check valve between the pump suction and the booster tank valve. The check valve shall eliminate back flow into the water tank when the pump is connected to a pressurized source.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a black color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

2" TANK FILL

There shall be a 2" tank fill plumbed from the pump to the tank. Installation shall be completed with 2" Class 1 rubber hose and stainless steel hose couplings.

An Akron Brass model 8820 2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

Smeal Fire Apparatus Co.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a black color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

6" LEFT SIDE STEAMER INLET

There shall be a 6" steamer inlet located on the left side of the pump module. The suction fittings shall include a removable die-cast screen to provide cathodic protection for the pump thus reducing corrosion.

A short steamer barrel shall be installed to accommodate an intake valve without exceeding the legal overall body width.

The intake shall terminate MNST thread.

There shall be one (1) South Park model LHC26P14AC, 6" NST long handle steamer cap provided. The cap shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a chrome color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

6" RIGHT SIDE STEAMER INLET

There shall be a 6" steamer inlet located on the right side of the pump module. The suction fittings shall include a removable die-cast screen to provide cathodic protection for the pump thus reducing corrosion.

A short steamer barrel shall be installed to accommodate an intake valve without exceeding the legal overall body width.

The intake shall terminate MNST thread.

There shall be one (1) South Park model LHC26P14AC, 6" NST long handle steamer cap provided. The cap shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a chrome color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

5" FRONT STEAMER INLET

There shall be a 5" steamer inlet, with 5" plumbing, located on the right front of the apparatus. The suction fittings shall include a removable die-cast screen to provide cathodic protection for the pump thus reducing corrosion.

The front steamer shall be a horizontal design terminating out the front face of the bumper.

There shall be a Hale model MIV-E butterfly valve provided. The valve shall be a 6" full flow type valve with a suction tube attached terminating in 6" NST thread. The valve shall be operated by a 12V DC electric motor with remote capabilities. A

Smeal Fire Apparatus Co.

panel placard shall be provided with the valve for indicating control operations. The placard shall have status lights to indicate whether the valve is opening, closing, or traversing from one position to another. A manual override shall be provided to permit operation of the electric control valve in the event of abnormal operating conditions. The manual override shall be designed to permit operation of the valve without the use of special tools or disassembly of the pump panel or valve.

There shall be a Hale air bleeder valve provided on the steamer inlet. The valve shall be used to bleed off air as per NFPA requirements.

INTAKE RELIEF VALVE

There shall be a intake relief valve included with the Hale valve. The relief valve shall be factory set to 125 PSI and is field adjustable from 75 to 250 PSI.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

The intake shall terminate MNST thread.

FRONT HORIZONTAL STEAMER INTAKE ADAPTER

There shall be one (1) South Park model IL35S30AC, 5" female NPT x 5" male NST adapter installed on the inlet. The adapter shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be one (1) Kochek model CB504-1, 5" NH vented rocker lug cap with chain provided. The cap shall have a chrome finish.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a chrome color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

2-1/2" LEFT SIDE INLET

There shall be a 2-1/2" gated inlet, with 2-1/2" plumbing, provided on the left side of the pump module. The inlet shall be located towards the rear of the pump module and shall be partially recessed behind the panel in order to keep the valve protected from the elements.

An Akron Brass model 8825 2-1/2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model TSC manual actuator installed directly on the valve. The handle shall allow the valve to be controlled directly at the valve.

Smeal Fire Apparatus Co.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

The intake shall terminate FNST thread.

There shall be one (1) South Park model HPC3008AC, 2 1/2" NST plug with chain provided. The plug shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a black color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

2-1/2" RIGHT SIDE INLET

There shall be 2-1/2" gated inlet, with 2-1/2" plumbing, provided on the right side of the pump module. The inlet shall be located towards the rear of the pump module and shall be partially recessed behind the panel in order to keep the valve protected from the elements.

An Akron Brass model 8825 2-1/2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model TSC manual actuator installed directly on the valve. The handle shall allow the valve to be controlled directly at the valve.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

The intake shall terminate FNST thread.

There shall be one (1) South Park model HPC3008AC, 2 1/2" NST plug with chain provided. The plug shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a black color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

2-1/2" LEFT SIDE DISCHARGE

Smeal Fire Apparatus Co.

There shall be a 2-1/2" discharge, with 2-1/2" plumbing, located on the left side of the pump module.

An Akron Brass model 8625 2-1/2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass rack and sector actuator installed on the valve.

The rack and sector actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

The discharge shall terminate MNST thread.

There shall be one (1) South Park model SE394505AC, 2-1/2" Female NST swivel rocker lug x 2-1/2" Male NST 45° elbow adapter provided. The adapter shall be manufactured from high quality brass and the swivel shall be attached using ball bearings. The adapter shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be one (1) South Park model HCC2808AC, 2-1/2" NST vented rocker lug cap with chain provided. The cap shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a red color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

2-1/2" LEFT SIDE DISCHARGE

There shall be a 2-1/2" discharge, with 2-1/2" plumbing, located on the left side of the pump module.

An Akron Brass model 8625 2-1/2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

Smeal Fire Apparatus Co.

The valve shall be actuated by an Akron Brass rack and sector actuator installed on the valve.

The rack and sector actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

The discharge shall terminate MNST thread.

There shall be one (1) South Park model SE394505AC, 2-1/2" Female NST swivel rocker lug x 2-1/2" Male NST 45° elbow adapter provided. The adapter shall be manufactured from high quality brass and the swivel shall be attached using ball bearings. The adapter shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be one (1) South Park model HCC2808AC, 2-1/2" NST vented rocker lug cap with chain provided. The cap shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a blue color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

2-1/2" RIGHT SIDE DISCHARGE

There shall be a 2-1/2" discharge, with 2-1/2" plumbing, located on the right side of the pump module.

An Akron Brass model 8825 2-1/2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be

Smeal Fire Apparatus Co.

connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

The discharge shall terminate MNST thread.

There shall be one (1) South Park model SE394505AC, 2-1/2" Female NST swivel rocker lug x 2-1/2" Male NST 45° elbow adapter provided. The adapter shall be manufactured from high quality brass and the swivel shall be attached using ball bearings. The adapter shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be one (1) South Park model HCC2808AC, 2-1/2" NST vented rocker lug cap with chain provided. The cap shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a orange color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

4" RIGHT SIDE DISCHARGE

There shall be a 4" large diameter discharge, with 4" plumbing, located on the right side of the pump module.

An Akron Brass model 8830 3" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

The valve actuator shall be controlled by an Elkhart Brass model RC-10 handwheel valve controller. The 5" cast aluminum handwheel shall be connected to the remote mounted valve. The actuator housing and push-rod shall be constructed of light weight extruded aluminum. A precision needle thrust bearing and hardened thrust washers shall assure smooth, efficient operation and accurate flow and pressure control capability. Opening and closing speed shall comply with the current NFPA standard to minimize effects of water hammer.

A valve position indicator shall show the position of the ball valve as per NFPA 1901. The valve position indicator shall provide the pump operator with the status of the valve at a glance. Red shall mean fully closed; Green shall mean fully opened; Yellow shall indicate a gated position. LED lamps shall provide a reliable signal with a wide viewing angle even in bright sun light. Reliable solid state valve position sensors shall be water and lubricant resistant. The integrated circuit board and lamp sockets shall be completely encased in epoxy for total protection from the elements.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just

Smeal Fire Apparatus Co.

above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

The discharge shall terminate MNST thread.

There shall be one (1) South Park model SE393040AC, 4" Female NST swivel rocker lug x 4" Male NST 30° elbow adapter provided. The adapter shall be manufactured from high quality brass and the swivel shall be attached using ball bearings. The adapter shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be one (1) South Park model HCC2814AC, 4" NST vented rocker lug cap with chain provided. The cap shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a dark green color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

1-1/2" FRONT BUMPER DISCHARGE

There shall be a 1-1/2" discharge located inside the center hosewell of the front bumper. The discharge shall be plumbed with 2" plumbing and high pressure flex hose with stainless steel couplings.

The discharge shall have Class1 model 34AD automatic drains installed in the low routed areas below the 1/4 turn manual drain. The automatic drains shall open whenever pressure in the line drops below 6 psi.

The discharge shall be foam capable.

An Akron Brass model 8820 2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

Smeal Fire Apparatus Co.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

The discharge shall terminate MNST thread.

The discharge shall be designated as a pre-connect and no cap and chain shall be supplied.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a black color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

1-1/2" CROSSLAY PRE-CONNECT

There shall be a 1-1/2" crosslay pre-connect with 2" plumbing.

The discharge shall be foam capable.

An Akron Brass model 8820 2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

The discharge shall terminate MNST thread.

The discharge shall be designated as a pre-connect and no cap and chain shall be supplied.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a yellow color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

Smeal Fire Apparatus Co.

1-1/2" CROSSLAY PRE-CONNECT

There shall be a 1-1/2" crosslay pre-connect with 2" plumbing.

The discharge shall be foam capable.

An Akron Brass model 8820 2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

The discharge shall terminate MNST thread.

The discharge shall be designated as a pre-connect and no cap and chain shall be supplied.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a white color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

2-1/2" CROSSLAY PRE-CONNECT

There shall be a 2-1/2" crosslay pre-connect with 2-1/2" plumbing.

The discharge shall be foam capable.

An Akron Brass model 8825 2-1/2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

Smeal Fire Apparatus Co.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

The discharge shall terminate MNST thread.

The discharge shall be designated as a pre-connect and no cap and chain shall be supplied.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a gray color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

2-1/2" RIGHT REAR DISCHARGE

There shall be a 2-1/2" discharge, with 2-1/2" plumbing, located on the right rear of the apparatus.

The discharge shall be foam capable.

An Akron Brass model 8825 2-1/2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

Smeal Fire Apparatus Co.

The discharge shall terminate MNST thread.

There shall be one (1) South Park model HCC2808AC, 2-1/2" NST vented rocker lug cap with chain provided. The cap shall be manufactured from high quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a burnt orange color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

3" DELUGE RISER DISCHARGE

There shall be a 3" discharge for the deluge located above the pump module. The discharge shall be centered in the pump module.

An Akron Brass model 8930 3" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing Fusion CF™ composite ball with Hydromax™ technology. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass manual gear actuator installed on the valve. The gear actuator shall operate at a 50:1 gear ratio, which operates from fully open to fully closed in twelve (12) rotations.

The gear actuator shall be controlled by an Akron Brass 4" handwheel valve controller. The handwheel worm gear shall be connected to the remote mounted valve via a rod assembly. The handwheel shall turn a gear sector mounted on the valve for smoother and easier operations under pressure. A position indicator shall show the position of the ball valve as per NFPA 1901. Opening and closing speed shall comply with the current NFPA standard to minimize effects of water hammer.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

There shall be a Thuemling 2-1/2" water pressure gauge installed. The pressure gauge shall read pressure in PSI and be shall capable of reading 0-400 PSI. The gauge shall be fully filled with pulse and vibration dampening liquid to insure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with the gauge. The gauge shall utilize a red LED light for back lighting.

DECK GUN RISER PIPE

The riser for the deck gun shall terminate with a 3" Victaulic coupling.

TFT 18" MANUAL EXTEND-A-GUN - XG18VL-XL

A Task Force Tips manual Extend-A-Gun model XG18VL-XL shall be supplied. The Extend-A-Gun shall allow for a 18" extension of the waterway for the Crossfire monitor by lifting a quick release and raising or lowering the non-rotating pipe into a locked position. The extension shall have a 3" waterway, a hard coat anodized finish, and built in sensors for connection to the open door alarm.

Smeal Fire Apparatus Co.

TASK FORCE TIPS CROSSFIRE MONITOR

There shall be one (1) Task Force Tips Crossfire, model XFT-NJ, manual monitor with 3" NPT inlet provided on the apparatus. The waterway shall be 3-1/4", which shall allow for the delivery of up to 1250 gpm with low friction loss. Horizontal rotation is securely locked with a simple lever, and position can be visually confirmed. Seven (7) turns of the hand wheel shall change the discharge elbow from vertical to the stop elevation. The monitor shall include a highly visible pressure gauge and built-in automatic drain valve.

DECK GUN MANUFACTURER COLOR

The deck gun shall remain the same painted color that it was when it left the manufacturer.

There shall be one (1) Task Force Tips, model M-ERP1250-NN, automatic master stream electric nozzle 3-1/2" NH thread swivel base provided. The nozzle shall be equipped with an electric pattern control. The nozzle shall maintain a constant nozzle pressure regulated to 100 PSI, while being continuously variable from straight stream to wide fog. The nozzle shall include rubber bumper incorporate TFT "power fog" teeth for fully-filled, finger-free fog pattern. The nozzle shall be lightweight hard coat anodized aluminum for maximum resistance to corrosion and wear.

There shall be one (1) set of Task Force Tips, model YST-4NN, quad stacked tips with a built in stream shaper provided. The tips shall have a lightweight hard coat anodized finish. The tips shall have orifice openings of 2-3/4", 2-1/2", 2-1/4", and 2". The tips shall have a 3-1/2" NH swivel inlet coupling standard.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a magenta color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

BOOSTER REEL

There shall be one (1) Hannay model SBEF-26-25-26-12-RT polished aluminum electric rewind booster reel, with a capacity of 150' of 1" booster hose, installed on the apparatus. An automatic brake and an auxiliary manual gear-driven rewind crank shall be supplied.

The booster reel shall be mounted above the pump in the dunnage compartment.

An Akron Brass model 8815 1-1/2" Swing-Out™ valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass model R1 manual actuator installed on the valve.

The manual actuator shall be controlled by a Trident push/pull T-handle. The handle shall be chrome plated with a recessed ID label.

There shall be a Trident Emergency Products 3/4" quarter-turn drain valve included. There shall be a chrome plated rectangular handle provided on the drain valve to facilitate use with a gloved hand. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

Smeal Fire Apparatus Co.

The Hannay aluminum booster reel shall have a polished finish and shall not be painted.

There shall be three (3) sections of 50' x 1" of 800 lb. test booster hose coupled with 1" NST pyrolite couplings installed on the booster reel.

There shall be one (1) rubber covered push button switch installed for the rewind control of the booster reel. A switch shall be located on the left pump panel.

There shall be a two (2) piece permanent plate installed that includes a verbiage tag and a tan color coded bezel. The verbiage tag shall be etched on aluminum and have 3M-468 adhesive applied to the back for assembly into the bezel. The bezel shall be die cast aluminum construction and color coded on all visible surfaces with an automotive grade paint. 3M VHB adhesive shall be applied to the back.

WATER TANK

The apparatus shall be equipped with a United Plastic Fabricating 500 U.S. gallon T-type water tank. Certification of the tank capacity shall be recorded on the manufacturer's record of construction and shall be provided to the purchaser upon delivery of the apparatus. The UPF® water tank shall be constructed of 1/2" thick PT2E™ polypropylene sheet stock. This material shall be a non-corrosive stress relieved thermoplastic, black in color, and U.V. stabilized for maximum protection.

BOOSTER TANK

The booster tank shall be of a specific configuration and shall be so designed to be completely independent of the body and compartments. All joints and seams shall be nitrogen welded and tested for maximum strength and integrity. The top of the booster tank shall be fitted with removable lifting eyes designed with a 3 to 1 safety factor to facilitate easy removal.

TANK BAFFLES

The transverse swash partitions shall be manufactured of 3/8" PT2E™ polypropylene (natural in color) and extend from approximately 4" off the floor to just under the cover. The longitudinal swash partitions shall be constructed of 3/8" PT2E polypropylene (natural in color) and extend to the floor of the tank through the cover to allow for positive welding and maximum integrity. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All swash partitions shall interlock with one another and be welded to each other as well as to the walls of the tank.

