



AGENDA

CITY OF SEASIDE

CITY COUNCIL/SUCCESSOR

AGENCY TO THE

REDEVELOPMENT AGENCY

REGULAR MEETING

440 HARCOURT AVE (COUNCIL CHAMBER)

Thursday, October 20, 2022

5:00 PM

NOTICE: *The City Council will hold its public meetings in person, with a virtual option for public participation based on availability. The City of Seaside utilizes Zoom tele-conferencing technology for virtual public participation; however, we make no representation or warranty of any kind, regarding the adequacy, reliability, or availability of the use of this platform in this manner. Participation by members of public through this means is at their own risk.*

VIRTUAL PUBLIC PARTICIPATION INSTRUCTIONS

1. To view this meeting: Please click on the following link to the City of Seaside YouTube Channel: <https://www.youtube.com/c/CityofSeasideCalifornia>
2. To participate in this meeting: Using the Zoom application on your smart phone, laptop, tablet or desktop and click on this link: <https://ci-seaside-ca-us.zoom.us/j/81936832059>
WEBINAR ID: 819 3683 2059
3. To participate by phone: Please call (669) 900-9128
Enter the meeting ID 819 3683 2059 when prompted. There is no participate code – press the pound sign # after the recording prompts you.
4. To make public comment, the following options are available:

Before the Meeting via Email: Written comments can be emailed to CityClerk@ci.seaside.ca.us Include the following subject line: "Public Comment Item #____" (insert the agenda item number relevant to your comment). Written comments must be received by 2:00 p.m. on the day of the meeting.

During the Meeting via Oral Comments: When the Chair calls for public comment, attendees can queue to speak with the "Raise Hand" feature. On the Zoom application, click the "Raise Hand" button. On the phone, press *9.

IN PERSON PARTICIPATION INSTRUCTIONS

Members of the public participating in person and wishing to address the City Council may approach the podium when the Chair calls for public comment.

1. CALL TO ORDER

2. ROLL CALL – ESTABLISHMENT OF QUORUM

Ian N. Oglesby	Mayor/Chair
David R. Pacheco	Mayor Pro Tem/Vice Chair
Jason Campbell	Council/Agency Member
Jon Wizard	Council/Agency Member
Alexis Garcia-Arrazola	Council/Agency Member

3. INVOCATION AND PLEDGE OF ALLEGIANCE

4. REVIEW OF AGENDA

If there are any items that arose after the 72-hour posting deadline, this is the point in the meeting where a vote may be taken to add the item to the agenda. (A 2/3-majority vote is required).

5. PUBLIC COMMENT

Members of the public wishing to address the City Council on matters within the jurisdiction of the City of Seaside, but not on this agenda, may do so during the Public Comment period for up to three (3) minutes. Public Comments for "Presentations" on this agenda are also taken at this time; comments on specific agenda items are heard under that item. For the public record, please state your name.

6. PUBLIC AGENCY COMMUNICATIONS

This is a time specifically set aside for representatives of public agencies to make brief comments of general interest to the City Council and the community.

A. CALIFORNIA AMERICAN WATER UPDATE (JOSH STRATTON, EXTERNAL AFFAIRS MANAGER)

7. PRESENTATIONS

A. REVIEW OF UPCOMING CITYWIDE EVENTS (ERNESTO ALTAMIRANO, COMMUNICATIONS & COMMUNITY ENGAGEMENT SPECIALIST)

B. RECEIVE STATUS UPDATE OF THE CITY'S ACCESSORY DWELLING UNIT WATER ALLOCATION PROGRAM

8. CONSENT AGENDA

A. APPROVE ENVIRONMENTAL SERVICES COOPERATIVE AGREEMENT

QUARTERLY REPORT

RECOMMENDATION: Approve the ESCA Quarterly report.

B. APPROVE MINUTES FROM OCTOBER 6, 2022

RECOMMENDATION: Approve minutes as presented in the agenda packet.

C. APPROVE PROCLAMATION RECOGNIZING THE MONTH OF NOVEMBER AS NATIVE AMERICAN HERITAGE MONTH

RECOMMENDATION: Approve a proclamation recognizing Native American Heritage Month in the City of Seaside.

D. PROCLAMATION RECOGNIZING NOVEMBER 7-13, 2022, AS OPERATION GREEN LIGHT WEEK IN SUPPORT OF VETERANS SERVICE TO OUR COMMUNITY

RECOMMENDATION: Approve a proclamation recognizing November 7-13, 2022, as Operation Green Light Week in the City of Seaside.

E. PROCLAMATION HONORING THE LIFE AND LEGACY OF REVEREND DR. HERBERT H. LUSK, II

RECOMMENDATION: Approve a proclamation honoring the life and legacy of Reverend Dr. Herbert H. Lusk, II.

F. PROCLAMATION HONORING THE LIFE AND LEGACY OF BILLY F. DEBERRY

RECOMMENDATION: Approve a proclamation honoring the life and legacy of Mr. Billy F. DeBerry.

G. AUTHORIZING THE APPLICATION AND ADOPTING THE PLAN FOR THE PERMANENT LOCAL HOUSING ALLOCATION PROGRAM

RECOMMENDATION: Authorize the application to the Department of Housing and Community Development and adopt the Permanent Local Housing Allocation Program for housing funds in the amount of \$1,158,744.00 to be used for housing-related projects and programs that assist in addressing the unmet housing needs of the City.

H. REVIEW AND TAKE ACTION ON TRAFFIC ADVISORY COMMITTEE RECOMMENDATIONS TO DENY A RED CURB ON JUAREZ STREET AND AN ADDITIONAL DRIVEWAY ON AMADOR AVENUE

RECOMMENDATION: 1) Deny installation of the red curb at 1841 Juarez Street, and 2) Deny installation of an additional driveway approach at 700 Amador Avenue.

9. BUSINESS ITEMS

A. ADOPT A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A LEASE PURCHASE FINANCING FOR A FIRE ENGINE AND A STREET SWEEPER IN THE AMOUNT OF \$1,367,000.00

RECOMMENDATION: Approve the purchase of a fire engine and street sweeper (the "Equipment") and review, consider, and approve the 2022 equipment lease/purchase financing ("2022 Equipment Lease") in an amount not-to-exceed \$1,367,000 and authorize the City Manager to execute documents as needed to complete the 2022 Equipment Lease.

B. APPROVE A NEW TRAFFIC CALMING PROGRAM AS RECOMMENDED BY THE TRAFFIC ADVISORY COMMITTEE

RECOMMENDATION: Approve a new Traffic Calming Program as recommended by the Traffic Advisory Committee, that replaces the existing Traffic Calming Program previously approved by Council on July 7, 2016.

C. REVIEW AND TAKE ACTION ON TRAFFIC ADVISORY COMMITTEE RECOMMENDATIONS FOR RED CURB ON CITY STREETS AND A NEW BUS STOP ON NOCHE BUENA STREET

RECOMMENDATION: 1) Approve a new bus stop on the northwest corner of Noche Buena Street and San Pablo Avenue, 2) Approve installation of red curb east and west of the driveway at 1210 San Pablo Avenue, and 3) Approve installation of a red curb east of 1538 Hilby Avenue.

10. COUNCIL MEMBER REQUESTS

A. NEW COUNCIL MEMBER REQUESTS

B. FOLLOW UP ON PREVIOUS REQUESTS

1. Shopping Cart Ordinance (Oglesby)
2. Parking Limitations in the Neighborhood Parks (Oglesby)

11. CITY ATTORNEY, CITY MANAGER, MAYOR AND CITY COUNCIL COMMENTS AND REPORTS ON COMMITTEE ASSIGNMENTS

This is a time specifically set aside for members of the City Council, the City Manager and City Attorney to make brief comments of general interest to the community and report on committee assignments.

12. CLOSED SESSION

Pursuant to Government Code Section 54956 et seq., the City Council and Successor Agency to Redevelopment Agency may adjourn to a Closed Session to consider specific matters dealing with litigation, certain personnel matters, property negotiations or to confer with the City Attorney. Public comments on these items are taken after being read by the City Attorney. For the public record, please state your name.

A. CONFERENCE WITH LABOR NEGOTIATORS PURSUANT TO GOVERNMENT CODE 54957.6

Agency Negotiators: Roberta Greathouse, Human Resources Director/Risk Manager; Donna Williamson, Labor Negotiator.
Employee Organization: Seaside Public Safety Managers

B. CONFERENCE WITH REAL PROPERTY NEGOTIATORS PURSUANT TO GOVERNMENT CODE SECTION 54956.8

Property: A portion of APN 031-151-057 located generally east of General Jim Moore Blvd., West of Chapel Drive and North of Chapel Road
Agency Negotiators: City Manager, et. al
Negotiating Parties: United States Army and City of Seaside
Under Negotiation: Price, Terms of Payment, or Both

C. CONFERENCE WITH REAL PROPERTY NEGOTIATORS PURSUANT TO GOVERNMENT CODE SECTION 54956.8

Property: A portion of APN 031-151-055 is generally located east of General Jim Moore Blvd, south of Lightfighter and north of Gigling, commonly known as the Presidio of Monterey (POM) Firestation
Agency Negotiators: City Manager, et. al
Negotiating Parties: United States Army and City of Seaside
Under Negotiation: Price, Terms of Payment, or Both

D. CONFERENCE WITH REAL PROPERTY NEGOTIATORS PURSUANT TO GOVERNMENT CODE SECTION 54956.8

Property: A portion of APN 031-052-039 directly adjacent to east of Monterey Road
Agency Negotiators: City Manager, et. al
Negotiating Parties: Seaside Basin Watermaster and Successor Agency of Seaside/City of Seaside
Under Negotiation: Price, Terms of Payment, or Both

E. CONFERENCE WITH LEGAL COUNSEL PURSUANT TO GOVERNMENT CODE SECTION 54956.9: POTENTIAL LITIGATION

Potential Litigation (2 Matters)

13. **ADJOURNMENT**

Next Regularly Scheduled Meeting:
NOVEMBER 3, 2022
5:00 PM

The City of Seaside is committed to providing accessible facilities and accommodating people with disabilities in all of its services programs and activities. If special considerations are needed by any person to fully participate in this meeting, contact the City Clerk at 899-6707 no fewer than two business days prior to the meeting to allow reasonable arrangements. Agendas are posted at:

<http://www.ci.seaside.ca.us/129/City-Council-Committee-Agendas>

Agenda-related writings or documents provided during public meetings are available for public inspection during the meeting or from the office of the City Clerk. This agenda is posted in compliance with California Governor Newsom's Executive Orders N-29-20 and N-33-20.





CITY OF SEASIDE STAFF REPORT

Item No.: 7.B.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Andrew Myrick, Economic Development & Community Planning Manager

DATE: October 20, 2022

**SUBJECT: RECEIVE STATUS UPDATE OF THE CITY'S ACCESSORY
DWELLING UNIT WATER ALLOCATION PROGRAM**

RECOMMENDATION

Receive the presentation.

BACKGROUND

An Accessory Dwelling Unit (ADU) is a residential unit that is built on the same site as another, principal dwelling unit. California Law includes a number of provisions that preempts much local regulation when it comes to approving Accessory Dwelling Units. Proponents of ADUs argue that these units represent an opportunity for the development of additional housing in already-developed residential areas.

Within the City of Seaside, one of the primary barriers to the unchecked development of ADUs is the lack of available water. To alleviate this issue and promote the development of ADUs in the City of Seaside, on October 3, 2019, the City Council approved Ordinance 1064, the City's Water Allocation Program, within which it identified a water allocation category for ADUs. The Council followed this with additional actions at its November 19, 2020, meeting, during which it approved several additional resolutions related to ADU water:

- Resolution No. 20-99 set the purchase price for ADU water release permits at \$2,500 per fixture unit.
- Resolution No. 20-100 allocated five acre feet of water to the residential ADU category.
- Resolution No. 20-102 limited the amount of water that could be allocated per ADU to 6.8 fixtures (ie 0.068 acre-feet) and required all existing main house

- water appliances be retrofitted to high efficiency.
- Resolution No. 20-102 also provided the option for property owners to receive ADU water allocations at no cost if they deed restricted their ADUs to low or very low income renters for 45 years.

These actions resulted in significant interest in ADU construction in the City of Seaside, and what followed was an intense load of applications that strained staff resources. As of the writing of this Report, applications for a total of 153 ADUs making use of these water credits have been received by the City. In fact, demand for the water credits was so robust that on June 30, 2022, City staff announced that no additional applications would be considered until it was clear that sufficient water resources were available for the units for which applications had already been received.

What follows is a summary of the status of these applications and the five acre-feet allocated to residential ADUs.

Summary

The City has received a total of 153 applications for ADUs that would use some of the allocated water. Of these, 33 have been constructed, 58 have been approved and/or are currently under construction, and 52 have applications that are currently under review. The attached map shows the locations of these units. Additionally, the City has received a \$1 million grant from the California Department of Housing and Community Development (HCD) to provide low-interest loans for ADUs. It is assumed that the loan program can be used to support an additional ten ADUs in addition to the ones already received.

Neighborhood Compatibility

As noted previously, California law places significant restrictions on a local government's ability to regulate the design standards of ADUs. Many normally applicable standards may not be applied to ADUs. This creates a streamlined process which facilitates faster review of permits and enables construction to proceed more quickly. This has the advantage of getting more housing built more quickly and inexpensively, but also results in units that may create challenges for nearby property owners. Whether any particular ADU causes any negative impacts on the surrounding neighborhood is often dependent on the particular circumstances of the property.

On average, the ADUs which have been approved are approximately 656 square feet in size, significantly smaller than a normally sized dwelling. 20% are over 800 square feet in size, and 11% over 1,000 square feet (the maximum size permitted for an ADU is 1,200 square feet). The average height of an ADU is 17.5 feet. Parking impacts are unknown, as California law generally prohibits local jurisdictions from requiring additional or replacement parking when ADUs are constructed; however, given that

20% of the applications approved represent the conversion of existing garages to residential use.

Affordability/Owner-Occupancy

Under California Law, the City is unable to restrict the use of ADUs to owner occupancy of the primary unit or to require that the ADUs be rented at an affordable rate. As such, it is unknown whether the units are being constructed in locations where the owner resides on the site or if these represent additional units on what are already rental properties. At the November 19, 2020, City Council meeting, staff recommended that Council consider requiring that owners deed restrict their properties to low income renters for five years, so as to incentivize more property owners to accept the opportunity. No owners have chosen to deed restrict their properties to receive an ADU water allocation. As such, all of the property owners who build ADUs are allowed to charge market rent for their units.

Since applications are usually filed under the name of a contractor or architect, it is extremely difficult to determine whether any individual site is an owner-occupied site.

However, staff has identified a total of 38 properties where the property owner of a site is the same as the property owner of another site where an ADU was constructed (ie ADUs were built on at least two properties owned by the same party). A total of 40 ADUs, representing 28% of the total applications received, were constructed on sites owned by these parties. It is highly likely that these ADUs, at least, are located on rental properties.

Water

As noted previously, Council allocated a total of 5.0 acre feet of water for ADU development in the City. At this time, most of the water has been allocated or is being held, as noted in the table below:

ADU Status	Quantity	Water Allocated (acre ft)
Submitted/Under review	52	1.626
Approved/Under construction	58	1.767
Built	33	1.004
Cal Homes	10	0.480
Total	153	4.877

It is important to note that it is still possible for the amount of water allocated to vary.

This is because plans are frequently adjusted during the permitting process, which leads to the amount of water allocated being increased or decreased depending on the number of water fixtures added. In cases where the amount of water is unknown, such as units to be funded through the CalHome program, 4.8 fixtures are assumed.

Further, all water allocations are subject to review by the Monterey Peninsula Water Management District (MPWMD), and on occasion MPWMD makes small adjustments to the amount of water necessary for a particular project. As a result, the amount of water allocated should be considered a good approximation of the total amount of water used.

Recommendations

Staff recommends that the City continue to no longer accept new applications for ADUs (except under the CalHome Program) that require water credits. This will provide an opportunity for all applications already received to move forward and prevent accidental overallocation of water to these projects. Staff does recommend moving forward with the CalHome loan program and utilizing the water credits identified for that purpose.

Staff recommends that the existing water allocation be retained. Staff anticipates returning to the Council within the next few months to provide additional updates and present an update to the City's Ordinance regulating ADU construction in order to address changes to the law passed by the State of California via SB 897 and AB 2221.

FISCAL IMPACT

No fiscal impact.

ATTACHMENTS

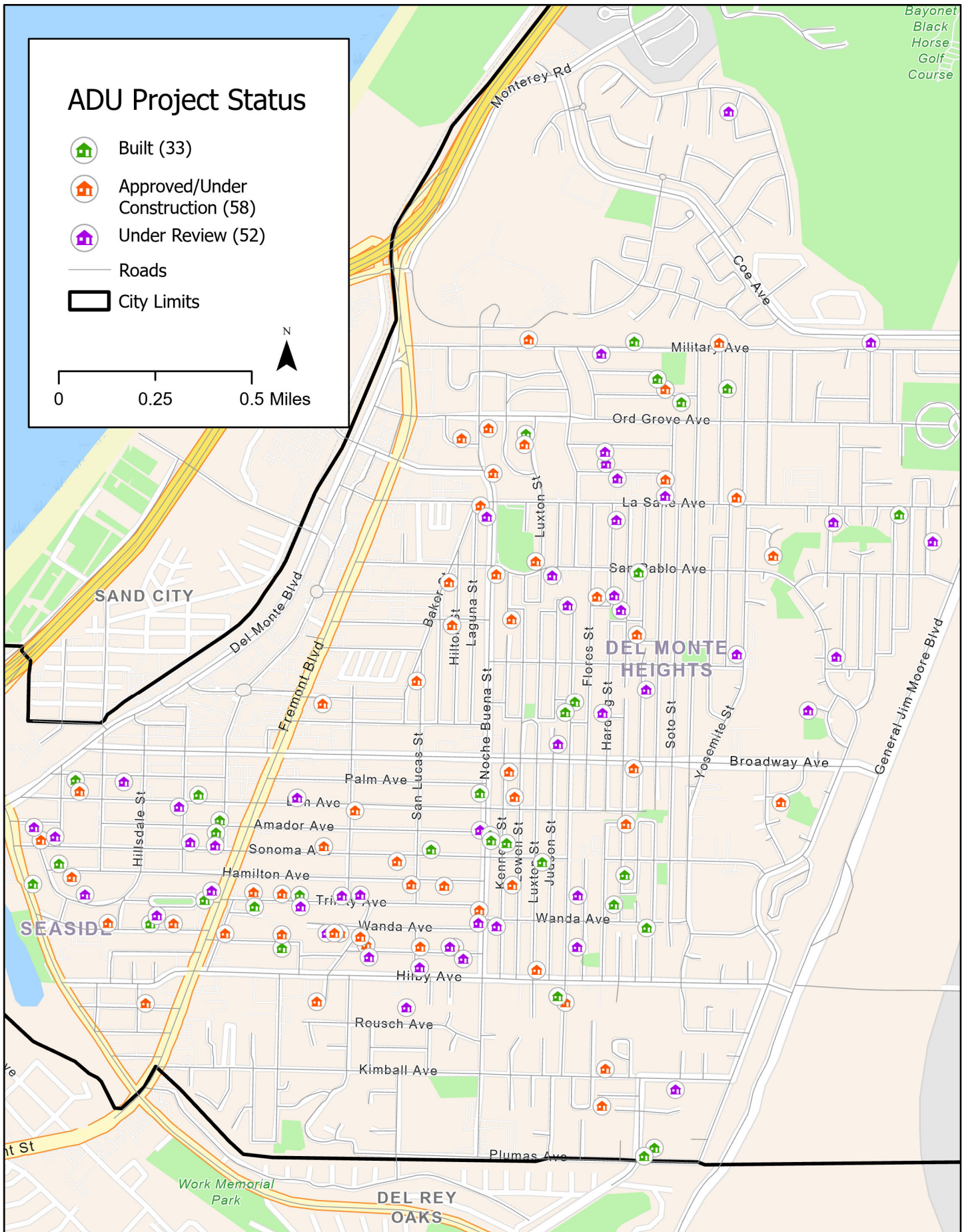
1. ADU Projects List Map

Reviewed for Submission to the City Council by:



Jaime M. Fontes, City Manager

City of Seaside - ADU Project List





CITY OF SEASIDE STAFF REPORT

Item No.: 8.A.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Melissa Broadston, ESCA Program Manager

DATE: October 20, 2022

**SUBJECT: APPROVE ENVIRONMENTAL SERVICES COOPERATIVE
AGREEMENT QUARTERLY REPORT**

RECOMMENDATION

Approve the ESCA Quarterly report.

BACKGROUND

The Fort Ord Reuse Authority (FORA) officially closed all operations on June 30, 2020. Prior to sunset, the City of Seaside and FORA entered into a Memorandum of Agreement nominating Seaside as FORA's Environmental Services Cooperative Agreement (ESCA) Successor-In-Interest (Successor). Seaside is now responsible for performing the remaining Long-Term Obligations (LTO) management responsibilities related to U.S. Army (Army) Munitions and Explosives of Concern (MEC) on ESCA property until June 30, 2028. A summary of the ESCA remediation program to date is provided below. A quarterly report is required to be prepared and submitted to the Army after review and acceptance by the City Council.

FORA ESCA Remediation Program Background:

In 2007, the Army and FORA entered into an agreement for Army-funded ESCA for the removal of remnant MEC on 3,340 acres of the former Fort Ord. Under the ESCA terms, the Army awarded FORA approximately \$98 million to perform Comprehensive Environmental Response Compensation and Liability Act (CERCLA) MEC cleanup on those parcels. FORA also entered into the Administrative Order on Consent (AOC) with the United States Environmental Protection Agency (EPA) and California Department of Toxic Substance Control (DTSC) (collectively referred to as regulatory agencies) defining FORA's contractual conditions to complete the Army remediation obligations for the "ESCA parcels." FORA received ESCA property ownership after EPA approval and gubernatorial concurrence under a Finding of Suitability for Early Transfer in 2009.

The ESCA properties received Records of Decision (ROD) documenting controls required to protect public health and safety and Land Use Control Implementation Plan (LUCIP) / Operation and Maintenance Plan (OMP) implementation, operation and maintenance ROD controls tailored to individual site conditions and historic MEC use. The final ESCA LUCIP/OMP documents were accepted by the Army and Regulators in February 2019. These ESCA properties received the last EPA Remedial Action Completion letter in February 2019. The EPA issued a site-wide ESCA remedial completion certificate in April 2020.

Remedial Action Completion initiated the Army's long-term obligations on ESCA properties. To complete the ESCA and the AOC obligations, the Successor, Seaside, is required to complete a truncated series of tasks until the expiration in 2028 to include site investigation and monitoring, ensuring compliance with the land use controls for ESCA parcels by land holding jurisdictions, mitigation, monitoring, reporting for any potential or found munitions and explosives of concern, and public information and outreach regarding land use. Should any instances of MEC occur, the contractors of Arcadis, Inc., Weston Solutions, Inc. and Westcliffe Engineers, Inc. will assist with providing LTO support services.

ESCA QUARTLY UPDATE

Jurisdiction Coordination

ESCA property could not be transferred to the jurisdictions until Army deed modifications and issuance of the Army CERCLA Warranties/Deed Amendments were completed. The ESCA property Army CERCLA Warranty and Deed modification documents were signed by FORA at Army Headquarters in Washington, D.C. and Recorded in Monterey County on June 26, 2020. The receiving jurisdictions signed and recorded these deeds and have final ownership of their ESCA properties. During a file audit, staff discovered that the ESCA properties were still showing FORA as the owner on the County Recorder's website. Coordination with the recorder/assessor's office and jurisdictions continues for corrections. Significant progress has been made to complete the Quit Claim Deeds that will convey the Comprehensive Environmental Response, Compensation and Liability Act warranties (not related to munitions) for several parcels transferred under the Finding of Suitability for Early Transfer, number 5.

ESCA staff continues to host LTO Management, and Property, Planning, Police, and Property Manager Meetings with all land holding jurisdictions, as well as the EPA and DTSC, to discuss and review projects, or other activities as outlined by the LUCIPs that are included with their properties.

ESCA continued coordination to replace the Pollution Legal Liability insurance policy that will expire in 2024.

ESCA will continue to monitor the U.S. Environmental Protection Agency proposal to

designate two of the most widely used per- and polyfluoroalkyl substances (PFAS) as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as "Superfund." Of interest to ESCA, this proposal includes a provision that federal entities transferring or selling their property will be required to provide a notice about the storage, release, or disposal of PFOA or PFOS on the property and a covenant (commitment in the deed) warranting that it has cleaned up any resulting contamination or will do so in the future, if necessary, as required under CERCLA 120(h).

ESCA worked with Monterey County for a smooth "launch" of data collection and subsequent development of the Annual Land Use Control Report. ESCA also worked closely with Monterey County's Geographic Information Staff (GIS) staff to ensure that data corrections are made prior to the next Land Use Control report submission. ESCA provided jurisdictions with GIS data that they can download to their phone to better assist with onsite parcel and land use control verification.

ESCA continued coordination for consistent signage of jurisdictional boundaries between ESCA lands. All Fort Ord gate signage is complete for each jurisdiction. ESCA will continue to assist the jurisdictions with finding and identifying property boundaries and identifying locations requiring notification/construction support documentation. During this quarter, ESCA assisted Monterey Peninsula College, the Veteran's Cemetery, and California State University Monterey Bay with signage and parcel boundary delineation.

ESCA provided "refresher" training (which includes on-site property visits and in-person meetings) to Monterey County on September 15-15, 2022. This class included a special session for Monterey Regional Fire to show them specific locations with moderate to high probability of munitions in Parker Flats and Laguna Seca. There are special munitions safety considerations for these two locations. Representatives of the Army and the Fort Ord National Monument (neighboring properties) also participated in the breakout session for munitions safety considerations in fire suppression.

Based on the history of the former Fort Ord as an Army base, munitions can be encountered during the use of the property. ESCA outreach specific to the munitions safety awareness class at FortOrdSafety.com serves as an important resource to remind community members who might discover suspicious objects to follow the **3Rs of explosives safety – Recognize, Retreat, and Report**. ESCA is responsible for the maintenance and participant tracking for the English and Spanish version of the free on-line training class at Fort Ord Safety.com. The training at FortOrdSafety.com supplements and compliments the Army's on-site munitions safety training program as an important community asset for the use of the lands of the former Fort Ord. Participation for this training remains robust.

The ESCA team continues to conduct weekly patrols of Seaside's ESCA properties and bi-weekly patrols of other ESCA properties. ESCA patrols also included debris removal.

ESCA participated in the Army's outreach activities including updates at the July 26, Army Technical Review Committee and the September 21, 2022, BRAC Cleanup Team meeting for munitions response meeting.

NEXT QUARTER GOALS

During the next quarter, the ESCA Program will be focusing on the following tasks.

- ESCA "refresher" training will be provided for the remaining jurisdictions: Del Rey Oaks and California State University Monterey Bay.
- Continue coordination supporting completion of property transfers.
- ESCA will also continue coordination with jurisdictions and extensive public outreach on the Munitions Recognition and Safety Training which is available at FortOrdSafety.com.
- ESCA will continue coordination of tasks related to the Pollution Legal Liability insurance.
- ESCA will continue weekly inspection and monitoring of activities on ESCA lands.
- The ESCA staff will continue follow-up of incidents of concern (i.e. pump track or BMX track).
- ESCA will continue to assist other jurisdictions with questions related to ESCA land use controls.
- ESCA will initiate a "read your deeds" campaign with the other jurisdictions to ensure that the information and parcel boundaries are correctly reflected in the County's GIS databases.
- Prepare and distribute the 2023 calendar for recurring ESCA meetings and outreach events.

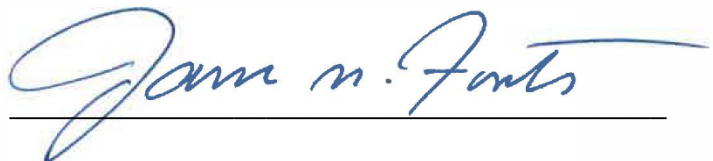
FISCAL IMPACT

None. All ESCA expenses are reimbursable by the US Army.

ATTACHMENTS

None

Reviewed for Submission to the City Council by:



A handwritten signature in blue ink, reading "James M. Font", is written over a horizontal line.

Jaime M. Fontes, City Manager



DRAFT MINUTES

CITY OF SEASIDE
CITY COUNCIL/ SUCCESSOR
AGENCY TO THE
REDEVELOPMENT AGENCY

REGULAR MEETING
440 HARCOURT AVE
Thursday, October 6, 2022
5:00 PM

1. CALL TO ORDER

Mayor/Chair Oglesby called the meeting to order at 5:00 p.m.

2. ROLL CALL – ESTABLISHMENT OF QUORUM

PRESENT: Campbell, Garcia-Arrazola, Oglesby, Pacheco, Wizard
ABSENT: None

3. INVOCATION AND PLEDGE OF ALLEGIANCE

A moment of silence was held for invocation. The pledge was led by Council Member Campbell.

4. REVIEW OF AGENDA

Mayor Pro Tem/Vice Chair Pacheco asked that the meeting be closed in the honor and memory of Bob Beeson.

5. PUBLIC COMMENT

Susan Schiavone, Derrick Williams, Stacey Andrews, Jake, Zackariah Allen, Zanya, Kay Lee, Sandra Gray, Peter Kaiser, Dario Salgado, Bruce Sweet, Tanja Roos.

6. PUBLIC AGENCY COMMUNICATIONS

Alvin Edwards, Monterey Peninsula Water Management District, provided updates and announcements.

7. PRESENTATIONS

A. REVIEW OF UPCOMING CITYWIDE EVENTS (ERNESTO ALTAMIRANO, COMMUNICATIONS & COMMUNITY ENGAGEMENT SPECIALIST)

Mr. Altamirano provided the presentation. The Mayor clarified for the benefit of the public that the Ad-Hoc Committee mentioned for the CSS Grant would not be

appointed by the Mayor, but determined by the City Manager.

B. HUMAN RESOURCES UPDATE (SAMANTHA SAKHRANI, HUMAN RESOURCES ANALYST)

Ms. Sakhrani provided the presentation and responded to questions from the Council. Police Chief Nick Borges also responded to questions regarding vacancies in the Police Department and the staffing for the parking compliance officers.

C. VACCINATION UPDATE (MARY GUTIERREZ, FIRE CHIEF)

Fire Chief Gutierrez provided a presentation and responded to questions from the Council.

D. CAR WEEK AFTER ACTION REPORT (DAN MEEWIS, RECREATION DIRECTOR)

Mr. Meewis provided a presentation and responded to questions from the Council.