TANK SUMP

There shall be one (1) sump in the bottom of the water tank. The sump shall be constructed of 1/2" polypropylene and shall be located in the left front quarter of the tank. On all tanks that require a front suction, a 4" schedule 40 polypropylene pipe shall be installed that will incorporate a dip tube from the front of the tank to the sump location. The sump shall be used as a combination clean-out and drain. All tanks shall have an anti-swirl plate located approximately 2" above the sump to pre-vent air from being entrained in the water while pumping.

TANK FILL CONNECTION

All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank, and shall be capable of withstanding sustained fill rates of up to 1,000 GPM.

TANK LID

The tank lid shall be constructed of 1/2" thick PT2E™ polypropylene to incorporate a multi three-piece locking design that allows for individual removal and inspection if necessary. The tank lid shall be recessed 3/8" from the top of the tank and

Smeal Fire Apparatus Co.

shall be welded to both sides and longitudinal partitions for maximum integrity. Each one of the lids shall have hold downs consisting of 2" polypropylene dowels spaced a maximum of 30" apart. These dowels shall extend through the covers and shall assist in keeping the covers rigid under fast filling conditions. A minimum of two lifting dowels shall be drilled and tapped 1/2" x 13" to accommodate the lifting eyes.

WATER TANK MOUNTING

The water tank cradle shall be an integral part of the body sub-frame. Please reference the sub-frame section for complete water tank mounting information.

WATER TANK DRAIN

There shall be a 1-1/2" drain valve provided under the sump of the water tank. The valve shall include a locking lever to prevent accidental draining of the water tank.

WATER TANK FILL TOWER

The tank shall have a combination vent and manual fill tower marked "Water Fill." The fill tower shall be constructed of 1/2" PT2E™ polypropylene and shall be a minimum dimension of 8" x 8" at the outer perimeter. The tower shall be located in the left front corner of the tank. The tower shall have a 1/4" thick removable polypropylene screen and a PT2E™ polypropylene hinged-type cover. The fill tower shall be blue in color.

4" WATER TANK OVERFLOW

The tank shall be equipped with a minimum of a 4" schedule 40 polypropylene overflow/air vent pipe. The pipe shall be installed in the fill tower and extend through the tank and dump to the rear of the rear axle.

WATER TANK LEVEL GAUGE

There shall be one (1) Fire Research TankVision™ model WLA200-A00 water tank level gauge provided on the pump operator's control panel. The kit shall include an electronic indicator module, a pressure sensor, and a 10' sensor cable. The indicator shall show the volume of water in the tank on nine (9) easy to see super bright LEDs. The display shall use a 2 dimensional 2-element lens to refract the light from the LEDs to provide full 180° visibility for the level indication. The gauge shall start to flash when the tank volume is at 1/4 tank or less and use down scrolling LEDs to alert the pump operator when the tank is almost empty.

WATER TANK LEVEL DISPLAYS

There shall be a Whelen model PSTANK LED water tank level strip light installed on the left and right side of the chassis cab.

The PSTANK shall receive current from a Fire Research driver module. The driver module shall receive data from the Fire Research master water tank level gauge located on the pump operators panel and shall mimic the master display.

The colors of the LED lights shall be green, blue, amber and red.

FOAM CELL

There shall be one (1) United Plastic Fabricating 30 U.S. gallon foam cell incorporated into the water tank. There shall be one (1) pressure/vacuum vent installed on the foam tank. There shall be one (1) drain hose connected to the foam cell. The drain shall have a quarter-turn valve installed inside the pump module and it shall drain below the frame rail of the chassis.

Smeal Fire Apparatus Co.

The foam tank shall have a manual fill tower. The fill tower shall be constructed of 1/2" PT3™ polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter. Each foam fill tower shall be constructed of a green colored material indicating which tower is to receive each type of foam utilized. The capacity of the tank shall be engraved on the top of the fill tower lid. The tower shall be located in the right front corner of the tank unless otherwise specified. The tower shall have a 1/4" thick removable polypropylene screen and a stainless steel hinged-type cover. Inside the fill tower, approximately 1.5" down from the top, there shall be an anti-foam fill tube that extends down to the bottom of the tank. A pressure vacuum vent shall be provided in the lid of the fill tower.

Class "A" foam shall be utilized.

FOAM TANK LEVEL GAUGE

There shall be one (1) Fire Research TankVision™ model WLA260-A00 class A foam tank level gauge provided. The gauge shall be located on the pump operators control panel and shall have a label that indicates it is for the foam cell that contains class A foam. The gauge shall have 9 super bright LEDs to show the tank volume. The display shall use a 2 dimensional, 2-element lens to refract the light from the LEDs to provide full 180° visibility for the level indication. The gauge shall use a pressure transducer installed near the bottom of the foam tank to determine the correct volume in the tank. The gauge shall be self-calibrating by filling the tank at a steady flow rate. Self-diagnostics capabilities shall be standard on the gauge. The gauge shall start to flash when the tank volume is at 1/4 tank or less and use down scrolling LEDs to alert the pump operator when the tank is almost empty.

INDEPENDENT GALVANNEAL STEEL PUMP MODULE

The pump module shall be fabricated from 12 gauge galvanized steel. The module shall be fabricated as an individual unit, independent from the body. The module shall be fabricated utilizing the break and bend technique in order to form a strong, yet flexible, structure. The pump module shall be fabricated using precision holding fixtures to ensure proper dimensions and all attachment points shall be heavily reinforced.

TREAD PLATE DUNNAGE COMPARTMENT

There shall be a dunnage compartment located above the pump module. The dunnage compartment floor shall be constructed of tread plate.

TREAD PLATE DUNNAGE COMPARTMENT COVER

There shall be a hinged cover for the dunnage compartment. The compartment shall be constructed from anti-slip tread plate material.

PUMP MODULE LIGHTS

There shall be two (2) Whelen model 20C0CDCR LED lights installed in the pump module. The lights shall be activated by an automatic switch in the right side pump module access door and shall be located in a manner that will provide maximum lighting.

CONTROL PANEL

The left side of the pump enclosure shall be divided into two sections. The lower section shall be where all valve controls, the primer control, the discharge relief valve controls (pilot valve), and other mechanical controls are located. This surface shall be referred to as the "control panel".

Smeal Fire Apparatus Co.

All valve controls shall be the self-locking type, activated by either direct control or with a direct linkage utilizing friction locking bell cranks and universal ball swivels. The primary valve handles shall have color coded tags installed in a recessed area to clearly denote the purpose of each control.

INSTRUMENT PANEL

The surface above the control panel shall contain all instruments, gauges, test fittings, and optional controls. This surface shall be referred to as the "instrument panel". The instrument panel shall be independent and hinged and latched so that it may be opened. All instruments, gauges, and other equipment shall be installed with sufficient slack in any cabling, tubing, or plumbing to allow the panel to swivel to the fully open position.

The instrument and gauge panel shall be vertically hinged "swing out" to provide access for service.

RIGHT SIDE PUMP PANEL

A single panel shall be installed on the right side of the pump enclosure. This shall be the area where right side discharges, inlets, steamers, and other pump associated equipment are located. This panel shall be easily removable and held in place with quick release push latches. It shall be fully removable for pump and plumbing access without the need to use hand tools. Any electrical equipment that may be installed shall be equipped with connectors so they may be easily separated from the opening created when the below described front access panel is removed.

PANEL SURFACES

The control panel, instrument panel, and right side pump panel shall be fabricated from a minimum of 16 gauge stainless steel with #4 brushed finish.

PUMP PANEL LIGHTS

The pump operator's control panel and the right side pump panel shall each be illuminated by On-Scene LED Night Axe lighting. The pump panel lights shall become energized upon setting the parking brake so the gauge information provided may be consulted at any time the apparatus is parked. A stainless steel shield shall be installed over the pump panel lights to further protect them from the elements and to act as a reflector for additional illumination.

MASTER PUMP GAUGES

The pump vacuum and pressure gauges shall be supplied by Thuemling. Each gauge shall be fully filled with pulse and vibration dampening Interlube to insure proper operations to minus 40 degrees and to reduce lens condensation. The gauge shall read -30-0-400 PSI and shall be a minimum of 4-1/2" in diameter. The gauge shall be illuminated with red LED lighting.

PRESSURE AND VACUUM TEST PORT

There shall be a Class1 model 121384 pressure and vacuum test port provided on the pump panel.

DISCHARGE TRIM PLATES

Each gated discharge shall have a chrome plated die cast zinc trim plate around the discharge valve and fitting. The trim plate shall be easily removable without the need to disturb the valve.

LEFT SIDE RUNNING BOARD

A modular bolt-on running board shall be installed on the side of the pump module. The running board shall be constructed of anti-slip tread plate. There shall be a soft suction hosewell compartment recessed in the running board.

Smeal Fire Apparatus Co.

The floor of the compartment shall be covered with Dri-Dek flooring. The outside edge of the running board shall be flush with the rub rail that is installed on the body to maintain a uniform appearance. The running board shall be installed with sufficient support to form a sturdy, non-deflecting step area for personnel.

STORAGE WELL COVER

There shall be an aluminum tread plate cover installed on the running board storage well. The cover shall be equipped with a hinge on the backside. A gas strut shall be provided to hold the lid in the open position.

RIGHT SIDE RUNNING BOARD

A modular bolt-on running board shall be installed on the side of the pump module. The running board shall be constructed of anti-slip tread plate. There shall be a soft suction hose well compartment recessed in the running board. The floor of the compartment shall be covered with Dri-Dek flooring. The outside edge of the running board shall be flush with the rub rail that is installed on the body to maintain a uniform appearance. The running board shall be installed with sufficient support to form a sturdy, non-deflecting step area for personnel.

STORAGE WELL STRAPS

There shall be two (2) Pac Trac model 1008 straps provided with the storage well. The straps shall be installed over the top of the compartment to retain the hose.

CROSSLAY CONFIGURATION

There shall be two (2) 1-1/2" and one (1) 2-1/2" crosslay pre-connects located above the pump module. Class 1 high-pressure flex hose with stainless steel couplings shall be used in the plumbing.

A Trident 90° swivel elbow shall be utilized to keep the hose from kinking when pulled from either side of the apparatus. The swivel for each crosslay shall be located outboard for ease of making connections while changing hose.

The pre-connect hose beds shall be sized to accommodate the following hose load:

The 1-1/2" crosslay pre-connect shall have a capacity of 200' of 1-3/4" double jacket fire hose.

The hose shall be single stack.

The 1-1/2" crosslay pre-connect shall have a capacity of 200' of 1-3/4" double jacket fire hose.

The hose shall be single stack.

The 2-1/2" crosslay pre-connect shall have a capacity of 150' of 2-1/2" double jacket fire hose.

The hose shall be single stack.

There shall be a webbing restraint located on each end of the pre-connected crosslays. The webbing shall be a two-piece design and one (1) side of each piece shall be wrapped around the crosslay rollers. Each piece shall be attached to each other in the center of the crosslays using Velcro.

CROSSLAY COVER

There shall be an aluminum non-slip tread plate cover installed on the crosslay hose bed. The cover shall not interfere with hose loading when in the open position. When in the open position, the cover shall remain open due to automatically engaging mechanisms that require no type of latch operation to engage or release. The cover shall be provided with one

Smeal Fire Apparatus Co.

full length stainless steel piano style hinge that shall attach the cover to the body. The cover shall be light yet rigid. Opening of the cover may be performed by one person on one side of the apparatus and yet the cover shall be rigid enough to support weight without deformation.

Stainless steel rollers shall be provided at each end of the crosslay hose bed to facilitate deployment of hose. Vertical rollers shall be installed on each side of the hose bed opening, and a horizontal roller shall be installed under the opening.

The floor of the crosslay shall be covered with Dura-Dek fiber reinforced material. The Dura-Dek shall have "T" beams in parallel connected with cross slats that are first mechanically bonded and then epoxied. The "T" sections shall be spaced 3/4" apart to allow for drainage and ventilation.

The interior of the crosslay hose bed shall have a maintenance free abraded finish.

There shall be two (2) dividers in the crosslay area. Each divider shall be fabricated of 3/16" aluminum and be mounted in a channel on each end for adjustability.

The crosslay dividers shall have maintenance free abraded finish.

FRONT PUMP ACCESS PANEL

There shall be a tread plate access panel provided on the front of the pump compartment. The panel shall be of the single pan design and shall be positively latched in the closed position utilizing a push button latch. An aluminum sill protector shall be installed on the bottom of the door opening to protect the paint from chipping and scratching. This area shall be accessible when the cab is tilted.

RIGHT SIDE PUMP ACCESS PANEL

There shall be a tread plate door above the right hand side pump panel to allow access to the pump compartment. The vertically hinged panel shall be of the single pan design and shall be positively latched in the closed position utilizing a push button latch. A gas strut shall be provided on the door. An aluminum sill protector shall be installed on the bottom of the door opening to protect the paint from chipping and scratching. The door shall be wired into the door open warning light circuit.

There shall be a vertical handrail installed above the left side of the pump module.

There shall be a vertical handrail installed above the right side of the pump module.

GALVANNEAL BODY CONSTRUCTION

The apparatus body shall be fabricated from 12 gauge galvalume steel. The total outside width of the apparatus body shall not exceed 100 inches (2.54 meters). The width measurement of the sidewalls shall be made from the outside wall of the two opposite sides of the body.

The complete apparatus body shall be fabricated utilizing the break and bend techniques in order to form a strong, yet flexible, uni-body structure. The body shall be constructed with holding fixtures to ensure proper dimensioning. Each apparatus body is specific in design in order to meet the unique requirements of the purchasing fire department.

The main body compartments on each side, as well as the rear center compartment if applicable, shall contain a sweep out floor design. Each compartment shall be made to the most practical dimensions in order to provide maximum storage capacity for the fire department's equipment. The door opening threshold shall be positioned lower than the compartment floor permitting easy cleaning of the compartments.

Smeal Fire Apparatus Co.

Continuous, solid welded seams shall be located at the upper front and upper rear corners of the apparatus body. The flooring of all lower, main body compartmentation shall also have solid weld seams. All door jams, on both the top and the bottom, shall be solid welded as well. Each main door jam shall consist of a double jam design; this is comparable to a double struck frame design, which provides superior strength and durability. All double door jams are to be welded together utilizing the plug weld technique. All remaining compartment walls shall be stitch welded.

The compartment floors, specifically L1 and R1, shall have a minimum of two (2) 1" x 2" rectangular tubes welded to the entire width of the compartment floor. The two (2) rear side compartments as well as the rear center compartment, if applicable, shall be welded to the rear deck support structure. This rear deck support structure is specially designed for the galvanized apparatus body substructure. A minimum of two (2) square tubes, which are 1/4" x 3" x 3", shall run the entire width of the body from sidewall to sidewall. Each lower, rear compartment shall be adequately stitch welded to the cross tubes providing strength and durability to the entire apparatus body.

The body design shall include a "false wall" design in the lower portion of each lower, rear compartment. This "false wall" is required in order to allow for easy accessibility to the rear electrical components found in the rear tail light cluster area.

On the upper area of the apparatus body, directly above the side compartment door openings, a header is to be fabricated from 12 gauge galvanized steel. This area shall be free from any body seams and shall be painted the same color as the apparatus body. The height of the header may vary depending on the following factors: apparatus design, lettering requirements, scene lights and warning light requirements as well as various other options. A "J" channel shall be incorporated into the body design in order to provide a rain gutter to further assist in preventing excessive moisture from getting into the compartments.

Aluminum tread plate overlays bolted to the body shall be sprayed with a clear coat sealer on the underside that is pliable and resistant to scratches and chips. This sealer will provide an insulating barrier between dissimilar metals when it is bolted to the body.

TRIMRITE® STAINLESS STEEL FASTENERS

TrimRite® stainless steel fasteners shall be provided for all exposed and unpainted fasteners throughout the body in locations such as overlays, pump panels, and other numerous hardware mounting locations. TrimRite® stainless is a hardenable martensitic stainless steel that provides a high level of corrosion resistance, hardness up to Rockwell C 51, good cold formability and ease of heat treatment, all of which combine to provide an alloy which has been used for many applications such as fasteners, especially self-drilling types. TrimRite® stainless are tested to salt spray standard ASTM B117, which is a 200-hour salt spray test. The OEM shall use TrimRite® stainless with an added blue patch which provides improved vibration resistance for the fastener.

ADDITIONAL HARDWARE

There shall be a bag of stainless steel nuts, bolts, and washers supplied with the apparatus for mounting of equipment.

GS-36 BODY SUB FRAME

To assure proper body alignment and clearance, the body sub frame shall be constructed in a jig and fitted directly on the chassis. The sub frame shall be constructed of 36,000 PSI galvanized steel.

The chassis frame rails shall be fitted with fiber reinforced rubber to isolate the body frame members from direct contact with chassis frame rails.

The main body sub frame shall be constructed from steel tubing. The sub frame shall run the full length of the body and shall be spaced the same width as the chassis frame rails. The main sub frame shall also be the integral support for the

Smeal Fire Apparatus Co.

water tank. Vertical drop tubes shall be welded to the sub frame. From these vertical drop tubes shall extend cross members constructed of steel angle. These cross members shall extend out to support the compartments. Cross members shall be located at the front and rear of the body and in front and rear of the wheel well opening.

The compartment area behind the rear axle shall be supported by a drop frame fabricated of steel tube and steel angles. The rear drop frame shall be constructed using vertical drop tubes, welded to the main sub frame. All drop frame structures shall be welded directly to the body sub frame to allow the body to be a completely separate structure from the chassis.

After fabrication the sub frame shall be hot dip galvanized for maximum protection against corrosion.

BODY MOUNTING

The body sub frame shall be fastened to the chassis frame with a minimum of six (6) spring loaded body mounts. Each mount shall be configured using a two-piece bracket. The two (2) brackets shall be fabricated of steel plates. The plates shall be painted to prevent any corrosion. Each mounting assembly shall utilize two (2) plated bolts and two (2) heavy duty springs. The assembly design shall allow the body and sub frame to act as one (1) component, separate from the chassis. As the chassis frame twists under driving conditions, the spring mounting system shall limit any stress from being transferred into the body. The spring loaded body mounts shall also prevent frame side rail or body damage caused by unevenly distributed stress and strains due to load and chassis movement.

Body mountings that do not allow relief from chassis movement shall not be acceptable.

TANK MOUNTING

The water tank shall rest on the sub frame cross members which are spaced as required by the tank manufacturer.

The tank shall be isolated from the cross members through the use of hard rubber strips with a minimum Rockwell hardness of 60 durometer. Additionally, the tank shall be supported around the entire perimeter and captured front and rear as well as side to side to prevent the tank from shifting during vehicle operations.

Although the tank shall be designed on a free floating suspension principle, it shall be required that the tank have adequate hold down restrains to minimize movement during vehicle operations.

The tank shall be completely removable without disturbing or dismantling the apparatus structure.

EXHAUST HEAT DEFLECTOR SHIELD

There shall be a 5" heat deflector shield installed over the exhaust to aid in dissipating the heat to prevent exhaust heat from adversely affecting anything stored in the body.

LEFT SIDE BODY CONFIGURATION

COMPARTMENT L1

There shall be a full height compartment located ahead of the rear wheels on the left side of the apparatus body. This compartment shall be designated as L1 within these specifications and any ensuing paperwork or drawings after contract execution.

- Door Opening 28.00" wide x 64.00" high
- Usable Depth 25.00" lower and 14.25" upper
- Intermediate divide height 26.50"

Smeal Fire Apparatus Co.

There shall be a one (1) vertically hinged lap type compartment door installed on the compartment face. The lap door shall be a double panel construction with the outer panel fabricated of .190" 3003-H14 aluminum and the inner panel of .125" 3003-H14 aluminum. There shall be rubber molding installed in the overlap area of the door to insure a weatherproof seal and prevent water from collecting in the door sills. Weep holes shall be installed at the bottom of the doors to drain moisture from between the door panels. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

Shop Note: The door shall be hinged at the rear of the compartment.

The compartment door handle shall be a locking stainless steel recessed "D" ring type handle. There shall be a safety latch with striker plate included with the door handle assembly.

There shall be one (1) Cleveland-style spring loaded door holder furnished on the compartment door to hold the door in either the fully open or partially closed position. The spring-loaded door holder shall close the door automatically when it is positioned past center or return the door to the fully open position if the center point is not reached and the door is released. On compartments having double doors, the secondary door shall have a latch mechanism to secure the door when the primary door is opened.

The compartment shall have one (1), 45" On-Scene LED Night Axe installed. The light shall be enclosed within a tough waterproof Lexan tube enclosure. The Night Axe shall offer 74 lumens per 18" of light and an adjustable beam angle.

There shall be four (4) galvanized strut channels, two (2) per side, installed in the full depth, full height compartment.

There shall be one (1), aluminum adjustable shelf installed on the apparatus in the full depth compartment. The shelf shall be constructed of 3/16" aluminum sheet with 2" lips. The shelf shall have an abraded finish, and shall be designed in such a manner that will allow liquids to readily drain when spilled.

There shall be one (1), aluminum adjustable shelf installed on the apparatus in the shallow depth compartment. The shelf shall be constructed of 3/16" aluminum sheet with 2" lips. The shelf shall have an abraded finish and shall be designed in such a manner as to allow liquids to readily drain when spilled.

There shall be two (2), roll out equipment trays installed in the compartment. Each tray shall be equipped with an Austin Hardware drawer slide. The roller assembly shall have a rated capacity of 300 lbs. distributed load and have 100% extension capability. The roller assembly shall be bolted to vertical struts to allow for height adjustment. The trays shall be constructed of 3/16" aluminum sheet with 3" lips to prevent items from being shifted during transportation. Each tray shall have an abraded finish and shall be equipped with a gas spring in order to hold the tray in either a fully extended or closed position.

There shall be one (1) roll out equipment tray installed on the floor of the compartment. The tray shall be equipped with an Austin Hardware drawer slide. The roller assembly shall have a rated capacity of 300 lbs. distributed load and shall have 100% extension capability. The tray shall be constructed of 3/16" aluminum sheet with 3" lips to prevent items from being shifted during transportation. The tray shall have an abraded finish and be equipped with a gas spring in order to hold the tray in either a fully extended or closed position.

There shall be one (1) application in the compartment that shall utilize Dri-Dek interlocking squares. Each square shall be made from polyvinyl chloride that is flame and chemical resistant. For maximum slip resistance and drainage, each square shall have a knobby perforated surface.

Smeal Fire Apparatus Co.

There shall be a 3'x2' GlassX Dry Erase Marker Board, Office Net #BDU 460065UA1 installed in the L1 Compartment on the back of the compartment door. the Dry Erase board shall be placed on the door above the door lock mechanism.

COMPARTMENT L2

There shall be a standard height compartment located above the rear wheels on the left side of the apparatus body. This compartment shall be designated as L2 within these specifications and any ensuing paperwork or drawings after contract execution.

- Door Opening 54.00" wide x 32.50" high
- Usable Depth 14.25"
- Intermediate divide height 0.00"

There shall be a single horizontally hinged lap type compartment door installed on the compartment face. The lap door shall be a double panel construction with the outer panel fabricated of .190" 3003-H14 aluminum and the inner panel of .125" 3003-H14 aluminum. There shall be rubber molding installed in the overlap area of the door to insure a weatherproof seal and prevent water from collecting in the door sills. Weep holes shall be installed at the bottom of the door to drain moisture from between the door panels. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

The compartment door handle shall be a locking stainless steel recessed "D" ring type handle. There shall be a safety latch with striker plate included with the door handle assembly.

There shall be two (2) pressurized gas-filled cylinders furnished on the compartment door. The cylinders shall hold the door in the open position and assist in raising it. The gas filled cylinders shall assist in closing the door automatically when the door is positioned over center.

The compartment shall have two (2), 18" On-Scene LED Night Axes installed. Each light shall be enclosed within a tough waterproof Lexan tube enclosure. Each Night Axe shall offer 74 lumens per 18" of light and an adjustable beam angle.

There shall be four (4) galvanized strut channels, two (2) per side, installed in the full depth compartment.

There shall be one (1), aluminum adjustable shelf installed on the apparatus in the full depth compartment. The shelf shall be constructed of 3/16" aluminum sheet with 2" lips. The shelf shall have an abraded finish, and shall be designed in such a manner that will allow liquids to readily drain when spilled.

There shall be one (1) application in the compartment that shall utilize Dri-Dek interlocking squares. Each square shall be made from polyvinyl chloride that is flame and chemical resistant. For maximum slip resistance and drainage, each square shall have a knobby perforated surface.

COMPARTMENT L3

There shall be a full height compartment located behind the rear wheels on the left side of the apparatus body. This compartment shall be designated as L3 within these specifications and any ensuing paperwork or drawings after contract execution.

- Door Opening 31.00" wide x 62.00" high
- Usable Depth 25.00" lower and 14.25" upper
- Intermediate divide height 24.50"

Smeal Fire Apparatus Co.

There shall be a one (1) vertically hinged lap type compartment door installed on the compartment face. The lap door shall be a double panel construction with the outer panel fabricated of .190" 3003-H14 aluminum and the inner panel of .125" 3003-H14 aluminum. There shall be rubber molding installed in the overlap area of the door to insure a weatherproof seal and prevent water from collecting in the door sills. Weep holes shall be installed at the bottom of the doors to drain moisture from between the door panels. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

The compartment door handle shall be a locking stainless steel recessed "D" ring type handle. There shall be a safety latch with striker plate included with the door handle assembly.

There shall be one (1) Cleveland-style spring loaded door holder furnished on the compartment door to hold the door in either the fully open or partially closed position. The spring-loaded door holder shall close the door automatically when it is positioned past center or return the door to the fully open position if the center point is not reached and the door is released. On compartments having double doors, the secondary door shall have a latch mechanism to secure the door when the primary door is opened.

The compartment shall have one (1), 45" On-Scene LED Night Axe installed. The light shall be enclosed within a tough waterproof Lexan tube enclosure. The Night Axe shall offer 74 lumens per 18" of light and an adjustable beam angle.

There shall be one (1) application in the compartment that shall utilize Dri-Dek interlocking squares. Each square shall be made from polyvinyl chloride that is flame and chemical resistant. For maximum slip resistance and drainage, each square shall have a knobby perforated surface.

There shall be four (4) galvanneal strut channels, two (2) per side, installed in the full depth portion of the compartment. In the shallow depth portion of the compartment there shall be four (4) strut channels, two (2) per side.

There shall be two (2), aluminum adjustable shelves installed on the apparatus in the shallow depth compartment. The shelves shall be constructed of 3/16" aluminum sheet with 2" lips. The shelves shall have an abraded finish and shall be designed in such a manner as to allow liquids to readily drain when spilled.

There shall be one (1), roll out tray installed in the compartment. The tray shall be provided with a SlideMaster™ model SM3-LP roller type assembly. The roller assembly shall have a rated capacity of 300 lb. distributed load and have 100% extension capability. The roller assembly shall be bolted to vertical struts to allow for height adjustment of the tray. A mechanical lock assembly shall be provided to lock the tray in the extended or retracted position. The tray shall be constructed of 3/16" aluminum sheet with 3" lips and shall have an abraded finish. The tray roller assembly shall have a powder coated finish for added corrosion protection.

There shall be one (1) full height, slide out aluminum tool board located in the split depth compartment. The tool board shall utilize a locking roller assembly to lock the tool board in both the opened and closed position. The tool board shall be mounted to an adjustable unistrut to allow the board to be relocated for best fit in the compartment.

The tool board shall have a Line-X® finish.

RIGHT SIDE BODY CONFIGURATION

COMPARTMENT R1

There shall be a full height compartment located ahead of the rear wheels on the right side of the apparatus body. This compartment shall be designated as R1 within these specifications and any ensuing paperwork or drawings after contract execution.

Smeal Fire Apparatus Co.

- Door Opening 28.00" wide x 64.00" high
- Usable Depth 25.00" lower and 14.25" upper
- Intermediate divide height 26.50"

There shall be a one (1) vertically hinged lap type compartment door installed on the compartment face. The lap door shall be a double panel construction with the outer panel fabricated of .190" 3003-H14 aluminum and the inner panel of .125" 3003-H14 aluminum. There shall be rubber molding installed in the overlap area of the door to insure a weatherproof seal and prevent water from collecting in the door sills. Weep holes shall be installed at the bottom of the doors to drain moisture from between the door panels. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

Shop Note: The door shall be hinged at the rear of the compartment.

The compartment door handle shall be a locking stainless steel recessed "D" ring type handle. There shall be a safety latch with striker plate included with the door handle assembly.

There shall be one (1) Cleveland-style spring loaded door holder furnished on the compartment door to hold the door in either the fully open or partially closed position. The spring-loaded door holder shall close the door automatically when it is positioned past center or return the door to the fully open position if the center point is not reached and the door is released. On compartments having double doors, the secondary door shall have a latch mechanism to secure the door when the primary door is opened.

The compartment shall have one (1), 45" On-Scene LED Night Axe installed. The light shall be enclosed within a tough waterproof Lexan tube enclosure. The Night Axe shall offer 74 lumens per 18" of light and an adjustable beam angle.

There shall be one (1) application in the compartment that shall utilize Dri-Dek interlocking squares. Each square shall be made from polyvinyl chloride that is flame and chemical resistant. For maximum slip resistance and drainage, each square shall have a knobby perforated surface.

There shall be four (4) galvanneal strut channels, two (2) per side, installed in the full depth portion of the compartment. In the shallow depth portion of the compartment there shall be four (4) strut channels, two (2) per side.

There shall be one (1), aluminum adjustable shelf installed on the apparatus in the full depth compartment. The shelf shall be constructed of 3/16" aluminum sheet with 2" lips. The shelf shall have an abraded finish, and shall be designed in such a manner that will allow liquids to readily drain when spilled.

COMPARTMENT R2

There shall be a standard height compartment located above the rear wheels, behind the equipment rack, on the right side of the apparatus body. This compartment shall be designated as R2 within these specifications and any ensuing paperwork or drawings after contract execution.

- Door Opening 32.00" wide x 32.50" high
- Usable Depth 14.25"
- Intermediate divide height 0.00"

There shall be a single horizontally hinged lap type compartment door installed on the compartment face. The lap door shall be a double panel construction with the outer panel fabricated of .190" 3003-H14 aluminum and the inner panel of

Smeal Fire Apparatus Co.

.125" 3003-H14 aluminum. There shall be rubber molding installed in the overlap area of the door to insure a weatherproof seal and prevent water from collecting in the door sills. Weep holes shall be installed at the bottom of the door to drain moisture from between the door panels. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

The compartment door handle shall be a locking stainless steel recessed "D" ring type handle. There shall be a safety latch with striker plate included with the door handle assembly.

There shall be one (1) pressurized gas-filled cylinder furnished on the compartment door. The cylinder shall hold the door in the open position and assist in raising it. The gas filled cylinder shall assist in closing the door automatically when the door is positioned over center.

The compartment shall have one (1), 18" On-Scene LED Night Axe installed. The light shall be enclosed within a tough waterproof Lexan tube enclosure. The Night Axe shall offer 74 lumens per 18" of light and an adjustable beam angle.

There shall be one (1) application in the compartment that shall utilize Dri-Dek interlocking squares. Each square shall be made from polyvinyl chloride that is flame and chemical resistant. For maximum slip resistance and drainage, each square shall have a knobby perforated surface.