8. CONSENT AGENDA

Mayor/Chair Oglesby read the Consent Agenda items. There were no items pulled from the agenda and no comments were received from the public. Council/Agency Member Wizard asked for clarification on item 8I , and Finance Director, Victor Damiani responded to the question.

On motion by Mayor Pro Tem/Vice Chair Pacheco and second by Council/Agency Member Garcia-Arrazola and carried by the following vote, the City Council/Successor Agency moved to approve the consent agenda as presented.

RESULT: 5-0-0-0

AYES: Campbell, Garcia-Arrazola, Oglesby, Pacheco, Wizard

NOES: None

ABSTAIN: None

ABSENT: None

A. ADOPT A RESOLUTION MAKING FINDINGS IN ACCORDANCE WITH AB361: HYBRID MEETINGS AND GOVERNMENT CODE SECTION 54953 (BROWN ACT) AUTHORIZING REMOTE/TELECONFERENCE PARTICIPATION IN CITY MEETINGS

ACTION: ADOPTED RESO #22-127

B. APPROVE MINUTES FROM SEPTEMBER 15, 2022

ACTION: APPROVED

C. APPROVE PROCLAMATION RECOGNIZING DOMESTIC VIOLENCE AWARENESS MONTH

ACTION: PROCLAIMED

**D. APPROVE PROCLAMATION RECOGNIZING NATIONAL DISABILITY
EMPLOYMENT AWARENESS MONTH**

ACTION: PROCLAIMED

**E. APPROVE PROCLAMATION DECLARING FREEDOM FROM WORKPLACE
BULLYING WEEK FROM OCTOBER 16-22, 2022**

ACTION: PROCLAIMED

**F. APPROVE A MAYOR'S YOUTH FUND CONTRIBUTION REQUEST FROM
SEASIDE HIGH SCHOOL BOYS AND GIRLS SWIM TEAM**

ACTION: APPROVED

**G. APPROVE A FEE WAIVER REQUEST FROM DARRYL CHOATES FOR THE
USE OF THE LAGUNA GRANDE HALL AND KITCHEN FOR A COMMUNITY
CELEBRATION OF LIFE FOR BILLY F. DEBERRY ON OCTOBER 23, 2022**

ACTION: APPROVED

**H. ADOPT A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE
A MEMORANDUM OF UNDERSTANDING WITH THE SEASIDE POLICE
OFFICERS' ASSOCIATION**

ACTION: ADOPTED RESO #22-128

**I. ADOPT RESOLUTIONS APPROVING THE INITIATION OF THE CALPERS
COST-SHARING FOR THE EXECUTIVE MANAGERS, UNCLASSIFIED
EXEMPT, AND CONFIDENTIAL EXEMPT EMPLOYEES**

ACTION: ADOPTED RESOS #22-129, #22-130, #22-131

**J. GRANTING AN EASEMENT FOR LANDSCAPING, MAINTENANCE ON THE
BICYCLE/PEDESTRIAN PATHWAY, AND PUBLIC ACCESS PURPOSES AT
LAGUNA GRANDE PARK BETWEEN THE SUCCESSOR AGENCY TO THE
SEASIDE REDEVELOPMENT AGENCY AND THE CITY OF SEASIDE**

ACTION: ADOPTED RESOS #22-132

9. PUBLIC HEARING

**A. ADOPT RESOLUTIONS RELATED TO FORMING A COMMUNITY
FACILITIES DISTRICT TO PROVIDE FINANCING FOR VARIOUS PUBLIC
FACILITIES AND MUNICIPAL SERVICES**

City Attorney Sheri Damon provided a presentation and introduced consultants, Paul

Thimming, (QT, LLP), Sara Mares, (NBS Gov), and Craig Hill, (NHA Advisors) to respond to questions from the Council. There were no comments from the public

On motion by Mayor Pro Tem/Vice Chair Pacheco and second by Council/Agency Member Garcia-Arrazola and carried by the following vote, the City Council/Successor Agency moved to adopt the resolutions related to the formation of a Community Facilities District (CFD) to providing financing for various public facilities and municipal services: 1. A Resolution adopting Local Goals and Policies for CFD; and 2. A Resolution declaring the intention to establish a CFD and to authorize the levy of special taxes therein – Facilities and Maintenance Services; and 3. A Resolution declaring the intention to incur bonded indebtedness of the proposed City of Seaside CFD No. 2022-1 (Facilities and Maintenance Services).

RESULT: 5-0-0-0

AYES: Campbell, Garcia-Arrazola, Oglesby, Pacheco, Wizard

NOES: None

ABSTAIN: None

ABSENT: None

ACTION: ADOPTED RESOS #22-133, #22-134, #22-135

10. COUNCIL MEMBER REQUESTS

A. NEW COUNCIL MEMBER REQUESTS

Mayor Oglesby – shopping carts, and ordinance that increases the use of parks by limiting parking.

11. CITY ATTORNEY, CITY MANAGER, MAYOR AND CITY COUNCIL COMMENTS AND REPORTS ON COMMITTEE ASSIGNMENTS

Reports provided.

Mayor Oglesby and Mayor Pro Tem Pacheco paid tribute to the individuals the meeting was adjourned in memory of: Mr. Billy F. DeBerry, Mrs. Leandra Acedo Acilo, Reverend Dr. Herbert H. Lusk, II, Mrs. Alice Jordan, and Mr. Bob Beeson.

12. CLOSED SESSION

City Attorney Damon, read the closed session items and did not anticipate a read out. There were no comments from the public on closed session items.

A. CONFERENCE WITH REAL PROPERTY NEGOTIATORS PURSUANT TO GOVERNMENT CODE SECTION 54956.8

Property: Phase 1A Campus Town generally located West of General Jim Moore Blvd. and East of First Avenue and south of Lightfighter Drive (APN 031-151-054)

Approximately 22.52 Acres

Agency Negotiators: City Manager, et. al.

Negotiating Parties: City of Seaside and KB-Bakewell Seaside Venture LLC

Under Negotiation: Price, Terms of Payment or Both

B. CONFERENCE WITH REAL PROPERTY NEGOTIATORS PURSUANT TO GOVERNMENT CODE SECTION 54956.8

Property: Easements - Pure Water Project and ASR Injection well sites (Multiple sites generally located east of General Jim Moore Blvd and south of Eucalyptus Road)

Agency Negotiators: City Manager, et. al.

Negotiating Parties: City of Seaside and MPWMD and Monterey 1 Water

Under Negotiation: Price, Terms of Payment or Both

C. CONFERENCE WITH LEGAL COUNSEL PURSUANT TO GOVERNMENT CODE SECTION 54956.9: EXISTING LITIGATION

Monterey County Superior Court

Petrovich Development Company, LLC v. City of Seaside, et al.

Case No. 21CV003630

D. CONFERENCE WITH LEGAL COUNSEL PURSUANT TO GOVERNMENT CODE SECTION 54956.9: POTENTIAL LITIGATION

Potential Litigation (2 Matters)

Upon return from closed session, City Attorney Damon did not have any announcements to report.

13. ADJOURNMENT

With no further business, the meeting adjourned at 11:01 p.m. in the memory and honor of Mr. Billy F. DeBerry, Mrs. Leandra Acedo Acilo, Reverend Dr. Herbert H. Lusk, II, Mrs. Alice Jordan, and Mr. Bob Beeson.

Respectfully submitted,

Dominique L. Davis, City/Agency Clerk

Ian N. Oglesby, Mayor/Chair



CITY OF SEASIDE STAFF REPORT

Item No.: 8.C.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Dominique Davis, City Clerk

DATE: October 20, 2022

**SUBJECT: APPROVE PROCLAMATION RECOGNIZING THE MONTH OF
NOVEMBER AS NATIVE AMERICAN HERITAGE MONTH**

RECOMMENDATION

Approve a proclamation recognizing Native American Heritage Month in the City of Seaside.

BACKGROUND

November is Native American Heritage Month, or as it is commonly referred to, American Indian and Alaska Native Heritage Month. The month is a time to celebrate rich and diverse cultures, traditions, and histories and to acknowledge the important contributions of Native people. Heritage Month is also an opportune time to educate the general public about tribes, to raise a general awareness about the unique challenges Native people have faced both historically and in the present, and the ways in which tribal citizens have worked to conquer these challenges.

FISCAL IMPACT

None.

ATTACHMENTS

1. Proclamation
-

Reviewed for Submission to the City Council by:

A handwritten signature in blue ink, reading "Jaime M. Fontes".

Jaime M. Fontes, City Manager

CITY OF SEASIDE PROCLAMATION



NATIVE AMERICAN HERITAGE MONTH

WHEREAS, during the month of November, we honor our native peoples in this, their ancestral homes, and recognize their continued contributions in strengthening the diversity of our society; and

WHEREAS, Native Americans are descendants of the original, indigenous inhabitants of what is now the United States; and

WHEREAS, Native Americans have moving stories of tragedy, triumph, and perseverance that need to be shared with future generations; and

WHEREAS, Native Americans have enriched our heritage and continue to add to all aspects of our society through their generosity of culture and the continued practice of teaching economic, environmental, and cultural sustainability; and

WHEREAS, the history and culture of our great nation have been significantly influenced by American Indians and indigenous peoples; and

WHEREAS, the contributions of Native American have enhanced the freedom, prosperity, and greatness of America today, and

WHEREAS, their customs and traditions are respected and celebrated as part of a rich legacy throughout the United States; and

THEREFORE, BE IT PROCLAIMED, that I, The Honorable Ian N. Oglesby, Mayor of the City of Seaside, on behalf of the City Council, do hereby proclaim November 2022, as Native American Heritage Month, and the filing of this proclamation in the Office of the City Clerk.

*Ian N. Oglesby, Mayor
October 20, 2022*



CITY OF SEASIDE STAFF REPORT

Item No.: 8.D.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Dominique Davis, City Clerk

DATE: October 20, 2022

**SUBJECT: PROCLAMATION RECOGNIZING NOVEMBER 7-13, 2022, AS
OPERATION GREEN LIGHT WEEK IN SUPPORT OF VETERANS
SERVICE TO OUR COMMUNITY**

RECOMMENDATION

Approve a proclamation recognizing November 7-13, 2022, as Operation Green Light Week in the City of Seaside.

BACKGROUND

Operation Green Light, is a new national collaborative initiative of the National Association of Counties (NACo) to support military veterans, as well as raise awareness about the unique challenges faced by many veterans and the resources that are available at the county, state, and federal level to assist veterans and their families. In advance of the upcoming Veterans Day holiday, it is asked that public agencies and businesses have their buildings be illuminated green from November 7th through the 13th as part of Operation Green Light.

Operation Green Light is a simple way to express the collective appreciation for the public service of our veterans.

FISCAL IMPACT

None. Lights for illuminating City Hall are within the current budget.

ATTACHMENTS

1. Proclamation
-

Reviewed for Submission to the City Council by:

A handwritten signature in blue ink, reading "Jaime M. Fontes", is positioned above a horizontal line. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jaime M. Fontes, City Manager

City of Seaside PROCLAMATION



Supporting Operation Green Light for Veterans

WHEREAS, the residents of City of Seaside have great respect, admiration, and the utmost gratitude for all of the men and women who have selflessly served our country and this community in the Armed Forces; and

WHEREAS, the contributions and sacrifices of the men and women who served in the Armed Forces have been vital in maintaining the freedoms and way of life enjoyed by our citizens; and

WHEREAS, City of Seaside seeks to honor these individuals who have paid the high price for freedom by placing themselves in harm's way for the good of all; and

WHEREAS, Veterans continue to serve our community in the American Legion, Veterans of Foreign Wars, religious groups, and civil service; and

WHEREAS, approximately 200,000 service members transition to civilian communities annually; and

WHEREAS, an estimated 20 percent increase of service members will transition to civilian life in the near future; and

WHEREAS, studies indicate that 44-72 percent of service members experience high levels of stress during transition from military to civilian life; and

WHEREAS, Active Military Service Members transitioning from military service are at a high risk for suicide during their first year after military service; and

WHEREAS, the City of Seaside appreciates the sacrifices of our United State Military Personnel and believes specific recognition should be granted; and

WHEREAS, that in observance of Operation Green Light, City of Seaside encourages its citizens in patriotic tradition to recognize the importance of honoring all those who made immeasurable sacrifices to preserve freedom by displaying a green light in a window of their place of business or residence.

NOW THEREFORE, BE IT PROCLAIMED, that I, The Honorable Ian N. Oglesby, Mayor of the City of Seaside, on behalf of the City Council, do hereby proclaim November 7-13, 2022 as Operation Green Light Week to show support and appreciation for veterans by shining green lights at City Hall.

Ian N. Oglesby, Mayor
October 20, 2022

City of Seaside

Proclamation

In Recognition of Rev. Dr. Herbert H. Lusk, II

WHEREAS, Reverend Dr. Herbert H. Lusk, II was born in Memphis, Tennessee and was raised on the Monterey Peninsula in California from the age of 15 through his college years; and

WHEREAS, Pastor Lusk was nationally known during his NFL career days as the “Praying Tailback” because of his custom of kneeling in the end zone after scoring touchdowns; and

WHEREAS, Lusk committed himself to three years to the NFL and then left voluntarily, to study for the ministry; and

WHEREAS, Pastor Lusk graduated from Gwynedd Mercy College with a Bachelor of Science degree in Psychology and Sociology, received a Masters of Divinity from the Reformed Episcopal Theological Seminary, an Honorary Doctorate of Divinity from Reformed Episcopal Theological Seminary, an Honorary Doctorate of Ministry degree from Westminster Theological Seminary, and an Honorary Doctorate of Humane Letters from Eastern University; and

WHEREAS, Since Pastor Lusk became the pastor of Greater Exodus in 1982, the church has experienced phenomenal growth. This is due not only to his powerful and dynamic preaching of messages that meet real life spiritual needs, but also to his intense focus on providing a continuum of quality educational and mentoring programs and services within the community; and

WHEREAS, During his tenure as Pastor of Greater Exodus, Reverend Dr. Lusk has hosted governors, mayors, senators, congressmen, a Vice President of the United States and on two occasions, the President of the United States. Pastor Lusk served as an advisor to the President of the United States of America on Faith-Based Initiatives; and

WHEREAS, In addition he served as an advisor to the United Nations. Pastor Lusk has appeared on Nightline, Hardball, NBC, CBS, ABC and Fox News broadcast programs. He has received numerous awards, honors and citations. He currently serves as the Lead Chaplain for the Super Bowl Champion Philadelphia Eagles; and

WHEREAS, His uniqueness to Philadelphia was described by Michael Callahan, Editor of the Philadelphia Magazine’s 2012 special edition, Why We Love Philadelphia, when he wrote – “In the storied legacy of the NFL, Herb Lusk will always be “The Praying Tailback,” the first pro football player to drop to one knee and offer celestial thanks after a score...” In 2015, Pastor Lusk spoke during Pope Francis’s historical visit to Philadelphia; and

WHEREAS, in 2016, he led a delegation of African-American Pastors and leaders on a tour through Seoul, Korea, hosted by Yoido Full Gospel Church. Pastor Lusk was honored by the Pennsylvania Pro-Life Federation with the 2017 Lifetime Achievement Award; and

WHEREAS, Pastor Lusk is married to his beloved wife, Vickey, with whom he has three children: Danuelle (Cedrick), Laiah (David), Herbert III; and three grandsons: David Judah, Israel Andrew, and Zion Paul; and

WHEREAS, From his early days as a running back for the Philadelphia Eagles through his long career as pastor of Greater Exodus Baptist Church on North Broad Street, Rev. Lusk always preached the universal truths of self-reliance and hard work; and

WHEREAS, our city lost a true friend in Reverend Dr. Herbert H. Lusk, II as he transitioned from earth to glory, on Monday, September 19, 2022.

NOW THEREFORE, BE IT PROCLAIMED, that I, The Honorable Ian N. Oglesby, Mayor of the City of Seaside, on behalf of the City Council, do hereby recognize the life and legacy of Rev. Dr. Herbert H. Lusk, II for his many accomplishments and community leadership, and express the appreciation of the community for his outstanding service to this community.

Ian N. Oglesby, Mayor

City of Seaside

Proclamation

In Recognition of Mr. Billy F. DeBerry

WHEREAS, On September 17, 2022, we lost a true living legend, Billy F. DeBerry. Throughout his life, he embraced Margaret Mead's quote: "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has"; and

WHEREAS, Billy DeBerry's 38 years in education started as a mathematics and science teacher and he worked diligently to become the first & only African American Superintendent of the Monterey Peninsula Unified School District. He modeled high standards, integrity, discipline, inclusiveness and an open heart. The works of his life and the young people he encouraged and mentored show us who he was as a man. As a close friend shared upon hearing of his transition: "Billy was a 50+ year member of Kappa Alpha Psi, a die-hard 49er fan and truly just a damn good dude who went home to be with the Lord. Thank you Bro DeBerry for all you've done & all you've meant for so many of us"; and

WHEREAS, Billy started his career in the Monterey Peninsula Unified School District (MPUSD) after he and his wife Rose were recruited by Charlie Knight. He began as a counselor at M.L. King Junior High in 1968. After 2 years, he became Assistant Principal at Monterey High School and returned after 4 years to become the Principal of Martin Luther King Middle School. After another 4 years, he became the Principal of Monterey High School, 1976 – 80. Billy joined the team at the District Office as the Director of Personnel in 1980 and became Assistant Superintendent of Personnel in 1987. In 1991, he was promoted to be the Associate Superintendent, K-12 until becoming Superintendent of Schools in 1994. He held the position until his retirement in 2000; and

WHEREAS, Along with his career at MPUSD, and a strong believer that "It takes a Village to Raise a Child" he served in several Educational Professional positions: Monterey Bay School Administrators Association, President, 1972; (President & Treasurer) with the Association for California School Administrators, Region X and was chosen as Outstanding Administrator of the Year, ACSA Region X; and also received the Blanche Montague Award, Region X, Association of California School Administrators; and

WHEREAS, Billy served on the Advisory Board for California State University Monterey Bay Institute for Community Collaborative Studies from 1995 – 99, helping to lay the foundation for CSUMB after the closure of Fort Ord; and

WHEREAS, Billy's work within the City of Seaside included: The City of Seaside's Mayor's Advisory Committee on Government Efficiency; Chairman, Citizens Advisory Committee to the Community Development Program; Planning Commissioner and Human Relations Commissioner and Monterey Peninsula Police and Probation Committee; and

WHEREAS, His volunteer work for Monterey County was recognized in a special Board of Supervisor's resolution for a Lifetime of Dedicated Service to Monterey County. He served on the Monterey County Civil Grand Jury; the Monterey County Equal Opportunity Advisory Commission; Monterey County Sheriff's Office Commission and the Monterey County Economic Development Commission; and

WHEREAS, Billy has been recognized with honors by numerous local, state and national organizations including: Bethel Missionary Baptist Church; Monterey County Black Caucus; Congressional Recognition of Outstanding and Invaluable Service to the Community; NAACP Stephen E Ross Award; Alpha Kappa Alpha Society; Citizens Service Award; Monterey Police Association, Inc.; Outstanding Young Man of the Year for the Monterey Peninsula Jaycees; Outstanding Young Man of America; Outstanding Kiwanian of the Year for Seaside; Appointed in 2007 by Governor Arnold Schwarzenegger to the Seventh District Agricultural Board of Directors (Monterey County Fairgrounds); and

WHEREAS, Billy was the Founding Board President of Community Partnership for Youth (CPT) and served on the Honorary Advisory Board from 1994 – present. He was also a Founding Board Member and four-time President of the Monterey Bay Blues Festival; and Founding Board Member of Leadership Monterey Peninsula; and

WHEREAS, He served on the Board of Directors for the Lyceum of the Monterey Peninsula; Monterey Peninsula Chamber of Commerce; Monterey Peninsula United Way; Eskaton Hospital; Young Life; Monterey Bay Girl Scouts; Citizens League for Progress; Fellowship of Christian Athletes; Meals on Wheels; Easter Seals; Monterey Peninsula Community School of Music; and Elected Lieutenant Governor of Division 43 (California, Nevada, Hawaii District) Kiwanis International; and

WHEREAS, Billy was a member of St. Francis Xavier Catholic Church and a member of the Benevolent and Protective Order of Elks; and

WHEREAS, Billy was born on February 7, 1939 and his passing has left an empty spot in many hearts within the community. He was preceded in death by his loving wife of 53 years, Rosetta "Rose" DeBerry and son Michael Lewis. He is survived by his daughter Cheryl Nelson and by his grandchildren, Zachary Nelson, Matthew Nelson, Tyler (Ty) Nelson, Michael S. Lewis; and nine great-grandchildren.

NOW THEREFORE, BE IT PROCLAIMED, that I, The Honorable Ian N. Oglesby, Mayor of the City of Seaside, on behalf of the City Council, do hereby recognize the life and legacy of Mr. Billy F. DeBerry for his many accomplishments and community leadership, and express the appreciation of the community for his outstanding service and dedication to this community.

Ian N. Oglesby, Mayor



CITY OF SEASIDE STAFF REPORT

Item No.: 8.G.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Roberta Greathouse, Human Resources Director/Risk Manager

DATE: October 20, 2022

**SUBJECT: AUTHORIZING THE APPLICATION AND ADOPTING THE PLAN
FOR THE PERMANENT LOCAL HOUSING ALLOCATION
PROGRAM**

RECOMMENDATION

Authorize the application to the Department of Housing and Community Development and adopt the Permanent Local Housing Allocation Program for housing funds in the amount of \$1,158,744.00 to be used for housing-related projects and programs that assist in addressing the unmet housing needs of the City.

BACKGROUND

In 2017, Governor Brown signed a 15-bill housing package aimed at addressing the State's housing shortage and high housing costs. As part of the package, the Building Homes and Jobs Act (SB2) established a \$75 recording fee on real estate documents, which would be directed toward increasing the supply of affordable homes in California.

The intent of the bill is to provide a permanent, on-going source of funding to local governments for housing-related projects and programs that assist in addressing the unmet housing needs of local communities.

The amount of PLHA funds allocated to each entitlement jurisdiction is directly proportionate to each jurisdiction's share of the total 2017 CDBG allocation in California.

The State estimates the City will receive approximately \$1,158,744 over the program's first five years. The allocation for 2019 was \$193,124; for 2020 \$300,175; and for 2021 \$330,334. Future allocations may fluctuate from year to year depending on recording fees from the number of real estate transactions. Up to 5% of the award may be used for staff and overhead costs directly related to carrying out the eligible activities.

PLHA Application

In order to be eligible, local jurisdictions must have a state certified and compliant Housing Element, and have timely Annual Progress Reports (APR) on the Housing Element submitted per state law. The City is compliant with both of these requirements. The program guidelines require that the grant application include an adopted City Council resolution authorizing the request and receipt of grant funds for the five-year period, which is included for consideration as Attachment 1.

The City's PLHA grant application must include a high level five-year plan (Attachment 2) outlining how it will use the total available \$1,158,744 over the five-year period with up to ten percent of the funding allowed to be reallocated without a plan amendment.

Reallocation of more than ten percent of the funds among activities can occur with a plan amendment that has the approval of both the City Council and the State.

The application (Attachment 3) must be submitted to HCD no later than October 31, 2022. Following application approval, HCD will execute an agreement with the City that encompasses funding for all five years. Following the execution of the agreement, funding will be advanced to the City each year. An annual report is due to the State by July 31st of each year reporting on the activities provided and detailing the appropriate expenditure of funds.

The City of Seaside plans to utilize PLHA funds for the following activities:

A) §(301)(a)(1) The predevelopment, development, acquisition, rehabilitation, and preservation of multifamily, residential live-work, or rental housing that is Affordable to extremely low-, very low-, low-, or Moderate-income households (up to 120 percent of Area Median Income (AMI), and B) §(301)(a)(8) Efforts to acquire and rehabilitate foreclosed or vacant homes and apartments (up to 120 percent of Area Median Income (AMI).

B. §(301)(a)(2) The predevelopment, development, acquisition, rehabilitation, and preservation of affordable rental and ownership housing including Accessory Dwelling Units (ADUs), that meet with needs of a growing workforce earning up to 120 percent of AMI, or 150 percent of AMI in high-cost areas. ADUs shall be available for occupancy for a term of no less than 30 days.

C. §(301)(a)(8) Efforts to acquire and rehabilitate foreclosed or vacant homes and apartments (up to 120 percent of Area Median Income (AMI), or 150 percent of AMI in high-cost areas.

FISCAL IMPACT

The State estimates the City will receive approximately \$1,158,744 over the program's first five years, including allocations of \$193,124.00 from 2019, \$300,175.00 from 2020, and \$330,334.00 from 2021.

ATTACHMENTS

1. Resolution
 2. 2022 PLHA Application
-

Reviewed for Submission to the City Council by:

A handwritten signature in blue ink, reading "Jaime M. Fontes", is written over a horizontal line. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jaime M. Fontes, City Manager

RESOLUTION NO. 22-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SEASIDE

AUTHORIZING THE APPLICATION AND ADOPTING THE PLHA PLAN FOR THE PERMANENT LOCAL HOUSING ALLOCATION PROGRAM

The City Council of the City of Seaside hereby consents to, adopts, and ratifies the following resolution:

- A. WHEREAS, the Department is authorized to provide up to \$304 million under the SB 2 Permanent Local Housing Allocation Program Formula Component from the Building Homes and Jobs Trust Fund for assistance to Cities and Counties (as described in Health and Safety Code section 50470 et seq. (Chapter 364, Statutes of 2017 (SB 2)).
- B. WHEREAS the State of California (the "State"), Department of Housing and Community Development ("Department") issued a Notice of Funding Availability ("NOFA") dated 5/3/2021 under the Permanent Local Housing Allocation (PLHA) Program;
- C. WHEREAS the City of Seaside is an eligible Local government who has applied for program funds to administer one or more eligible activities, or a Local or Regional Housing Trust Fund to whom an eligible Local government delegated its PLHA formula allocation.
- D. WHEREAS the Department may approve funding allocations for PLHA Program, subject to the terms and conditions of the Guidelines, NOFA, Program requirements, the Standard Agreement, and other contracts between the Department and PLHA grant recipients;

NOW THEREFORE BE IT RESOLVED THAT:

- 1. If Applicant receives a grant of PLHA funds from the Department pursuant to the above referenced PLHA NOFA, it represents and certifies that it will use all such funds in a manner consistent and in compliance with all applicable state and federal statutes, rules, regulations, and laws, including without limitation all rules and laws regarding the PLHA Program, as well as any and all contracts Applicant may have with the Department.
- 2. Applicant is hereby authorized and directed to receive a PLHA grant, in an amount not to exceed the five-year estimate of the PLHA formula allocations, as stated in Appendix C of the current NOFA of \$1,158,744 in accordance with all applicable rules and laws.
- 3. Applicant hereby agrees to use the PLHA funds for eligible activities as approved by the Department and in accordance with all Program requirements, Guidelines, other

rules and laws, as well as in a manner consistent and in compliance with the Standard Agreement and other contracts between the Applicant and the Department.

4. **Pursuant to Section 302(c)(4) of the Guidelines, Applicant's PLHA Plan for the 2019-2023 Allocations is attached to this resolution, and Applicant hereby adopts this PLHA Plan and certifies compliance with all public notice, public comment, and public hearing requirements in accordance with the Guidelines.**
5. Applicant shall be subject to the terms and conditions as specified in the Standard Agreement, the PLHA Program Guidelines and any other applicable SB 2 Guidelines published by the Department.
6. Applicant certifies that a deed restriction shall be recorded against any property where funds are used for the acquisition, construction, or rehabilitation of for-sale housing projects, or units within for-sale housing projects, in compliance with one of the requirements stated in Guidelines Section 302(c)(6)(A), (B), or (C).
7. The City Manager or his / her designee is authorized to execute the PLHA Program Application, the PLHA Standard Agreement and any subsequent amendments or modifications thereto, as well as any other documents which are related to the Program or the PLHA grant awarded to Applicant, as the Department may deem appropriate.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Seaside this 20TH day of October 2022, by the following vote:

AYES: COUNCIL MEMBERS
NOES: COUNCIL MEMBERS
ABSTAIN: COUNCIL MEMBERS
ABSENT: COUNCIL MEMBERS

APPROVED:

Ian N. Oglesby, Mayor

ATTEST:

Dominique L. Davis, City Clerk



PUBLIC AFFAIRS & CITY CLERK DEPARTMENT

440 Harcourt Avenue
Seaside, CA 93955
www.ci.seaside.ca.us

Telephone 831-899-6707
Fax 831-718-8594

**CERTIFICATE OF THE ATTESTING OFFICER
City of Seaside, California**

The undersigned, Officer of the City of Seaside does hereby attest and certify that the attached Resolution is a true, full and correct copy of a resolution duly adopted at a meeting of the City of Seaside which was duly convened and held on the date stated thereon, and that said document has not been amended, modified, repealed or rescinded since its date of adoption and is in full force and effect as of the date hereof.

Resolution 22-xx: Authorizing the Application and Adopting the PLHA Plan for the Permanent Local Housing Allocation Program.