COMPARTMENT R3

There shall be a full height compartment located behind the rear wheels on the right side of the apparatus body. This compartment shall be designated as R3 within these specifications and any ensuing paperwork or drawings after contract execution.

- Door Opening 31.00" wide x 62.00" high
- Usable Depth 25.00" lower and 14.25" upper
- Intermediate divide height 24.50"

There shall be a one (1) vertically hinged lap type compartment door installed on the compartment face. The lap door shall be a double panel construction with the outer panel fabricated of .190" 3003-H14 aluminum and the inner panel of .125" 3003-H14 aluminum. There shall be rubber molding installed in the overlap area of the door to insure a weatherproof seal and prevent water from collecting in the door sills. Weep holes shall be installed at the bottom of the doors to drain moisture from between the door panels. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

The compartment door handle shall be a locking stainless steel recessed "D" ring type handle. There shall be a safety latch with striker plate included with the door handle assembly.

There shall be one (1) Cleveland-style spring loaded door holder furnished on the compartment door to hold the door in either the fully open or partially closed position. The spring-loaded door holder shall close the door automatically when it is positioned past center or return the door to the fully open position if the center point is not reached and the door is released. On compartments having double doors, the secondary door shall have a latch mechanism to secure the door when the primary door is opened.

The compartment shall have one (1), 45" On-Scene LED Night Axe installed. The light shall be enclosed within a tough waterproof Lexan tube enclosure. The Night Axe shall offer 74 lumens per 18" of light and an adjustable beam angle.

Smeal Fire Apparatus Co.

There shall be one (1) application in the compartment that shall utilize Dri-Dek interlocking squares. Each square shall be made from polyvinyl chloride that is flame and chemical resistant. For maximum slip resistance and drainage, each square shall have a knobby perforated surface.

There shall be one (1), aluminum adjustable shelf installed on the apparatus in the full depth compartment. The shelf shall be constructed of 3/16" aluminum sheet with 2" lips. The shelf shall have an abraded finish, and shall be designed in such a manner that will allow liquids to readily drain when spilled.

There shall be four (4) galvanized strut channels, two (2) per side, installed in the full depth portion of the compartment. In the shallow depth portion of the compartment there shall be four (4) strut channels, two (2) per side.

REAR BODY CONFIGURATION

COMPARTMENT T1

There shall be a full height compartment located at the rear of the apparatus body. This compartment shall be designated as T1 within these specifications and any ensuing paperwork or drawings after contract execution.

- Door Opening 40.00" wide x 38.00" high
- Usable Depth 25.00" lower and 30.00" upper
- Intermediate divide height 16.00"

There shall be a two (2) vertically hinged lap type compartment doors installed on the compartment face. The lap doors shall be a double panel construction with the outer panels fabricated of .190" 3003-H14 aluminum and the inner panels of .125" 3003-H14 aluminum. There shall be rubber molding installed in the overlap area of the doors to insure a weatherproof seal and prevent water from collecting in the door sills. Weep holes shall be installed at the bottom of the doors to drain moisture from between the door panels. The compartment doors shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

The compartment door handle shall be a locking stainless steel recessed "D" ring type handle. There shall be a safety latch with striker plate included with the door handle assembly.

There shall be two (2) Cleveland-style spring loaded door holders furnished on the compartment door to hold the door in either the fully open or partially closed position. The spring-loaded door holders shall close the door automatically when it is positioned past center or return the door to the fully open position if the center point is not reached and the door is released. On compartments having double doors, the secondary door shall have a latch mechanism to secure the door when the primary door is opened.

The compartment shall have one (1), 27" On-Scene LED Night Axe installed. The light shall be enclosed within a tough waterproof Lexan tube enclosure. The Night Axe shall offer 74 lumens per 18" of light and an adjustable beam angle.

There shall be one (1) application in the compartment that shall utilize Dri-Dek interlocking squares. Each square shall be made from polyvinyl chloride that is flame and chemical resistant. For maximum slip resistance and drainage, each square shall have a knobby perforated surface.

There shall be one (1), aluminum adjustable shelf installed on the apparatus in the shallow depth compartment. The shelf shall be constructed of 3/16" aluminum sheet with 2" lips. The shelf shall have an abraded finish and shall be designed in such a manner as to allow liquids to readily drain when spilled.

There shall be four (4) galvanized strut channels, two (2) per side, installed in the full depth portion of the compartment. In the shallow depth portion of the compartment there shall be four (4) strut channels, two (2) per side.

Smeal Fire Apparatus Co.

COMPARTMENT AIR RELEASE

Each compartment shall be vented to help remove trapped air when closing a compartment door. The vent shall be a rubber gasket in the area of the outboard corners of the compartment. Wiring may also be run through these areas.

COMPARTMENT DRAIN HOLES

Each body compartment shall be equipped with drain holes to allow standing water to exit to underneath the apparatus.

There shall be an anodized aluminum angle sill protector installed on the bottom sill area of the compartments on the body to aid in reducing paint damage from equipment. The sill protectors shall be attached using permanent-bonding double-sided tape.

WALKWAYS AND OVERLAYS

All exterior surfaces designated by the manufacturer as stepping, standing, or walking areas shall be overlaid with 3003 H22 Bright Tread Plate to provide a slip resistant surface, even when the surface is wet. All interior surfaces designated by the manufacturer as stepping, standing, or walking areas shall be slip resistant when the surface is dry. The degree of slip resistance shall be in compliance with the intent of NFPA 1901.

Horizontal walkways shall have .080" aluminum tread plate overlays installed and vertical surfaces shall have .125" aluminum overlays. Overlays shall be installed that are totally insulated from the apparatus with nylon shoulder washers that extend into holes in the body. Stainless steel cap nuts shall be employed where bolt ends may damage equipment or cause injury. After the apparatus is painted and the overlays are reinstalled, they shall be additionally sealed at the edges with a caulking compound. The exterior top tread plate overlay shall be mounted flush with the outer edges of the apparatus body.

STEPPING SURFACES

All steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of at least 500 pounds. Steps shall be provided at any area that personnel may need to climb and shall be adequately lighted.

HINGED REAR DECK

A modular hinged deck shall be installed on the rear of the apparatus to form a stepping area. The rear deck shall be constructed of anti-slip bright tread plate. The recessed deck shall be centered between the outer edges of the body and the outer edges shall be angled at 45 degrees. There shall be Nylatron stop blocks located at an angle to prevent the rear deck from striking the lower steps when put in the up position. The rear deck shall be installed with sufficient support to form a sturdy, non-deflecting step area for personnel.

REAR TREAD PLATE OVERLAYS

There shall be aluminum tread plate overlays installed on the inside facing sides of the left and right recessed area on the rear of the apparatus. Overlays shall be totally insulated from the apparatus with nylon shoulder washers that extend into the hole that is drilled into the body. Stainless steel cap nuts shall be employed where bolts may damage equipment or cause injury. After painting and final construction overlays shall be additionally sealed at the edges with a caulking compound.

REAR STEPS

Smeal Fire Apparatus Co.

There shall be six (6) Cast Products corner steps installed on the rear of the apparatus. Each folding step shall have a large open slot to prevent buildup of ice or mud and to provide a handhold when necessary. Steps shall be provided in the following locations:

- Three (3) corner steps on the left rear of the apparatus.
- Three (3) corner steps on the right rear of the apparatus.

The steps shall be adequately lit with LED lighting. There shall be one (1) light located above each set of steps on the rear face of the body, for a total of two (2) lights. Each light shall be located in a manner that shall light all of the steps on its respective side.

FRONT BODY STEPS AND LIGHTING

There shall be three (3) Cast Products folding steps located on the front of the left side body compartments. The folding steps shall have two large open slots to prevent the buildup of ice or mud and to provide a handhold when necessary. The steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of 500 pounds.

The steps shall be adequately lit with LED lighting. There shall be one (1) light located above the steps.

FRONT BODY STEPS AND LIGHTING

There shall be three (3) Cast Products folding steps located on the front of the right side body compartments. The folding steps shall have two large open slots to prevent the buildup of ice or mud and to provide a handhold when necessary. The steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of 500 pounds.

The steps shall be adequately lit with LED lighting. There shall be one (1) light located above the steps.

FRONT VERTICAL AREA TREAD PLATE OVERLAYS

There shall be a tread plate overlay on the vertical areas of each side of the apparatus body. The overlay will be located in front of the L1 and R1 compartments.

REAR WHEEL WELLS

The fenders shall be integral with the body sides and compartments with a seamless appearance. The fenders shall be fitted with bolt-in removable full circular inner liners in the wheel well area for ease of cleaning and maintenance. There shall be sufficient clearance provided in the wheel well to allow the use of tire chains when the apparatus fully loaded.

STAINLESS STEEL REAR FENDERETTES

Two (2) stainless steel fenderettes shall be installed at the outboard edge of the rear wheel well area, one on each side. The fenderettes shall be bolted to the apparatus body using nylon washers to space them slightly away from the body to reduce build-up of road grime. The fenderettes shall be constructed of stainless steel that has been polished to a high quality finish.

LEFT SIDE REAR WHEEL WELL POSITION - WL1

There shall be a single air bottle compartment installed in the rear wheel well area. The compartment door, hinges and frame shall all be constructed out of stainless steel material. The door shall have a rubber gasket in order to create a 100% seal to protect the interior of the compartment. The storage compartment shall be a rotational, molded component that is assembled to the door and frame. This assembly process shall prevent the air bottle from making contact with the stainless steel frame while loading and unloading the air bottle. The door shall have a brushed stainless steel finish.

Smeal Fire Apparatus Co.

LEFT SIDE REAR WHEEL WELL POSITION - WL3

There shall be a single air bottle compartment installed in the rear wheel well area. The compartment door, hinges and frame shall all be constructed out of stainless steel material. The door shall have a rubber gasket in order to create a 100% seal to protect the interior of the compartment. The storage compartment shall be a rotational, molded component that is assembled to the door and frame. This assembly process shall prevent the air bottle from making contact with the stainless steel frame while loading and unloading the air bottle. The door shall have a brushed stainless steel finish.

FUEL FILL

The fuel fill pocket shall be located in the left rear wheel well area. The fuel fill shall utilize a stainless steel OEM manufactured door with a brushed finish and shall utilize a magnetic latch. The cap of the fuel fill shall be a click-type plastic cap. The hinge and frame shall all be constructed out of stainless steel material.

RIGHT SIDE REAR WHEEL WELL POSITION - WR1

There shall be a single air bottle compartment installed in the rear wheel well area. The compartment door, hinges and frame shall all be constructed out of stainless steel material. The door shall have a rubber gasket in order to create a 100% seal to protect the interior of the compartment. The storage compartment shall be a rotational, molded component that is assembled to the door and frame. This assembly process shall prevent the air bottle from making contact with the stainless steel frame while loading and unloading the air bottle. The door shall have a brushed stainless steel finish.

RIGHT SIDE REAR WHEEL WELL POSITION - WR3

There shall be a single air bottle compartment installed in the rear wheel well area. The compartment door, hinges and frame shall all be constructed out of stainless steel material. The door shall have a rubber gasket in order to create a 100% seal to protect the interior of the compartment. The storage compartment shall be a rotational, molded component that is assembled to the door and frame. This assembly process shall prevent the air bottle from making contact with the stainless steel frame while loading and unloading the air bottle. The door shall have a brushed stainless steel finish.

BODY RUB RAILS

Rub rails shall be installed beneath the compartment doors to protect them from damage should the body be brushed or rubbed against another object. The rub rails shall be 3/16" aluminum channel, 2-1/2" x 1". The rub rails shall be highly polished and then bright dip anodized.

The rub rails shall be installed on the body utilizing non-corrosive nylon spacers and secured with stainless steel bolts. The outside edge of the rub rails shall be even with the fenderettes and bolt-on steps to prevent snagging.

REAR TOW HOOKS

Two (2) rear tow hooks shall be installed directly below the rear of the chassis frame rails. The tow hooks shall be capable of a 15,000 lb. straight pull rating.

HOSE BED

The hose bed shall be located above the water tank and have a minimum capacity of 30 cubic feet in accordance with the latest NFPA regulations. The inside of the hose bed shall be smooth aluminum. The hose bed shall exit at the rear of the apparatus through a single access opening. The opening shall be free of obstructions that might interfere with the deployment and loading of hose.

Smeal Fire Apparatus Co.

The floor of the hose bed compartment shall be constructed of Dura-Dek fiber reinforced plastic material. The flooring shall be fabricated of "T" beam pultrusions in parallel connected with cross slats that are first mechanically bonded and then epoxied, forming a large sheet. The top portion of each "T" cross section shall measure 1-1/4" wide and 3/16" thick with beaded ends. The vertical portion shall be 3/8" thick, beading out at the bottom to a thickness of 1/2" and tall enough to result in an overall height of 1". The "T" sections shall be spaced 3/4" apart to allow for drainage and ventilation.

Each "T" beam shall be constructed utilizing a core of 250,000 continuous glass fiber strands that are high in resistance to tension, compression and bending. An outer sheath consisting of a continuous strand mat to prevent lineal splitting and slipping shall surround the core. The sheath shall also serve to draw the protective resin to the bar surface. Both reinforcements shall be pulled through an isophthalic polyester resin, treated with antimony trioxide for fire resistance, to form a solid length.

The flooring shall then be protected with a polyurethane coating to screen out ultraviolet rays. This bright white coating shall be baked on and shall provide a pleasing contrast when installed in the apparatus.

The hose bed shall contain the following hose load:

200' of 1-3/4" double jacket hose

800' of 4" double jacket hose

800' of 4" double jacket hose

800' of 2-1/2" double jacket hose

200' of 2-1/2" double jacket hose

There shall be a heavy-duty 22 oz. hypalon vinyl coated nylon restraint located on the end of the hose bed. The top of the restraint shall be connected to the tread plate hose bed cover through a C-Rail channel. The bottom of the restraint shall be connected using footman loop and J-Hooks with an adjustable buckle.

The color of the vinyl restraint shall be red.

The interior of the hose bed shall be painted the primary body color.

POWER OPERATED HOSE BED DOORS

The hose bed storage area shall be covered with two (2) hinged aluminum doors. The doors shall be hinged on the outside edges, utilizing full length stainless steel piano hinges. The doors shall lift up and out towards the outside of the body. The doors shall be fabricated with 14 gauge aluminum inner panel for superior strength. The outside sheet shall be constructed of anti-slip tread plate.

The hose bed doors shall be power operated utilizing a self-contained hydraulic system. The pressure of the hydraulic system shall be factory set to a pressure that will smoothly power the cover doors upward and downward. The system is designed to keep the doors firmly open when reloading hose as well as to hold the cover doors firmly down in the travel position. Mechanical locks are not required in order to avoid possible injury from accidental closing of cover doors.

Hydraulic cylinders, located in front of the hose bed storage area shall be utilized to open and close the cover doors. The hydraulic system shall be powered by a Monarch Hydraulics power unit. The system shall only allow one door at a time to move. The cylinders, when the doors are in the closed position, shall lower into a secluded compartment that is separate from the stored hose to ensure unobstructed hose deployment operations. The cylinder pins attached to the doors shall be designed to be removable with the doors in the closed position without having to climb inside the hose storage area.

Smeal Fire Apparatus Co.

Self-contained switches shall be utilized to raise and lower the cover doors independently. The switches shall be located at the rear of the apparatus in a convenient location allowing the operator to view the hose bed cover doors while operating the mechanism from ground level. The switches shall be the momentary type of switch that requires the operator to hold the switch until the desired movement of the cover doors is achieved.

The power unit shall be interlocked with the parking brake and shall be operable only when the park-brake is applied. The doors shall be connected to the open door warning system. An audible alarm shall be located towards the front of the hose bed area designed to warn occupants of the hose bed area that door movement is occurring.

HOSE BED COVER LIGHTING

Two (2), Whelen model 20C0CDCR 5mm 4" round clear LED lights shall be recessed in the inside the hose bed cover doors. The lights shall be activated when the doors is opened.

HOSE BED DIVIDERS

There shall be two (2) hose bed dividers installed in the hose bed. The dividers shall be fabricated from 1/4" smooth aluminum plate and an aluminum extrusion. Each divider shall have an abraded finish and mounted on hot-dipped galvanized slide rails at the front and rear of the hose bed. Where no obstruction such as a fill tower is present, the slide rails shall allow full movement of the dividers along the width of the hose bed. Each hose bed divider shall have an oval shaped hand hold slot to assist in moving the divider. This shall provide the capability for variable hose load configurations and capacities.

HORIZONTALLY SPLIT HOSE STORAGE AREAS

There shall be one (1) horizontally split hose storage area installed between the hose bed sidewall and hose bed divider. The split hose storage area shall allow for storage of two (2) pre-connected lines at the rear of the apparatus. The horizontal divider shall be constructed of 3/16" aluminum that is slotted for drainage. The divider shall be hinged to allow for ease in reloading hose.

BACKBOARD/PIKE POLES STORAGE IN CENTER OF HOSE BED

A storage compartment shall be provided in the center of the hose bed to store two (2) backboards. There shall also be four (4) aluminum tubes for storage of pike poles installed in this compartment. The compartment shall be equipped with a hinged, tread plate door with a pop latch to insure that items stored within stay secure.

HOSE STORAGE AREA, UNDER HYDRAULIC RACK

There shall be a hose storage area between the right side of the hose bed sidewall and the left of the upper side compartments under the hydraulic ladder rack. The hosebed area shall have a hinged treadbrite cover for ease of loading and unloading hose. The floor of the hosebed area shall be covered with Dura-Dek fiber re-inforced plastic material.

GROUND LADDER STORAGE

The ground ladders shall be stored on the hydraulic equipment rack with brackets that provide a quick method of removing and reloading the ladders. A quick release shall allow personnel to loosen and unhook the retaining strap in order to remove the ladders; a ratchet style mechanism shall securely and easily fasten the ladders back into place. The bracket shall allow a sectional ladder to still be clamped into position when the roof ladder has been removed.

HYDRAULIC EQUIPMENT RACK

Smeal Fire Apparatus Co.

There shall be a hydraulic equipment rack above the high compartments on the right side of the apparatus. The equipment rack shall be operated hydraulically, lowering equipment firmly to shoulder height for easy removal and reloading. The equipment rack shall be painted the same color as the apparatus and shall have space available for two (2) pike poles to be stored directly on the ladder rack.

The control switch shall be located on the right side of the body to allow viewing the equipment rack when operating. The control shall be wired to the parking brake and shall only be operable when the parking brake is applied.

The ladder rack shall be modular in design and built in a "T" shape, pivoting on a 20 inch wide arm. The module shall be located between the high side compartments. There shall be no guide arms or stabilizer arms located on the ends of the rack. The right side compartments shall be accessible when the equipment rack is in either the up or down position.

When in the up position, the lifting mechanism shall be fully retracted into the apparatus body and shall be flush with the side of the apparatus. Pilot operated check valves shall be installed in the hydraulic system to lock the rack in the stored position by maintaining pressure on the hydraulic cylinder.

There shall be a master shut off switch and a flashing indicator light on the chassis dash to warn the driver when the equipment rack is in the down position or in motion when the chassis parking brake is disengaged. The warning light shall be operative regardless of the position of the master switch.

Reflective striping shall be applied to the ladder rack assembly in a manner that will readily indicate a hazard or obstruction to personnel. In addition to the reflective striping, Whelen TIR3 series LED lights shall be affixed to the front and rear of the equipment rack. These lights shall automatically become energized any time the ladder rack is not fully bedded.

There shall be a tread plate shield installed on the hydraulic ladder rack. The shield shall protect the lifting mechanism of the ladder rack when in the up and stored position.

The following ground ladders shall be supplied with the apparatus:

One (1), Duo Safety model 585-A 10' folding ladder with bracket shall be provided. The ladder shall have a 300 pound duty rating and Duo Safety ladder shoes for slip resistance. The bracket shall be a high tensile aluminum alloy spring loaded bracket that will hold the ladder in place when the vehicle is in motion.

One (1), Duo Safety model 775-A 14' aluminum roof ladder shall be provided. The ladder shall have a 750 pound duty rating and aluminum roof hooks that fold for storage.

One (1), Duo Safety model 900-A 24' two section aluminum extension ladder shall be provided. The ladder shall be constructed with 6061-T6 aluminum alloy and shall have a 750 pound duty rating. The ladder shall have a closed length of 14' 2.75".

PIKE POLE STORAGE

There shall be one (1) aluminum tube for the storage of a pike pole.

The pike poles shall be stored on the right side hydraulic equipment rack.

The following pike poles shall be supplied with the apparatus:

WHEEL CHOCKS

Smeal Fire Apparatus Co.

There shall be one (1) pair of Cast Products model TMC1008-4 wheel chocks provided with the apparatus. The wheel chocks shall be mounted in Cast Products model TMC 1010 mounting brackets.

The wheel chocks shall be stored in locations that are easily accessible under the front of the body on the left side of the apparatus.

HANDRAILS

All handrails, unless otherwise stated, shall be constructed of knurled aluminum of not less than 1-1/4" in diameter. All railing shields and brackets shall be chrome plated, and shall be bolted to the body with stainless steel bolts. The lower bracket on all vertical handrails shall have a drain hole drilled in it at the lowest point.

The following handrails shall be provided on the apparatus:

There shall be a vertical handrail installed at the left rear of the apparatus.

There shall be a vertical handrail installed on the right rear of the apparatus.

There shall be a horizontal handrail installed above the rear compartment below the hose bed.

FUEL TANK GAUGE ACCESS PANEL

There shall be a removable panel provided in the rear compartment to allow for access to the fuel tank gauge without removing the fuel tank.

LICENSE PLATE BRACKET

There shall be a license plate bracket mounted on the rear of the apparatus. A clear LED light shall be incorporated into the bracket.

LONG-HANDLED TOOL COMPARTMENT ON LEFT REAR

There shall be a tool compartment on the left rear of the apparatus with a tread plate door that hinges outward. The compartment shall have trough type storage for long handled tools.

QL-12 ELECTRICAL SYSTEM

Wiring harnesses shall be the automotive type, engineered specifically for the builder's apparatus, and shall meet the following criteria. Under no circumstances shall diodes, resistors, or fusible links be located within the wiring harness. All such components shall be located in an easy to access wiring junction box or the main circuit breaker area. All wiring shall meet white book, baseline advanced design transit coach specification and Society of Automotive Engineers recommended practices. It shall be stranded copper wire core with cross linked polyethylene insulation complying with SAE specification J1128. Each wire shall be hot stamp function coded every three inches starting one inch from the end and continuing throughout the entire harness. In addition to function coding, each wire shall be number, color, and gauge coded.

Wire harnesses shall be wrapped with a high abrasion and chemical resistant thermoplastic polyester elastomer coated polyester yarn for braiding constructions of electrical wiring systems. The braid yarn shall have a minimum tensile strength of 15 lbs. before breaking and have a maximum of 20% elongation before breaking. Temperature properties for the yarn shall range from a minimum 280°F (138°C) service temperature to a maximum -112°F (-80°C) brittleness temperature with a cold flex tolerance of at least -49°F (-45°C).

Smeal Fire Apparatus Co.

Harnesses shall be modular in design; a main harness system subdivided into several smaller sub-harnesses. The harness subsections shall be connected using Deutsch branded, heavy duty, environmentally sealed, connectors with silicone seals and a rear insertion/removal contact system. For isolation of electrical "zones" the harness subsections shall consist of a main harness, a pump harness with a separate pump gauge panel harness, a left body harness with a separate left compartment harness, a right body harness with a separate right compartment harness, and a rear body harness with two separate rear compartment harnesses.

The main harness and three body harnesses shall interconnect at a central, easy to reach location and their connectors shall not be obstructed by other harnesses or fuel/air lines. In addition, the main and body harness connectors shall be color coded for ease of identification with their respective colors noted on the accompanying electrical diagrams.

Where connectors are not provided by the electrical component manufacturer, all 12 volt lights and other electrical components (excluding rocker and toggle switches) shall connect to the harnesses using Deutsch brand connectors; butt connectors are considered unacceptable.

All Deutsch connectors shall meet the following criteria:

- All connectors shall have a minimum IP67 rating.
- Temperature range from -67°F (-55°C) to 257°F (125°C) continuous at rated current.
- Only solid contacts will be used. Stamped and formed contacts are unacceptable.
- All contacts shall be soldered unless a crimping tool or machine is used that gives an even and precise pressure for the terminal being used.
- All contacts shall be pull-tested to insure their integrity.

V-MUX ELECTRICAL MANAGEMENT SYSTEM

The apparatus shall be equipped with a V-MUX Multiplex System. There are several key benefits to multiplexing, one is to reduce the number of connections in a vehicles electrical system, because of this it is important to limit the amount of modules that control certain functions of the vehicle.

Outputs:

The outputs shall perform all the following items without added modules to perform any of the tasks:

1. Load Shedding: The System shall have the capability to Load Shed with 8 levels any output. This means you can specify which outputs (barring NFPA restrictions) you would like Load Shed. Level 1 12.9v, Level 2 12.5V, Level 3 - 12.1V, Level 4 - 11.7V, Level 5 11.3V, Level 6 10.9V, Level 7 10.5, Level 8 10.1. Unlike conventional load shedding devices you can assign a level to any or all outputs. No add-on modules shall be acceptable; the module with the outputs must perform this function.
2. Load Sequencing: The System shall be able to sequence from 0 8 levels any output. With 0 being no delay and 1 being a 1 second delay, 2 being a 2 second delay and so on. Sequencing reduces the amount of voltage spikes and drops on your vehicle, and can help limit damage to your charging system. No add-on modules shall be acceptable; the module with the outputs must perform this function.
3. Output Device: The System shall have solid-state output devices. Each solid-state output shall be a MOS-FET (Metal Oxide Semiconductor - Field Effect Transistors); MOS-FETs are solid-state devices with no moving parts to wear out. A typical relay when loaded to spec has a life of 100,000 cycles. The life of a FET is more than 100 times that of a relay. No add-on modules shall be acceptable; the module with the outputs must perform this function.

Smeal Fire Apparatus Co.

4. Flashing Outputs: The System shall be able to flash any output in either A or B phase, and logic is used to shut down needed outputs in park, or any one of several combined interlocks. The flash rate can be selected at either 80, or 160 FPM. This means any light can be specified with a multiplex truck with no need to add flashers. Flashing outputs can also be used to warn of problems. No add-on modules shall be acceptable; the module with the outputs must perform this function.
5. PWM: The modules shall have the ability to PWM at some outputs so that a Headlight PWM module is not needed. No add-on modules shall be acceptable; the module with the outputs must perform this function.
6. Diagnostics: An output shall be able to detect either a short or open circuit.

Inputs:

1. The inputs shall have the ability to switch by a ground or battery signal.
2. The inputs shall be filtered for noise suppression via hardware and software so that RF or dirty power will not trick an input into changing its status.

System Network:

The Multiplex system shall contain a Peer-to-Peer network. A Master Slave Type network is not suitable for the Fire/Rescue industry. A Peer-to-Peer network means that all the modules are equal on the network; a Master is not needed to tell other nodes when to talk.

System Reliability:

The Multiplex system shall be able to perform in extreme temperature conditions, from -40° to +85° C (-40° to +185° F.) The system shall be sealed against the environment, moisture, humidity, salt or fluids such as diesel fuel, motor oil or brake fluid. The enclosures shall be rugged to withstand being mounted in various locations or compartments around the vehicle. The modules shall be protected from over voltage and reverse polarity.

WEATHERPROOF DOOR SWITCHES

Due the harsh environment and susceptibility to moisture on the fire ground, the fire apparatus compartment doors shall utilize weatherproof switches. Two different types of switches shall be used. Weatherproof proximity switches shall be utilized. **No Exceptions.**

The switches shall be used for activation of the compartment lights and to provide a signal to the door open circuit in the cab.

TAIL LIGHTS

There shall be a Whelen 600 series LED tail light assembly installed on each side of the rear of the apparatus. Each assembly shall include one (1) red LED stop/tail light model number 60BTT, one (1) amber LED model 60A00TAR turn light with arrow and one (1) clear halogen backup light model 60F000CR. The lights shall be mounted in a chrome plated four (4) light composite housing. The remaining slot in the housing shall be filled with a warning light specified in the warning light section.

MIDSHIP TURN SIGNALS

There shall be two (2) Truck-Lite model 21 LED midship auxiliary/turn signal lights installed. One (1) light shall be located in the rub rail on each side of the body.

BODY GROUND LIGHTING

Smeal Fire Apparatus Co.

There shall be four (4) Whelen model 20C0CDCR 4" round LED lights installed beneath the apparatus in areas where personnel may be expected to climb on and off of the apparatus. The lights shall illuminate the ground within 30" of the apparatus to provide visibility of any obstructions or hazards. These areas shall include, but shall not be limited to, side running boards and the rear step area.

There shall be four (4) aluminum ground light brackets provided to position each ground light so as to illuminate the ground within 30" of the apparatus.

CLEARANCE LIGHTS

Grote model 65282 red LED clearance lights shall be installed in the rear tailboard as necessary to be in full compliance with applicable ICC and DOT codes and regulations. Clearance reflectors shall be placed on the apparatus to be in full compliance with applicable ICC and DOT codes and regulations.

Shop Note: Installed above the traffic advisor like on 3182.

HOSE BED LOADING LIGHT

There shall be one (1) Unity, model AG-R hose bed loading light provided on the rear of the apparatus. The light shall be a 6" round light in a chrome housing. The hose bed lighting circuit shall be deactivated when the park brake is disengaged. The light shall include a switch at the lighthouse.

REAR WORK LIGHT SWITCH

A switch shall be installed above the tail light bezel on the left side of the rear of the apparatus. The switch shall be wired to the backup lights to provide additional work lighting. The rear work light circuit shall be deactivated when the park brake is disengaged. In addition to the lights being activated by the above switch, the lights shall also come on when the transmission is placed in reverse.

CHASSIS SUPPLIED BACK UP CAMERA SYSTEM

There shall be a backup camera system installed in the cab that shall be supplied with the chassis. The camera shall be installed on the rear center upper portion of the apparatus.

SIGTRONICS INTERCOM SYSTEM

There shall be a Sigtronics model US-67S intercom system provided on the apparatus. The system shall be a voice activated system and have the capability of interfacing with a mobile radio. The mobile radio transmit shall be accomplished by way of the headset microphone and a push-to-talk switch. The model US-67S intercom shall accept up to six headsets, three positions can have radio transmit capability. The system shall carry a two (2) year parts and labor warranty from the intercom manufacturer.

DRIVER POSITION

The Sigtronics intercom system shall accommodate one (1) driver position in the chassis cab. There shall be a headset hanger located in close proximity to the driver.

There shall be one (1) Sigtronics, model 800120, headset plug-in module installed. The module shall be designed for interior mounting and shall be compatible with Sigtronics headsets.

Smeal Fire Apparatus Co.

There shall be one (1), Sigtronics, model 800122, push-to-talk switch provided. The switch shall allow for mobile radio transmission through the Sigtronics intercom system with the use of a Sigtronics headset.

OFFICER POSITION

The Sigtronics intercom system shall accommodate one (1) officer position in the chassis cab. There shall be a headset hanger located in close proximity to the officer.

There shall be one (1) Sigtronics, model 800120, headset plug-in module installed. The module shall be designed for interior mounting and shall be compatible with Sigtronics headsets.