Date of Adoption: October 20, 2022

ATTEST:

Dominique L. Davis, City Clerk

Local Government Formula Allocation for New Applicants										Rev. 2/16/22	
Eligible Applicant Type:		Entitlement.									
Local Government Recipient of PLHA Formula Allocation:										Seaside	
2020 PLHA NOFA Formula Allocation Amount:		\$193,124				2020 NOFA Allowable Local Admin (5%):		\$9,656			
2021 PLHA NOFA Formula Allocation Amount:		\$300,175				2021 NOFA Allowable Local Admin (5%):		\$15,009			
2022 PLHA NOFA Formula Allocation Amount:		\$330,334				2022 NOFA Allowable Local Admin (5%):		\$16,517			
Instructions: If the Local Government Recipient of the PLHA Formula Allocation delegated its PLHA formula allocation to a Local Housing Trust Fund or to another Local Government, the Applicant (for which information is required below) is the Local Housing Trust Fund or administering Local Government. The PLHA award will be made to the Applicant (upon meeting threshold requirements) and the Applicant is responsible for meeting all program requirements throughout the term of the Standard Agreement. The 302(c)(4) Plan template worksheet requires first choosing one or more of the Eligible Activities listed below. If "Yes" is clicked, the 302(c)(4) Plan worksheet opens a series of questions about what precise activities are planned. Some specific activities, such as providing downpayment assistance to lower-income households for acquisition of an affordable home, could be included under either Activity 2 or 9. Please only choose one of those Activities; don't list the downpayment assistance under both Activities. If the PLHA funds are used for the same Activity but for different Area Median Income (AMI) level, select the same Activity twice (or more times) and the different AMI level the Activity will serve. Please enter the percentage of funds allocated to the Activity in only the first Activity listing to avoid double counting the funding allocation.											
For each year (2019-2023), allocations must equal 100% annually including the allowable administrative costs of up to 5%.											
Eligible Applicants §300											
§300(a) and (b) Eligible Applicants for the Entitlement and Non-Entitlement formula component described in Section §100(b)(1) and (2) are limited to the metropolitan cities and urban counties allocated a grant for the federal fiscal year 2017 pursuant to the federal CDBG formula specified in 42 USC, Section §5306 and Non-entitlement local governments.											
Applicant:		City of Seaside									
Address:		440 Harcourt Ave									
City:		Seaside		State:		CA		Zip:		93955	
County:		Monterey									
Auth Rep Name:		Jaime M. Fontes		Title:		City Manager		Auth Rep. Email:		JFontes@ci.seaside.ca.us	
Phone:		831-899-6701									
Address:		440 Harcourt Ave		City:		Seaside		State:		CA	
Zip Code:		93955									
Contact Name:		Roberta Greathouse		Title:		Human Resources Director		Contact Email:		Rgreathouse@ci.seaside.ca.us	
Contact Phone:		831-899-6713									
Address:		440 Harcourt Ave		City:		Seaside		State:		CA	
Zip Code:		93955									
§300(d) Is Applicant delegated by another Local government to administer on its behalf its formula allocation of program funds?										No	
§300(d) If Applicant answered "Yes" above, has the Applicant attached the legally binding agreement required by §300 (c) and (d)?										A sample agreement can be found by double clicking on the icon to the right 	
File Name:		Application and Adopting the PLHA Plan (2019-2023 Allocations) Reso						Pursuant to section 302(c)(4) of the Guidelines, Applicant's PLHA Plan for 2019-2023 allocations is attached to this resolution, and Applicant certifies compliance with all public notice, comment, and hearing requirements in accordance with the Guidelines.		Yes	
File Name:		App1 TIN						Uploaded to HCD?		Yes	
File Name:		Applicant Delegation Agreement						Legally binding agreement between Delegating and Administering Local Governments (sample provided—just click on icon in row 17, column AI)		Uploaded to HCD?	
N/A											
Eligible Activities, §301											
§301(a) Eligible activities are limited to the following:										Included?	
§301(a)(1) The predevelopment, development, acquisition, rehabilitation, and preservation of multifamily, residential live-work, rental housing that is affordable to Extremely low-, Very low-, Low-, or Moderate-income households, including necessary operating subsidies.										YES	
§301(a)(2) The predevelopment, development, acquisition, rehabilitation, and preservation of affordable rental and ownership housing, including Accessory Dwelling Units (ADUs), that meets the needs of a growing workforce earning up to 120 percent of AMI, or 150 percent of AMI in high-cost areas. ADUs shall be available for occupancy for a term of no less than 30 days.										YES	
§301(a)(3) Matching portions of funds placed into Local or Regional Housing Trust Funds.										YES	
§301(a)(4) Matching portions of funds available through the Low- and Moderate-Income Housing Asset Fund pursuant to subdivision (d) of HSC Section 34176.										YES	
§301(a)(5) Capitalized Reserves for services connected to the preservation and creation of new permanent supportive housing.										YES	
§301(a)(6) Assisting persons who are experiencing or At-risk of homelessness, including, but not limited to, providing rapid re-housing, rental assistance, supportive/case management services that allow people to obtain and retain housing, operating and capital costs for navigation centers and emergency shelters, and the new construction, rehabilitation, and preservation of permanent and transitional housing.										YES	
§301(a)(7) Accessibility modifications in Lower-income Owner-occupied housing.										YES	
§301(a)(8) Efforts to acquire and rehabilitate foreclosed or vacant homes and apartments.										YES	
§301(a)(9) Homeownership opportunities, including, but not limited to, down payment assistance.										YES	
§301(a)(10) Fiscal incentives made by a county to a city within the county to incentivize approval of one or more affordable housing Projects, or matching funds invested by a county in an affordable housing development Project in a city within the county, provided that the city has made an equal or greater investment in the Project. The county fiscal incentives shall be in the form of a grant or low-interest loan to an affordable housing Project. Matching funds investments by both the county and the city also shall be a grant or low-interest deferred loan to the affordable housing Project.										YES	
Threshold Requirements, §302											
§302(a) The Applicant's Housing Element and Delegating Local Government's Housing Element (if applicable) was/were adopted by the Local Government's governing body by the application submittal date subsequently determined to be in substantial compliance with state Housing Element Law pursuant to Government Code Section 65585.										Yes	
§302(b) Applicant or Delegating Local Government has submitted the current or prior year's Annual Progress Report to the Department of Housing and Community Development pursuant to Government Code Section 65400.										Yes	
§302(c)(2) Applicant certified in the Resolution submitted with this application that submission of the application was authorized by the governing board of the Applicant.										Yes	
§302(c)(3) Applicant certified in the Resolution submitted with this application that, if the Local Government proposes allocation of funds for any activity to another entity, the Local government's selection process had no conflicts of interest and was accessible to the public.										Yes	
§302(c)(4) Applicant certified in the Resolution submitted with this application that the application include a Plan in accordance with §302(c)(4)?										Yes	
§302(c)(4)(D) Applicant certified in the Resolution submitted with this application that the Plan was authorized and adopted by resolution by the Local Government and that the public had an adequate opportunity to review and comment on its content.										Yes	
§302(c)(5) Applicant certified in the Resolution submitted with this application that the Plan submitted is for a term of five years (2019-2023). Local Governments agree to inform the Department of changes made to the Plan in each succeeding year of the term of the Plan.										Yes	
§302(c)(6) Applicant certified in the Resolution submitted with this application that it will ensure compliance with §302(c)(6) if funds are used for the acquisition, construction, or rehabilitation of for-sale housing projects or units within for-sale housing projects.										Yes	
§302(c)(7) Applicant certified in the Resolution submitted with this application that it will ensure that the PLHA assistance is in the form of a low-interest, deferred loan to the Sponsor of the Project, if funds are used for the development of an Affordable Rental Housing Development. The loan shall be evidenced through a Promissory Note secured by a Deed of Trust and a Regulatory Agreement shall restrict occupancy and rents in accordance with the Local government-approved underwriting of the Project for a term of at least 55 years.										Yes	
§302(c)(8) Has Applicant attached a program income reuse plan describing how repaid loans or accrued interest will be reused for eligible activities specified in Section 301?											
File Name:		Reuse Plan						Program Income Reuse Plan describing how repaid loans or accrued interest will be used for eligible activities in Section 301.		Narrative uploaded to HCD?	

Administration			
Applicant agrees to adhere to §500 , Accounting Records.			Yes
Applicant agrees to adhere to §501 , Audits/Monitoring of Project Files.			Yes
Applicant agrees to adhere to §502 , Cancellation/Termination.			Yes
Applicant agrees to adhere to §503 , Reporting.			Yes
Certifications			
On behalf of the entity identified below, I certify that: The information, statements and attachments included in this application are, to the best of my knowledge and belief, true and correct and I possess the legal authority to submit this application on behalf of the entity identified in the signature block.			
Jaime M. Fontes		City Manager	
Authorized Representative Printed Name		Title	Signature
			Date

§302(c)(4) Plan

Rev. 2/16/22

§302(c)(4)(A) Describe the manner in which allocated funds will be used for eligible activities.

The City of Seaside will utilize PLHA funds for the following activities: 1) acquisition and development of land, development of ADU's, and/or acquisition and rehabilitation of vacant or foreclosed homes, 2) predevelopment and other soft costs, including but not limited to land costs, legal fees, demolition and site improvements, off site improvements, architectural/engineering fees, environmental review fees, title/recording, taxes/assessment, 3) financing costs including but not limited to appraisal/market study, performance bond costs, construction loan interest, lender inspections, legal costs, construction loan costs, 4) site and building construction costs, 5) lease-up costs, and 5) contingencies and developer fee.

§302(c)(4)(B) Provide a description of the way the Local government will prioritize investments that increase the supply of housing for households with incomes at or below 60 percent of Area Median Income (AMI).

The City of Seaside City owns several properties that are either being utilized for affordable housing or have been identified as future housing opportunities. The City recently acquired 956 Hillby Ave (purchased at \$450,000 on July 10, 2020) and 962 Hillby Ave (purchased at \$500,000 in February 2022) to build multifamily affordable rental housing. This housing project will assist households with income at or below 60 percent of the Area Median Income (AMI). In addition, the City owns .55 acres at 1348-1380 Canyon Del Rey Boulevard and this lot has been identified as a site that can be used for affordable housing. Finally, the City owns and currently rents out 1124 Wheeler Street. For the Hilby and Canyon Del Rey locations, the Council has directed staff to send out a request for proposals evaluate housing options at these locations. The Wheeler property is in need of renovations and the lot will support an ADU which could add to the City's affordable housing supply.

§302(c)(4)(C) Provide a description of how the Plan is consistent with the programs set forth in the Local Government's Housing Element.

The City of Seaside has several housing problems relating to housing age, cost burden and overcrowding. At least 75 percent of the housing stock is more 30 years old. Two of the City's Housing Element goals address programs to improve the quality and safety of existing housing stock, 1) Goal H-1 - "Well maintained neighborhoods and housing conditions support an improved quality of life." and 2) "Ample new affordable housing for very low, low, and moderate." Policies implementing rehabilitation and/or demolition address residential hazards, resource conservation and acquisition as programs for enhancing the quality of life for the Seaside community.

Activities Detail (Activities Detail (Must Make a Selection on Formula Allocation Application worksheet under Eligible Activities, §301))

§301(a)(1) The predevelopment, development, acquisition, rehabilitation, and preservation of multifamily, residential live-work, rental housing that is affordable to extremely low-, very low-, low-, or moderate-income households, including necessary Operating subsidies.

§302(c)(4)(E)(i) Provide a detailed and complete description of how allocated funds will be used for each proposed Affordable Rental Housing Activity.

The City of Seaside intends to solicit proposals for the development of affordable housing at 956 Hillby Ave, 962 Hillby Ave, and 1348-1380 Canyon Del Rey Blvd in 2023. The Request for Proposal will identify the funds that are available and will outline the eligible uses of the funds, selection criteria, terms and conditions for the funds, application requirements, and due date for applications. Selection criteria will include a preference for applications which include the highest number of affordable units at the deepest level of affordability.

Complete the table below for each proposed Affordable Rental Housing Activity to be funded with 2019-2023 PLHA allocations. If a single Activity will be assisting households at more than one level of Area Median Income, please list the Activity as many times as needed to capture all of the AMI levels that will be assisted, but only show the percentage of annual funding allocated to the Activity one time (to avoid double counting).

Funding Allocation Year	2019	2020	2021	2022	2023										
§302(c)(4)(E)(i) Percentage of Funds Allocated for the Proposed Affordable Rental Housing Activity	35.0%	35.0%	35.0%	35.0%	35.0%										
§302(c)(4)(E)(ii) Area Median Income Level Served	60%	60%	60%	60%	60%										TOTAL
§302(c)(4)(E)(ii) Unmet share of the RHNA at the AMI Level Note: complete for years 2019, 2020, 2021 only	95	95	95												285
§302(c)(4)(E)(ii) Projected Number of Households Served	0	0	0	0	4										4
§302(c)(4)(E)(iv) Period of Affordability for the Proposed Affordable Rental Housing Activity (55 years required for rental housing projects)	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	55 Years	

§302(c)(4)(E)(iii) A description of major steps/actions and a proposed schedule for the implementation and completion of the Activity.

Once grant funds are awarded and a Standard Agreement is executed, the PLHA funds will be made available to developers through the publication of a competitive RFP in 2023. Developer applications will then be analyzed by staff for completeness and alignment with the RFP preferences, program funding requirements, and Housing Programs guidelines. Applications will be reviewed, and award determinations will be made by the City. Once a project is awarded, loan documents (loan agreement, regulatory agreement, promissory note, deed of trust, etc.) will be executed and recorded against the property as applicable. The developer will then begin the awarded activity and submit invoices for cost reimbursement.

§301(a)(2) The predevelopment, development, acquisition, rehabilitation, and preservation of Affordable rental and ownership housing, including Accessory Dwelling Units (ADUs), that meets the needs of a growing workforce earning up to 120 percent of AMI, or 150 percent of AMI in high-cost areas. ADUs shall be available for occupancy for a term of no less than 30 days.															
§302(c)(4)(E)(i) Provide a detailed and complete description of how allocated funds will be used for each proposed Affordable Rental and Ownership Housing Activity.												Enter Percentage of Funds Allocated for Affordable Owner-occupied Workforce Housing		0%	
The City of Seaside plans to use PLHA funds renovate the property at 1124 Wheeler Street and add an ADU.															
Complete the table below for each proposed Affordable Rental and Ownership Housing Activity to be funded with 2019-2023 PLHA allocations. If a single Activity will be assisting households at more than one level of Area Median Income, please list the Activity as many times as needed to capture all of the AMI levels that will be assisted, but only show the percentage of annual funding allocated to the Activity one time (to avoid double counting).															
Funding Allocation Year	2019	2020	2021	2022	2023										
Type of Affordable Housing Activity	Rental: Rehabilitation	Rental: Rehabilitation	Rental: Rehabilitation	Rental: Rehabilitation	Rental: Rehabilitation										
§302(c)(4)(E)(i) Percentage of Funds Allocated for Each Affordable Housing Activity	15%	15%	15%	15%	15%										
§302(c)(4)(E)(ii) Area Median Income Level Served	60%	60%	60%	60%	60%										TOTAL
§302(c)(4)(E)(ii) Unmet share of the RHNA at AMI Level Note: complete for years 2019, 2020, 2021 only	95	95	95												285
§302(c)(4)(E)(ii) Projected Number of Households Served					2										2
§302(c)(4)(E)(iv) Period of Affordability for the Proposed Activity (55 years required for rental housing projects)	55	55	55	55	55										
§302(c)(4)(E)(iii) A description of major steps/actions and a proposed schedule for the implementation and completion of each Affordable Rental and Ownership Housing project.															
The City of Seaside intends to solicit proposals for renovation of 1124 Wheeler Street and development of an ADU in 2023. The City anticipate contractor selection and award in 2023 and project completion by summer of 2024.															
§301(a)(8) Efforts to acquire and rehabilitate foreclosed or vacant homes and apartments.															
§302(c)(4)(E)(i) Provide a detailed and complete description of how allocated funds will be used for the proposed Activity.												Enter Percentage of Funds Allocated for Affordable Owner-occupied Workforce Housing (AOWH)		0%	
The City of Seaside has identified several homes and residential lots that are vacant and in disrepair. The City will attempt to purchase one or more of these properties to renovate and potentially add an ADU or Junior ADU to the property.															
Complete the table below for each proposed Activity to be funded with 2019-2023 PLHA allocations. If a single Activity will be assisting households at more than one level of Area Median Income, please list the Activity as many times as needed to capture all of the AMI levels that will be assisted, but only show the percentage of annual funding allocated to the Activity one time (to avoid double counting).															
Funding Allocation Year	2019	2020	2021	2022	2023										

Type of Activity	Rental: Acquisition	Rental: Acquisition	Rental: Acquisition	Rental: Acquisition	Rental: Acquisition										
§302(c)(4)(E)(i) Percentage of Funds Allocated for the Proposed Activity	50.00%	50.00%	50.00%	50.00%	50.00%										
§302(c)(4)(E)(ii) Area Median Income Level Served	60%	60%	60%	60%	60%										TOTAL
§302(c)(4)(E)(ii) Unmet share of the RHNA at AMI Level Note: complete for years 2019, 2020, 2021 only	95	95	95												285
§302(c)(4)(E)(ii) Projected Number of Households Served					2										2
§302(c)(4)(E)(iv) Period of Affordability for the Proposed Activity (55 years required for rental housing projects)	55	55	55	55	55										
§302(c)(4)(E)(iii) A description of major steps/actions and a proposed schedule for the implementation and completion of the Activity.															
The City of Seaside has identified several homes and residential lots that are vacant and in disrepair. The City will attempt to purchase one or more of these properties to renovate and potentially add an ADU or Junior ADU to the property. The City of Seaside will aim to purchase at least one vacant or foreclosed home by summer of 2024.															



CITY OF SEASIDE STAFF REPORT

Item No.: 8.H.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Nisha Patel, Public Works Director/City Engineer
Melissa Savage, Assistant Engineer
Patrick Grogan, Associate Engineer

DATE: October 20, 2022

**SUBJECT: REVIEW AND TAKE ACTION ON TRAFFIC ADVISORY
COMMITTEE RECOMMENDATIONS TO DENY A RED CURB ON
JUAREZ STREET AND AN ADDITIONAL DRIVEWAY ON AMADOR
AVENUE**

RECOMMENDATION

1) Deny installation of the red curb at 1841 Juarez Street, and 2) Deny installation of an additional driveway approach at 700 Amador Avenue.

BACKGROUND

The Traffic Advisory Committee reviewed and provided recommendations regarding several applications at the September 27, 2022 special meeting. A brief summary of the items are presented below.

Item 1

The resident at 1836 Juarez Street is requesting the installation of red curb in front of 1841 Juarez Street. The resident noted difficulty backing into and back out of their driveway when a vehicle is parked in front of 1841 Juarez Street (attachment 1). Juarez Street is classified as a one-way residential street, and is approximately 25 ft. wide, measured from face of curb to face of curb with parallel parking on both sides of the street. Single-family residences are located along this block of Juarez Street.

Staff conducted a site visit, during which it was noted that a fire hydrant red curb zone exists approximately 37 feet south of the curb approach of the driveway at 1841 Juarez Street. Due to the fire hydrant zone and multiple residences facing the street, street parking is limited. TAC recommends not installing red curb in front of 1841 Juarez

Street to maintain adequate street parking for residents.

Item 2

The property owner of 700 Amador Avenue is requesting a second driveway approach, to be located on the north side of the property off of Amador Avenue to allow parking on the property. 700 Amador Avenue is a single-family residential parcel with one residence, and a detached one-car garage on the property. The garage is accessed from Alhambra Street. The property has approximately 145 ft of street frontage from Amador Avenue and Alhambra Street, with an existing, nonconforming driveway with roughly 20 square feet of paved surface area. Offstreet parking is provided by the one-car garage off of Alhambra Street.

The City of Seaside's Municipal code Section 17.34.120 Driveways and Site Access, outlines the requirements for driveways of Single Family Dwellings as follows:

A. Number of driveways. The number and placement of driveways shall be limited as follows; provided that second driveways or additional curb cuts may be approved by the Traffic Advisory Committee:

1. Single dwellings and duplexes. A single dwelling or duplex shall be allowed one driveway, except that:

b. A parcel within the RS-8 or RS-12 zones with a frontage of 200 feet or more may have two separate driveways; provided that they are separated by a minimum of 100 feet, or lesser distance as approved by the City Engineer based on considerations of site topography and traffic safety.

B. Distance from street corners. Each driveway shall be separated from the nearest street intersection as follows, except where the City Engineer allows a lesser separation.

2. For parcels with frontages less than 150 feet, the minimum distance shall be 100 feet.

Per the above stated code sections, 700 Amador Avenue is not eligible for a second driveway, as its frontage is only 145 feet of the required 200 feet, and the driveway would be located approximately 53 feet from the intersecting street of Alhambra Street, which is less than the required 100 feet as required in section B.2.

By unanimous vote, the Traffic Advisory Committee recommends denying the resident's application for an additional driveway off of Amador Avenue (attachment 2) as the property does not meet the minimum requirements as stated in Seaside Municipal Code Section Section 17.34.120.

FISCAL IMPACT

The fiscal impact of the following items are as follows:

1. There is no fiscal impact associated with Item 1 - Deny installation of red curb at 1841 Juarez Street.
2. There is no fiscal impact associated with Item 2 - Deny installation of an additional driveway approach at 700 Amador Avenue.

ATTACHMENTS

1. Item 1 - Red Curb at 1841 Juarez
 2. Item 2 - Additional Driveway Approach for 700 Amador
-

Reviewed for Submission to the City Council by:



Jaime M. Fontes, City Manager



APPLICATION FEE PER THE CURRENT ADOPTED FEE SCHEDULE

Traffic Advisory Committee Request Application

The following information is required to process all Traffic Advisory Committee requests. This information will be used to contact the applicant should staff have questions or needs clarification on the request. This information will also appear in the staff report presented to the Traffic Advisory Committee and/or City Council.

The Traffic Advisory Committee meets the 3rd Tuesday of every month at 5:00 PM in the City of Seaside's City Hall Conference room. This meeting is open to the public and applicants are encouraged to attend.

Name: DAPHNE D. DAHMSDate: September 6, 2022

Address: [REDACTED]

Phone: [REDACTED]

Type of Request (check all that apply):

- ☐ Parking Designations ☐ Crosswalk ☒ Curb Markings (White, Yellow, etc.) RED ZONE
☐ Warning Sign ☐ Traffic Signal/Stop Sign ☐ Signing/Striping 6'-7'
☐ Other _____

FEES WILL APPLY FOR PARKING AND CURB MARKING REQUESTS

Request: OVERALL OUR STREET PARKING IS NOT CONGESTED. JUAREZ IS A VERY NARROW STREET. I AM REQUESTING THAT 6'-7' SOUTH OF THE DRIVE AT 1841 BE A DESIGNATED RED ZONE TO ENSURE I CAN SAFELY ENTER AND EXIT MY DRIVEWAY/GARAGE, WHICH IS DIRECTLY OPPOSITE. I BACK INTO MY GARAGE SO I CAN DRIVE OUT FORWARD: EASIER TO BACK UPHILL; IF I COLLIDE, IT'S MY OWN PROPERTY. BACKING OUT I CANNOT SEE (DROPS AWAY) AND HAVE DIFFICULTY NEGOTIATING A TURN WITHOUT HITTING MY RETAINING WALL OR A PARKED VEHICLE. DIFFICULTY WHEN GUESTS OF TEENAGER AT 1848 ARRIVE EN MASSE - 5 OR 6 VEHICLES. IF THEY PARK DIRECTLY ACROSS I RISK HITTING THE FRONT OF THEIR VEHICLE. I CANT ANGLE MY CAR TO BACK IN, AND HAVE TO ASK THEM TO

Request Procedures are outlined on the back of this form. For any questions regarding the Traffic Advisory Committee (TAC) please contact 899-6825.

PLEASE MOVE THEIR VEHICLE. A SMALL RED ZONE WOULD INCREASE SAFETY AND CLEARLY DELINEATE AVAILABLE SPACE.

TAC REQUEST PROCEDURE

The Traffic Advisory Committee (TAC) acts as an advisory board to the City Council per Chapter 2.37 of the Municipal Code. Recommendations made by the TAC are to be ratified by the City Council prior to implementation. The TAC consists of five members: a Council Member; Director of Public Works; Chief of Police; Director of Community Development; and the Fire Chief. The TAC reviews all requests for traffic safety regulatory or control devices, signs and markings, and conducts studies as well as offers recommendations to the City Council, Planning Commission or appropriate City department.

Upon submittal of a request, staff will place the request on the next available TAC agenda for a future scheduled meeting. All TAC's action will be forwarded for City Council consideration at their next available scheduled meeting.

Fees

Fees will be collected prior to installation of any approved requests that directly benefits the applicant, such as limited timed parking, white zones, etc. Prior to any required maintenance of the improvement, the same fee will apply and be billed to the applicant. The following fees have been determined based upon the cost of staff time and material for installation:

Description	Fee*
Marking curb – per curb (20' maximum length)	Per current adopted fee schedule
Installation of one sign	

* Fees subject to change per City Council approved fee schedule. Fee determined by date of application.

PLEASE COMPLETE FOR PARKING AND CURB MARKING REQUESTS

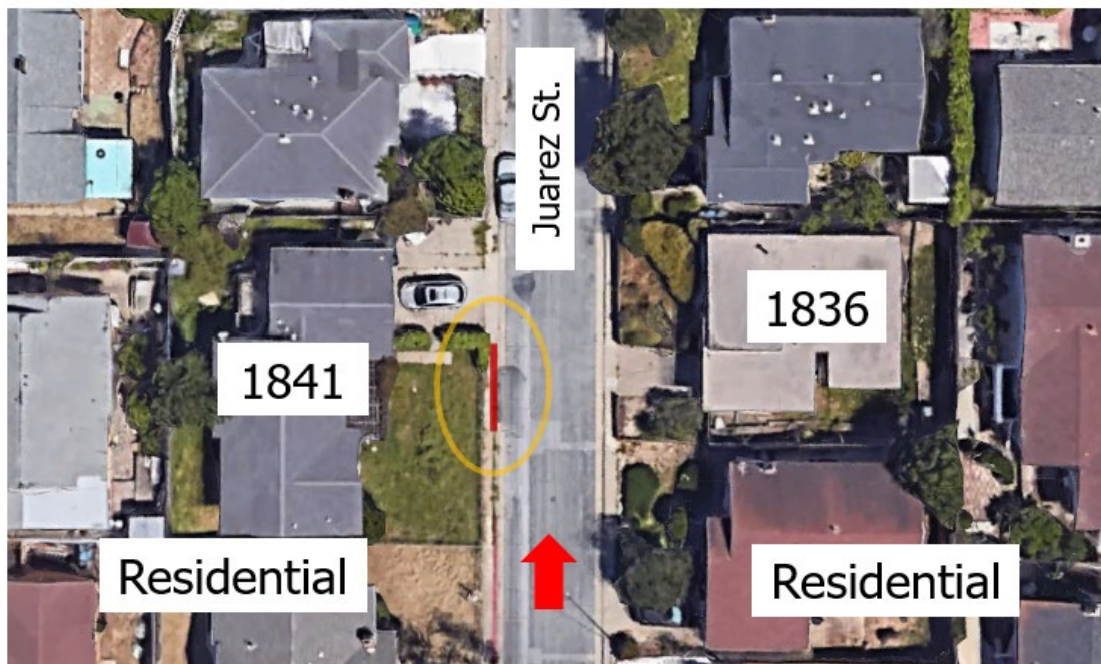
TAC REQUEST ACKNOWLEDGEMENT STATEMENT

I, Daphne D Dahms understand that should my request be approved by the Traffic Advisory Committee and City Council, I will be responsible for the fee prior to the installation of my request. I also understand that if approved by City Council the improvements will be reviewed annually or whenever deemed appropriate by the Public Works Department for any required maintenance and I will be charged the corresponding fee.

Daphne D Dahms
Applicant Signature

September 6, 2022
Date

I WOULD APPRECIATE MEETING WITH THE ENGINEER IN PERSON, TO EXPLAIN THE LOGISTICS AND DEMONSTRATE THE PROBLEM AND MY DIFFICULTY MANEUVERING. I WILL BE



Consider installation of red curb in front of 1841 Juarez Street.



Driveway at 1836 Juarez Street



Area of requested red curb in front of 1841 Juarez



Traffic Advisory Committee Request Application

The following information is required to process all Traffic Advisory Committee requests. This information will be used to contact the applicant should staff have questions or needs clarification on the request. This information will also appear in the staff report presented to the Traffic Advisory Committee and/or City Council.

The Traffic Advisory Committee meets the 3rd Tuesday of every month at 5:00 PM in the City of Seaside's City Hall Conference room. This meeting is open to the public and applicants are encouraged to attend.

Name: Jason Hale Date: 8/4/22
Address: 700 Amador Ave Phone: [REDACTED]

Type of Request (check all that apply):

- ☐ Parking Designations ☐ Crosswalk ☐ Curb Markings (White, Yellow, etc.)
☐ Warning Sign ☐ Traffic Signal/Stop Sign ☐ Signing/Striping
☒ Other Driveway

FEES WILL APPLY FOR PARKING AND CURB MARKING REQUESTS

Request: We would like to add a driveway to 700 Amador Ave.
The home has a (very narrow) garage so we
understand this driveway will be considered a 2nd one.
We would like the driveway to be located on Amador
(see attached pics in the email) which would be at
least 100 ft from the garage. There are three people
who live at Amador so we would actually be freeing
up a street space with the addition of this driveway, our
plan is to park three cars in the driveway.
Also, in case it matters, the garage does not have a
driveway. Thank you so much for your consideration.

Request Procedures are outlined on the back of this form. For any questions regarding the Traffic Advisory Committee (TAC) please contact 899-6825.

TAC REQUEST PROCEDURE

The Traffic Advisory Committee (TAC) acts as an advisory board to the City Council per Chapter 2.37 of the Municipal Code. Recommendations made by the TAC are to be ratified by the City Council prior to implementation. The TAC consists of five members: a Council Member; Director of Public Works; Chief of Police; Director of Community Development; and the Fire Chief. The TAC reviews all requests for traffic safety regulatory or control devices, signs and markings, and conducts studies as well as offers recommendations to the City Council, Planning Commission or appropriate City department.

Upon submittal of a request, staff will place the request on the next available TAC agenda for a future scheduled meeting. All TAC's action will be forwarded for City Council consideration at their next available scheduled meeting.

Fees

Fees will be collected prior to installation of any approved requests that directly benefits the applicant, such as limited timed parking, white zones, etc. Prior to any required maintenance of the improvement, the same fee will apply and be billed to the applicant. The following fees have been determined based upon the cost of staff time and material for installation:

Description	Fee*
Marking curb – per curb (20' maximum length)	Per current adopted fee schedule
Installation of one sign	

* Fees subject to change per City Council approved fee schedule. Fee determined by date of application.