There shall be one (1), Sigtronics, model 800122, push-to-talk switch provided. The switch shall allow for mobile radio transmission through the Sigtronics intercom system with the use of a Sigtronics headset.

CREW POSITIONS

The Sigtronics intercom system shall accommodate two (2) crew positions in the chassis cab. There shall be a headset hanger located in close proximity to each crew position.

There shall be two (2) Sigtronics, model 800120, headset plug-in modules installed. Each module shall be designed for interior mounting and shall be compatible with Sigtronics headsets.

PUMP PANEL POSITION

The Sigtronics intercom system shall accommodate one (1) position at the pump operator's panel.

There shall be one (1) Sigtronics, model 800143, headset five prong plug-in module installed. The module shall be designed for exterior mounting and include a weather plug, model 100506. The module shall be compatible with Sigtronics headsets connected through a Belt PTT headset extension cable only.

There shall be one (1), Sigtronics, model 800122, push-to-talk switch provided. The switch shall allow for mobile radio transmission through the Sigtronics intercom system with the use of a Sigtronics headset.

UPPER ZONE A

There shall be one (1) Whelen Engineering Freedom, model FN72QLED with 9LLTH82 custom length, 82" LED light bar installed on the chassis cab roof. The light bar shall be equipped with two (2) forward facing linear red LED, two (2) forward facing linear white LED, two (2) corner forward facing red LED, and two (2) side facing red LED lights.

The light bar shall be equipped with clear lenses. All clear LED lights in the light bar shall be deactivated in the Blocking Right of Way mode.

UPPER ZONE C

There shall be two (2) Whelen, model L31 Super-LED® rotating beacon installed high at the rear of the apparatus. The beacons shall have a Cast Aluminum Base. The right rear beacon shall have a red LED and lens, model L31HRFN, and the left rear beacon shall have an amber LED and lens, model L31HAF.

LOWER ZONE A

The warning lights shall be supplied and installed by the chassis manufacturer.

LOWER ZONE B

Smeal Fire Apparatus Co.

There shall be one (1) Whelen, model 60R02FRR Super-LED® light with a Flange installed. The light shall have red LEDs and a red lens.

LOWER ZONE C

There shall be two (2) Whelen, model 60R02FRR Super-LED® lights with flanges installed. Each light shall have red LEDs and a red lens.

LOWER ZONE D

There shall be one (1) Whelen, model 60R02FRR Super-LED® light with a Flange installed. The light shall have red LEDs and a red lens.

There shall be one (1) Whelen, model 60R02SCR, 600 Series Super-LED® light with a chrome Flange installed. The light shall have red LEDs and a clear lens, and will be connected to the brake light circuit and used as a third rear brake light.

OPTICOM EMITTER

There shall be one (1) low profile LED Opticom™ emitter located in the light bar. The emitter shall have a performance range of up to 2,500 feet to provide preemption at all intersections equipped with the Opticom™ infrared system. The emitter shall be wired in such a manner as to be disabled when the park brake is set. A switch in the main switch panel shall control the unit in conjunction with the park brake circuit.

TRAFFIC ADVISOR™

There shall be one (1) Whelen model TAL85 LED Traffic Advisor™ installed on the apparatus. The traffic directional light shall contain eight (8) medium intensity LED lamps in a black low profile flat style housing.

The traffic directional light shall be recess mounted in the rear of the body.

There shall be a Whelen, model TACTLD1 traffic advisor control head provided with the Traffic Advisor™. The control head shall be housed in a rugged extruded aluminum case and shall offer eight programmable sequence flash patterns.

12 VOLT SCENE LIGHT

There shall be one (1) Whelen, model M9LZC, Super-LED® Gradient Scene light installed on the apparatus. The light shall be complete with chrome flange.

The 12 volt rear scene light shall be controlled by a switch located in the chassis cab. The switch shall have an indicator that shall illuminate when the switch is in the "ON" position. The light shall be controlled by one (1) switch. The switch shall be labeled "REAR SCENE."

In addition to the switch located in the cab, the 12 volt rear scene light shall be activated by the rear work light switch and when the apparatus is placed in reverse.

The 12 volt scene light shall be located on the rear of the apparatus body.

LED TELESCOPIC 12 VOLT LIGHT

There shall be one (1) Fire Research Spectra LED Scene Light model SPA530-Q20 side mount push up telescopic light installed on the apparatus. The light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole shall rotate 360 degrees. The outer pole shall be a grooved aluminum

Smeal Fire Apparatus Co.

extrusion and qualify as an NFPA compliant handrail. The pole mounting brackets shall have a 2-3/4" offset. Wiring shall extend from the pole bottom with a 4' retractile cord.

The lamphead shall have eighty four (84) ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 18/9 amps, and generate 20,000 lumens of light. The lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamphead angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamphead shall be no more than 5-3/8" high by 14" wide by 3-3/4" deep and have a heat resistant handle. The lamphead and mounting arm shall be powder coated. The LED scene light shall be for fire service use.

There shall be (2) remote switches provided; one (1) on the pump operator's panel and one (1) in the chassis cab for the 12 volt light.

The light shall be located on the rear of the chassis cab on the right side.

LED TELESCOPIC 12 VOLT LIGHT

There shall be one (1) Fire Research Spectra LED Scene Light model SPA530-Q20 side mount push up telescopic light installed on the apparatus. The light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole shall rotate 360 degrees. The outer pole shall be a grooved aluminum extrusion and qualify as an NFPA compliant handrail. The pole mounting brackets shall have a 2-3/4" offset. Wiring shall extend from the pole bottom with a 4' retractile cord.

The lamphead shall have eighty four (84) ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 12/24 volts DC, draw 18/9 amps, and generate 20,000 lumens of light. The lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamphead angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamphead shall be no more than 5-3/8" high by 14" wide by 3-3/4" deep and have a heat resistant handle. The lamphead and mounting arm shall be powder coated. The LED scene light shall be for fire service use.

There shall be (2) remote switches provided; one (1) on the pump operator's panel and one (1) in the chassis cab for the 12 volt light.

The light shall be located on the rear of the chassis cab on the left side.

BODY PAINT PREPARATION

After the body and components have been fabricated and assembled they shall be disassembled prior to painting, so when the apparatus is completed, there shall be finish paint beneath the removable components. The body shall be totally removed from the chassis during the painting process to insure the entire unit is covered. The apparatus body and components shall be metal finished as follows to provide a superior substrate for painting.

All galvanneal steel sections of the body shall undergo a five-step degreasing/cleaning process starting with an alkaline cleaner to degrease the metal surface and then rinsed. Next, a phosphoric acid rinse shall be performed to begin the etching process. A phosphatizer is applied to continue the etching process and deposit a protective film on the metal surface. The last step shall consist of a non-chromatic rinse to seal the protective film and rinse off excess solution. All aluminum surfaces undergo the last four steps in the cleaning process since degreasing of the metal is not needed.

Smeal Fire Apparatus Co.

After the cleaning process the body and its components shall be primed with a High Solids primer and the seams shall be caulked.

All bright metal fittings, if unavailable in stainless steel or polished aluminum, shall be heavily chrome plated. Iron fittings shall be copper under-plated prior to chrome plating.

PAINT PROCESS

The paint process shall follow the strict standards as set forth by PPG Fleet Finish Guidelines.

The body shall go through a three-stage paint process: primer coat, base coat (color), and clear coat. In the first stage of the paint process the body shall be coated with PPG F3980 Low VOC / High Solids primer to achieve a total thickness of 2-4 mills. In the second stage of the paint process the body shall be painted with PPG FBCH Delfleet™ High Solids Polyurethane Base Coat. A minimum of two to three coats of paint shall be applied to achieve hiding. In the final stage of the paint process the body shall be painted with PPG DCU-2002 Clear Coat. A minimum of two to three coats shall be applied to achieve a total dry film thickness of 2-3 mills.

As part of the curing process the painted body shall go through a Force Dry / Bake Cycle process. The painted components shall be baked at 185 degrees for 3 hours to achieve a complete coating cure on the finished product.

HAND POLISHED

After the Force Dry / Bake Cycle and ample cool down time, the coated surface shall be sanded using 3M 1000, 1200, and/or 1500 grit sandpaper to remove surface defects. In the final step, the surface shall be buffed with 3M super-duty compound to add extra shine to coated surface. No more than .5 mil of clear shall be removed in this process.

BODY COLOR

The body shall be painted with PPG High Solids Polyurethane Base Coat. The single tone body shall be painted (RED) PPG# FBCH-71698-ALT.

PAINT, PUMPER, UNDERSIDE

The underside of the apparatus shall be painted.

COMPARTMENT COATING

The interior of the body compartment shall be coated with gray Line-X® thermoplastic polyurethane coating. The coating shall be durable enough to withstand every day abuse of equipment removal and shifting.

LINE-X® THERMOPLASTIC COATING

In designated areas, Line-X® XS-350, a two component spray-in-place thermoplastic polyurethane system shall be used for maximum protection of the body and equipment. Line-X® XS-350 is a 100% high performance aromatic solids pure Polyurea elastomeric membrane. The coating shall be a fast cure, textured surface, multi-purpose material designed for commercial and industrial applications. It shall exhibit excellent adhesion to the body and serve as a protective, abrasion resistant liner where applied.

The coating shall exhibit the following minimum typical physical properties:

- Tensile strength - 3,432 PSI (ASTM D-412)
- Elongation - 162% (ASTM D-412)

Smeal Fire Apparatus Co.

- Tear Strength - 783 PLI (ASTM D-624)
- Shore D Hardness - 60 +/-1 (ASTM D-2240)

TOUCH UP PAINT

One (1) two ounce bottle of acrylic enamel touch-up paint or two (2) touch up paint pens, if color is available, shall be supplied.

CORROSION PREVENTION

One (1) 3.75 ounce tube of Electrolysis Corrosion Kontrol (ECK) shall be provided to use whenever additional items are mounted to the apparatus.

ECK protects aluminum and stainless steel against electrolytic reaction, isolates dissimilar metals and gives bedding protection for hardware and fasteners. ECK contains anti-seizing lubricant for threads. ECK is dielectric and perfect for use with electrical connectors.

NFPA COMPLIANT REFLECTIVE STRIPING

Reflective striping be applied to the exterior of the apparatus in a manner consistent with NFPA 1901. It consist of a 4" wide stripe low across the front of the chassis and along the sides up to the first compartment on each side where it shall angle up and back to a point in the upper compartments where it shall then run level to the back edge of the body.

REFLECTIVE STRIPE TERMINATION

The NFPA reflective stripe located on the side of the apparatus shall terminate at the side of the front bumper.

There shall also be reflective striping provided on the front face of the bumper.

The color of the main reflective striping on the apparatus shall be white.

RUB RAIL REFLECTIVE STRIPING

There shall be 2" reflective striping installed in the rub rail channel. The reflective striping shall be diamond grade quality material for increased visibility. The reflective shall be silver in color.

CAB DOOR REFLECTIVE STRIPING

The reflective striping on the inside of the chassis door shall be provided by the chassis manufacturer.

CHEVRON REFLECTIVE STRIPING ON REAR

In addition to the custom striping pattern supplied on the apparatus, there shall be additional reflective striping applied to the entire rear of the unit. The reflective striping shall cover at least 50% of the rear facing vertical surface per NFPA 1901. The striping shall consist of a solid base layer of reflective material and alternate between the exposed base layer material and durable, transparent, acrylic colored film. Each stripe shall be a minimum of 6" in width and shall be applied to the apparatus at 45° angle.

The chevron pattern shall include the T1 compartment lap door and any other painted storage compartment doors.

CHEVRON REFLECTIVE STRIPING, RED/FLUORESCENT YELLOW-GREEN

The chevron striping shall consist of 3M part numbers 1172 EC, red and 3983, fluorescent yellow-green.

Smeal Fire Apparatus Co.

Only 3M Diamond Grade™ VIP Reflective Striping shall be used. 3M Diamond Grade™ VIP Reflective Striping is a wide angle prismatic lens reflective sheeting designed for the production of durable traffic control signs and delineators that are exposed vertically in service. This sheeting is designed to provide higher sign brightness than sheetings that use glass bead lenses. It is intended to also provide high sign brightness in the legibility distance where other sheetings do not.



610 WEST 4TH ST. - P.O. BOX 4
SNYDER, NEBRASKA 68864

smeal.com
(402) 368-2224

WE BUILD RESPECT.

Basic Limited Parts & Labor Warranty Smeal Fabricated Parts

One (1) Year

1. Smeal Fire Apparatus Company ("Smeal") warrants to each original purchaser only that the Smeal apparatus is free of defects in material and workmanship for a period of one (1) year, beginning on the 30th day from the invoice date for the completed apparatus.

2. Smeal's sole obligation under this warranty is limited to the repair or replacement, as determined by Smeal, without charge to the original purchaser, which repairs shall be performed solely by Smeal at its principal place of business or at a repair facility selected by Smeal. This warranty covers only portions of the Fire Apparatus that are manufactured by Smeal. This warranty covers only labor for repair or replacement which is reasonably necessary, as determined by Smeal, to make the repair or replacement deemed necessary by Smeal. Any labor, time, or amounts that are in excess of those reasonably necessary or deemed to be excessive by Smeal are not covered under this warranty. All repairs must be expressly approved in writing by the Smeal warranty department. The failure to obtain approval for repairs from Smeal or to have the apparatus or item repaired or replaced at Smeal or a place designated by Smeal shall void this warranty. Any repair or replacement performed by Smeal pursuant to this warranty shall be warranted under this warranty only for the duration of the original warranty.

3. This warranty is nontransferable and terminates upon transfer of ownership, lease, or disposition of the apparatus from the original purchaser to any other person or entity.

4. Smeal's obligation to render any performance under this warranty is subject to the following conditions:

- The claimed defect must manifest itself during the warranty period;
- The original purchaser must notify Smeal in writing of the claimed defect within thirty (30) days after the claimed defect manifests itself to the original purchaser; and
- The claimed defective item or items must be returned to Smeal or Smeal's designee immediately after notification of Smeal with transportation charges prepaid, unless otherwise directed by Smeal. Smeal shall have the unconditional right to thoroughly examine the claimed defects, including the apparatus and any part thereof, prior to conducting or approving any repair or replacement to determine whether the claimed defect is covered by this warranty. The failure of Smeal to conduct any such examination shall not be deemed to be a waiver of its right to deny warranty coverage.
- Notwithstanding anything to the contrary herein, Smeal makes no warranty whatsoever as to (a) any integral parts, components, attachments or trade accessories of or to the vehicle that are not manufactured by Smeal, including but not limited to any and all components installed on and supplied by the chassis, such as but not necessarily limited to axles, chassis frame, engines, transmissions, alternators.
- Notwithstanding anything to the contrary herein, Smeal shall warrant, both replacement of defective part and associated labor, for (a) any integral parts, components, attachments or trade accessories of or to the vehicle that are manufactured and installed on the vehicle by Smeal that is a part of the fire package, apparatus body, or aerial, if applicable, for the warranty period described within this document. Any and all failed components and/or parts must be returned to Smeal as stated within this document.

5. This warranty is effective only under normal use and conditions.

In addition, this warranty does not cover:

a) Any and all parts and/or components purchased by Smeal from a supplier/vendor and which are properly installed on or affixed to the apparatus by Smeal during the manufacturing of the apparatus.

b) Damage or corrosion due to improper use, improper maintenance, unauthorized alterations to the apparatus or repairs, chemical deterioration, accidents, or acts of God, or operation beyond rated capacity; or

c) Any liability for direct or indirect damages or delays resulting from any defects, including but not limited to, special, incidental or consequential damages, loss of use, and loss of profits; or

d) The cost of transporting original purchaser's apparatus or item to or from any repair facility.

At the request of Smeal, any allegedly defective vehicle shall be returned to Smeal by the purchaser for examination and/or repair. The purchaser shall be responsible for the cost of transportation, and for the risk of loss of or damage to the vehicle during such transportation.

- Ordinary maintenance services or adjustments; or
- Replacement of any ordinary maintenance items, including but not limited to, filters, screens, lubricants, and light bulbs; or
- Any item which is manufactured by any person or entity other than Smeal that is separately warranted in any manner by said person or entity.

6. This warranty is absolutely void if Smeal determines that the apparatus or any item has been misused, neglected, altered, overloaded, loaded to a state of excessive imbalance, or damaged. In addition this warranty is void if Smeal determines that the original purchaser has misrepresented or concealed any material fact in connection with this warranty claim or that the apparatus or item has been damaged in an accident or an act of God, or that the defect is attributable to any use by the original customer of the product which is contrary to the intended use for which the product was manufactured or designed by Smeal. Also, any disturbance of a painted surface due to mounting of any type of equipment by anyone other than Smeal shall be cause for void of warranty.

7. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE FOR A PARTICULAR PURPOSE AND ALSO INCLUDES, BUT NOT LIMITED TO, WARRANTIES IS FURTHER IN LIEU OF ALL OTHER REPRESENTATIONS TO THE ORIGINAL PURCHASER AND ANY OTHER OBLIGATIONS OR LIABILITIES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, ANY OBLIGATION OR LIABILITY FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SMEAL NEITHER GIVES, ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO GIVE OR ASSUME ANY OTHER WARRANTY, OBLIGATION OR LIABILITY ON SMEAL'S BEHALF, UNLESS EXPRESSLY GIVEN OR ASSUMED IN WRITING BY SMEAL.

8. PERFORMANCE OF REPAIRS OR REPLACEMENT OF PARTS UNDER THE TERMS SET FORTH HEREIN ARE THE EXCLUSIVE REMEDIES AFFORDED TO THE BUYER AND NEITHER SMEAL NOR ANY OF ITS DISTRIBUTORS OR AGENTS SHALL BE LIABLE FOR ANY BREACH OF WARRANTY IN AN AMOUNT EXCEEDING THE PURCHASE PRICE OF THE DEFECTIVE APPARATUS EQUIPMENT OR ITEM. THIS WARRANTY SHALL NOT BE EXTENDED, ALTERED, OR VARIED EXCEPT BY WRITTEN AGREEMENT SIGNED BY SMEAL AND THE ORIGINAL PURCHASER.

9. Smeal reserves the right to make changes in design of and/or improvements on its products or to change specifications on materials as it may deem desirable at any time without imposing any obligations on itself to make corresponding changes or improvements in or on its products theretofore manufactured. Only the Smeal apparatus and its components manufactured by Smeal are bound by this warranty. Components of other manufacturers are covered only by such warranties set forth by the component manufacturer.

Any surety bond, if required, shall apply only to the basic one year warranty and not to any other extended warranty or warranties made by Smeal or any of Smeal's suppliers.

Option ID: W01500

Loma Linda Fire Dept.
11325 Loma Linda Dr.

Loma Linda, CA 92354 SO#:

NON-ORIGINAL



610 WEST 4TH ST. - P.O. BOX 4
SNYDER, NEBRASKA 68664

smeal.com
(402) 368-2224

WE BUILD RESPECT.

Plumbing and Piping Limited Warranty Smeal Manufactured Parts

Ten (10) Years

1. Smeal Fire Apparatus Company ("Smeal") warrants to each original purchaser only that the Stainless Steel plumbing piping shall be free from corrosion (perforation) is defined as an actual hole through the piping material caused by corrosion) for a period of ten (10) years, beginning on the 30th day from the invoice date for the completed apparatus. This warranty shall apply only to the piping for the discharges and intakes plumbed to the truck's main water pump and shall not include the pump or any of its accessories.

2. Smeal's sole obligation under this warranty is limited to the repair or replacement, as determined by Smeal, without charge to the original purchaser, which repairs shall be performed solely by Smeal at its principal place of business or at a repair facility selected by Smeal. This warranty covers only labor for repair or replacement which is reasonably necessary, as determined by Smeal, to make the repair or replacement deemed necessary by Smeal. Any labor, time, or amounts that are in excess of those reasonably necessary or deemed to be excessive by Smeal are not covered under this warranty. All repairs must be expressly approved in writing by Smeal's warranty department. The failure to obtain approval for repairs from Smeal or to have the apparatus or item repaired or replaced at Smeal or a place designated by Smeal shall void this warranty. Any repair or replacement performed by Smeal pursuant to this warranty shall be warranted under this warranty only for the duration of the original warranty.

3. This warranty is nontransferable and terminates upon transfer of ownership, lease, or disposition of the apparatus from the original purchaser to any other person or entity.

4. Smeal's obligation to render any performance under this warranty is subject to the following conditions:

a) The claimed defect must manifest itself during the warranty period;

b) The original purchaser must notify Smeal in writing of the claimed defect within thirty (30) days after the claimed defect manifests itself to the original purchaser; and

c) The claimed defective item or items must be returned to Smeal or Smeal's designee immediately after notification of Smeal with transportation charges prepaid, unless otherwise directed by Smeal. Smeal shall have the unconditional right to thoroughly examine the claimed defects, including the apparatus and any part thereof, prior to conducting or approving any repair or replacement to determine whether the claimed defect is covered by this warranty. The failure of Smeal to conduct any such examination shall not be deemed to be a waiver of its right to deny warranty coverage.

5. This warranty is effective only under normal use and conditions. In addition, this warranty does not cover:

a) Damage or corrosion due to improper use, improper maintenance, unauthorized alterations to the apparatus or repairs, chemical deterioration, accidents, or acts of God, or operation beyond rated capacity; or

b) Any liability for direct or indirect damages or delays resulting from any defects, including but not limited to, special, incidental or consequential damages, loss of use, and loss of profits; or

c) The cost of transporting original purchaser's apparatus or item to or from any repair facility.

At the request of Smeal, any allegedly defective vehicle shall be returned to Smeal by the purchaser for examination and/or repair. The purchaser shall be responsible for the cost of transportation and for the risk of loss of or damage to the vehicle during such transportation.

d) Ordinary maintenance services or adjustments; or

6. This warranty is absolutely void if Smeal determines that the apparatus or any item has been misused, neglected, altered, overloaded, loaded beyond specified compartment weight limits, loaded to a state of excessive imbalance, or damaged. In addition this warranty is void if Smeal determines that the original purchaser has misrepresented or concealed any material fact in connection with this warranty claim or that the apparatus or item has been damaged in an accident or by an act of God, or that the defect is attributable to any use by the original customer of the product which is contrary to the intended use for which the product was manufactured or designed by Smeal. Also, any disturbance of a painted surface due to mounting of any type of equipment by anyone other than Smeal Fire Apparatus.

7. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE FOR A PARTICULAR PURPOSE AND ALSO INCLUDES, BUT NOT LIMITED TO, WARRANTIES IS FURTHER IN LIEU OF ALL OTHER REPRESENTATIONS TO THE ORIGINAL PURCHASER AND ANY OTHER OBLIGATIONS OR LIABILITIES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, ANY OBLIGATION OR LIABILITY FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SMEAL NEITHER GIVES, ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO GIVE OR ASSUME ANY OTHER WARRANTY, OBLIGATION OR LIABILITY ON SMEAL'S BEHALF, UNLESS EXPRESSLY GIVEN OR ASSUMED IN WRITING BY SMEAL.

8. PERFORMANCE OF REPAIRS OR REPLACEMENT OF PARTS UNDER THE TERMS SET FORTH HEREIN ARE THE EXCLUSIVE REMEDIES AFFORDED TO THE BUYER AND NEITHER SMEAL NOR ANY OF ITS DISTRIBUTORS OR AGENTS SHALL BE LIABLE FOR ANY BREACH OF WARRANTY IN AN AMOUNT EXCEEDING THE PURCHASE PRICE OF THE DEFECTIVE APPARATUS EQUIPMENT OR ITEM. THIS WARRANTY SHALL NOT BE EXTENDED, ALTERED, OR VARIED EXCEPT BY WRITTEN AGREEMENT SIGNED BY SMEAL AND THE ORIGINAL PURCHASER.

9. Smeal reserves the right to make changes in design of and/or improvements on its products or to change specifications on materials as it may deem desirable at any time without imposing any obligations on itself to make corresponding changes or improvements in or on its products. theretofore manufactured. Only the Smeal apparatus and its components manufactured by Smeal are bound by this warranty. Components of other manufacturers are covered only by such warranties set forth by the component manufacturer.

Option ID: W10300

Loma Linda Fire Dept.
11325 Loma Linda Dr.
Loma Linda, CA 92354 SO#:



610 WEST 4TH ST. - P.O. BOX 4
SNYDER, NEBRASKA 68664

smeal.com
(402) 368-2224

WE BUILD RESPECT.

Structural Body Integrity Limited Warranty Smeal Manufactured Parts

Ten (10) Years

1. Smeal Fire Apparatus Company ("Smeal") warrants that the body of each newly constructed apparatus which is manufactured by Smeal shall be free of structural or design failure or workmanship for a period of ten (10) years or 100,000 miles, beginning on the 30th day from the invoice date for the completed apparatus.

2. This warranty shall only cover tubular support, water tank cradle support, body/pump house mount structures, and other structural components as set forth in Smeal's body specifications.

3. Smeal reserves the right to thoroughly examine the apparatus or any parts thereof which are claimed to be defective and Smeal's obligation pursuant to this warranty shall be limited to the repair or replacement of the structural component or components which Smeal determines to have structurally failed due to defective manufacture, design, or workmanship. This repair or replacement shall be without charge to the original purchaser and Smeal shall have the sole right to elect whether the apparatus or items shall be repaired or replaced, which repairs shall be performed solely by Smeal at its principal place of business or at a repair facility selected by Smeal. This warranty covers only labor for repair or replacement which is reasonably necessary, as determined by Smeal, to make the repair or replacement deemed necessary by Smeal. Any labor, time or amounts which are in excess of those reasonably necessary or deemed to be excessive by Smeal are not covered under this warranty. All repairs must be expressly approved in writing by Smeal's Warranty department. The failure to obtain approval for repairs from Smeal or to have the apparatus or item repaired or replaced at Smeal or a place designated by Smeal shall void this warranty. Any repair or replacement performed by Smeal pursuant to this warranty shall be warranted under this warranty only for the duration of the original warranty.

4. This warranty is nontransferable and terminates upon transfer of ownership or possession of the apparatus from the original purchaser to any other third party or entity.

5. Smeal's obligation to render any performance under this warranty is subject to the following conditions:

- a) The claimed failure must manifest itself during the warranty period.
- b) The original purchaser must notify Smeal in writing of the claimed failure within thirty (30) days after the claimed failure manifests itself to the original purchaser.
- c) The claimed defective apparatus or item must be returned to Smeal or Smeal's designee immediately after notification of Smeal with transportation charges prepaid, unless otherwise directed by Smeal. Smeal shall have the unconditional right to thoroughly examine the claimed failures, including the apparatus and any part thereof, prior to conducting or approving any repair or replacement to determine whether the claimed failure is covered by this warranty. The failure of Smeal to conduct any such examination shall not be deemed to be a waiver of its right to deny warranty coverage.

6. This warranty is effective only under normal use and conditions.

In addition, this warranty does not cover:

a) Damage or corrosion due to improper use, improper maintenance, unauthorized alterations to the structure or repairs, chemical deterioration, accidents, acts of God or operation beyond rated capacity; or

b) Any liability for direct or indirect damages or delays resulting from any failures, including but not limited to, special, incidental, or consequential damages, loss of use, and loss of profits; or

c) The cost of transporting original purchaser's apparatus or item to or from any repair facility.

At the request of Smeal, any allegedly defective vehicle shall be returned to Smeal by the purchaser for examination and/or repair. The purchaser shall be responsible for the cost of transportation and for the risk of loss of or damage to the vehicle during such transportation.

d) Non-structural cracks or breakage; or

e) Metal deformities, including buckling or material bending, unless the same was caused by the structural failure of a structural component.

7. This warranty is absolutely void if Smeal determines that the apparatus or any item has been misused, neglected, altered, overloaded, loaded to a state of excessive imbalance, or damaged. In addition this warranty is void if Smeal determines that the original purchaser has misrepresented or concealed any material fact in connection with this warranty claim or that the apparatus or item has been damaged in an accident or act of God or that the failure is attributable to any use by the original customer which is contrary to the intended use for which the product was manufactured or designed by Smeal.

8. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE FOR A PARTICULAR PURPOSE AND ALSO INCLUDES, BUT IS NOT LIMITED TO, WARRANTIES ARISING BY OPERATION OF LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, OR USAGE OF TRADE. THIS WARRANTY IS FURTHER IN LIEU OF ALL OTHER REPRESENTATIONS TO THE ORIGINAL PURCHASER AND ANY OTHER OBLIGATIONS OR LIABILITIES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, ANY OBLIGATION OR LIABILITY FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. SMEAL NEITHER GIVES, ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO GIVE OR ASSUME ANY OTHER WARRANTY, OBLIGATION OR LIABILITY ON SMEAL'S BEHALF, UNLESS EXPRESSLY GIVEN OR ASSUMED IN WRITING BY SMEAL.

9. Smeal reserves the right to make changes in the design of and/or improvements on its products or to change specifications on material as it may deem desirable to any item without imposing any obligations on itself to make corresponding changes or improvements in or on its products theretofore manufactured. Only the Smeal apparatus and its components manufactured by Smeal are bound by this warranty. Components of other manufacturers are covered only by such warranties set forth by the component manufacturer.

Option ID: W10100

Loma Linda Fire Dept.
11325 Loma Linda Dr.

NON-ORIGINAL



610 WEST 4TH ST. - P.O. BOX 4
SNYDER, NEBRASKA 68664

smeal.com
(402) 588-2224

WE BUILD RESPECT.

Galvanized Body Sub-Structure/Tank-Cradle (GS-36) Integrity Limited Warranty: Pumper, Rescue-Pumper & Pumper-Tanker Models

Smeal Manufactured Parts

Twenty (20) Years

1. Smeal Fire Apparatus Company ("Smeal") warrants that the galvanized body sub-structure / tank-cradle (GS-36); which is manufactured by Smeal, shall be free of structural or design failure or workmanship for a period of twenty (20) years or 100,000 miles, beginning on the 30th day from the invoice date for the completed apparatus.

2. This warranty shall only cover structural components identified in the Smeal specifications of the GS-36, including the body sub-structure, tank-cradle and the galvanized pump compartment truck frame mounts.

3. Smeal reserves the right to thoroughly examine the apparatus or any parts thereof which are claimed to be defective and Smeal's obligation pursuant to this warranty shall be limited to the repair or replacement of the structural component or components which Smeal determines to have structurally failed due to defective manufacture, design, or workmanship. This repair or replacement shall be without charge to the original purchaser and Smeal shall have the sole right to elect whether the vehicle or items shall be repaired or replaced, which repairs shall be performed solely by Smeal at its principal place of business or at a repair facility selected by Smeal. This warranty covers only labor for repair or replacement which is reasonably necessary, as determined by Smeal, to make the repair or replacement deemed necessary by Smeal. Any labor, time, or amounts which are in excess of those reasonably necessary or deemed to be excessive by Smeal are not covered under this warranty. All repairs must be expressly approved in writing by the Smeal warranty department. The failure to obtain approval for repairs from Smeal or to have the apparatus or item repaired or replaced at Smeal or a place designated by Smeal shall void this warranty. Any repair or replacement performed by Smeal pursuant to this warranty shall be warranted under this warranty only for the duration of the original warranty.

4. This warranty is nontransferable and terminates upon transfer of ownership or possession of the apparatus from the original purchaser to any other third party or entity.