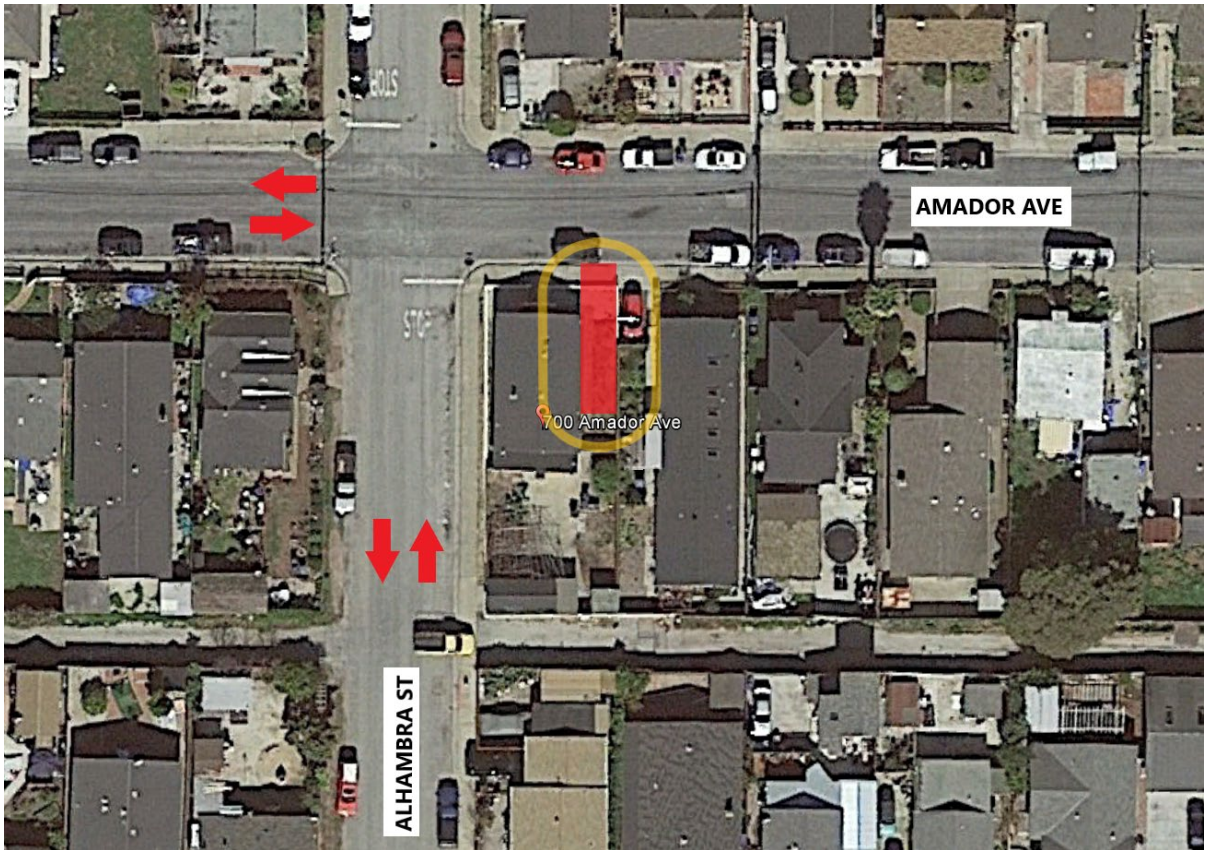
PLEASE COMPLETE FOR PARKING AND CURB MARKING REQUESTS

TAC REQUEST ACKNOWLEDGEMENT STATEMENT

I, Jason Hale understand that should my request be approved by the Traffic Advisory Committee and City Council, I will be responsible for the fee prior to the installation of my request. I also understand that if approved by City Council the improvements will be reviewed annually or whenever deemed appropriate by the Public Works Department for any required maintenance and I will be charged the corresponding fee.


Applicant Signature

8/4/22
Date



Install an additional driveway approach for 700 Amador.



Area of requested driveway approach for 700 Amador.



Front of residence off Amador.



Existing, non-conforming driveway approach on Alhambra.



Side of residence off Alhambra



CITY OF SEASIDE STAFF REPORT

Item No.: 9.A.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Victor Damiani, Finance Director

DATE: October 20, 2022

**SUBJECT: ADOPT A RESOLUTION AUTHORIZING THE CITY MANAGER TO
EXECUTE A LEASE PURCHASE FINANCING FOR A FIRE ENGINE
AND A STREET SWEEPER IN THE AMOUNT OF \$1,367,000.00**

RECOMMENDATION

Approve the purchase of a fire engine and street sweeper (the "Equipment") and review, consider, and approve the 2022 equipment lease/purchase financing ("2022 Equipment Lease") in an amount not-to-exceed \$1,367,000 and authorize the City Manager to execute documents as needed to complete the 2022 Equipment Lease.

BACKGROUND

The Fiscal Year 2022-23 adopted budget includes plans to lease a fire engine and street sweeper.

The budgeted amounts are:

Fire Engine	\$1,000,000	
Street Sweeper	\$ <u>400,000</u>	
TOTAL		\$1,400,000

The City received quotes for each of the two pieces of equipment which were submitted by the vendors to Sourcwell (formerly NJPA) Contract #030117-LTS. Sourcwell is a public agency serving as a municipal contracting agency, operating under the legislative authority of Minnesota Statute 123A.21 with the authority to develop and offer, among other services, cooperative procurement services to its membership. The City is a member of Sourcwell. Each of the vendor proposals is attached to the agenda item.

The proposed amounts are:

Fire Engine	\$883,433.75	
Fire Engine upfitting costs	\$ 65,773.84	
Street Sweeper	<u>\$380,375.36</u>	
TOTAL		\$1,329,582.95

The City's Finance department partnered with our Municipal Advisors, NHA Advisors, to issue an RFP to the banking community for financing, in an effort to ensure the City obtains the most beneficial terms. The City received 8 proposals and the most advantageous proposal was submitted by Webster Bank.

The attached financing documents have been provided to finance the listed equipment. There is a standard annual debt payment of \$164,295 per year. The interest rate is locked and fixed at 3.79% for the life of the loan. The payment term is 10 years, which is tied to the expected useful lives of the vehicles being financed.

The attached resolution, if adopted, would approve the purchase of the vehicles and the financing and authorize the City Manager to execute the documents.

The two primary documents related to the 2022 Equipment Lease are the Lease Purchase Agreement and the Escrow Agreement. The Lease Purchase Agreement outlines the terms of the 2022 Equipment Lease, including repayment terms and pre-payment provisions. The Lease Purchase Agreement formalizes the relationship between the City (as borrower) and Webster Bank (as lender). The Escrow Agreement outlines the process by which funds are disbursed to pay for equipment and formalizes the relationship between the City and Webster Bank (also serving as escrow agent).

California Government Code Section 5852.1: Good Faith Estimates

The good faith estimates set forth herein are provided with respect to the 2022 Equipment Lease in accordance with California Government Code Section 5852.1. Such good faith estimates have been provided to the City by the Municipal Advisor as of October 10, 2022.

Principal Amount. The Municipal Advisor has informed the City that, based on the City's purchase agreements, financing plan, and current market conditions, its good faith estimate of the aggregate principal amount of 2022 Equipment Lease is \$1,367,000, (the "Estimated Principal Amount").

True Interest Cost of 2022 Equipment Lease. The Municipal Advisor has informed the City that, assuming that the Estimated Principal Amount of 2022 Equipment Lease, and based on market interest rates prevailing at the time of preparation of such estimate, their good faith estimate of the true interest cost of 2022 Equipment Lease is 3.79%.

Finance Charge of 2022 Equipment Lease. The Municipal Advisor has informed the

City that, assuming that the Estimated Principal Amount of 2022 Equipment Lease, and based on market interest rates prevailing at the time of preparation of such estimate, their good faith estimate of the finance charge for 2022 Equipment Lease, which means the sum of all fees and charges paid to third parties (or costs associated with 2022 Equipment Lease), is \$37,417.

Amount of Proceeds to be Received. The Municipal Advisor has informed the City that, assuming that the Estimated Principal Amount of the 2022 Equipment Lease, and based on market interest rates prevailing at the time of preparation of such estimate, their good faith estimate of the amount of proceeds expected to be received by the City for the 2022 Equipment Lease is \$1,329,583.

Total Payment Amount. The Municipal Advisor has informed the City that, assuming that the Estimated Principal Amount of 2022 Equipment Lease, and based on market interest rates prevailing at the time of preparation of such estimate, their good faith estimate of the total payment amount, which means the sum total of all payments the City will make to pay debt service on 2022 Equipment Lease is \$1,642,946.04, which excludes any reserves or capitalized interest paid or funded with proceeds of 2022 Equipment Lease (which may offset such total payment amount).

The foregoing estimates constitute good faith estimates only as of October 10, 2022, and are based on market conditions prevailing at the time of preparation of such estimates. The actual principal amount of 2022 Equipment Lease, the true interest cost thereof, the finance charges thereof, the amount of proceeds received therefrom and total payment amount with respect thereto may differ from such good faith estimates due to (a) the actual closing date of 2022 Equipment Lease being different than the date assumed for purposes of such estimates, (b) the actual principal amount of 2022 Equipment Lease being different from the Estimated Principal Amount, (c) the actual amortization of 2022 Equipment Lease being different than the amortization assumed for purposes of such estimates, (d) the actual market interest rates at the time of funding of 2022 Equipment Lease being different than those estimated for purposes of such estimates, (e) other market conditions, or (f) alterations in the City's financing plan, or a combination of such factors.

The actual date of closing of the 2022 Equipment Lease and the actual principal amount of the 2022 Equipment Lease will be determined by the City based on the timing of the need for proceeds of the 2022 Equipment Lease and other factors. The actual interest rates borne by the 2022 Equipment Lease will depend on market interest rates at the time of closing. The actual amortization of the 2022 Equipment Lease will also depend, in part, on market interest rates at the time of closing thereof. Market interest rates are affected by economic, national, international and other factors beyond the control of the City, or the Municipal Advisor.

FISCAL IMPACT

The annual lease/purchase payments are included in the Adopted Fiscal Year 2022-23 Budget.

ATTACHMENTS

1. Resolution
 2. Equipment Lease Purch Agmt
 3. Escrow Agreement
 4. Fire Engine Quote
 5. Fire Engine Upfitting
 6. Street Sweeper Quote
-

Reviewed for Submission to the City Council by:


Jaime M. Fontes, City Manager

RESOLUTION NO. 22-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SEASIDE

AUTHORIZING THE CITY MANAGER TO EXECUTE A LEASE PURCHASE FINANCING FOR A FIRE ENGINE AND A STREET SWEEPER IN THE AMOUNT OF \$1,367,000.00

WHEREAS, the City of Seaside, California (the "City" or "Lessee") is a political subdivision duly organized and existing under the laws of the State of California; and

WHEREAS, it is hereby determined that a true and real need exists for the acquisition and outfitting of certain equipment, including a fire engine and street sweeper (the "Equipment"); and

WHEREAS, the City has received quotes from vendors for the purchase and outfitting of the fire engine, and for the purchase of the street sweeper; and

WHEREAS, it is necessary and desirable and in the best interest of the Lessee, as lessee, to enter into an Equipment Lease Purchase Agreement (the "Agreement") with Webster Bank, National Association, as lessor (the "Lessor"), for the purposes described therein, including the leasing of the Equipment.

NOW, THEREFORE, BE IT RESOLVED,

Section 1. The purchase of the Equipment is hereby authorized. The City Council further authorizes the City Manager to enter into an agreement for the purchase and outfitting of the fire engine and for the purchase of the street sweeper.

Section 2. The Agreement, in substantially the same form as presented to this meeting, and the terms and performance thereof are hereby approved, and the City Manager, Finance Director, or the Assistant Finance Director (or its designees) of the Lessee are hereby authorized to execute and deliver the Agreement on behalf of the Lessee, with such changes therein as shall be approved by such officer, such approval to be conclusively evidenced by such officer's execution thereof.

Section 3. The Escrow Agreement (the "Escrow Agreement"), among the Lessee, the Lessor and the escrow agent named therein, in substantially the same form as presented to this meeting, and the terms and performance thereof are hereby approved, and the Escrow Agreement is hereby authorized to be executed and delivered on behalf of the Lessee by a duly authorized officer of

the Lessee, with such changes therein as shall be approved by such officer, such approval to be conclusively evidenced by such officer's execution thereof.

Section 4. The Lessee shall, and the officers, agents and employees of the Lessee are hereby authorized and directed to take such further action and execute such other documents, certificates and instruments as may be necessary or desirable to carry out and comply with the intent of this Resolution, and to carry out, comply with and perform the duties of the Lessee with respect to the Agreement and the Escrow Agreement.

Section 5. The Lessee expects to make additional capital expenditures in connection with the acquisition of the Equipment in the future. The Lessee may reimburse itself for all or a portion of such expenditures, to the extent permitted by law, with the proceeds of the Agreement or other tax-exempt obligations to be delivered by the Lessee. The maximum principal amount of the Agreement or other tax-exempt obligations expected to be delivered for the Equipment is not expected to exceed \$1,367,000.

Section 6. This Resolution shall take effect and be in full force immediately after its adoption by the governing body of the Lessee.

PASSED AND ADOPTED at the regular meeting of the City Council of the City of Seaside duly held on the 15th day of September 2022 by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCILMEMBERS:
ABSENT:	COUNCILMEMBERS:
ABSTAIN:	COUNCILMEMBERS:

Ian N. Oglesby, Mayor

ATTEST:

Dominique L. Davis, City Clerk

APPROVED TO FORM:

Sheri L. Damon, City Attorney

EQUIPMENT LEASE PURCHASE AGREEMENT

THIS EQUIPMENT LEASE PURCHASE AGREEMENT (the “Agreement”), is dated as of October 28, 2022, between **WEBSTER BANK, NATIONAL ASSOCIATION**, a national banking association organized and existing under the laws of the United States of America, as Lessor (“Lessor”), and the **CITY OF SEASIDE, CALIFORNIA**, a political subdivision organized and existing under the laws of the State of California, as Lessee (“Lessee”), wherein the parties hereby agree as follows:

Section 1. Definitions. The following terms will have the meanings indicated below unless the context clearly requires otherwise:

“**Agreement**” means this Equipment Lease Purchase Agreement and any other schedule, exhibit or escrow agreement made a part hereof by the parties hereto, together with any amendments to this Agreement.

“**Code**” means the Internal Revenue Code of 1986, as amended.

“**Commencement Date**” is the date when the term of this Agreement and Lessee’s obligation to pay rent commences, which date will be the earlier of (i) the date on which the Equipment is accepted by Lessee in the manner described in **Section 13**, or (ii) the date on which sufficient moneys to purchase the Equipment are deposited for that purpose with an escrow agent.

“**Equipment**” means the property described on the Equipment Schedule attached hereto as **Exhibit A**, and all replacements, substitutions, repairs, restorations, modifications, attachments, accessions, additions and improvements thereof or thereto.

“**Event of Default**” means an Event of Default described in **Section 35**.

“**Issuance Year**” is the calendar year in which the Commencement Date occurs.

“**Lease Term**” means the Original Term and all Renewal Terms, but ending on the occurrence of the earliest event specified in **Section 6**.

“**Lessee**” means the entity described as such in the first paragraph of this Agreement, its successors and its assigns.

“**Lessor**” means the entity described as such in the first paragraph of this Agreement, its successors and its assigns.

“**Maximum Lease Term**” means the Original Term and all Renewal Terms through the Renewal Term including the last Rental Payment Date set forth on the Payment Schedule.

“**Net Proceeds**” means the amount remaining from the gross proceeds of any insurance claim or condemnation award after deducting all expenses (including attorneys’ fees) incurred in the collection of such claim or award.

“**Original Term**” means the period from the Commencement Date until the end of the fiscal year of Lessee in effect at the Commencement Date.

“**Payment Schedule**” means the schedule of Rental Payments and Purchase Price set forth on **Exhibit B**.

“**Purchase Price**” means the amount set forth on the Payment Schedule that Lessee may, at its option, pay to Lessor to purchase the Equipment.

“**Renewal Terms**” means the optional renewal terms of this Agreement, each having a duration of one year and a term co-extensive with Lessee’s fiscal year.

“**Rental Payment Dates**” means the dates set forth on the Payment Schedule on which Rental Payments are due.

“**Rental Payments**” means the basic rental payments payable by Lessee pursuant to **Section 9**.

“**State**” means the State of California.

“**Vendor**” means the manufacturer of the Equipment as well as the agents or dealers of the manufacturer from whom Lessor purchased or is purchasing the Equipment, as listed on **Exhibit A**.

Section 2. Representations and Covenants of Lessee. Lessee represents, warrants and covenants for the benefit of Lessor as follows:

(a) Lessee is a political subdivision duly organized and existing under the constitution and laws of the State. Lessee will do or cause to be done all things to preserve and keep in full force and effect its existence as a political subdivision. Lessee has a substantial amount of one or more of the following sovereign powers: (i) the power to tax, (ii) the power of eminent domain, and (iii) police power.

(b) Lessee is authorized under the constitution and laws of the State to enter into this Agreement and the transaction contemplated hereby and to perform all of its obligations hereunder.

(c) Lessee has been duly authorized to execute and deliver this Agreement by proper action and approval of its governing body at a meeting duly called, regularly convened and attended throughout by a requisite majority of the members thereof or by other appropriate official approval.

(d) This Agreement constitutes the legal, valid and binding obligation of Lessee enforceable in accordance with its terms, except to the extent limited by applicable bankruptcy, insolvency, reorganization or other laws affecting creditors' rights generally.

(e) No event or condition that constitutes, or with the giving of notice or the lapse of time or both would constitute, an Event of Default exists at the Commencement Date.

(f) Lessee has, in accordance with the requirements of law, fully budgeted and appropriated sufficient funds for the current fiscal year to make the Rental Payments scheduled to come due during the Original Term and to meet its other obligations for the Original Term, and such funds have not been expended for other purposes.

(g) Lessee has complied with such public bidding requirements as may be applicable to this Agreement and the acquisition by Lessee of the Equipment hereunder.

(h) There is no action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court, public board or body, pending or threatened against or affecting Lessee, nor to the best knowledge of Lessee is there any basis therefor, wherein an unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated by this Agreement or any other document, agreement or certificate which is used or contemplated for use in the consummation of the transactions contemplated by this Agreement or materially adversely affect the financial condition or properties of Lessee.

(i) All authorizations, consents and approvals of governmental bodies or agencies required in connection with the execution and delivery by Lessee of this Agreement or in connection with the carrying out by Lessee of its obligations hereunder have been obtained.

(j) The entering into and performance of this Agreement or any other document or agreement contemplated hereby to which Lessee is or is to be a party will not violate any judgment, order, law or regulation applicable to Lessee or result in any breach of, or constitute a default under, or result in the creation of any lien, charge, security interest or other encumbrance on any assets of Lessee or the Equipment pursuant to any indenture, mortgage, deed of trust, bank loan or credit agreement or other instrument to which Lessee is a party or by which it or its assets may be bound, except as herein provided.

(k) The Equipment described in this Agreement is essential to the function of Lessee or to the service Lessee provides to its citizens. Lessee has an immediate need for, and expects to make immediate use of, substantially all the Equipment, which need is not temporary or expected to diminish in the foreseeable future. The Equipment will be used by Lessee only for the purpose of performing one or more of Lessee's governmental or proprietary functions consistent with the permissible scope of Lessee's authority.

(l) Neither the payment of the Rental Payments hereunder nor any portion thereof is (i) secured by any interest in property used or to be used in a trade or business of a non-exempt person (within the meaning of Section 103 of the Code) or in payments in respect of such property or (ii) derived from payments in respect of property, or borrowed money, used or to be used in a trade or business of a non-exempt person (within the meaning of Section 103 of the Code). No portion of the Equipment will be used directly or indirectly in any trade or business carried on by any non-exempt person (within the meaning of Section 103 of the Code).

(m) Lessee will comply with all applicable provisions of the Code, including without limitation Sections 103 and 148 thereof, and the applicable regulations of the Treasury Department to maintain the exclusion of the interest components of Rental Payments from gross income for purposes of federal income taxation.

(n) Lessee will use the proceeds of this Agreement as soon as practicable and with all reasonable dispatch for the purpose for which this Agreement has been entered into. No part of the proceeds of this Agreement will be invested in any securities, obligations or other investments or used, at any time, directly or indirectly, in a manner which, if such use had been reasonably anticipated on the date of execution and delivery of this Agreement, would have caused any portion of this Agreement to be or become an "arbitrage bond" within the meaning of Section 103(b)(2) or Section 148 of the Code and the applicable regulations of the Treasury Department.

(o) Lessee has never failed to pay payments coming due under any bond issue, lease purchase agreement or other indebtedness obligation of Lessee.

(p) The useful life of the Equipment will not be less than the Maximum Lease Term.

(q) The application, statements and credit or financial information submitted by Lessee to Lessor are true and correct and made to induce Lessor to enter into this Agreement and the escrow agreement, and Lessee has experienced no material change in its financial condition since the date(s) of such information.

(r) Lessee has provided Lessor with audited financial statements through June 30, 2021. Lessee has experienced no material change in its financial condition or in the revenues expected to be utilized to meet Rental Payments due under this Agreement since June 30, 2021.

(s) Lessee will pay the excess (if any) of the actual costs of acquiring the Equipment under this Agreement over the amount deposited by Lessor in the escrow fund, if any, established under any related escrow agreement and interest earnings thereon.

(t) The Equipment is not a replacement, repair, substitution or proceeds of any equipment or personal property subject to a prior lien or security interest of a third party.

(u) Lessee hereby confirms that this Agreement will be designated as a "qualified tax-exempt obligation" as defined in Section 265(b)(3)(B) of the Code. The aggregate face amount of all tax-exempt obligations (excluding private activity bonds other than qualified 501(c)(3) bonds) issued or to be issued by Lessee and all subordinate entities thereof during the current calendar year is not reasonably expected to exceed \$10,000,000. Lessee and all subordinate entities thereof will not issue or enter into in excess of \$10,000,000 of qualified tax-exempt obligations (including this Agreement, but excluding private activity bonds other than qualified 501(c)(3) bonds) during the current calendar year, without first obtaining an opinion of nationally recognized counsel in the area of tax-exempt municipal obligations acceptable to Lessor that the designation of this Agreement as a "qualified tax-exempt obligation" will not be adversely affected.

Section 3. Certification as to Arbitrage. Lessee hereby represents as follows:

(a) The estimated total costs of the Equipment, together with any costs of entering into this Agreement that are expected to be financed under this Agreement, will not be less than the total principal portion of the Rental Payments.

(b) The Equipment has been ordered or is expected to be ordered within six months of the Commencement Date, and the Equipment is expected to be delivered, and the Vendor fully paid, within twenty-four months of the Commencement Date.

(c) Lessee has not created or established, and does not expect to create or establish, any sinking fund or other similar fund (i) that is reasonably expected to be used to pay the Rental Payments, or (ii) that may be used solely to prevent a default in the payment of the Rental Payments.

(d) The Equipment has not been and is not expected to be sold or otherwise disposed of by Lessee, either in whole or in major part, prior to the last maturity of the Rental Payments.

(e) To the best of our knowledge, information and belief, the above expectations are reasonable.

Section 4. Lease of Equipment. Lessor hereby demises, leases and lets the Equipment to Lessee, and Lessee rents, leases and hires the Equipment from Lessor, in accordance with the provisions of this Agreement, for the Lease Term.

Section 5. Lease Term. The Original Term of this Agreement will commence on the Commencement Date and will terminate on the last day of Lessee's current fiscal year. The Lease Term may be continued, solely at the option of Lessee, at the end of the Original Term or any Renewal Term for an additional Renewal Term up to the Maximum Lease Term. At the end of the Original Term and at the end of each Renewal Term until the Maximum Lease Term has been completed, Lessee will be deemed to have exercised its option to continue this Agreement for the next Renewal Term unless Lessee has terminated this Agreement pursuant to **Section 6** or **Section 31**. The terms and conditions during any Renewal Term will be the same as the terms and conditions during the Original Term, except that the Rental Payments will be as provided in the Payment Schedule.

Section 6. Termination of Lease Term. The Lease Term will terminate upon the earliest of any of the following events:

- (a) the expiration of the Original Term or any Renewal Term of this Agreement and the nonrenewal of this Agreement in the event of nonappropriation of funds pursuant to **Section 8**;
- (b) the exercise by Lessee of the option to purchase the Equipment under the provisions of **Section 31** and payment of the Purchase Price and all amounts payable in connection therewith;
- (c) a default by Lessee and Lessor's election to terminate this Agreement under **Section 36**; or
- (d) the payment by Lessee of all Rental Payments authorized or required to be paid by Lessee hereunder during the Maximum Lease Term.

Section 7. Continuation of Lease Term. Lessee currently intends, subject to the provisions of **Section 8** and **Section 12**, to continue the Lease Term through the Original Term and all of the Renewal Terms and to pay the Rental Payments hereunder. Lessee reasonably believes that legally available funds in an amount sufficient to make all Rental Payments during the Original Term and each of the Renewal Terms can be obtained. The responsible financial officer of Lessee will do all things lawfully within his or her power to obtain and maintain funds from which the Rental Payments may be made, including making provision for such Rental Payments to the extent necessary in each proposed annual budget submitted for approval in accordance with applicable procedures of Lessee and to exhaust all available reviews and appeals in the event such portion of the budget is not approved. Notwithstanding the foregoing, the decision whether or not to budget or appropriate funds or to extend this Agreement for any Renewal Term is solely within the discretion of the then current governing body of Lessee.

Section 8. Nonappropriation. Lessee is obligated only to pay such Rental Payments under this Agreement as may lawfully be made from funds budgeted and appropriated for that purpose during Lessee's then current fiscal year. In the event sufficient funds will not be appropriated or are not otherwise legally available to pay the Rental Payments required to be paid in the next occurring Renewal Term, as set forth in the Payment Schedule, this Agreement will be deemed to be terminated at the end of the then current Original Term or Renewal Term. Lessee agrees to deliver notice to Lessor of such termination at least 90 days prior to the end of the then current Original Term or Renewal Term, but failure to give such notice will not extend the Lease Term beyond such Original Term or Renewal Term. If this Agreement is terminated in accordance with this Section, Lessee agrees, at Lessee's cost and expense, to peaceably deliver the Equipment to Lessor at the location or locations specified by Lessor.

Section 9. Rental Payments. Lessee will pay Rental Payments from all legally available funds, in lawful money of the United States of America to Lessor in the amounts and on the dates set forth on the Payment Schedule. Rental Payments will be in consideration for Lessee's use of the Equipment during the fiscal year in which such payments are due. Any Rental Payment not received on or before its due date will bear interest at the rate of 10% per annum or the maximum amount permitted by law, whichever is less, from its due date.

In the event that it is determined that any of the interest components of Rental Payments may not be excluded from gross income for purposes of federal income taxation, Lessee agrees to pay to Lessor promptly after any such determination and on each Rental Payment Date thereafter an additional amount determined by Lessor to compensate Lessor for the loss of such excludability (including without limitation, compensation relating to interest expense, penalties or additions to tax), which determination shall be conclusive absent manifest error.

Section 10. Interest Component. As set forth on the Payment Schedule, a portion of each Rental Payment is paid as, and represents payment of, interest.

Section 11. Rental Payments To Be Unconditional. Except as provided in **Section 8**, the obligations of Lessee to make Rental Payments and to perform and observe the other covenants and agreements contained herein shall be absolute and unconditional in all events without abatement, diminution, deduction, set-off or defense, for any reason, including without

limitation any failure of the Equipment to be delivered, any defects, malfunctions, breakdowns or infirmities in the equipment or any accident, condemnation or unforeseen circumstances.

Section 12. Rental Payments to Constitute a Current Expense of Lessee. The obligation of Lessee to pay Rental Payments hereunder will constitute a current expense of Lessee, is from year to year and does not constitute a mandatory payment obligation of Lessee in any fiscal year beyond the then current fiscal year of Lessee. Lessee's obligation hereunder will not in any way be construed to be an indebtedness of Lessee in contravention of any applicable constitutional, charter or statutory limitation or requirement concerning the creation of indebtedness by Lessee, nor will anything contained herein constitute a pledge of the general credit, tax revenues, funds or moneys of Lessee.

Section 13. Delivery and Acceptance of the Equipment. Lessee will order the Equipment, cause the Equipment to be delivered at the locations specified on **Exhibit A** and pay any and all delivery costs in connection therewith. When the Equipment has been delivered, Lessee will immediately accept the Equipment and evidence said acceptance by executing and delivering to Lessor an acceptance certificate in form and substance acceptable to Lessor. After it has been delivered and accepted, the Equipment will not be primarily moved from the locations specified on **Exhibit A** without Lessor's consent, which consent will not be unreasonably withheld.

Section 14. Enjoyment of Equipment. Lessor hereby covenants to provide Lessee with quiet use and enjoyment of the Equipment during the Lease Term, and Lessee will peaceably and quietly have and hold and enjoy the Equipment during the Lease Term, without suit, trouble or hindrance from Lessor, except as otherwise expressly set forth in this Agreement.

Section 15. Right of Inspection. Lessor will have the right at all reasonable times during regular business hours to enter into and upon the property of Lessee for the purpose of inspecting the Equipment.

Section 16. Use of the Equipment. Lessee will not use, operate or maintain the Equipment improperly, carelessly, in violation of any applicable law or in a manner contrary to that contemplated by this Agreement. Lessee will obtain all permits and licenses, if any, necessary for the operation of the Equipment. In addition, Lessee agrees to comply in all respects (including, without limitation, with respect to the use, maintenance and operation of each item of the Equipment) with all applicable laws, regulations and rulings of any legislative, executive, administrative or judicial body; provided, however, that Lessee may contest in good faith the validity or application of any such law, regulation or ruling in any reasonable manner that does not, in the opinion of Lessor, adversely affect the interest of Lessor in and to the Equipment or its interest or rights under this Agreement.

Section 17. Maintenance of Equipment. Lessee agrees that it will, at Lessee's own cost and expense, maintain, preserve and keep the Equipment in good repair, working order and condition. Lessor will have no responsibility to maintain, or repair or to make improvements or additions to the Equipment. If requested to do so by Lessor, Lessee will enter into a maintenance contract for the Equipment with Vendor.

Section 18. Title to the Equipment. During the Lease Term, title to the Equipment and any and all additions, repairs, replacements or modifications will vest in Lessee, subject to the rights of Lessor under this Agreement; provided that title will thereafter immediately and without any action by Lessee vest in Lessor, and Lessee will immediately surrender possession of the Equipment to Lessor upon (a) any termination of this Agreement other than termination pursuant to **Section 31** or (b) the occurrence of an Event of Default. It is the intent of the parties hereto that any transfer of title to Lessor pursuant to this Section will occur automatically without the necessity of any bill of sale, certificate of title or other instrument of conveyance. Lessee will, nevertheless, execute and deliver any such instruments as Lessor may request to evidence such transfer. Lessee irrevocably designates, makes, constitutes and appoints Lessor and its assignee as Lessee's true and lawful attorney (and agent in-fact) with power, at such time of termination or times thereafter as Lessor in its sole and absolute discretion may determine, in Lessee's or Lessor's or such assignee's name, to endorse the name of Lessee upon any bill of sale, document, instrument, invoice, freight bill, bill of lading or similar document relating to the Equipment in order to vest title in Lessor and transfer possession to Lessor.

Section 19. Security Interest. To secure the payment of all of Lessee's obligations under this Agreement and to the extent permitted by law, Lessor retains a security interest constituting a first lien on the Equipment and on all additions, attachments and accessions thereto and substitutions therefor and proceeds therefrom. Lessee agrees to execute such additional documents in form satisfactory to Lessor, that Lessor deems necessary or appropriate to establish and maintain its security interest. Lessee agrees that financing statements may be filed with respect to the security interest in the Equipment.