5. Smeal's obligation to render any performance under this warranty is subject to the following conditions:

a) The claimed failure must manifest itself during the warranty period;

b) The original purchaser must notify Smeal in writing of the claimed failure within thirty (30) days after the claimed failure manifests itself to the original purchaser;

c) The claimed defective apparatus or item must be returned to Smeal or Smeal's designee immediately after notification of Smeal with transportation charges prepaid, unless otherwise directed by Smeal. Smeal shall have the unconditional right to thoroughly examine the claimed failures, including the apparatus and any part thereof, prior to conducting or approving any repair or replacement to determine whether the claimed failure is covered by this warranty. The failure of Smeal to conduct any such examination shall not be deemed to be a waiver of its right to deny warranty coverage.

6. This warranty is effective only under normal use and conditions.

In addition, this warranty does not cover:

a) Damage or corrosion due to improper use, improper maintenance, unauthorized alterations to the structure or repairs, chemical deterioration, accidents, acts of God, or operation beyond rated capacity; or

b) Any liability for direct or indirect damages of delays resulting from an failures, including, but not limited to, special, incidental, or consequential damages, loss of use, and loss of profits; or

c) The cost of transporting original purchaser's apparatus or item to or from any repair facility.

At the request of Smeal, any allegedly defective vehicle shall be returned to Smeal by the purchaser for examination and/or repair. The purchaser shall be responsible for the cost of transportation and for the risk of loss of or damage to the vehicle during such transportation.

d) Non-structural cracks or breakage; or

e) Metal deformities, including buckling or material bending, unless the same was caused by the structural failure of a structural component.

7. This warranty is absolutely void if Smeal determines that the apparatus or any item has been misused, neglected, altered, overloaded, loaded to a state of excessive imbalance, or damaged. In addition this warranty is void if Smeal determines that the original purchaser has misrepresented or concealed any material fact in connection with this warranty claim or that the vehicle or item has been damaged in an accident or act of God, or that the failure is attributable to any use by the original customer which is contrary to the intended use for which the product was manufactured or designed by Smeal.

8. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE FOR A PARTICULAR PURPOSE AND ALSO INCLUDES, BUT IS NOT LIMITED TO, WARRANTIES ARISING BY OPERATION OF LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, OR USAGE OF TRADE. THIS WARRANTY IS FURTHER IN LIEU OF ALL OTHER REPRESENTATIONS TO THE ORIGINAL PURCHASER AN ANY OTHER OBLIGATIONS OR LIABILITIES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, ANY OBLIGATION OR LIABILITY FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. SMEAL NEITHER GIVES, ASSUMES, NOR AUTHORIZES ANY OTHER PERSON TO GIVE OR ASSUME ANY OTHER WARRANTY, OBLIGATION, OR LIABILITY ON SMEAL'S BEHALF, UNLESS EXPRESSLY GIVEN OR ASSUMED IN WRITING BY SMEAL.

9. Smeal reserves the right to make changes in the design of and/or improvements on its products or to change specifications on material as it may deem desirable at any time without imposing any obligations on itself to make corresponding changes or improvements in or on its products theretofore manufactured. Only the Smeal apparatus and its components manufactured by Smeal are bound by this warranty. Components of other manufacturers are covered only by such warranties set forth by the component manufacturer.

Option ID: W20100

Warranty assigned to:

Shop Order Number:



610 WEST 4TH ST. - P.O. BOX 4
SNYDER, NEBRASKA 68664

smeal.com
(402) 568-2224

WE BUILD RESPECT.

Paint and Corrosion Limited Warranty Smeal Painted Parts

Three (3) Years Paint / Ten (10) Years Corrosion

1. The warranty period shall begin on the 30th day from the invoice date for the completed apparatus.

2. Except as provided below, for a period of three (3) years after delivery to the original purchaser, Smeal Fire Apparatus Co. ("Smeal") warrants to the end user that its body is free of blistering, peeling, or any other adhesion defect caused by defective manufacturing methods or paint material selection for exterior surfaces of the body of this vehicle. This limited warranty shall apply only if the vehicle is properly maintained and used in service which is normal to the particular vehicle. Normal service means service which does not subject the vehicle to stresses or impacts greater than normally result from the careful use of the vehicle. If the buyer discovers a defect or nonconformity it must notify Smeal in writing within thirty (30) days after the date of the discovery. This limited warranty is not transferable by the first user, and is applicable to the vehicle in the following percentage costs of warranty repair, if any:

Topcoat Durability & Appearance: Gloss, Color Retention & Cracking	Integrity of Coating System: Adhesion, Blistering/Bubbling	Corrosion: Dissimilar Metal and Crevice
0-48 months 100%	0-36 months 100%	0-36 months 100%

3. This limited warranty applies only to the body exterior paint. Paint on the vehicle's undercarriage, and body interior (Line-X included), or aerial structure related paint, if applicable, is warranted only under the Smeal Basic One Year Limited Warranty.

4. In addition to the foregoing, and subject to all terms and conditions of this limited warranty, except cost allocations, Smeal warrants its body exterior paint for a period of ten (10) years against corrosion perforation.

5. Smeal makes no warranty whatsoever as to:

(a) integral parts, components, attachments or trade accessories not manufactured by Smeal, but instead, the applicable warranties, if any, of the respective manufacturers thereof shall apply;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect or accident;

(c) any vehicle chassis or component, part, attachment or accessory shall have been repaired, altered or assembled in any way by others than Smeal which, in the sole judgment of Smeal, affects the performance, stability or purpose for which it was manufactured; and

(d) products or parts which are not defective but which may wear out and have to be replaced during the warranty period. Smeal assumes no responsibility for the assembly of its parts or sub-assembly into finished products unless the assembly is performed by Smeal.

Warranty Inclusions:

- Peeling or delamination of the topcoat and/or other layers of paint.
- Cracking or checking.

Quote No: 0013667

- Excessive loss of gloss caused by cracking, checking or hazing.

Warranty Exclusions:

- Paint deterioration caused by blisters or other film degradation due to rust or corrosion originating from the substrate
- Hazing, chalking or loss of gloss caused by improper care, abrasive polishes, cleaning agents, heavy-duty pressure washing, or aggressive mechanical wash systems.
- Paint deterioration caused by abuse, scratches, chips, gloss reduction, accidents, acid rain, chemical fallout or acts of nature.
- Claims presented without proper Warranty documentation.

In addition, this warranty does not cover:

The cost of transporting original purchaser's apparatus or item to or from any repair facility.

At the request of Smeal, any allegedly defective vehicle shall be returned to Smeal by the purchaser for examination and/or repair. The purchaser shall be responsible for the cost of transportation, and for the risk of loss of or damage to the vehicle during such transportation.

6. DISCLAIMERS OF WARRANTIES:

THE WARRANTIES SET FORTH IN PARAGRAPH 1 ARE THE EXCLUSIVE WARRANTIES GIVEN BY SMEAL. SMEAL HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

7. BUYER'S REMEDIES:

If the product fails to conform to the warranties set forth in paragraph 1 and such nonconformity is not due to misuse or improper maintenance, buyer shall notify Smeal as provided in paragraph 1, and shall make the product available for inspection by Smeal or its designated agent. At the request of Smeal, any defective vehicle shall be returned to Smeal for examination and/or repair. The cost of such transportation will be the responsibility of the buyer. Within a reasonable time, Smeal shall repair or replace any nonconforming or defective paint component. THIS REMEDY SHALL BE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

8. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES:

IN NO EVENT SHALL SMEAL BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OF FROM DEFECTS IN THE PRODUCT OR FROM THE NEGLIGENCE OF SMEAL OR FROM TORT.

This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence or strict liability in tort or under any other legal theory.

Option ID: W03200

Loma Linda Fire Dept.
11325 Loma Linda Dr.
Loma Linda, CA 92354 SO#:

NON-ORIGINAL



Hale Products Inc. • A Unit of IDEX Corporation
700 Spring Mill Avenue • Conshohocken, PA. 19428
Phone: 610-825-6300 • Fax: 610-825-6440
www.haleproducts.com

Hale Products Inc. Limited Standard Warranty (Fire Service Applications Only)*

EXPRESS WARRANTY: Hale Products, Incorporated (“Hale”) hereby warrants to the original buyer that products manufactured by Hale are free of defects in material and workmanship for a period of five (5) years from the date the product is first placed into service or five and one-half (5-1/2) years from date of shipment by Hale, whichever period shall be first to expire. Within this warranty period Hale will cover parts and labor for the first two (2) years and parts only for years three (3) through five (5).

LIMITATIONS: HALE’S obligation is expressly conditioned on the Product being:

- Subjected to normal use and service.
- Properly installed and maintained in accordance with HALE’S Instruction Manual and Industry Standards as to recommended service and procedures.
- Not damaged due to abuse, misuse, negligence or accidental causes.
- Not altered, modified, serviced (non-routine) or repaired other than by an Authorized Service facility.
- Manufactured per design and specifications submitted by the original buyer.
- Used with an appropriate engine as determined by the engine manufacturers published data.
- Excluded are normal wear items identified as but not limited to packing, strainers, anodes, filters, light bulbs, intake screens, wear rings, mechanical seals, etc.

THE ABOVE EXPRESS LIMITED WARRANTY IS EXCLUSIVE. NO OTHER EXPRESS WARRANTIES ARE MADE. SPECIFICALLY EXCLUDED ARE ANY IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATIONS, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE; COURSE OF DEALING; USAGE OF TRADE; OR PATENT INFRINGEMENT FOR A PRODUCT MANUFACTURED TO ORIGINAL BUYER’S DESIGN AND SPECIFICATIONS.

EXCLUSIVE REMEDIES: If Buyer promptly notifies HALE upon discovery of any such defect (within the Warranty Period), the following terms shall apply:

- Any notice to HALE must be in writing, identifying the Product (or component) claimed defective and circumstances surrounding its failure.
- HALE reserves the right to physically inspect the Product and require Buyer to return same to HALE’S plant or Authorized service Facility.
- In such event, Buyer must notify HALE for a Return Goods Authorization number and Buyer must return the Product F.O.B. within (30) days thereof.
- If determined defective, HALE shall, at its option, repair or replace the Product, or refund the purchase price (less allowance for depreciation).
- HALE’s reimbursement covers only the standard labor and Hale components required for the removal, repair, and/or re-installation of HALE supplied Product.
- HALE’s reimbursement does not cover the standard labor or components for the removal and reinstallation of non-HALE supplied components.
- Absent proper notice within the Warranty Period, HALE shall have no further liability or obligation to Buyer therefore.

THE REMEDIES PROVIDED ARE THE SOLE AND EXCLUSIVE REMEDIES AVAILABLE. IN NO EVENT SHALL HALE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOSS OF LIFE; PERSONAL INJURY; DAMAGE TO REAL OR PERSONAL PROPERTY DUE TO WATER OR FIRE; TRADE OR OTHER COMMERCIAL LOSSES ARISING, DIRECTLY OR INDIRECTLY OUT OF PRODUCT FAILURE.

* Portable and float pumps, non-fire service applications, skids and trailer products sold



by Hale are not covered by this warranty document.

NON-ORIGINAL



UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

LIFETIME SERVICE WARRANTY

United Plastic Fabricating, Inc. (hereinafter called "UPF") warrants each POLY-TANK®, Booster/Foam Tank POLYSIDE® Wetside Tank, Integrator Tank/Body, ELLIPSE™ Elliptical Tank, Ellip-T-Tank Tank and DEFENDER™ Skid Tank to be free from defects in material and workmanship for the service life of the original vehicle (vehicle must be actively used in an emergency response for fire suppression). All UPF Tanks must be installed and operated in accordance with the UPF Installation and Operating Guidelines. Failure to do so can void the warranty.

Every UPF Tank is inspected and tested before leaving our facility. Should your UPF Tank require service, please notify UPF via email, fax, in writing or by calling UPF at 1-978-975-4520. Please provide the serial number, a description of the service request, the location along with the phone number and name of the contact person. Our goal is to have scheduled work completed within a reasonable time period.

Under a valid warranty claim, UPF will cover the cost to repair the UPF Tank including the customary and reasonable costs to make the tank accessible such as the removal and reinstallation of the tank if authorized in advance (pre-approved) by UPF. The warranty will not cover tanks that have been improperly installed, operated, misused, abused, or modified from its intended or designed use. Serial number must not have been altered, defaced or removed. Tanks that are not stored or installed properly which results in the tank suffering UV damage will not be covered by this agreement.

Should UPF determine that the service claim is valid under this warranty for a tank located outside of the United States and Canada, UPF will assume the costs for labor and material for the warranty repair as described above plus all travel costs to the U.S. port of embarkation. Costs for airline travel outside of the U.S. and Canada will not be the responsibility of UPF.

In the event the tank shall become stationed in an area of the world that is considered to be a war zone or where unsafe conditions exist for the safe passage of United States Nationals, as reported by the United States Department of State, (<http://www.state.gov>), and a request to perform service or warranty repairs, UPF reserves the right to refuse to honor such requests. It is the purchaser's responsibility to relocate the tank to an area where such repairs can be performed without undue risk to UPF employees or their designee. UPF will make every reasonable effort to support our products through alternative means.

For Ellipse™ elliptical tanks, a separate five year warranty provided by the subcontractor is applied to the sub-frames, chute linings (rubber isolation strips) and metal components. The stainless steel wrap provided by UPF shall be warranted by the subcontractor performing the wrap installation in accordance with their warranty in place at the time of the installation. UPF will not be liable for any warranty costs associated with the wrap, sub-frames, chute linings (rubber isolation strips) and metal components but will assist with all claims on behalf of its customer.

For PolySide® wetsided tanks and Integrator™ Tank/Body units, all polypropylene components related to the tank shall carry the standard UPF lifetime

NON-ORIGINAL



UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

service warranty. Other polypropylene components, including but not limited to compartments, wheel wells, fenders and other body related components shall be warranted by UPF for a period of ten years. The warranty for the PolySide® and Integrator™ units excludes paint or hardware, which shall be covered by the manufacturer of the paint/hardware.

All UPF tanks 50 gallons or less utilized for non-fire applications and installed on specialty vehicles such as ATVs, trailers, boats, etc. are covered under a separate warranty policy available from UPF. Further, UPF Protector™ foam and water trailers are warranted under a separate warranty policy available from UPF.

This UPF warranty is transferable within the United States only with prior written approval by UPF (except an original apparatus manufacturer may assign this warranty to the first titled owner/lessee of the apparatus).

UPF will NOT reimburse any unnecessary work and/or work that has not been pre-approved. Any and all third party charges must be pre-authorized and approved in writing by UPF prior to commencing the work. Any unauthorized third party repairs, alterations, actions or modifications will not be covered and can void the warranty. UPF will be the sole determining authority as to whether a service claim will be valid and covered under this warranty.

In no event will UPF be liable for an amount in excess of the purchase price of the booster/foam tank at the time of manufacture or for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of failure of its product. Loss of contents (water, foam, etc.) shall not be the responsibility of UPF. Further, UPF is not responsible for costs associated with service repairs to chassis, sub-frames, bodies, valves, dumps, hoses, pressure vacuum vents, and other components (i.e. liquid level transducers, etc.). Further, UPF will not cover the cost for travel of the vehicle to and from a repair facility.

This warranty contains the entire warranty. It is the sole warranty and price agreements or representation, whether oral or written, are either merged herein or expressly cancelled. UPF neither assumes, nor authorizes any person supposing to act on its behalf to change, nor assume for it, any warranty or liability concerning its product.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow exclusion or limitation or incidental or consequential damage, so the above limitation or exclusion may not apply to you. Since some states do not allow limitations on the length of an implied warranty, the above limitation may not apply to you.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATION OR LIABILITIES ON THE PART OF UPF.