Lessee will, at Lessee's expense, file an application for and obtain the first certificate of title for any Equipment constituting a vehicle, designating Lessee as owner and Lessor as first lienholder, and a certificate of registration issued in Lessee's name. Lessee will, at Lessee's expense, take such action as shall be necessary from time to time to avoid suspension or revocation of any certificates of title and to renew and maintain all certificates of registration. If Lessee is required to obtain any new certificate of title or of registration, Lessee will, at Lessee's expense and with written notice to Lessor of such action, obtain such new certificate

of title or of registration in the form described above. Lessee will provide Lessor with all license, registration and vehicle identification numbers relating to each vehicle and will arrange for the registration and titling of all such vehicles. Lessee will notify Lessor of any changes to the certificate of registration or license plate within 10 days of such change.

As further security therefor, Lessee grants to Lessor a first priority security interest in the cash and negotiable instruments from time to time comprising the escrow fund, if any, established under any related escrow agreement and all proceeds (cash and non-cash) thereof, and agrees with respect thereto that Lessor shall have all the rights and remedies of a secured party.

Section 20. Personal Property; No Encumbrances. Lessor and Lessee agree that the Equipment is and will remain personal property. The Equipment will not be deemed to be affixed to or a part of the real estate on which it may be situated, notwithstanding that the Equipment or any part thereof may be or hereafter become in any manner physically affixed or attached to such real estate or any building thereon. Upon the request of Lessor, Lessee will, at Lessee's expense, furnish a waiver of any interest in the Equipment from any party having an interest in any such real estate or building. Lessee shall not create, incur, assume or permit to exist any mortgage, pledge, lien, security interest, charge or other encumbrance of any nature whatsoever on any of the real estate where the Equipment is or will be located or enter into any agreement to sell or assign or enter into any sale/leaseback arrangement of such real estate without the prior written consent of Lessor; provided, that if Lessor or its assigns is furnished with a waiver of interest in the Equipment acceptable to Lessor or its assigns in its discretion from any party taking an interest in any such real estate prior to such interest taking effect, such consent shall not unreasonably be withheld.

Section 21. Liens, Taxes, Other Governmental Charges and Utility Charges. Lessee will keep the Equipment free and clear of all liens, charges and encumbrances, except those created under this Agreement. The parties to this Agreement contemplate that the Equipment will be used for a governmental or proprietary purpose of Lessee and, therefore, that the Equipment will be exempt from all property taxes and other similar charges. If the use, possession or acquisition of the Equipment is found to be subject to taxation in any form, Lessee will pay all taxes and governmental charges lawfully assessed or levied against or with respect to the Equipment. Lessee will pay all utility and other charges incurred in the use and maintenance of the Equipment. Lessee will pay such taxes and charges as the same become due; provided that, with respect to any such taxes and charges that may lawfully be paid in installments over a period of years, Lessee will be obligated to pay only such installments that accrue during the Lease Term.

Section 22. Insurance. At its own expense, Lessee will maintain (a) casualty insurance insuring the Equipment against loss or damage by fire and all other risks covered by the standard extended coverage endorsement then in use in the State and any other risks reasonably required by Lessor in an amount at least equal to the then applicable Purchase Price of the Equipment, (b) liability insurance that protects Lessor from liability in all events in form and amount satisfactory to Lessor, and (c) workers' compensation coverage as required by the laws of the State; provided that, with Lessor's prior written consent, Lessee may self-insure against the risks described in clauses (a) and (b). All insurance proceeds from casualty losses will be payable as hereinafter provided. Lessee will furnish to Lessor certificates evidencing such coverage throughout the Lease Term. On or prior to the Commencement Date of this Agreement, Lessee shall also provide or cause to be provided to Lessor a performance bond from the Vendor, naming Lessor and its successors and assigns as an additional obligee and issued by a surety company rated "A" or better by AM Best in an amount equal to the Equipment.

All such casualty and liability insurance will be with insurers that are acceptable to Lessor, will name Lessor as a loss payee and an additional insured and will contain a provision to the effect that such insurance will not be cancelled or modified materially without first giving written notice thereof to Lessor at least ten days in advance of such cancellation or modification. All such casualty insurance will contain a provision making any losses payable to Lessee and Lessor, as their respective interests may appear.

Section 23. Advances. In the event Lessee fails to maintain the insurance required by this Agreement, pay taxes or charges required to be paid by it under this Agreement or fails to keep the Equipment in good repair and operating condition, Lessor may (but will be under no obligation to) purchase the required policies of insurance and pay the cost of the premiums on the thereof, pay such taxes and charges and make such Equipment repairs or replacements as are necessary and pay the cost thereof. All amounts so advanced by Lessor will become additional rent for the then current Original Term or Renewal Term. Lessee agrees to pay such amounts with interest thereon from the date paid at the rate of 10% per annum or the maximum permitted by law, whichever is less.

Section 24. Financial Information. Lessee shall maintain proper books of record and account in which proper entries shall be made in accordance with generally accepted government accounting standards, consistently applied, of all its business and affairs. Lessee shall have an annual audit of the financial condition of Lessee made by an independent certified public accountant promptly following the end of each fiscal year. Such report shall include statements in reasonable detail, certified by such accountant, reflecting Lessee's financial position as of the end of such fiscal year and the results of Lessee's operations and changes in the financial position of its funds for the fiscal year. Lessee shall furnish to Lessor copies of such audit report immediately after it is accepted by Lessee, but not later than 360 days after the end of the fiscal year. If the audit is publicly available on Lessee's website or on the "EMMA" website maintained by the Municipal Securities Rulemaking Board, the

requirement to provide the audit to Lessor will be satisfied if Lessee emails a link to the posted item to Lessor within such 360-day period.

Section 25. Release and Indemnification. To the extent permitted by law, Lessee will indemnify, protect and hold harmless Lessor from and against any and all liability, obligations, losses, claims and damages whatsoever, regardless of cause thereof, and expenses in connection therewith (including, without limitation, counsel fees and expenses and any federal income tax and interest and penalties connected therewith imposed on interest received) arising out of or as the result of (a) the entering into this Agreement, (b) the ownership of any item of the Equipment, (c) the manufacturing, ordering, acquisition, use, operation, condition, purchase, delivery, rejection, storage or return of any item of the Equipment, (d) any accident in connection with the operation, use, condition, possession, storage or return of any item of the Equipment resulting in damage to property or injury or death to any person or (e) the breach of any covenant herein or any material misrepresentation contained herein. The indemnification arising under this paragraph will continue in full force and effect notwithstanding the full payment of all obligations under this Agreement or the termination of the Lease Term for any reason.

Section 26. Risk of Loss. Lessee assumes, from and including the Commencement Date, all risk of loss of or damage to the Equipment from any cause whatsoever. No such loss of or damage to the Equipment nor defect therein nor unfitness or obsolescence thereof will relieve Lessee of the obligation to make Rental Payments or to perform any other obligation under this Agreement.

Section 27. Damage, Destruction, Condemnation; Use of Proceeds. If (a) the Equipment or any portion thereof is destroyed, in whole or in part, or is damaged by fire or other casualty, or (b) title to, or the temporary use of, the Equipment or any part thereof or the interest of Lessee or Lessor in the Equipment or any part thereof will be taken under the exercise of the power of eminent domain by any governmental body or by any person, firm or corporation acting under governmental authority, Lessee and Lessor will cause the Net Proceeds of any insurance claim or condemnation award to be applied to the prompt replacement, repair, restoration, modification or improvement of the Equipment, unless Lessee has exercised its option to purchase the Equipment pursuant to **Section 31**. Any balance of the Net Proceeds remaining after such work has been completed will be paid to Lessee.

Section 28. Insufficiency of Net Proceeds. If the Net Proceeds are insufficient to pay in full the cost of any repair, restoration, modification or improvement referred to in **Section 27**, Lessee will either (a) complete such replacement, repair, restoration, modification or improvement and pay any costs thereof in excess of the amount of the Net Proceeds, or (b) purchase Lessor's interest in the Equipment pursuant to **Section 31**. The amount of the Net Proceeds, if any, remaining after completing such repair, restoration, modification or improvement or after purchasing the Equipment will be retained by Lessee. If Lessee will make any payments pursuant to this Section, Lessee will not be entitled to any reimbursement therefor from Lessor nor will Lessee be entitled to any diminution of the amounts payable under **Section 9**.

Section 29. Disclaimer of Warranties. LESSOR MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, AS TO THE VALUE, DESIGN, CONDITION, MERCHANTABILITY OR FITNESS FOR PARTICULAR USE OR PURPOSE OF THE EQUIPMENT OR AGAINST INFRINGEMENT, OR ANY OTHER WARRANTY OR REPRESENTATION WITH RESPECT THERETO. IN NO EVENT SHALL LESSOR BE LIABLE FOR ANY ACTUAL, INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGE IN CONNECTION WITH OR ARISING OUT OF THIS AGREEMENT OR THE EXISTENCE, FURNISHING, FUNCTIONING OR LESSEE'S USE OR MAINTENANCE OF ANY EQUIPMENT OR SERVICES PROVIDED FOR IN THIS AGREEMENT.

Section 30. Vendor's Warranties. Lessee may have rights under the contract evidencing the purchase of the Equipment; Lessee is advised to contact the Vendor for a description of any such rights. Lessee hereby assigns to Lessor during the Lease Term all warranties running from the Vendor to Lessee. Lessor hereby irrevocably appoints Lessee its agent and attorney-in-fact during the Lease Term, so long as Lessee will not be in default hereunder, to assert from time to time whatever claims and rights (including without limitation warranties) related to the Equipment that Lessor may have against the Vendor. Lessee's sole remedy for the breach of any such warranty, indemnification or representation will be against the Vendor, and not against Lessor. Any such matter will not have any effect whatsoever on the rights and obligations of Lessor with respect to this Agreement, including the right to receive full and timely payments hereunder. Lessee expressly acknowledges that Lessor makes, and has made, no representations or warranties whatsoever as to the existence or availability of such warranties by the Vendor.

Section 31. Purchase Option; Prepayment.

(a) Lessee will have the option to purchase the Equipment, upon giving written notice to Lessor at least 30 days before the date of purchase, at the following times and upon the following terms:

(i) On June 1, 2024, and any Rental Payment Date thereafter, upon payment in full of the Rental Payment then due hereunder plus all other amounts due hereunder plus the then-applicable Purchase Price to Lessor; or

(ii) In the event of substantial damage to or destruction or condemnation (other than by Lessee or any entity controlled by or otherwise affiliated with Lessee) of substantially all of the Equipment, on the day Lessee specifies as the purchase date in Lessee's notice to Lessor of its exercise of the purchase option, upon payment in full of the Rental Payment and all other amounts then due hereunder plus (A) the Purchase Price designated on the Payment Schedule for such purchase date if such purchase date is a Rental Payment Date or the Purchase Price for the immediately preceding Rental Payment Date if such purchase date is not a Rental Payment Date, and (B) if such day is not a Rental Payment Date, an amount equal to the portion of the interest component of the Rental Payment scheduled to come due on the following Rental Payment Date accrued from the immediately preceding Rental Payment Date to such purchase date, computed on the basis of a 360-day year of twelve 30-day months. If a Purchase Price is not listed for such date that Lessee has designated as the purchase date, the Purchase Price for that date shall be calculated as the Rental Payment then due plus 101% of the then outstanding principal balance of this Agreement.

(b) In the event monies remain in any escrow fund established under an escrow agreement, upon receipt by the escrow agent under such escrow agreement of a duly executed certificate of acceptance and payment request identified as the final such request, the remaining monies in such escrow fund shall, first be applied to all reasonable fees and expenses incurred by such escrow agent, if applicable, in connection with such escrow fund as evidenced by its statement forwarded to Lessor and Lessee; and, second be paid to Lessor, for application against the outstanding principal components of Rental Payments, including prepayment of Rental Payments hereunder, unless Lessor directs that payment of such amount be made in such other manner that, in the opinion of nationally recognized counsel in the area of tax exempt municipal obligations satisfactory to Lessor, will not adversely affect the exclusion of the interest components of Rental Payments from gross income for federal income tax purposes. If any such amount is applied against the outstanding principal components of Rental Payments, the Payment Schedule attached hereto will be revised accordingly.

On the final Rental Payment Date, Lessee will be deemed to have exercised its option to purchase the Equipment subject to this Agreement, without requirement for written notice, upon payment in full of the Rental Payments then due hereunder, plus all other amounts due hereunder and not yet paid.

Upon the exercise of the option to purchase set forth above, title to the Equipment will be vested in Lessee, free and clear of any claim by or through Lessor.

Section 32. Determination of Fair Purchase Price. Lessee and Lessor hereby agree and determine that the Rental Payments hereunder during the Original Term and each Renewal Term represent the fair value of the use of the Equipment and that the amount required to exercise Lessee's option to purchase the Equipment pursuant to **Section 31** represents, as of the end of the Original Term or any Renewal Term, the fair purchase price of the Equipment. Lessee hereby determines that the Rental Payments do not exceed a reasonable amount so as to place Lessee under a practical economic compulsion to renew this Agreement or to exercise its option to purchase the Equipment hereunder. In making such determinations, Lessee and Lessor have given consideration to (a) the costs of the Equipment, (b) the uses and purposes for which the Equipment will be employed by Lessee, (c) the benefit to Lessee by reason of the acquisition of the Equipment and the use of the Equipment pursuant to the terms and provisions of this Agreement, and (d) Lessee's option to purchase the Equipment. Lessee hereby determines and declares that the acquisition of the Equipment and the leasing of the Equipment pursuant to this Agreement will result in equipment of comparable quality and meeting the same requirements and standards as would be necessary if the acquisition of the Equipment were performed by Lessee other than pursuant to this Agreement. Lessee hereby determines and declares that the Maximum Lease Term does not exceed the useful life of the Equipment.

Section 33. Assignment by Lessor. Lessor's interest in, to and under this Agreement and the Equipment may be assigned and reassigned in whole or in part to one or more assignees by Lessor without the necessity of obtaining the consent of Lessee; provided that any assignment will not be effective against Lessee until (a) Lessee has received written notice of the name and address of the assignee and (b) in the event that such assignment is made to a bank or trust company for holders of certificates representing interests in this Agreement, such bank or trust company agrees to maintain, or cause to be maintained, a register by which a record of the names and addresses of such holders as of any particular time is kept and agrees, upon request of Lessee, to furnish such information to Lessee. Lessee will retain all such notices as a register of all assignees and will make all payments to the assignee or assignees designated in such register. Lessee agrees to execute all documents, including notices of assignment and chattel mortgages or financing statements that may be reasonably requested by Lessor or any assignee to protect its interest in the Equipment and in this Agreement and agrees to the filing of financing statements with respect to the Equipment and this Agreement. Lessee will not have the right to and will not assert against any assignee any claim, counterclaim, defense, set-off or other right Lessee may have against Lessor.

Section 34. Assignment and Subleasing by Lessee. None of Lessee's right, title and interest in, to and under this Agreement and the Equipment may be assigned or encumbered by Lessee for any reason, except that Lessee may sublease all or part of the Equipment if Lessee obtains the prior written consent of Lessor and an opinion of nationally recognized counsel in the area of tax exempt municipal obligations satisfactory to Lessor that such subleasing will not adversely affect the exclusion of the interest

components of the Rental Payments from gross income for federal income tax purposes. Any such sublease of all or part of the Equipment will be subject to this Agreement and the rights of Lessor in, to and under this Agreement and the Equipment.

Section 35. Events of Default Defined. Subject to the provisions of **Section 8**, any of the following will be “Events of Default” under this Agreement:

- (a) Failure by Lessee to pay any Rental Payment or other payment required to be paid hereunder at the time specified herein;
- (b) Failure by Lessee to observe and perform any covenant, condition or agreement on its part to be observed or performed, other than as referred to in **Section 35(a)**, for a period of 30 days after written notice, specifying such failure and requesting that it be remedied, is given to Lessee by Lessor, unless Lessor will agree in writing to an extension of such time prior to its expiration; provided, however, if the failure stated in the notice cannot be corrected within the applicable period, Lessor will not unreasonably withhold its consent to an extension of such time if corrective action is instituted by Lessee within the applicable period and diligently pursued until the default is corrected;
- (c) Any statement, representation or warranty made by Lessee in or pursuant to this Agreement or its execution, delivery or performance will prove to have been false, incorrect, misleading or breached in any material respect on the date when made;
- (d) Any provision of this Agreement will at any time for any reason cease to be valid and binding on Lessee, or will be declared to be null and void, or the validity or enforceability thereof will be contested by Lessee or any governmental agency or authority if the loss of such provision would materially adversely affect the rights or security of Lessor, or Lessee will deny that it has any further liability or obligation under this Agreement;
- (e) Lessee will (i) apply for or consent to the appointment of a receiver, trustee, custodian or liquidator of Lessee, or of all or a substantial part of the assets of Lessee, (ii) be unable, fail or admit in writing its inability generally to pay its debts as they become due, (iii) make a general assignment for the benefit of creditors, (iv) have an order for relief entered against it under applicable federal bankruptcy law, or (v) file a voluntary petition in bankruptcy or a petition or an answer seeking reorganization or an arrangement with creditors or taking advantage of any insolvency law or any answer admitting the material allegations of a petition filed against Lessee in any bankruptcy, reorganization or insolvency proceeding; or
- (f) An order, judgment or decree will be entered by any court of competent jurisdiction, approving a petition or appointing a receiver, trustee, custodian or liquidator of Lessee or of all or a substantial part of the assets of Lessee, in each case without its application, approval or consent, and such order, judgment or decree will continue unstayed and in effect for any period of 30 consecutive days.

Section 36. Remedies on Default. Whenever any Event of Default exists, Lessor will have the right, at its sole option without any further demand or notice, to take one or any combination of the following remedial steps:

- (a) By written notice to Lessee, Lessor may declare all Rental Payments and other amounts payable by Lessee hereunder to the end of the then current Original Term or Renewal Term to be due;
- (b) With or without terminating this Agreement, Lessor may enter the premises where the Equipment is located and retake possession of the Equipment or require Lessee at Lessee’s expense to promptly return any or all of the Equipment to the possession of Lessor at a place specified by Lessor, and sell or lease the Equipment or, for the account of Lessee, sublease the Equipment, holding Lessee liable for the difference between (i) the Rental Payments and other amounts payable by Lessee hereunder plus the applicable Purchase Price, and (ii) the net proceeds of any such sale, lease or sublease (after deducting all expenses of Lessor in exercising its remedies under this Agreement, including without limitation, all expenses of taking possession, storing, reconditioning and selling or leasing the Equipment and all brokerage, auctioneers’ and attorneys’ fees) provided that the amount of Lessee’s liability under this subparagraph (b) shall not exceed the Rental Payments and other amounts otherwise due hereunder plus the remaining Rental Payments and other amounts payable by Lessee to the end of the then current Original Term or Renewal Term; and
- (c) Lessor may take whatever other action at law or in equity may appear necessary or desirable to enforce its rights as the owner of the Equipment.

In addition, Lessee will remain liable for all covenants and indemnities under this Agreement and for all legal fees and other costs and expenses, including court costs, incurred by Lessor with respect to the enforcement of any of the remedies listed above or any other remedy available to Lessor.

Section 37. No Remedy Exclusive. No remedy herein conferred upon or reserved to Lessor is intended to be exclusive and every such remedy will be cumulative and will be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity. No delay or omission to exercise any right or power accruing upon any default will impair any such

right or power or will be construed to be a waiver thereof, but any such right and power may be exercised from time to time and as often as may be deemed expedient. In order to entitle Lessor to exercise any remedy reserved to it in this Agreement it will not be necessary to give any notice, other than such notice as may be required in this Agreement.

Section 38. Notices. All notices, certificates or other communications hereunder will be sufficiently given and will be deemed given when delivered or mailed by registered mail, postage prepaid, to the parties at the addresses immediately after the signatures to this Agreement (or at such other address as either party hereto will designate in writing to the other for notices to such party), to any assignee at its address as it appears on the register maintained by Lessee.

Section 39. Binding Effect. This Agreement will inure to the benefit of and will be binding upon Lessor and Lessee and their respective successors and assigns.

Section 40. Severability. In the event any provision of this Agreement will be held invalid or unenforceable by any court of competent jurisdiction, such holding will not invalidate or render unenforceable any other provision hereof.

Section 41. Entire Agreement. This Agreement constitutes the entire agreement between Lessor and Lessee.

Section 42. Amendments. This Agreement may be amended, changed or modified in any manner by written agreement of Lessor and Lessee. Any waiver of any provision of this Agreement or any right or remedy hereunder must be affirmatively and expressly made in writing and will not be implied from inaction, course of dealing or otherwise.

Section 43. Execution in Counterparts. This Agreement may be simultaneously executed in several counterparts, each of which will be an original and all of which will constitute but one and the same instrument.

Section 44. Captions. The captions or headings in this Agreement are for convenience only and in no way define, limit or describe the scope or intent of any provisions or sections of this Agreement.

Section 45. Applicable Law. This Agreement will be governed by and construed in accordance with the laws of the State.

Section 46. Electronic Transactions. The parties agree that the transaction described herein may be conducted and related documents may be stored by electronic means. Copies, telecopies, facsimiles, electronic files and other reproductions of original executed documents shall be deemed to be authentic and valid counterparts of such original documents for all purposes, including the filing of any claim, action or suit in the appropriate court of law.

Section 47. Role of Lessor. Lessor has not acted and will not act as a fiduciary for Lessee or as Lessee's agent or municipal advisor. Lessor has not and will not provide financial, legal, tax, accounting or other advice to Lessee or to any financial advisor or placement agent engaged by Lessee with respect to this Agreement. Lessee, its financial advisor, placement agent or municipal advisor, if any, shall each seek and obtain its own financial, legal, tax, accounting and other advice with respect to this Agreement from its own advisors (including as it relates to structure, timing, terms and similar matters).

Section 48. Participation of Agreement from Lessor to SNFC. Lessor hereby notifies Lessee, and Lessee hereby acknowledges such notification, that simultaneously with the execution and delivery of this Agreement, Lessor will enter into a participation agreement with Sterling National Funding Corp., a New York corporation and a wholly-owned subsidiary of Lessor ("SNFC"), whereby Lessor will sell to SNFC a 100% participation interest in this Agreement at par. Lessor will continue to service this Agreement and collect all Rental Payments and payment of the Purchase Price hereunder.

Section 49. Lessee's Notice Filings Related to this Agreement for SEC Rule 15c2-12. In connection with Lessee's compliance with any continuing disclosure undertakings (each, a "Continuing Disclosure Agreement") entered into by Lessee on and after February 27, 2019, pursuant to SEC Rule 15c2-12 promulgated pursuant to the Securities and Exchange Act of 1934, as amended (the "Rule"), Lessor acknowledges that Lessee may be required to file with the Municipal Securities Rulemaking Board's Electronic Municipal Market Access system, or its successor ("EMMA"), notice that Lessee has incurred obligations under this Agreement and notice of certain subsequent events reflecting financial difficulties in connection with this Agreement. Lessee agrees that it shall not file or submit, or permit to be filed or submitted, with EMMA any documentation that includes the following unredacted sensitive or confidential information about Lessor or its affiliates: address and account information of Lessor or its affiliate, e-mail addresses, telephone numbers, fax numbers, names and signatures of officers, employees and signatories of Lessor or its affiliates, or any account information for any related escrow agreement, unless otherwise required for compliance with the Rule or otherwise required by law. Lessee acknowledges that Lessor is not responsible for Lessee's compliance or noncompliance with the Rule or any Continuing Disclosure Agreement.

[Signature page follows.]

IN WITNESS WHEREOF, Lessor and Lessee have caused this Agreement to be executed in their corporate names by their duly authorized officers as of the date first above written.

WEBSTER BANK, NATIONAL ASSOCIATION

By: _____
Name: Kevin C. King
Title: Senior Managing Director
Address: 500 Seventh Avenue, 3rd Floor
New York, NY 10018
Attention: Public Sector Finance

CITY OF SEASIDE, CALIFORNIA

By: _____
Name: Jaime M. Fontes
Title: City Manager
Address: 440 Harcourt Avenue
Seaside, CA 93955

CERTIFICATION

I, the undersigned, do hereby certify (i) that the officer of Lessee who executed the foregoing Agreement on behalf of Lessee and whose genuine signature appears thereon, is the duly qualified and acting officer of Lessee as stated beneath his or her signature and has been authorized to execute the foregoing Agreement on behalf of Lessee, and (ii) that the fiscal year of Lessee is from July 1 to June 30.

DATED: October 28, 2022.

By: _____
Victor Damiani, Finance Director

EXHIBIT A TO EQUIPMENT LEASE PURCHASE AGREEMENT
EQUIPMENT SCHEDULE

Equipment Description:

The Equipment consists of the following equipment for use by Lessee:

Description	Vendor(s)	Primary Garaging Location
One (1) Pierce Manufacturing, Inc. Enforcer 1500 GPM Pumper Truck, as described in Proposal 40829-22A dated August 29, 2022 from Vendor (on file with Lessor)	Golden State Fire Apparatus 7400 Reese Road Sacramento, CA 95828	Seaside Fire Department 1635 Broadway Avenue Seaside, CA 93955
Upfitting equipment for Pierce Pumper Truck	To be Determined	Seaside Fire Department 1635 Broadway Avenue Seaside, CA 93955
One (1) M4 Mechanical Street Sweeper and related equipment, as described in Quotation #093021-GEP attached hereto	Global Sweeper 5405 Industrial Parkway San Bernardino, CA 92407	610 Olympia Avenue Seaside, CA 93955

together with any and all replacement parts, additions, repairs, modifications, attachments and accessories thereto, any and all substitutions, replacements or exchanges therefor, and any and all insurance and/or proceeds thereof.

This Equipment Schedule shall be deemed to be supplemented and amended by the descriptions of the Equipment included in the Certificate of Acceptance and Payment Requests submitted to Lessor for approval pursuant to the Escrow Agreement dated as of October 28, 2022, among Lessor, Lessee and Webster Bank, National Association, in its capacity as escrow agent, which descriptions shall be deemed to be incorporated herein.

EXHIBIT B TO EQUIPMENT LEASE PURCHASE AGREEMENT

PAYMENT SCHEDULE

Principal Amount: \$1,367,000

Interest Rate: 3.79%; 30/360 basis

Commencement Date: October 28, 2022

Rental Payments will be made in accordance with **Section 9** and this Payment Schedule.

<u>Rental Payment Date</u>	<u>Total Rental Payment</u>	<u>Interest Portion</u>	<u>Principal Portion</u>	<u>Purchase Price *</u>
6/1/2023	\$164,294.84	\$30,653.84	\$133,641.00	N/A
6/1/2024	164,294.31	46,774.31	117,550.00	N/A
6/1/2025	164,294.16	42,289.16	122,005.00	\$1,003,742.04
6/1/2026	164,294.17	37,665.17	126,629.00	867,175.00
6/1/2027	164,294.93	32,865.93	131,429.00	735,746.00
6/1/2028	164,294.77	27,884.77	136,410.00	599,336.00
6/1/2029	164,294.83	22,714.83	141,580.00	457,756.00
6/1/2030	164,294.95	17,348.95	146,946.00	310,810.00
6/1/2031	164,294.70	11,779.70	152,515.00	158,295.00
6/1/2032	<u>164,294.38</u>	<u>5,999.38</u>	<u>158,295.00</u>	0.00
Totals	<u>\$1,642,946.04</u>	<u>\$275,946.04</u>	<u>\$1,367,000.00</u>	

CITY OF SEASIDE, CALIFORNIA

By: _____
Name: Jaime M. Fontes
Title: City Manager

* Lessee's option to purchase is subject to provisions of Section 31 of the Agreement.

ESCROW AGREEMENT

LESSOR:
Webster Bank, National Association
500 Seventh Avenue, 3rd Floor
New York, NY 10018
Attention: Public Sector Finance

ESCROW AGENT:
Webster Bank, National Association
500 Seventh Avenue, 3rd Floor
New York, NY 10018

LESSEE:
City of Seaside, California
440 Harcourt Avenue
Seaside, CA 93955

THIS ESCROW AGREEMENT (this “Escrow Agreement”) dated October 28, 2022, is entered into by and among Webster Bank, National Association (in its capacity as lessor, “Lessor”), the City of Seaside, California (“Lessee”), and Webster Bank, National Association (in its capacity as escrow agent, the “Escrow Agent”).

Lessor and Lessee have heretofore entered into that certain Equipment Lease Purchase Agreement dated as of October 28, 2022 (the “Agreement”). The Agreement contemplates that certain Equipment described therein (the “Equipment”) is to be acquired from the vendor(s) or manufacturer(s) thereof.

After acceptance of the Equipment by Lessee, the Equipment is to be leased by Lessor to Lessee pursuant to the terms of the Agreement.

The Agreement contemplates that Lessor will deposit with the Escrow Agent cash in the amount of \$483,566.25, to be held in escrow by the Escrow Agent and applied on the express terms and conditions set forth herein. Such deposit, together with all interest and additions received with respect thereto (hereinafter, the “Escrow Fund”), is to be applied from time to time to pay certain costs of acquiring the Equipment (a portion of which may be paid in multiple payments and prior to acceptance of all Equipment by Lessee) and, if requested by Lessee and approved by Lessor, to pay certain costs of entering into the Agreement.

The parties desire to set forth the terms on which the Escrow Fund is to be created and to establish the rights and responsibilities of the parties hereto.

NOW, THEREFORE, the parties agree as follows:

Section 1. Each of Lessor and Lessee hereby appoint, and the Escrow Agent hereby agrees, to serve as escrow agent upon the express terms and conditions set forth herein. The Escrow Agent shall establish and maintain the Escrow Fund as an interest-bearing demand deposit account held by the Escrow Agent in the name of Lessee, but subject to Lessor’s security interest therein and other conditions of this Escrow Agreement, such account being identified as Demand Deposit Account # _____ *[to be provided by the Escrow Agent]* held by the Escrow Agent. Amounts on deposit in the Escrow Fund above the FDIC-insured limit will be collateralized pursuant to the Third Party Custodian Agreement dated the date hereof among Lessee, the Escrow Agent and The Bank of New York, as custodian, which is attached hereto as **Exhibit B**. The Escrow Agent agrees that the Escrow Fund shall be held irrevocably in trust for the account and benefit of Lessee and Lessor and all interest earned with respect to the Escrow Fund shall accrue to the benefit of Lessee and shall be applied as expressly set forth herein.

To the limited extent required to perfect the security interest granted by Lessee to Lessor in the cash and any negotiable instruments from time to time comprising the Escrow Fund, Lessor hereby appoints the Escrow Agent as its security agent, and the Escrow Agent hereby accepts the appointment as security agent, and agrees to hold physical possession of such cash and negotiable instruments on behalf of Lessor.

Section 2. On such day as determined to the mutual satisfaction of the parties (the “Commencement Date”), Lessor shall deposit with the Escrow Agent cash in the amount of \$483,566.25, to be held by the Escrow Agent on the express terms and conditions set forth herein. The Escrow Agent agrees to accept the deposit of the Escrow Fund by Lessor, and further agrees to hold the amount so deposited together with all interest and other additions received with respect thereto in escrow on the express terms and conditions set forth herein.

Section 3. The Escrow Agent shall at all times segregate the Escrow Fund into an account maintained for that express purpose, which shall be clearly identified on the books and records of the Escrow Agent as being held in its capacity as Escrow Agent. The Escrow Fund shall not, to the extent permitted by applicable law, be subject to levy or attachment or lien by or for the benefit of any creditor of any of the parties hereto (except with respect to the security interest therein held by Lessor).

Section 4. Lessor and Lessee hereby authorize the Escrow Agent to take the following actions with respect to the Escrow Fund:

a. From time to time, the Escrow Agent shall pay the vendor or manufacturer of the Equipment or Lessee or other payee upon receipt of the following: (i) a duly executed Certificate of Acceptance and Payment Request in the form attached as **Exhibit A** to this Escrow Agreement approved for payment by Lessor (or its assignee, if any), (ii) the vendor(s) or manufacturer(s) invoice(s) specifying the acquisition price of the Equipment described in the payment request, (iii) in the event that certain costs of entering into the Agreement are described in the payment request, invoice(s), budget(s), closing statement(s) or other additional documentation specifying the amount(s) of such costs, and (iv) any additional documentation required by Lessor prior to Lessor's approval of such payment request. Lessor's approval on the Certificate of Acceptance and Payment Request in each case shall be conclusive evidence that all invoices, budgets, closing statements and any additional documentation requirements have been received by and are acceptable to Lessor for payment purposes. Without limiting the foregoing, Lessor shall not be required to approve any such payment unless and until Lessee shall have provided to Lessor certificates of insurance evidencing coverage for the Equipment in accordance with Section 22 of the Agreement and satisfactory to Lessor.

b. In the event that Lessor provides to the Escrow Agent and the Escrow Agent actually receives written notice of the occurrence of an Event of Default as defined in the Agreement or a nonappropriation by Lessee under the Agreement, the Escrow Agent shall thereupon promptly remit to Lessor the entire balance of the Escrow Fund *after* application of the Escrow Fund to all reasonable fees and expenses incurred by the Escrow Agent in connection herewith as evidenced by its statement forwarded to Lessor and Lessee.

c. Upon actual receipt by the Escrow Agent of a duly executed Certificate of Acceptance and Payment Request identified as the final such request, the remaining monies in the Escrow Fund shall, *first* be applied to all reasonable fees and expenses incurred by the Escrow Agent in connection herewith as evidenced by its statement forwarded to Lessor and Lessee, subject to Section 5 below; and, *second* be paid to Lessor, for its application against the outstanding principal components of Rental Payments (as defined in the Agreement) under the Agreement, as provided therein, unless Lessor directs that payment of such amount be made in such other manner directed by Lessor that, in the opinion of nationally recognized counsel in the area of tax-exempt municipal obligations satisfactory to Lessor, will not adversely affect the exclusion of the interest components of Rental Payments from gross income for federal income tax purposes. If any such amount is used to prepay principal, the Payment Schedule attached to the Agreement will be revised accordingly as specified by Lessor.

d. Lessor and Lessee agree that the security procedures under this Section 4 are commercially reasonable.

e. In the event that the Escrow Agent makes any payment to any payee pursuant to this Escrow Agreement and for any reason such payment (or any portion thereof) is required to be returned to the Escrow Fund or is subsequently invalidated, declared to be fraudulent or preferential, set aside and/or required to be repaid to a receiver, trustee or other party under any bankruptcy or insolvency law, other federal or state law, common law or equitable doctrine, then the party who benefited from the payment to the payee shall repay to the Escrow Agent upon written request the amount so paid to the payee. The Escrow Agent shall not be liable to any party or any other person by reason of such payment.

Section 5. So long as the Escrow Agent is the same entity as Lessor or any affiliate of Lessor, Lessor shall pay, and Lessee shall have no responsibility for, reasonable fees and expenses of the Escrow Agent in providing its usual and customary duties under this Escrow Agreement, which encompasses (i) review, negotiation and execution of governing documentation, opening of the account, and completion of all due diligence documentation, and (ii) usual and customary ministerial duties, including record keeping, distributions, document compliance and such other duties and responsibilities expressly set forth in this Escrow Agreement. Lessee shall pay all reasonable fees of the Escrow Agent for any additional services beyond the standard services as previously specified, including all reasonable out-of-pocket expenses including attorney's or accountant's fees and expenses, all of which will be considered extraordinary services, for which related costs, transaction charges, and additional fees may be billed at the Escrow Agent's then standard rate. Disbursements, receipts or tax reporting exceeding 25 items per year may be treated as extraordinary services.

Section 6.

a. The Escrow Agent shall have no liability for acting upon any written instruction presented by Lessee and Lessor in connection with this Escrow Agreement which the Escrow Agent in good faith believes to be genuine. Furthermore, the Escrow Agent shall not be liable for any act or omission in connection with this Escrow Agreement except for its own gross negligence or willful misconduct. The Escrow Agent shall not be liable for any loss or diminution in value of the Escrow Fund as a result of the investment decisions made pursuant to Section 4. The Escrow Agent shall have only those duties and responsibilities as

expressly set forth herein, and no other duty, obligation or covenant, fiduciary or otherwise, shall be implied or enforceable against the Escrow Agent by any person.

b. Without limiting the effect of Section 6(a) hereof, the Escrow Agent shall have no obligation or liability to any other party hereto (or any person claiming through any of them): (i) to review, examine, enforce, administer or take notice of any agreement, instrument or document other than this Escrow Agreement; (ii) to determine whether any conditions precedent to a disbursement of moneys in the Escrow Fund, other than as set forth in Section 4, have been or will be satisfied or otherwise to investigate any notice received by the Escrow Agent hereunder; (iii) to evaluate or determine the validity or legality of any action or omission of any third party, including any federal or state bank regulator; (iv) to make any payment to the other parties or other payees set forth in written instructions received under Section 4 from any source other than moneys in the Escrow Fund, and no such payment shall be made if the amount of moneys on deposit in the Escrow Fund is inadequate; (v) to communicate with any person other than as expressly provided for in this Escrow Agreement; (vi) for any action or omission of the Escrow Agent taken or made upon the oral or written, joint instructions of the parties hereto; (vii) for any other action or omission of, or for errors in judgment by, the Escrow Agent under or in connection with this Escrow Agreement taken or made in good faith and without gross negligence or willful misconduct; and (viii) for special, incidental, consequential, indirect or punitive damages in any event, even if the Escrow Agent has been advised or was otherwise aware of the likelihood of such loss or damages and regardless of the form of action.

Section 7. To the extent authorized by law, Lessee hereby agrees to indemnify and save the Escrow Agent harmless against any liabilities which it may incur in the exercise and performance of its powers and duties hereunder and which are not due to the Escrow Agent's gross negligence or willful misconduct. No indemnification will be made under this Section or elsewhere in this Escrow Agreement for damages arising solely out of gross negligence or willful misconduct by the Escrow Agent, its officers, agents, employees, successors or assigns.

Section 8. The Escrow Agent may at any time resign by giving at least 30 days' prior written notice to Lessee and Lessor, but such resignation shall not take effect until the appointment of the successor Escrow Agent. The substitution of another bank or trust company to act as Escrow Agent under this Escrow Agreement may occur by written agreement of Lessor and Lessee. In addition, the Escrow Agent may be removed at any time, with or without cause, by instrument in writing executed by Lessor and Lessee. Such notice shall set forth the effective date of the removal. In the event of any resignation or removal of the Escrow Agent, a successor Escrow Agent shall be appointed by an instrument in writing executed by Lessor and Lessee. Such successor Escrow Agent shall indicate its acceptance of such appointment by an instrument in writing delivered to Lessor, Lessee and the predecessor Escrow Agent.

Upon the effective date of resignation or removal, the Escrow Agent will transfer the Escrow Fund then held by it to the successor Escrow Agent selected by Lessor and Lessee.

If the other parties are unable to agree upon a successor escrow agent within 30 days after such notice, the other parties hereby agree that either of them acting unilaterally shall apply to a court of competent jurisdiction for the appointment of a successor escrow agent or for other appropriate relief. The costs and expenses (including reasonable attorneys' fees and expenses) incurred by the Escrow Agent in connection with such proceeding shall be paid in accordance with Section 5.

Section 9. In the event of any dispute with respect to the Escrow Fund, the interpretation of this Escrow Agreement or the rights and obligations of the parties hereunder, or to the propriety of any action contemplated by the Escrow Agent hereunder, or if the Escrow Agent in good faith is in doubt as to what action should be taken hereunder, then in any such case the Escrow Agent shall not be obligated to resolve the dispute or disagreement or to make any disbursement of all or any portion of the Escrow Fund, but may commence an action in the nature of an interpleader and seek to deposit such funds with a court of competent jurisdiction, and thereby shall be discharged from any further duty or obligation with respect to the Escrow Fund. The costs of such interpleader action shall be borne by Lessee. In the event Lessee shall fail on demand to reimburse the Escrow Agent for such costs, then Lessee irrevocably authorizes the Escrow Agent to deduct any such amounts from the Escrow Fund without any further notice or demand to any person. The Escrow Agent may, in its sole discretion in lieu of filing such action in interpleader, elect to cease to perform under this Escrow Agreement and to ignore all instructions received in connection herewith until the Escrow Agent has received a written notice of resolution signed by the parties to such dispute or disagreement or an order of a court of competent jurisdiction over the matter directing a disposition of the Escrow Fund.

Section 10. This Escrow Agreement and the Escrow Fund established hereunder shall terminate upon receipt by the Escrow Agent of the written notice from Lessor specified in Section 4(b) or Section 4(c) hereof.

Section 11. All notices hereunder shall be in writing, sent by certified mail, return receipt requested, or by mutually recognized overnight carrier addressed to the other parties at their respective addresses shown on page 1 of this Escrow

Agreement or at such other address as each such party shall from time to time designate in writing to the other parties; and shall be effective on the date of receipt.

Section 12. This Escrow Agreement shall inure to the benefit of and shall be binding upon the parties hereto and their respective successors and assigns. No rights or obligations of the Escrow Agent under this Escrow Agreement may be assigned without the prior written consent of Lessor and Lessee.

Section 13. Except as provided in the next sentence, this Escrow Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof, and no waiver, consent, modification or change of terms hereof shall bind any party unless in writing signed by all parties. This Escrow Agreement is in addition to any related account applications and other account opening and authorizing documents and/or resolutions on file with the Escrow Agent and such documents are hereby incorporated by reference into this Escrow Agreement (the "Account Agreements"). In the event that there are inconsistencies between this Escrow Agreement and any other Account Agreement, the terms of this Escrow Agreement shall control.

Section 14. The Escrow Agent may employ agents, attorneys and accountants in connection with its duties hereunder (such costs to be paid as set forth in Section 5) and shall not be liable for any action taken or omitted in good faith in accordance with the advice of counsel, accountants or other skilled persons.

Section 15. This Escrow Agreement shall be governed by and be construed and interpreted in accordance with the internal laws of the State of California (the "State").

Section 16. This Escrow Agreement may be executed in several counterparts, and each counterpart so executed will be an original. In addition, the parties agree that the transaction described herein may be conducted and related documents may be received, sent or stored by electronic means. Copies, telecopies, facsimiles, electronic files and other reproductions of original executed documents shall be deemed to be authentic and valid counterparts of such original documents for all purposes, including the filing of any claim, action or suit in the appropriate court of law.

Section 17. TO THE EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO EXPRESSLY WAIVES THE RIGHT TO TRIAL BY JURY IN RESOLVING ANY CLAIM OR COUNTERCLAIM RELATING TO OR ARISING OUT OF THIS ESCROW AGREEMENT.

Section 18. Lessee represents, warrants and covenants for the benefit of the Escrow Agent as follows:

- a. Lessee is authorized under the constitution and laws of the State to enter into this Escrow Agreement and the transaction contemplated hereby and to perform all of its obligations hereunder.
- b. Lessee has been duly authorized to execute and deliver this Escrow Agreement by proper action and approval of its governing body at a meeting duly called, regularly convened and attended throughout by a requisite majority of the members thereof or by other appropriate official approval.
- c. This Escrow Agreement constitutes the legal, valid and binding obligation of Lessee enforceable in accordance with its terms, except to the extent limited by applicable bankruptcy, insolvency, reorganization or other laws affecting creditors' rights generally.

Section 19. The parties acknowledge that in order to help the United States government fight the funding of terrorism and money laundering activities, pursuant to Federal regulations that became effective on October 1, 2003 (Section 326 of the USA PATRIOT Act) all financial institutions are required to obtain, verify, record and update information that identifies each person establishing a relationship or opening an account. The parties to this Escrow Agreement agree that they will provide to the Escrow Agent such information as it may request, from time to time, in order for the Escrow Agent to satisfy the requirements of the USA PATRIOT Act, including but not limited to the name, address, tax identification number and other information that will allow it to identify the individual or entity who is establishing the relationship or opening the account and may also ask for formation documents such as articles of incorporation or other identifying documents to be provided.

Section 20. With respect to the Agreement, Webster Bank, National Association shall have the same rights and powers under the Agreement as any other lessor and may exercise the same as though it were not the Escrow Agent. Lessor may lend money to, invest in, and generally engage in any kind of business with Lessee, all as if Webster Bank, National Association were not the Escrow Agent. Lessee acknowledges the potential conflict of interest between Webster Bank, National Association as Lessor and Webster Bank, National Association as the Escrow Agent.

IN WITNESS WHEREOF, the parties hereto have caused this Escrow Agreement to be duly executed as of the day and year first above set forth.

LESSOR:

WEBSTER BANK, NATIONAL ASSOCIATION

By: _____
Name: Kevin C. King
Title: Senior Managing Director

LESSEE:

CITY OF SEASIDE, CALIFORNIA

By: _____
Name: _____
Title: _____

ESCROW AGENT:

WEBSTER BANK, NATIONAL ASSOCIATION

By: _____
Name: Kevin C. King
Title: Senior Managing Director

EXHIBIT A

FORM OF CERTIFICATE OF ACCEPTANCE AND PAYMENT REQUEST

Webster Bank, National Association (in its capacity as escrow agent, the "Escrow Agent"), as escrow agent under that certain Escrow Agreement dated October 28, 2022 (the "Escrow Agreement"), by and among the City of Seaside, California ("Lessee"), Webster Bank, National Association (in its capacity as lessor, "Lessor") and the Escrow Agent, is hereby requested to pay from the Escrow Fund (as defined in the Escrow Agreement) established and maintained thereunder, the amount set forth below to the named payee(s). The equipment and costs described below are (i) costs of acquiring part or all of the Equipment listed in the Equipment Schedule to that certain Equipment Lease Purchase Agreement dated as of October 28, 2022 (the "Agreement"), between Lessor and Lessee, or (ii) certain costs of entering into the Agreement. The amount shown is due and payable under (i) a purchase order or contract (or has been paid by and not previously reimbursed to Lessee), or (ii) invoices, budgets, closing statements or any other additional documentation.

QUANTITY	DESCRIPTION OF	AMOUNT	PAYEE
	EQUIPMENT OR FINANCING COST		

Lessee hereby certifies and represents to and agrees with Lessor as follows with respect to the Equipment described above: (i) the Equipment described above has been delivered and installed at the location(s) set forth in the Equipment Schedule; (ii) a present need exists for such Equipment which need is not temporary or expected to diminish in the near future; (iii) such Equipment is essential to and will be used by Lessee only for the purpose of performing one or more governmental functions of Lessee consistent with the permissible scope of Lessee's authority; (iv) the estimated useful life of such Equipment based upon the manufacturer's representations and Lessee's projected needs is not less than the term of lease with respect to such Equipment; (v) Lessee has conducted such inspection and/or testing of such Equipment as it deems necessary and appropriate and hereby acknowledges that it accepts such Equipment for all purposes as of the date of this Certificate; (vi) such Equipment is covered by insurance in the types and amounts required by the Agreement; (vii) no Event of Default or nonappropriation, as such terms are defined in the Agreement, and no event which with the giving of notice or lapse of time or both, would become an Event of Default or nonappropriation, has occurred and is continuing on the date hereof; and (viii) sufficient funds have been appropriated by Lessee for the payment of all rental payments due under the Agreement during Lessee's current fiscal year.

Based on the foregoing, the Escrow Agent is hereby authorized and directed to pay or cause to be paid, the manufacturer(s)/vendor(s), Lessee or other payee(s) the amounts set forth on the attached invoices from the Escrow Fund held under the Escrow Agreement in accordance with its terms.

The following documents are attached hereto and made a part hereof: (a) Original Invoice(s); and/or (b) Copies of Certificate(s) of Origin, when applicable, designating Lessor as lienholder if any part of the Equipment consists of motor vehicles, and evidence of filing.

IF REQUEST IS FOR REIMBURSEMENT, CHECK HERE ☐. Lessee paid an invoice prior to the commencement date identified in the Agreement and is requesting reimbursement for such payment. A copy of evidence of such payment, together with a copy of Lessee's Declaration of Official Intent and any other evidence required by Lessor prior to Lessor's approval hereof that Lessee has satisfied the requirements for reimbursement set forth in Treas. Reg. 1.150-2, is hereby attached. Lessor's approval hereof shall evidence that Lessee has delivered to Lessor such required documentation.

IF REQUEST IS FINAL REQUEST, CHECK HERE ☐. Lessee hereby certifies that the items of Equipment described above, together with the items of Equipment described in and accepted by Certificates of Acceptance and Payment Requests previously filed by Lessee with Lessor constitutes all of the Equipment subject to the Equipment Schedule.

Date: _____, 20__.

Approved for Payment:

WEBSTER BANK, NATIONAL ASSOCIATION,
as Lessor

CITY OF SEASIDE, CALIFORNIA,
as Lessee

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

EXHIBIT B

THIRD PARTY ESCROW COLLATERALIZATION CUSTODIAN AGREEMENT

[See attached.]

THIRD PARTY CUSTODIAN AGREEMENT
(Collateralized Municipal Deposits)

THIS AGREEMENT, made and executed as of October 28, 2022, between the City of Seaside, California (“Local Government”), Webster Bank, National Association (“Bank”) and The Bank of New York Mellon (“Custodian”).

W I T N E S S E T H

WHEREAS, Local Government desires to maintain or continue to maintain public deposits with the Bank:

WHEREAS, the Bank desires to obtain such deposits and to provide security therefor as required by the General Municipal Law, Banking Law and other applicable statutes;

WHEREAS, Custodian agrees to provide safekeeping services and to hold any securities pledged by the Bank in a custodial account established for the benefit of the Local Government as secured party pursuant to this Agreement;

NOW, THEREFORE, in consideration of the mutual promises set forth hereafter, the parties hereto agree as follows:

1. Security Requirements.

(a) The Bank, to secure the timely payment of Uninsured Deposits heretofore or hereafter made by the Local Government in accordance with the Escrow Agreement, including any interest due thereon and any costs or expenses incurred by Local Government and arising out of the collection of any deposits made with the Bank, shall provide the Local Government with Eligible Collateral having an Adjusted Market Value equal to the Collateral Requirement. Whenever Eligible Collateral is provided pursuant to this paragraph, the Bank hereby grants to the Local Government a pledge and security interest in and to such Eligible Collateral and shall deliver such Eligible Collateral to Custodian in the manner prescribed in Section 2 of this Agreement. The security interest of the Local Government in Eligible Collateral shall terminate upon the transfer of such Eligible Collateral from the Account. Eligible Letters of Credit and Eligible Surety Bonds provided pursuant to this paragraph shall be subject to the prior approval of the Local Government unless the Local Government has approved in writing the form of an Eligible Letter of Credit or Eligible Surety Bond to be issued by a specific entity or the form of such Eligible Letter of Credit or Eligible Surety Bond is attached hereto as an Exhibit.

(b) Custodian will daily determine the Adjusted Market Value of the Eligible Collateral provided pursuant to this Agreement (except that the Bank shall provide to Custodian the Market Value of Eligible Surety Bonds). If the Adjusted Market Value of such Eligible Collateral is less than the Collateral Requirement, Custodian will so notify the Bank and the Bank shall, upon such notice, be required to provide additional Eligible Collateral having an Adjusted Market Value equal to or greater than such deficiency no later than one Business Day after receipt of such notice. If the Adjusted Market Value of the Eligible Collateral provided pursuant to this Agreement exceeds the Collateral Requirement, Custodian, at the direction of the Bank, shall transfer securities from the Account, or in the case of other Eligible Collateral, cause or consent to a reduction in the amount thereof, to the extent of such excess.

(c) The Bank may substitute Eligible Collateral (“Substitute Collateral”) for any Eligible Collateral previously provided pursuant to this Agreement so long as such Substitute Collateral has an Adjusted Market Value equal to or greater than the Eligible Collateral which it will replace. The Bank shall give Written or Oral Instructions to Custodian with respect to any proposed substitution. If the Substitute Collateral described in such Written or Oral Instructions consists exclusively of Eligible Collateral having sufficient Adjusted Market Value, Custodian, at the direction of the Bank, shall transfer the Eligible Collateral out of the Account against delivery to the Account on the same Business Day of the Substitute Collateral. In the event the Substitute Collateral described in such notice consists of an Eligible Letter of Credit or Eligible Surety Bond, the prior consent of the Local Government shall be

required before the Bank or Custodian may complete the substitution described in such notice unless the Local Government has, in writing, previously approved and consented to the form and issuer of the Eligible Letter of Credit and/or Eligible Surety Bond to be provided as Substitute Collateral or it otherwise complies with 1(a).

2. Custody of Eligible Collateral

(a) The Bank and Local Government hereby appoint Custodian as custodian of Eligible Collateral at any time delivered to Custodian pursuant to this Agreement. Custodian hereby accepts appointment as such Custodian and agrees to establish and maintain the Account and appropriate records identifying the Eligible Collateral as pledged by the Bank to the Local Government. Securities in the Account shall be kept separate and apart from the general assets of Custodian and will not, in any circumstances, be commingled with or become part of the backing for any other deposit or liability of Custodian or any other person or entity. Custodian, in performing its duties and responsibilities pursuant to this Agreement, shall act as custodian for, and agent of, the Local Government.

(b) The Bank and Local Government agree that Eligible Collateral delivered to Custodian for deposit in the Account may be in the form of credits to the accounts of Custodian at the Book Entry System or a Depository or by delivery to Custodian of physical certificates in a form suitable for transfer or with an assignment in blank to the Local Government or Custodian. The Bank and Local Government hereby authorize Custodian on a continuous and ongoing basis to deposit in the Book Entry System and/or the Depositories all Eligible Collateral that may be deposited therein and to utilize the Book Entry System and/or Depositories and the receipt and delivery of physical Securities or any combination thereof in connection with its performance hereunder. Eligible Collateral credited to the Account and deposited in the Book Entry System or Depositories or other financial intermediaries will be represented in accounts of Custodian that include only assets held by Custodian for its customers, and including but not limited to accounts in which Custodian acts in a fiduciary, agency or representative capacity. Eligible Collateral that is not held in the Book Entry System, Depositories or through another financial intermediary will be held in Custodian's vault and physically segregated from securities and other non-cash property belonging to Custodian.

(c) (i) Custodian shall provide the Local Government and Bank each month with a statement identifying all Eligible Collateral in the Account, the Market Value and Adjusted Market Value thereof as of the date of such statement. Custodian shall also provide, upon request, the Local Government and Bank with a written confirmation on any Business Day on which Eligible Collateral is transferred to and from the Account. Such confirmation shall identify the specific securities which are the subject of the confirmation and state both the Market Value and Adjusted Market Value thereof.

(ii) Local Government agrees that it shall promptly review all such confirmation statements and shall promptly advise Custodian by Oral or Written Instruction of any error, omission or inaccuracy in such statements. In the event that Custodian receives such a Written or Oral Instruction identifying a specific concern with respect to the Market Value, Adjusted Market Value, or any other matter connected with the Account, Custodian shall undertake to correct any errors, failures or omissions, if any, that are reported to Custodian by Local Government provided that Custodian agrees, in the sole good faith determination of Custodian, that such error, failure or omission actually occurred. Any such corrections shall be reflected on subsequent confirmation statements.

(iii) Notwithstanding anything to the contrary herein, the parties agree that any reasonable action or inaction Custodian takes in connection with this Agreement shall not be alleged, deemed, or construed as giving rise to any liability, absent negligence or willful misconduct, as set forth hereunder in, without limitation, Sections 5(a), 5(c), 5(f) and/or 5(g) hereof.

(d) The Account shall not be subject to any security interest, lien or any right of set-off by or against Custodian.

(e) With respect to all Eligible Collateral held in the Account, Custodian by itself, or through the use of the Book Entry System or the appropriate Depository, shall, unless otherwise instructed to the contrary by the

Bank: (i) collect all income and other payments reflecting interest and principal on the Eligible Collateral in the Account and credit such amounts to the account of the Bank; (ii) forward to the Bank copies of all information or documents that it may receive from an issuer of Eligible Collateral which, in the opinion of Custodian, is intended for the beneficial owner of the Eligible Collateral including, without limitation all proxies and other authorizations properly executed and all proxy statements, notices and reports; (iii) execute, as Custodian, any certificates of ownership, affidavits, declarations or other certificates under any tax laws now or hereafter in effect in connection with the collection of bond and note coupons; (iv) hold directly, or through the Book Entry System or Depository, all rights issued with respect to any Eligible Collateral held by Custodian hereunder; and (v) upon receipt of Written Instructions from the Bank, Custodian will exchange Eligible Collateral held hereunder for other securities and/or cash in connection with (a) any conversion privilege, reorganization, recapitalization, redemption in kind, consolidation, tender offer or exchange offer, or (b) any exercise, subscription, purchase or other similar rights.

3. Events of Default

In the event the Bank fail or suspend active operations, the Deposits in such Bank shall become due and payable immediately. If the Bank shall fail to pay the Local Government any amount of the Deposits by the Local Government covered by this Agreement in accordance with the terms of such Deposit (or the foregoing sentence), the Local Government shall have the right to unilaterally demand delivery of all Eligible Collateral in the Account by notice to Custodian and to sell such securities at public or private sale. In the event of such sale, the Local Government, after deducting all legal expenses and other costs, including reasonable attorneys fees, from the proceeds of such sale, shall apply the remainder towards any one or more of the liabilities of the Bank to the Local Government and shall return the surplus, if any, to the Bank.

4. Representation and Warranties

(a) Representations of the Bank. The Bank represents and warrants that:

- (1) it is the legal and actual owner, free and clear of all liens and claims, of all Eligible Collateral pledged pursuant to this Agreement;
- (2) this Agreement was executed by an officer of the Bank who was authorized by the Bank's board of directors to do so and will at all times be maintained as an official record of the Bank;
- (3) all securities pledged pursuant to this Agreement are Eligible Collateral;
- (4) the Bank is a banking organization located and authorized to do business in the State of New York;
- (5) all acts, conditions and things required to exist, happen or to be performed on its part precedent to and in the execution and delivery of this Agreement exist or have happened or have been performed.

(b) Representations of the Local Government. The Local Government hereby represents and warrants that:

- (1) this Agreement has been legally and validly entered into, does not and will not violate any statute or regulation applicable to it and is enforceable against the Local Government in accordance with its terms;
- (2) the appointment of Custodian has been duly authorized and no other action by the Local Government is required, and this Agreement was executed by an officer of the Local Government duly authorized to do so;

- (3) it will not transfer or assign its rights or interests in or with respect to any Eligible Collateral pledged pursuant to this Agreement, except as authorized pursuant to Section 3 of the Agreement;
- (4) all acts, conditions and things required to exist, happen or to be performed on its part precedent to and in the execution and delivery of this Agreement exist or have happened or have been performed.

5. Concerning Custodian.

(a) Custodian shall not be liable for any loss or damage, including counsel fees, resulting from its action or omission to act or otherwise, except for any loss, damage, claim or expense arising out of its own negligence or willful misconduct, and shall have no obligation hereunder for any loss or damage, including counsel fees, which are sustained or incurred by reason of any action or inaction by the Book Entry System or any Depository. Custodian may, with respect to questions of law, apply for and obtain the advice and opinion of competent counsel and shall be fully protected with respect to anything done or omitted by it in good faith and conformity with such advice or opinion. The Local Government and Bank agree, jointly and severally, to indemnify Custodian and to hold it harmless against any and all costs, expenses, damages, liabilities or claims, including reasonable fees and expenses of counsel, which Custodian may sustain or incur or which may be asserted against Custodian by reason of or as a result of any action taken or omitted by Custodian in connection with operating under this Agreement except those costs, expenses, damages, liabilities or claims arising out of the negligence or willful misconduct of Custodian or any of its employees or duly appointed agents. This indemnity shall be a continuing obligation of the Local Government and Bank notwithstanding the termination of this Agreement.

(b) Custodian shall not be responsible for, or considered to be Custodian of, any Eligible Collateral received by it for deposit in the Account until Custodian actually receives and collects such Eligible Collateral directly or by the final crediting of Custodian's account on the books of the Book Entry System or the appropriate Depository. Custodian will be entitled to reverse any credits made on the Local Government's behalf where such credits have been previously made and the Eligible Collateral is not finally collected.

(c) Custodian shall have no duties or responsibilities whatsoever except such duties and responsibilities as are specifically set forth in this Agreement and no covenant or obligation shall be implied against Custodian in connection with this Agreement. In no event shall Custodian be liable to Local Government, Bank or any third party for special, indirect or consequential damages, or lost profits or loss of business, arising in connection with this Agreement.

(d) The Local Government's authorized officer, upon reasonable notice, shall have access to Custodian's books and records maintained with respect to the Local Government's interest in the Account during Custodian's normal business hours. Upon the reasonable request of the Local Government, copies of any such books and records shall be provided by Custodian to the Local Government or the Local Government's authorized officer at the Local Government's expense.

(e) In performing hereunder, Custodian may enter into subcontracts, agreements and understandings with third parties (including subsidiaries of The Bank of New York Mellon Corporation), whenever and on such terms and conditions as it deems necessary or appropriate. No such subcontract, agreement or understanding shall discharge Custodian from its obligations hereunder.

(f) Reliance on Pricing Services. To the extent Custodian values Eligible Collateral, establishes and maintains Market Value and Adjusted Market Value of Eligible Collateral held in the Account, Custodian is authorized to utilize any generally recognized pricing information service (including brokers and dealers of securities), such as any Nationally Recognized Statistical Ratings Organization, in order to perform its valuation responsibilities hereunder, if any. The parties agree that Custodian shall not be liable for any loss, damage or expense suffered or incurred by the Bank or the Local Government as a result of errors or omissions contained in any pricing or other information provided to Custodian by any such generally recognized pricing information service, broker or dealer and utilized by Custodian hereunder.

(g) Force Majeure. Custodian shall not be responsible or liable for any failure or delay in the performance of its obligations under this Agreement arising out of or caused, directly or indirectly, by circumstances beyond its control, including without limitation, acts of God, earthquakes, fires, floods, wars, civil or military disturbances, sabotage, epidemics, riots, loss or malfunctions of utilities, computer (hardware or software) or communications service outside of Custodian's control, strikes, acts of civil or military authority, or governmental, judicial or regulatory action; provided however, that Custodian shall use its best efforts under the circumstances to remedy any such failure or delay as soon as practicable.

6. Termination.

Any of the parties hereto may terminate this Agreement by giving to the other parties a notice in writing specifying the date of such termination, which shall be the earlier of (i) not less than 90 days after the date of giving such notice or (ii) the date on which the Deposits are repaid in full. Such notice shall not affect or terminate the Local Government's security interest in the Eligible Collateral in the Account. Upon termination hereof, Custodian shall follow the reasonable joint, Written Instructions of the Bank and the Local Government concerning the transfer of custody of Eligible Collateral, collateral records and other items. Upon the date set forth in the termination notice, this Agreement shall terminate except as otherwise provided herein and all obligations of the parties to each other hereunder shall cease.

7. Miscellaneous.

(a) The Local Government and Bank each agrees to furnish to Custodian a new Certificate in the event that any present Authorized Person ceases to be an Authorized Person or in the event that any other Authorized Persons are appointed and authorized. Until such new Certificate is received, Custodian shall be fully protected in acting upon Oral or Written Instructions or signatures of the present Authorized Persons.

(b) Any Written Instructions or other instrument in writing authorized or required by this Agreement shall be given to Custodian and shall be sufficiently given if sent to Custodian by regular mail to its offices at **240 Greenwich Street, 4th Floor, New York, New York 10286, Attn: Manager, GCS Collateral Management**, or at such other place as Custodian may from time to time designate in writing.

(c) Any notice or other instrument in writing authorized or required by this Agreement to be given to the Bank shall be sufficiently given if sent to the Bank by regular mail to its offices at **Webster Bank, National Association, Attn.: Government Banking Group, 200 Executive Blvd. S, 3rd Floor Southington, CT 06489**, with a copy to Webster Bank, N.A., 145 Bank Street, Waterbury, CT 06702, Attn: General Counsel, or at such other place as the Bank may from time to time designate in writing.

(d) Any notice or other instrument in writing, authorized or required by this Agreement to be given to the Local Government shall be sufficiently given if sent to the Local Government by regular mail to its offices at **440 Harcourt Avenue, Seaside, CA 93955**, or at such other offices as the Local Government may from time to time designate in writing.

(e) In case any provision in or obligation under this Agreement shall be invalid, illegal or unenforceable in any jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations shall not in any way be affected or impaired thereby and if any provision is inapplicable to any person or circumstances, it shall nevertheless remain applicable to all other persons and circumstances.

(f) This Agreement may not be amended or modified in any manner except by written agreement executed by all of the parties hereto.

(g) This Agreement shall extend to and be binding upon the parties hereto, and their respective successors and assigns; provided however, that this Agreement shall not be assignable by any party without the written consent of the other parties.

(h) This Agreement shall be construed in accordance with the substantive laws of the State of New York, without regard to conflicts of laws principles thereof. Bank, Local Government and Custodian hereby consent to the jurisdiction of a state or federal court situated in New York City, New York in connection with any dispute arising hereunder. Bank, Local Government and Custodian hereby irrevocably waive, to the fullest extent permitted by applicable law, any objection which it may now or hereafter have to the laying of venue of any such proceeding brought in such a court and any claim court and any claim that such proceeding brought in such a court has been brought in an inconvenient forum. Bank, Local Government and Custodian each hereby irrevocably waives any and all rights to trial by jury in any legal proceeding arising out of or relating to this Agreement.

(i) Waiver of Immunity. To the extent that in any jurisdiction any party may now or hereafter be entitled to claim, for itself or its assets, immunity from suit, execution, attachment (before or after judgment) or other legal process, each party irrevocably agrees not to claim, and it hereby waives, such immunity in connection with this Agreement.

(j) Execution; Counterparts. This Agreement may be executed in any number of counterparts by means of (i) a DocuSign® electronic signature, (ii) an original, manual signature, or (iii) a faxed, scanned or photocopied manual signature. Each DocuSign®, faxed, scanned or photocopied manual signature shall for all purposes have the same validity, legal effect and admissibility in evidence as an original manual signature and the parties hereby waive any objection to the contrary. Each such counterpart shall be deemed to be an original, but such counterparts shall, together, constitute only one instrument.

8. Definitions.

Whenever used in this Agreement, the following terms shall have the following meanings:

(a) “Account” shall mean the custodial account established with Custodian for the benefit of the Local Government as secured party in accordance with this Agreement.

(b) “Adjusted Market Value” shall be one hundred percent of Market Value, except that: (1) in the case of Eligible Collateral enumerated in subparagraphs (v), (vi) and (vii) of Exhibit “B,” the Adjusted Market Value shall be an amount equal to its Market Value multiplied by 0.9 if such Eligible Collateral is not rated in the highest rating category by at least one Nationally Recognized Statistical Rating Agency, but is so rated in the second highest rating category, and an amount equal to its Market Value multiplied by 0.8 if such Eligible Security is not so rated in one of the two highest categories, but is so rated in the third highest rated category; (2) in the case of Eligible Collateral enumerated in subparagraphs (viii), (x) and (xi) of Exhibit “B,” the Adjusted Market Value shall be an amount equal to its Market Value multiplied by 0.8; (3) in the case of Eligible Collateral enumerated in subparagraph (ix) of Exhibit “B,” the Adjusted Market Value shall be an amount equal to its Market Value multiplied by 0.7; and (4) in the case of Eligible Letters of Credit, the Adjusted Market Value shall be an amount equal to its Market Value divided by 1.4.

(c) “Authorized Person” shall be any officer of the Local Government or Bank, as the case may be, duly authorized to give Oral Instructions or Written Instructions on behalf of Local Government or Bank, such persons to be designated in a Certificate substantially in the form of Exhibit “C”- attached hereto, as such Exhibit may be amended from time to time.

(d) “Bank” shall mean Webster Bank, National Association or its successors or assigns, provided that such successor is a bank as defined by the banking law of the State of New York or a national banking association located and authorized to do business in New York.

(e) “Book Entry System” shall mean the Federal Reserve/Treasury Book Entry System for receiving and delivering U.S. Government Securities.

(f) “Business Day” shall mean any day on which Custodian and the Bank are open for Business and on which the Book Entry System and/or the Depositories are open for business.

(g) “Certificate” shall mean the Certificate attached hereto as Exhibit “C”.

(h) “Collateral Requirement” shall mean the amounts required in Exhibit “A” unless the Bank and Local Government agree to a different amount in accordance with this Agreement.

(i) “Depository” shall include the Depository Trust Company, the Participants Trust Company and other securities depositories and clearing agencies (and their successors and nominees) registered with the Securities and Exchange Commission or otherwise regulated by appropriate federal or state agencies as a securities depository or clearing agency.

(j) “Deposits” shall mean all deposits by the Local Government in the Bank that are available for all uses generally permitted by the Bank to the Local Government for actually and finally collected funds under the Bank’s account agreement or policies.

(k) “Eligible Collateral” shall mean any securities of the types enumerated in the Schedule of Eligible Collateral attached hereto as Exhibit “B” as such Schedule may be amended by the parties in writing from time to time, Eligible Letters of Credit, and Eligible Surety Bonds.

(l) “Eligible Letter of Credit” shall mean an irrevocable letter of credit issued in favor of the Local Government for a term not to exceed ninety days by either: (1) a bank (other than the Bank) whose commercial paper and other unsecured short-term debt obligations (or, in the case of a bank which is the principal subsidiary of a holding company, whose holding company’s commercial paper and other unsecured short-term debt obligations) are rated in one of three highest rating categories based on the credit of such bank or holding company by at least one Nationally Recognized Statistical Rating Organization, or (2) a bank (other than the Bank) which is in compliance with applicable Federal minimum risk-based capital requirements.

(m) “Eligible Surety Bond” shall mean a bond executed by an insurance company authorized to do business in the State of New York, the claims paying ability of which is rated in the highest rating category by at least two Nationally Recognized Statistical Rating Organizations.

(n) “Margin Percentage” shall mean the percentage indicated on Exhibit B attached hereto with respect to particular types of Eligible Collateral.

(o) “Market Value” shall mean, with respect to any Eligible Security held in the Account, the market value of such Eligible Security as made available to Custodian by a generally recognized source selected by Custodian plus, if not reflected in the market value, any accrued interest thereon, or, if such source does not make available a market value, the market value shall be as determined by Custodian in its sole discretion based on information furnished to Custodian by one or more brokers or dealers; provided however that, if agreed in writing by the parties hereto, the Bank may provide Custodian with such Market Values. The Market Value of Eligible Letters of Credit and Eligible Surety Bonds shall be the face amount thereof.

(p) “Nationally Recognized Statistical Rating Organization” shall mean Moody’s, Standard and Poor’s, Fitch, Duff and Phelps, BankWatch and IBCA and in the case of Eligible Surety Bonds, shall also include Bests.

(q) “Oral Instructions” shall mean verbal instructions actually received by Custodian from an Authorized Person or from a person reasonably believed by Custodian to be an Authorized Person.

(r) “Substitute Collateral” shall have the meaning set forth in paragraph C of Section 1 of this Agreement.

(s) “Uninsured Deposits” shall mean that portion of the Local Government’s Deposits with the Bank which exceeds the insurance coverage available from the Federal Deposit Insurance Corporation.

(t) "Written Instructions" shall mean written communications actually received by Custodian by S.W.I.F.T., tested telex, letter, facsimile transmission, or other method or system specified by Custodian as available for use in connection with the services hereunder.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers thereunto duly authorized and their respective seals to be hereunto affixed, as of the day and year first above written.

CITY OF SEASIDE, CALIFORNIA
TIN: #94-6022439

WEBSTER BANK, NATIONAL ASSOCIATION

By: _____
Title: _____

By: _____
Name: Senior Managing Director

THE BANK OF NEW YORK MELLON

By: _____
Title: _____

EXHIBIT A
Collateral Requirement

Collateral Requirement. On any Business Day that the Local Government has Uninsured Deposits in the Bank, the Bank, in accordance with paragraph b of Section 1 of this Agreement, agrees to deliver or cause to be delivered to Custodian for deposit in the Account, Eligible Collateral having an Adjusted Market Value equal to the Collateral Requirement. For purposes of this Agreement, Collateral Requirement shall mean the amount of such Uninsured Deposits times the Margin Percentage, if any.

EXHIBIT B
Schedule of Eligible Collateral

Margin %

- | | | |
|-----|-------|---|
| 110 | (i) | Obligations issued by the United States of America, an agency thereof or a United States government sponsored corporation or obligations fully insured or guaranteed as to the payment of principal and interest by the United States of America, an agency thereof or a United States government sponsored corporation. |
| 110 | (ii) | Obligations issued or fully guaranteed by the International Bank for Reconstruction and Development, the Inter-American Development Bank, the Asian Development Bank, and the African Development Bank. |
| 110 | (v) | Obligations issued by states (other than the State of New York) of the United States rated in one of the three highest rating categories by at least one nationally recognized statistical rating organization. |
| 110 | (vi) | Obligations of Puerto Rico rated in the three highest rating categories by at least one nationally recognized statistical rating organization. |
| 110 | (vii) | Obligations of counties, cities and other governmental entities of a state other than the State of New York having the power to levy taxes that are backed by the full faith and credit of such governmental entity and rated in the three highest rating categories by at least one nationally recognized statistical rating organization. |
| 110 | (ix) | Any mortgage related securities, as defined in the Securities Exchange Act of 1934, as amended, which may be purchased by banks under the limitations established by Federal bank regulatory agencies. |

EXHIBIT C
CERTIFICATE OF AUTHORIZED PERSONS
(Local Government - Oral and Written Instructions)

The undersigned hereby certifies that he/she is the duly elected and acting _____ of the City of Seaside, California (the “Local Government”), and further certifies that the following officers or employees of the Local Government have been duly authorized in conformity with the Local Government’s resolution to deliver Oral and Written Instructions to The Bank of New York Mellon (“Custodian”) pursuant to the Third Party Custodian Agreement between the Local Government, Webster Bank, National Association (“Bank”) and Custodian dated October 28, 2022, and that the signatures appearing opposite their names are true and correct:

Name	Title	Signature
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

This certificate supersedes any certificate of authorized individuals you may currently have on file.

By: _____
Title: _____
Date: October 28, 2022

August 29, 2022

Mr. Paul Blaha, *Division Chief*
City of Seaside
1635 Broadway Avenue
Seaside, CA 93955

Dear Chief Blaha:

I am enclosing our proposal for one (1) new 1500 GPM Pumper with this cover letter. Based on your department's input, we have selected the *Pierce Enforcer* chassis on which to base this proposal. Some of the noteworthy features you will find include:

- ✓ 500 horsepower Cummins X12 motor with an Allison EVS 4500 transmission
- ✓ 1,500 GPM Waterous single stage pump with 500-gallon water tank
- ✓ Pierce Husky 3 single agent foam system with refill and draft features
- ✓ All emergency lighting is LED

The cost of the unit described in this proposal is dependent on how the city may choose to purchase it. As noted in the assorted options, Pierce deducts certain prepayment credits from the final invoice, depending on the selected purchasing option. Please look at the information and figures attached.

The total price shown includes California Sales Tax at the rate of 9.25% and includes two (2) factory inspection trips as outlined in the specification. Price is based on delivery F.O.B. to the City of Seaside at the address shown above.

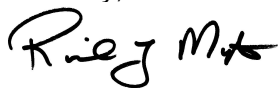
If the city elects to purchase the proposed apparatus and would like to submit a purchase order, please address it to the following:

Golden State Fire Apparatus Inc.
7400 Reese Road
Sacramento, CA 95828

This quote will be valid until October 31, 2022.

We appreciate the opportunity to submit this information and look forward to going over any questions you might have. Let me know if there is anything else I can do and feel free to give me a call anytime. My cell number is (831) 251-8931 and thank you again.

Sincerely,



Rich Myers
Sales Consultant

PRODUCT PROPOSAL

Exhibit "A"

Bid #924



OPTION A

100% Pre-Payment or Lease Purchase

This will be the price of the Product(s) contingent upon the Customer paying 100% of the Grand Total to GSFA within 15 days of Contract Signing (or issuance of Purchase Order).

This discount is also available contingent upon a 3rd Party (Leasing Company) paying 100% of the Grand Total on behalf of the Customer within 15 days of Contract Signing (or issuance of Purchase Order).



PROPOSAL PREPARED FOR

City of Seaside
Pierce Manufacturing, Inc.
Enforcer 1500 GPM Pumper
Sourcewell #113021, ID #259
August 29, 2022

SALES CONSULTANT

Rich Myers
Golden State Fire Apparatus, Inc.
7400 Reese Road
Sacramento, CA 95828
831.251.8931 Cell
rich@goldenstatefire.com

PARTS, SERVICE & SUPPORT

Golden State Emergency Vehicle Service, Inc.
7400 Reese Road
Sacramento, CA 95828
916.330.1638 Office
parts@goldenstatefire.com

PROPOSAL PREPARED FOR:

City of Seaside
1635 Broadway Avenue
Seaside, CA 93955

Submitted Date:	August 29, 2022
Proposal Number:	40829-22A
<i>Expiration Date:</i>	<i>October 31, 2022</i>
Sales Consultant:	Rich Myers

We hereby propose and agree to furnish, after your acceptance of this proposal and the proper execution by the CITY OF SEASIDE, hereinafter called "Customer" and an officer of Golden State Fire Apparatus, Inc., hereinafter called "GSFA", the following fire apparatus and equipment, hereinafter called "Product":

#	Description	Unit Price
A	One (1) Pierce Manufacturing, Inc. Enforcer 1500 GPM Pumper (Sourcewell contract #113021, product ID #259)	836,543.20
B	Discount For 100% Pre-Payment at Time of Order	(27,917.80)
C	SUBTOTAL	808,625.40
D	9.25% State Sales Tax	74,797.85
E	California Tire Fee	10.50
F	GRAND TOTAL	883,433.75



PROPOSAL SUMMARY

This proposal includes the following items in accordance with the specifications hereto attached:

- Fire apparatus and equipment described herein
- Delivery to GSFA service center in Sacramento
- Pre-delivery inspection/services by GSFA
- Final delivery from service center to Customer

PRODUCT COMPLETION

Product shall be built in accordance with the specifications hereto attached, delays due to acts of God, strikes, war, or intentional conflict, failures to obtain chassis, materials, unusual weather conditions or other causes beyond GSFA's control not preventing, within approximately **395 to 425 CALENDAR DAYS** after receipt of this order and the acceptance thereof at our Sacramento, California office. Within thirty (30) calendar days after receipt of this order and acceptance thereof, GSFA shall submit to Customer a production schedule including tentative pre-construction conference, final inspection and final delivery dates.

DELIVERY LOCATION

Product shall be shipped in accordance with the specifications hereto attached and be delivered to you at SEASIDE, CALIFORNIA. Proof of insurance must be demonstrated by the Customer to GSFA prior to transferring of the Product(s).

ACCEPTING THIS PROPOSAL

In the event Customer wishes to purchase the Product described in this Proposal and the attached specifications, then, prior to the expiration date listed on page 2 of this Proposal, Customer shall sign and return this Proposal. Thereafter, GSFA and Customer will endeavor to enter into a purchase agreement incorporating this Proposal and including additional terms (a "Purchase Agreement"). If Customer returns a signed copy of this Proposal alone, GSFA will send Customer its form of Purchase Agreement for Customer's review and signature. **If Customer desires to use its standard form of purchase order as the Purchase Agreement, then Customer should return a signed copy of this Proposal along with a copy of such purchase order. All purchase orders shall be made out to GSFA.** GSFA will review such purchase order and contact the Customer regarding any required revisions. Only upon a full execution of a Purchase Agreement shall GSFA and Customer be obligated to purchase and sell the Product set forth in this Proposal.

TERMS AND CONDITIONS

The following Terms and Conditions are hereby made part of this Proposal:

1. Payment Terms (100% Pre-Payment at Time of Order) –

Customer shall pay the amount listed on page two of this Proposal, which includes: (i) the total price for the Product (the "Purchase Price"), (ii) the estimated state sales tax on the Product, and (iii) the California tire fee (together with the Purchase Price and estimated state sales tax, the "Grand Total") within fifteen (15) calendar days from the date on which the Purchase Agreement is fully executed. The proposed delivery timeframe for the Product, which is outlined on page one of this Proposal, shall not begin until full payment of the Grand Total is received. In the event Customer does not pay GSFA the Grand Total in the timeframe set forth in this Section 1, GSFA may, in its sole discretion, cancel the Purchase Agreement entered into between the parties.

2. Multiple Unit Purchase – If the Purchase Price includes pricing for multiple units, the price stated on this Proposal shall only be valid if the quantity of Products being proposed are purchased at the same time, pursuant to the same Purchase Agreement.

3. Stock / Demo Units – If applicable, any stock/demo units, including those identified by this Proposal, are available for sale on an as-is, first-come and first served-basis. Regardless of this Proposal, the first Customer to enter into a Purchase Agreement identifying any such stock/demo units shall obtain said units.

4. Order Changes – The Customer may request that GSFA incorporate a change to the Product or the Specifications for the Product by delivering a written change order to GSFA, which shall include a description of the proposed change sufficient to permit GSFA to evaluate the feasibility of such change (a "Change Order"). GSFA will provide Customer a written response (a "Response") stating (i) whether GSFA will accommodate such Change Order (which GSFA may decide in its sole and absolute discretion) and (ii) the terms of the modification to the order, including any increase or decrease in the Purchase Price resulting from such Change Order, and any effect on production scheduling or Delivery resulting from such Change Order. Customer shall have seven (7) days after receipt of the Response to notify GSFA as to whether Customer desires to make the changes GSFA has approved in the Response. In the event Customer counter-signs GSFA's Response, Customer shall pay the increase (or be refunded the decrease) in the Purchase Price prior to final delivery to Customer location.

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

6. Cancellation/Termination – In the event Customer and GSFA enter into a Purchase Agreement and Customer thereafter cancels or terminates the Purchase Agreement, GSFA will charge a cancellation fee as follows: (a) 10% of the Purchase Price after order is accepted and entered by GSFA; (b) 20% of the Purchase Price after completion of the pre-construction phase of the order process; and (c) 50% of the Purchase Price after the requisition of any materials or commencement of any manufacturing or assembly of the Product by either GSFA or the manufacturer of the Product. The tier of cancellation fee applicable to any cancellation shall be in the sole and absolute discretion of GSFA.

7. State Sales Tax – Customer shall be responsible for the cost of state sales tax associated with, or attributable to the Product. The taxes owed by Customer for the Product is subject to adjustment for the applicable state sales tax rate in effect when the Product is delivered to the Customer. Therefore, the sales tax will be increased or decreased at the time of delivery if a change in the sales tax rate has occurred, in which case Customer shall pay GSFA (or be refunded by GSFA) the applicable change in sales tax.

8. Proposal Expiration – After the Expiration Date shown on page one of this Proposal, Customer shall require GSFA's written consent to accept this Proposal.

9. Governing Law – This Proposal is to be governed by and under the laws of the state of California.

Thank you for providing Golden State Fire Apparatus, Inc. with the opportunity to provide this proposal. If you have any questions regarding the options presented or need additional options, please contact me.

Sincerely,



Rich Myers
Golden State Fire Apparatus, Inc.

I, _____ authorized
representative of CITY OF SEASIDE agrees to purchase the proposed Product(s) and
agree to the terms and conditions of this proposal and the specifications hereto attached.

SIGNATURE: _____

TITLE: _____ DATE: _____

OPTION B

Payment at Time of Delivery or Pickup

This will be the price of the Product(s) contingent upon the Customer paying 100% of the Grand Total to GSFA at time of delivery or pick up



PROPOSAL PREPARED FOR

City of Seaside
Pierce Manufacturing, Inc.
Enforcer 1500 GPM Pumper
Sourcewell #113021, ID #259
August 29, 2022

SALES CONSULTANT

Rich Myers
Golden State Fire Apparatus, Inc.
7400 Reese Road
Sacramento, CA 95828
831.251.8931 Cell
rich@goldenstatefire.com

PARTS, SERVICE & SUPPORT

Golden State Emergency Vehicle Service, Inc.
7400 Reese Road
Sacramento, CA 95828
916.330.1638 Office
parts@goldenstatefire.com

PROPOSAL PREPARED FOR:

City of Seaside
1635 Broadway Avenue
Seaside, CA 93955

Submitted Date:	August 29, 2022
Proposal Number:	40829-22B
<i>Expiration Date:</i>	<i>October 31, 2022</i>
Sales Consultant:	Rich Myers

We hereby propose and agree to furnish, after your acceptance of this proposal and the proper execution by the CITY OF SEASIDE, hereinafter called "Customer" and an officer of Golden State Fire Apparatus, Inc., hereinafter called "GSFA", the following fire apparatus and equipment, hereinafter called "Product":

#	Description	Unit Price
A	One (1) Pierce Manufacturing, Inc. Enforcer 1500 GPM Pumper (Sourcewell contract #113021, product ID #259)	836,543.20
B	9.25% State Sales Tax	77,380.25
C	California Tire Fee	10.50
D	GRAND TOTAL	913,933.95



PROPOSAL SUMMARY

This proposal includes the following items in accordance with the specifications hereto attached:

- Fire apparatus and equipment described herein
- Delivery to GSFA service center in Sacramento
- Pre-delivery inspection/services by GSFA
- Final delivery from service center to Customer

PRODUCT COMPLETION

Product shall be built in accordance with the specifications hereto attached, delays due to acts of God, strikes, war, or intentional conflict, failures to obtain chassis, materials, unusual weather conditions or other causes beyond GSFA's control not preventing, within approximately **395 to 425 CALENDAR DAYS** after receipt of this order and the acceptance thereof at our Sacramento, California office. Within thirty (30) calendar days after receipt of this order and acceptance thereof, GSFA shall submit to Customer a production schedule including tentative pre-construction conference, final inspection and final delivery dates.

DELIVERY LOCATION

Product shall be shipped in accordance with the specifications hereto attached and be delivered to you at **SEASIDE, CALIFORNIA**. Proof of insurance must be demonstrated by the Customer to GSFA prior to transferring of the Product(s).

ACCEPTING THIS PROPOSAL

In the event Customer wishes to purchase the Product described in this Proposal and the attached specifications, then, prior to the expiration date listed on page 2 of this Proposal, Customer shall sign and return this Proposal. Thereafter, GSFA and Customer will endeavor to enter into a purchase agreement incorporating this Proposal and including additional terms (a "Purchase Agreement"). If Customer returns a signed copy of this Proposal alone, GSFA will send Customer its form of Purchase Agreement for Customer's review and signature. **If Customer desires to use its standard form of purchase order as the Purchase Agreement, then Customer should return a signed copy of this Proposal along with a copy of such purchase order. All purchase orders shall be made out to GSFA.** GSFA will review such purchase order and contact the Customer regarding any required revisions. Only upon a full execution of a Purchase Agreement shall GSFA and Customer be obligated to purchase and sell the Product set forth in this Proposal.

TERMS AND CONDITIONS

The following Terms and Conditions are hereby made part of this Proposal:

1. Payment Terms (Payment at Time of Delivery) – Customer shall pay the Grand Total at time of delivery or pick up of the Product to GSFA. It is the responsibility of the Customer to have full payment ready when the Product is complete and ready to deliver or pick up. If payment is late or delivery is delayed pending payment, a daily finance charge of \$150.00 and a daily storage fee of \$50.00 may apply until such payment is received. Due to insurance liability, the Product(s) will not be left at the Customer's location without full acceptance and payment or prior written agreement between the Customer and GSFA.

2. Multiple Unit Purchase – If the Purchase Price includes pricing for multiple units, the price stated on this Proposal shall only be valid if the quantity of Products being proposed are purchased at the same time, pursuant to the same Purchase Agreement.

3. Stock / Demo Units – If applicable, any stock/demo units, including those identified by this Proposal, are available for sale on an as-is, first-come and first served-basis. Regardless of this Proposal, the first Customer to enter into a Purchase Agreement identifying any such stock/demo units shall obtain said units.

4. Order Changes – The Customer may request that GSFA incorporate a change to the Product or the Specifications for the Product by delivering a written change order to GSFA, which shall include a description of the proposed change sufficient to permit GSFA to evaluate the feasibility of such change (a "Change Order"). GSFA will provide Customer a written response (a "Response") stating (i) whether GSFA will accommodate such Change Order (which GSFA may decide in its sole and absolute discretion) and (ii) the terms of the modification to the order, including any increase or decrease in the Purchase Price resulting from such Change Order, and any effect on production scheduling or Delivery resulting from such Change Order. Customer shall have seven (7) days after receipt of the Response to notify GSFA as to whether Customer desires to make the changes GSFA has approved in the Response. In the event Customer counter-signs GSFA's Response, Customer shall pay the increase (or be refunded the decrease) in the Purchase Price prior to final delivery to Customer location.

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

6. Cancellation/Termination – In the event Customer and GSFA enter into a Purchase Agreement and Customer thereafter cancels or terminates the Purchase Agreement, GSFA will charge a cancellation fee as follows: (a) 10% of the Purchase Price after order is accepted and entered by GSFA; (b) 20% of the Purchase Price after completion of the pre-construction phase of the order process; and (c) 50% of the Purchase Price after the requisition of any materials or commencement of any manufacturing or assembly of the Product by either GSFA or the manufacturer of the Product. The tier of cancellation fee applicable to any cancellation shall be in the sole and absolute discretion of GSFA.

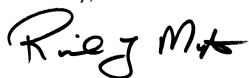
7. State Sales Tax – Customer shall be responsible for the cost of state sales tax associated with, or attributable to the Product. The taxes owed by Customer for the Product is subject to adjustment for the applicable state sales tax rate in effect when the Product is delivered to the Customer. Therefore, the sales tax will be increased or decreased at the time of delivery if a change in the sales tax rate has occurred, in which case Customer shall pay GSFA (or be refunded by GSFA) the applicable change in sales tax.

8. Proposal Expiration – After the Expiration Date shown on page one of this Proposal, Customer shall require GSFA's written consent to accept this Proposal.

9. Governing Law – This Proposal is to be governed by and under the laws of the state of California.

Thank you for providing Golden State Fire Apparatus, Inc. with the opportunity to provide this proposal. If you have any questions regarding the options presented or need additional options, please contact me.

Sincerely,



Rich Myers
Golden State Fire Apparatus, Inc.

I, _____ authorized
representative of CITY OF SEASIDE agrees to purchase the proposed Product(s) and
agree to the terms and conditions of this proposal and the specifications hereto attached.

SIGNATURE: _____

TITLE: _____ DATE: _____



Proposal Details Report

8/29/2022

Customer: City of Seaside FD

Representative: Myers, Rich

Requirements Manager:

Description: Seaside FD Enforcer Pumper

Chassis: Enforcer Chassis

Body: Pumper, Medium, Aluminum, 2nd Gen

Bid Number: 924

Job Number:

Organization: Golden State Fire Apparatus, Inc

OptionCode	Type	Option	ProposalText
0766611		Boiler Plates, Pumper	GSFA is pleased to submit a proposal to the City of Seaside Fire Department for a Pierce® triple combination pumper per your request for quotation. The following paragraphs will describe in detail the apparatus, construction methods, and equipment proposed. This proposal will indicate size, type, model and make of components parts and equipment, providing proof of compliance with each and every item (except where noted) in the departments advertised specifications. PIERCE MANUFACTURING was founded in 1913. Since then we have been building bodies with one philosophy, "BUILD THE FINEST". Our skilled craftsmen take pride in their work, which is reflected, in the final product. We have been building fire apparatus since the early "forties" giving Pierce Manufacturing over 75 years of experience in the fire apparatus market. Pierce Manufacturing has built and put into service more than 62,500 apparatus, including more than 33,900 on Pierce custom chassis designed and built specifically for fire and emergency applications. Our Appleton, Wisconsin facility has over 870,000 total square feet of floor space situated on approximately 105 acres of land. Our Bradenton, Florida facility has 300,000 square feet of floor space situated on approximately 38 acres of land. Our beliefs in high ethical standards are carried through in all of our commitments and to everyone with whom we do business. Honesty, Integrity, Accountability and Citizenship are global tenets by which we all live and work. Consequently, we neither engage in, nor have we ever been convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market. Pierce has only one brand of fire apparatus "Pierce", ensuring you are receiving top of the line product that meets your specification. In accordance with the current edition of NFPA 1901 standards, this proposal will specify whether the fire department, manufacturer, or apparatus dealership will provide required loose equipment. Images and illustrative material in this proposal are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment. GENERAL DESIGN AND CONSTRUCTION To control quality, ensure compatibility, and provide a single source for service and warranty, the custom cab, chassis, pump module and body will be entirely designed, assembled/welded and painted in Pierce owned manufacturing facilities. This includes, but not limited to the cab weldment, the pumphouse module assembly, the chassis assembly, the body and the electrical system. QUALITY AND WORKMANSHIP Pierce has set the pace for quality and workmanship in the fire apparatus field. Our tradition of building the highest quality units with craftsmen second to none has been the rule right from the beginning and we demonstrate that ongoing commitment by: Ensuring all steel welding follows American Welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding follows American Welding society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding follows American welding Society B2.1-2000 requirements for structural welding of sheet metal. Our flux core arc welding uses alloy rods, type 7000 and is performed to American Welding Society standards A5.20-E70T1. Furthermore, all employees classified as welders are tested and certified to meet the American welding Society codes upon hire and every three (3) years thereafter. Pierce also employs and American Welding Society certified welding inspector in plant during working hours to monitor weld quality. Pierce Manufacturing operates a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International Organization for Standardization (ISO) specify the quality systems that are established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance is included with this proposal. In addition to the Quality Management system, we also employ a Quality Achievement Supplier program to insure the vendors and suppliers that we utilize meet the high standards we demand. That is just part of our overall "Quality at the Source" program at Pierce. To demonstrate the quality of our products and services, a list of at least twenty (20) fire departments/municipalities that have purchased vehicles for a second time is provided. DELIVERY The apparatus will be delivered under its own power to insure proper break-in of all components while the apparatus is still under warranty. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered. MANUAL AND SERVICE INFORMATION At time of delivery, complete operation and maintenance manuals covering the apparatus will be provided. A permanent plate will be mounted in the driver's compartment specifying the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle. SAFETY VIDEO At the time of delivery Pierce will also provide one (1) 39-minute, professionally produced apparatus safety video, in DVD format. This video will address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus, including the following: vehicle pre-trip inspection, chassis operation, pump operation, aerial operation, and safety during maintenance. PERFORMANCE TESTS A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat. The transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration

or noise. The apparatus when fully loaded will not have less than 25 percent nor more than 50 percent on the front axle, and not less than 50 percent nor more than 75 percent on the rear axle. The apparatus will meet NFPA1901 acceleration and braking requirements.

SERVICE AND WARRANTY SUPPORT

Pierce dealership support will be provided by GSEVS by operating a Pierce authorized service center. The service center will have factory-trained mechanics on staff versed in Pierce fire apparatus. The service facility will be located within one hundred fifty (150) miles of the fire department.

In addition to the dealership, Pierce has service facilities located in both, Weyauwega, Wisconsin and Bradenton, Florida. Pierce also maintains a dedicated parts facility of over 100,000 square feet in Appleton, Wisconsin. The parts facility stocks in excess of \$5,000,000 in parts dedicated to service and replacement parts. The parts facility employs a staff dedicated solely for the distribution and shipment of service and replacement parts.

Service parts for the apparatus being proposed can be found via Pierceparts.com which, is an interactive online tool that delivers information regarding your specific apparatus as well as the opportunity to register for training classes.

As a Pierce customer you have the ability to view the complete bill of materials for your specific apparatus, including assembly drawings, piece part drawings, and beneficial parts notations. You will also have the ability to search the complete Pierce item master through a parts search function which offers all Pierce SKU's and descriptions offered on all Pierce apparatus. Published component catalogs, which include proprietary systems along with an extensive operators manual library is available for easy reference.

Pierce Manufacturing maintains a dedicated service and warranty staff of over 35 personnel, dedicated to customer support, which also maintains a 24 hour 7 day a week toll free hot line, four (4) on staff EVTs, and offers hands-on repair and maintenance training classes multiple times a year.

LIABILITY

The successful bidder will defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract.

INSURANCE PROVIDED BY BIDDER

COMMERCIAL GENERAL LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

Each Occurrence \$1,000,000

Products/Completed Operations Aggregate \$1,000,000

Personal and Advertising Injury \$1,000,000

General Aggregate \$2,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form and will include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy will include Owner as an additional insured when required by written contract.

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The successful bidder will, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage will be written on a Commercial Automobile liability form:

Each Accident Combined Single Limit: \$1,000,000

UMBRELLA/EXCESS LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate: \$3,000,000

Each Occurrence: \$3,000,000

The umbrella policy will be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as certificate holder.

INSURANCE PROVIDED BY MANUFACTURER

PRODUCT LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance:

Each Occurrence \$1,000,000

Products/Completed Operations Aggregate \$1,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form. The manufacturer's policy will include the owner as additional insured when required by written contract between the Owner and a Pierce authorized dealer.

UMBRELLA/EXCESS LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Each Occurrence: \$25,000,000

		Aggregate: \$25,000,000 The umbrella policy will be written on an occurrence basis and provide excess to the manufacturer's General Liability/Products policies. The required limits can be provided by one (1) or more policies provided all other insurance requirements are met. Coverage will be provided by a carrier(s) rated A- or better by A.M. Best. All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as the certificate holder.
0661794	Single Source Compliance	SINGLE SOURCE MANUFACTURER Pierce Manufacturing, Inc. provides an integrated approach to the design and manufacture of our products that delivers superior apparatus and a dedicated support team. From our facilities, the chassis, cab weldment, cab, pumphouse (including the sheet metal enclosure, valve controls, piping and operators panel) and body will be entirely designed, tested, and hand assembled to the customer's exact specifications. The electrical system either hardwired or multiplexed, will be both designed and integrated by Pierce Manufacturing. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) will be provided by Pierce as a single source manufacturer. Pierce's single source solution adds value by providing a fully engineered product that offers durability, reliability, maintainability, performance, and a high level of quality.
0584456	Manufacture Location, Appleton, Wisconsin	Your apparatus will be manufactured in Appleton, Wisconsin.
0584452	RFP Location: Appleton, Wisconsin	
0588609	Vehicle Destination, US	
0610784	Comply NFPA 1901 Changes Effective Jan 1, 2016, With Exceptions	NFPA 2016 STANDARDS This unit will comply with the NFPA standards effective January 1, 2016, except for fire department directed exceptions. These exceptions will be set forth in the Statement of Exceptions. Certification of slip resistance of all stepping, standing and walking surfaces will be supplied with delivery of the apparatus. All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points will be identified on the customer approval print and are shown as approximate. Actual location(s) will be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack. A plate that is highly visible to the driver while seated will be provided. This plate will show the overall height, length, and gross vehicle weight rating. The manufacturer will have programs in place for training, proficiency testing and performance for any staff involved with certifications. An official of the company will designate, in writing, who is qualified to witness and certify test results.
0533347	Pumper/Pumper with Aerial Device Fire Apparatus	
0588611	Vehicle Certification, Pumper	
0661778	Agency, Apparatus Certification, Pumper/Tanker, U.L.	NFPA COMPLIANCY Apparatus proposed by the bidder will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Fire department's specifications that differ from NFPA specifications will be indicated in the proposal as "non-NFPA". PUMP TEST Underwriters Laboratory (UL) will test, approved, and certify the pump. The test results and the pump manufacturer's certification of hydrostatic test; the engine manufacturer's certified brake horsepower curve; and the pump manufacturer's record of pump construction details will be forwarded to the Fire Department. GENERATOR TEST If the unit has a generator, Underwriters Laboratory (UL) will test, approved, and certify the generator. The test results will be provided to the Fire Department at the time of delivery. BREATHING AIR TEST If the unit has breathing air, Pierce Manufacturing will draw an air sample from the air system and have the sample certified that the air quality meets the requirements of NFPA 1989, <i>Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection</i>.

0891947	Certification, Vehicle Inspection Program, NFPA 1901	VEHICLE INSPECTION PROGRAM CERTIFICATION To assure the vehicle is built to current NFPA1901 standards, the apparatus, in its entirety, will be third-party, independent, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition. The certification includes: all design, production, operational, and performance testing of not only the apparatus, but those components that are installed on the apparatus. A placard will be affixed in the driver's side area stating the third party agency, the date, the standard and the certificate number of the whole vehicle audit.
0766110	Consortium, Sourcewell	
0537375	Unit of Measure, US Gallons	
0030006	Bid Bond Not Requested	BID BOND NOT REQUESTED A bid bond will not be included. If requested, the following will apply: All bidders will provide a bid bond as security for the bid in the form of a 5% bid bond to accompany their bid. This bid bond will be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond will be issued by an authorized representative of the Surety Company and will be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond will include language, which assures that the bidder/principal will give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract. Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.
0582800	Performance Bond, 100% with 25% Warranty Bond, 1 Yr, and Payment Bond	PERFORMANCE BOND, 1 YEAR The successful bidder will furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond will be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required. Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Basic One (1) Year Limited Warranty period included within this proposal. Owner agrees that the penal amount of this bond will be simultaneously amended to 25 percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type will not exceed one (1) year from the date of such satisfactory acceptance and delivery, or the actual Basic One (1) Year Limited Warranty period, whichever is shorter.
0000007	Approval Drawing	APPROVAL DRAWING A drawing of the proposed apparatus will be prepared and provided to the purchaser for approval before construction begins. The Pierce sales representative will also be provided with a copy of the same drawing. The finalized and approved drawing will become part of the contract documents. This drawing will indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc. A "revised" approval drawing of the apparatus will be prepared and submitted by Pierce to the purchaser showing any changes made to the approval drawing.
0002928	Electrical Diagrams	ELECTRICAL WIRING DIAGRAMS Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.
0649754	Enforcer Chassis	ENFORCER CHASSIS The Pierce Enforcer™ is the custom chassis developed exclusively for the fire service. Chassis provided will be a new, tilt-type custom fire apparatus. The chassis will be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis will be designed and manufactured for heavy-duty service, with adequate strength, capacity for the intended load to be sustained, and the type of service required. The chassis will be the manufacturer's first line tilt cab.
0000110	Wheelbase	WHEELBASE The wheelbase of the vehicle will be 191.50.

0000070	GVW Rating	GVW RATING The gross vehicle weight rating will be 53,800#.
0729280	Frame Rails, 13.38 x 3.50 x .375, Enforcer	FRAME The chassis frame will be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails will have a 13.38" tall web over the front and mid sections of the chassis, with a continuous smooth taper to 10.75" over the rear axle. Each rail will have a section modulus of 25.992 cubic inches and a resisting bending moment (rbm) of 3,119,040 in-lb over the critical regions of the frame assembly, with a section modulus of 18.96 cubic inches with an rbm of 2,275,200 in-lb over the rear axle. The frame rails will be constructed of 120,000 psi yield strength heat-treated 0.38" thick steel with 3.50" wide flanges.
0020018	Frame Liner Not Req'd	
0629940	Axle, Front, Oshkosh TAK-4, Non Drive, 22,800 lb, Enforcer	FRONT NON DRIVE AXLE The Oshkosh TAK-4® front axle will be of the independent suspension design with a ground rating of 22,800 lb. Upper and lower control arms will be used on each side of the axle. Upper control arm castings will be made of 100,000-psi yield strength 8630 steel and the lower control arm casting will be made of 55,000-psi yield ductile iron. The center cross members and side plates will be constructed out of 80,000-psi yield strength steel. Each control arm will be mounted to the center section using elastomer bushings. These rubber bushings will rotate on low friction plain bearings and be lubricated for life. Each bushing will also have a flange end to absorb longitudinal impact loads, reducing noise and vibrations. There will be nine (9) grease fittings supplied, one (1) on each control arm pivot and one (1) on the steering gear extension. The upper control arm will be shorter than the lower arm so that wheel end geometry provides positive camber when deflected below rated load and negative camber above rated load. Camber at load will be zero degrees for optimum tire life. The ball joint bearing will be of low friction design and be maintenance free. Toe links that are adjustable for alignment of the wheel to the center of the chassis will be provided. The wheel ends will have little to no bump steer when the chassis encounters a hole or obstacle. The steering linkage will provide proper steering angles for the inside and outside wheel, based on the vehicle wheelbase. The axle will have a turning angle of up to 45 degrees.
0010427	Suspension, Front TAK-4, 22,800 lb, Qtm/AXT/Imp/Vel/DCF/Enf	FRONT SUSPENSION Front Oshkosh TAK-4™ independent suspension will be provided with a minimum ground rating of 22,800 lb. The independent suspension system will be designed to provide maximum ride comfort. The design will allow the vehicle to travel at highway speeds over improved road surfaces and at moderate speeds over rough terrain with minimal transfer of road shock and vibration to the vehicle's crew compartment. Each wheel will have torsion bar type spring. In addition, each front wheel end will also have energy absorbing jounce bumpers to prevent bottoming of the suspension. The suspension design will be such that there is at least 10.00" of total wheel travel and a minimum of 3.75" before suspension bottoms. The torsion bar anchor lock system allows for simple lean adjustments, without the use of shims. One can adjust for a lean within 15 minutes per side. Anchor adjustment design is such that it allows for ride height adjustment on each side. The independent suspension was put through a durability test that simulated 140,000 miles of inner city driving.
0087572	Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	FRONT SHOCK ABSORBERS KONI heavy-duty telescoping shock absorbers will be provided on the front suspension.
0000322	Oil Seals, Front Axle	FRONT OIL SEALS Oil seals with viewing window will be provided on the front axle.
0899438	Tires, Front, Goodyear, Armor MAX MSA, 425/65R22.50, 20 ply	FRONT TIRES Front tires will be Goodyear 425/65R22.50 radials, 20 ply Armor Max MSA, rated for 22,800 lb maximum axle load and 68 mph maximum speed.
0660547	Wheels, Front, Accuride, 22.50" x 12.25", Aluminum, Hub Pilot	The tires will be mounted on Accuride® 22.50" x 12.25" polished aluminum disc type wheels with a ten (10) stud, 11.25" bolt circle.
0530461	Axle, Rear, Meritor RS30-185, 31,000 lb, Saber/Enforcer	REAR AXLE The rear axle will be a Meritor™, Model RS-30-185, with a capacity of 31,000 lb.

0544253	Top Speed of Vehicle, 68 MPH	TOP SPEED OF VEHICLE A rear axle ratio will be furnished to allow the vehicle to reach a top speed of 68 mph.
0635109	Suspen, Rear, Single Slipper Spring, 31,000 lb, Saber FR/Enforcer	REAR SUSPENSION The rear suspension will be Standens, semi-elliptical, 3.00" wide x 53.00" long, 12-leaf pack with a ground rating of 31,000 lbs. The spring hangers will be castings. The two (2) top leaves will wrap the forward spring hanger pin, and the rear of the spring will be a slipper style end that will ride in a rear slipper hanger. To reduce bending stress due to acceleration and braking, the front eye will be a berlin eye that will place the front spring pin in the horizontal plane within the main leaf. A steel encased rubber bushing will be used in the spring eye. The steel encased rubber bushing will be maintenance free and require no lubrication.
0000485	Oil Seals, Rear Axle	REAR OIL SEALS Oil seals will be provided on the rear axle(s).
0585004	Tires, Rear, Goodyear, G289 WHA, 315/80R22.50, 20 ply, Single	REAR TIRES Rear tires will be four (4) Goodyear 315/80R22.50 radials with 20 ply G289 WHA tread, rated for 36,360 lb maximum axle load and 68 mph maximum speed.
0641529	Wheels, Rear, Accuride, 22.50" x 9.00", Aluminum, Hub Pilot, Single	The tires will be mounted on Accuride® 22.50" x 9.00" polished aluminum disc wheels with a ten (10) stud, 11.25" bolt circle.
0568081	Tire Balancing, Counteract Beads	TIRE BALANCE All tires will be balanced with Counteract balancing beads. The beads will be inserted into the tire and eliminate the need for wheel weights.
0688595	Tire Pressure Monitoring System, Not Required With Crossfire Monitoring System	
0003245	Axle Hub Covers w/center hole, S/S, Front Axle	FRONT HUB COVERS Stainless steel hub covers will be provided on the front axle. An oil level viewing window will be provided.
0531133	Axle Hub Covers, Rear, S/S, High Hat, Real Wheel (Pair)	HUB COVERS (rear) A pair of stainless steel high hat hub covers will be provided on rear axle hubs. The covers will be manufactured by Real Wheels, Inc, and will come with the standard warranty.
0057936	Covers, Lug Nut, Chrome	CHROME LUG NUT COVERS Chrome lug nut covers will be supplied on front and rear wheels.
0002045	Mud Flap, Front and Rear, Pierce Logo	MUD FLAPS Mud flaps with a Pierce logo will be installed behind the front and rear wheels.
0011930	Tire, "Crossfire" Air Pressure Equalization	AIR PRESSURE TIRE EQUALIZATION A Crossfire air pressure equalization system will be provided on the rear dual wheels. This system will equalize the tire air pressure in the rear duals and indicate over or under inflation.
0544802	Chocks, Wheel, SAC-44-E, Folding	WHEEL CHOCKS There will be one (1) pair of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks, with easy-grip handle provided.
0544806	Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal	Wheel Chock Brackets There will be one (1) pair of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets will be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets will be mounted forward of the left side rear tire below compartment LS3.

0010670	ABS Wabco Brake System, Single rear axle	ANTI-LOCK BRAKE SYSTEM The vehicle will be equipped with a Meritor WABCO 4S4M, anti-lock braking system. The ABS will provide a 4-channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology will control the anti-lock braking system. Each wheel will be monitored by the system. When any particular wheel begins to lockup, a signal will be sent to the control unit. This control unit then will reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system will eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.
0030185	Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	BRAKES The service brake system will be full air type. The front brakes will be Knorr/Bendix disc type with a 17.00" ventilated rotor for improved stopping distance. The brake system will be certified, third party inspected, for improved stopping distance.
0803729	Brakes, Meritor, Cam, Rear, 16.50 x 8.63"	The rear brakes will be Meritor™ 16.50" x 8.63" cam operated with automatic slack adjusters. Dust shields cannot be provided.
0731553	Air Compressor, Brake, Cummins/Wabco 25.9 CFM	BRAKE SYSTEM AIR COMPRESSOR The air compressor will be a Cummins/WABCO with 25.9 cubic feet per minute output.
0637584	Brake Reservoirs, 5,376 Cubic Inch Minimum Capacity, Saber FR/Enforcer	BRAKE SYSTEM The brake system will include: Brake treadle valve Heated automatic moisture ejector on air dryer Total air system minimum capacity of 5,376 cubic inches Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi Spring set parking brake system Parking brake operated by a push-pull style control valve A parking "brake on" indicator light on instrument panel Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, with an automatic spring brake application at 40 psi A pressure protection valve to prevent all air operated accessories from drawing air from the air system when the system pressure drops below 80 psi (550 kPa) 1/4 turn drain valves on each air tank The air tank will be primed and painted to meet a minimum 750 hour salt spray test. To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.
0568012	Air Dryer, Wabco System Saver 1200, Heater, 2010	BRAKE SYSTEM AIR DRYER The air dryer will be WABCO System Saver 1200 with spin-on coalescing filter cartridge and 100 watt heater.
0000790	Brake Lines, Nylon	BRAKE LINES Color-coded nylon brake lines will be provided. The lines will be wrapped in a heat protective loom in the chassis areas that are subject to excessive heat.
0000854	Air Inlet, w/Disconnect Coupling	AIR INLET One (1) air inlet with 3D series male coupling will be provided. It will allow station air to be supplied to the apparatus brake system through a shoreline hose. The inlet will be located forward in the driver side lower step well of cab. A check valve will be provided to prevent reverse flow of air. The inlet will discharge into the "wet" tank of the brake system. A mating female fitting will also be provided with the loose equipment.
0675244	All Wheel Lock-up, Single Prk Brk Control	ALL WHEEL LOCK-UP An all wheel lock-up system will be installed which will apply air to the front brakes and use the spring brake at the rear. Front brakes will apply when standard rear parking brake control valve is activated.

0736410	Engine, Cummins X12, 500 hp, 1700 lb-ft, W/OBD, EPA 2021, Enforcer	ENGINE The chassis will be powered by an electronically controlled engine as described below: Make: Cummins Model: X12 Power: 500 hp at 1900 rpm Torque: 1700 lb-ft at 1000 rpm Governed Speed: 2000 rpm Emissions Level: EPA 2021 Fuel: Diesel Cylinders: Six (6) Displacement: 729 cubic inches (11.9L) Starter: Delco 39MT™ Fuel Filters: Spin-on style primary filter with water separator and water-in-fuel sensor. Secondary spin-on style filter. The engine will include On-board diagnostics (OBD), which provides self diagnostic and reporting. The system will give the owner or repair technician access to state of health information for various vehicle sub systems. The system will monitor vehicle systems, engine and after treatment. The system will illuminate a malfunction indicator light on the dash console if a problem is detected.
0730962	Filters, Remote Mounted, Oil, Fuel, X12, VEL/AXT, ENF, QTM	REMOTE MOUNTED ENGINE FILTERS The engine fuel and oil filters will be remote mounted for ease of maintenance.
0001244	High Idle w/Electronic Engine, Custom	HIGH IDLE A high idle switch will be provided, inside the cab, on the instrument panel, that will automatically maintain a preset engine rpm. A switch will be installed, at the cab instrument panel, for activation/deactivation. The high idle will be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light will be provided, adjacent to the switch. The light will illuminate when the above conditions are met. The light will be labeled "OK to Engage High Idle."
0687994	Engine Brake, Jacobs Compression Brake, Cummins Engine	ENGINE BRAKE A Jacobs® engine brake is to be installed with the controls located on the instrument panel within easy reach of the driver. The driver will be able to turn the engine brake system on/off and have a high, medium and low setting. The engine brake will activate when the system is on and the throttle is released. The high setting of the brake application will activate and work simultaneously with the variable geometry turbo (VGT) provided on the engine. The engine brake will be installed in such a manner that when the engine brake is slowing the vehicle the brake lights are activated. The ABS system will automatically disengage the auxiliary braking device, when required.
0644227	Clutch, Fan, Air Actuated, Saber FR/Enforcer	CLUTCH FAN A fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and constantly engaged when in "Pump" position.
0644573	Air Intake, Water & Ember Screen, Saber FR/Enforcer	ENGINE AIR INTAKE The engine air intake will be located above the engine cooling package. It will draw fresh air from the front of the apparatus through the radiator grille. The ember separator is designed to prevent road dirt and recirculating hot air from entering the engine. The ember separator will be easily accessible by tilting the cab.
0794743	Exhaust System, 5", X12/X15, MX13, Engine, Horizontal, Right Side	EXHAUST SYSTEM The exhaust system will include a Single Module™ aftertreatment device to meet current EPA standards. The exhaust system will be stainless steel from the turbo to the inlet of the aftertreatment device, and will be 5.00" in diameter. An insulation wrap will be provided on all exhaust pipes between the turbo and aftertreatment device to minimize the heat loss to the aftertreatment device. The exhaust will terminate horizontally ahead of the right side rear wheels. A tailpipe diffuser will be provided to reduce the temperature of the exhaust as it exits. Heat deflector shields will be provided to isolate chassis and body components from the heat of the tailpipe diffuser.

0683310	Diffuser, Exhaust, Modified For Extraction, 5"x7"x5", Flush With Rub Rail, CARE	EXHAUST MODIFICATION The exhaust pipe will be 90 degrees to the body. The diffuser will be reduced to 5.00" in the center to accommodate the fire department's air recovery system. The 5.00" extension pipe coming out of the end of the diffuser will be flush with the body rub rail. There will be a minimum of 4.00" clearance between the top of the 5.00" extension and the bottom of the body. There will be a minimum of 2.50" from the exhaust pipe to the under side of the body heat shield. The last 7.00" of the exhaust will be free of hangers and/or clamps.
0788765	Radiator, Saber FR/Enforcer	RADIATOR The radiator and the complete cooling system will meet or exceed NFPA and engine manufacturer cooling system standards. For maximum corrosion resistance and cooling performance, the entire radiator core will be constructed using long life aluminum alloy. The radiator core will consist of aluminum fins, having a serpentine design, brazed to aluminum tubes. The radiator core will have a minimum front area of 1060 square inches. Supply tank will be made of heavy duty glass-reinforced nylon and the return tank will be made of aluminum. Both tanks will be crimped onto the core assembly using header tabs and a compression gasket to complete the radiator core assembly. There will be a full steel frame around the inserts to enhance cooling system durability and reliability. The radiator will be compatible with commercial antifreeze solutions. The radiator assembly will be isolated from the chassis frame rails with rubber isolators to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven terrain. The radiator will include a de-aeration/expansion tank. For visual coolant level inspection, the radiator will have a built-in sight glass. The radiator will be equipped with a 15 psi pressure relief cap. A drain port will be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system. Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.
0001090	Cooling Hoses, Rubber	COOLANT LINES Gates, or Goodyear, rubber hose will be used for all engine coolant lines installed by Pierce Manufacturing. Hose clamps will be stainless steel constant torque type to prevent coolant leakage. They will expand and contract according to coolant system temperature thereby keeping a constant clamping pressure on the hose.
0001125	Fuel Tank, 65 Gallon, Left Side Fill	FUEL TANK A 65 gallon fuel tank will be provided and mounted at the rear of the chassis. The tank will be constructed of 12-gauge, hot rolled steel. It will be equipped with swash partitions and a vent. To eliminate the effects of corrosion, the fuel tank will be mounted with stainless steel straps. A 0.75" drain plug will be located in a low point of the tank for drainage. A fill inlet will be located on the left hand side of the body and is covered with a hinged, spring loaded, stainless steel door that is marked "Ultra Low Sulfur - Diesel Fuel Only." A 0.50" diameter vent will be installed from tank top to just below fuel fill inlet. The fuel tank will meet all FHWA 393.67 requirements including a fill capacity of 95 percent of tank volume.
0001129	Lines, Fuel	All fuel lines will be provided as recommended by the engine manufacturer.
0758657	DEF Tank, 8.0 Gallon, LS Fill, Rear of Rear Axle, Common Door	DIESEL EXHAUST FLUID TANK An 8.0 gallon diesel exhaust fluid (DEF) tank will be provided and mounted in the driver's side body rearward of the rear axle. A 0.50" drain plug will be provided in a low point of the tank for drainage. A fill inlet will be provided and marked "Diesel Exhaust Fluid Only". The fill inlet will be located adjacent to the engine fuel inlet behind a common hinged, spring loaded, painted door on the left side of the vehicle. The tank will meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing. The tank will include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.
0723716	Fuel Priming Pump, Electronic, Automatic, Cummins, No Swt Req'd	FUEL PRIMING PUMP A Cummins automatic electronic fuel priming pump will be integrated as part of the engine.
0552712	Not Required, Shutoff Valve, Fuel Line	
0553019	Cooler, Engine Fuel, Imp/Vel, AXT/Qtm/Sab/DCF/SFR/Enf	FUEL COOLER An air to fuel cooler will be installed in the engine fuel return line.

0578959	Fuel/Water Separator, Racor Inline	FUEL SEPARATOR The engine will be equipped with a Racor in-line spin-on fuel and water separator in addition to the engine fuel filters.
0801886	Trans, Allison 6th Gen, 4500 EVS P, Imp/Vel/Enf	TRANSMISSION An Allison 6th generation, Model EVS 4500P, electronic, torque converting, automatic transmission will be provided. Two (2) PTO openings will be located on left side and top of converter housing (positions 8 o'clock and 1 o'clock). A transmission temperature gauge with red light and buzzer will be installed on the cab instrument panel.
0632720	SP Transmission, Shifter, 6-Spd, T-Handle, 4500 EVS	
0684459	Transmission Oil Cooler, Modine, External	TRANSMISSION COOLER A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.
0801876	Fluid, 4000 Series Trans, Allison Approved TES-668 Synthetic, IPOS, Custom	TRANSMISSION FLUID The transmission will be provided with TranSynd, or other Allison approved TES-668 heavy duty synthetic transmission fluid.
0001375	Driveline, Spicer 1810	DRIVELINE Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1810 universal joints. The shafts will be dynamically balanced before installation. A splined slip joint will be provided in each driveshaft where the driveline design requires it. The slip joint will be coated with Glidecoat® or equivalent.
0669988	Steering, Sheppard M110 w/Tilt, TAK-4, Eaton Pump, w/Cooler	STEERING Dual Sheppard, Model M110, steering gears, with integral heavy-duty power steering, will be provided. For reduced system temperatures, the power steering will incorporate an air to oil cooler and an Eaton, Model VN20, hydraulic pump with integral pressure and flow control. All power steering lines will have wire braded lines with crimped fittings. A tilt and telescopic steering column will be provided to improve fit for a broader range of driver configurations.
0605356	Steering Wheel, 4 Spoke without Controls, Saber FR/Enforcer	STEERING WHEEL The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 4-spoke design.
0690274	Logo/Emblem, on Dash	LOGO AND CUSTOMER DESIGNATION ON DASH The dash panel will have an emblem containing the Pierce logo and customer name. The emblem will have three (3) rows of text for the customer's department name. There will be a maximum of eight (8) characters in the first row, 11 characters in the second row and 11 characters in the third row. The first row of text will be: SEASIDE The second row of text will be: FIRE The third row of text will be: BLANK
0606557	Bumper, 13" Extended, Saber FR/Enforcer	BUMPER A one (1) piece, ten (10) gauge, 304-2B type polished stainless steel bumper, minimum of 10.00" high, will be attached to a bolted modular extension frame constructed of 50,000 psi tensile steel "C" channel mounted directly behind it to provide adequate support strength. The bumper will be extended 13.00" from front face of cab. Gravel Pan A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and cab face. The gravel pan will be properly supported from the underside to prevent flexing and vibration of the aluminum treadplate.
0639017	Tray, Hose, Center, 13" Bumper, Outside Air Horns	CENTER HOSE TRAY A hose tray, constructed of aluminum, will be placed in the center of the bumper extension. The tray will have a capacity of 75' of 1.50" double jacket cotton-polyester hose. Black rubber grating will be provided at the bottom of the tray. Drain holes are also provided.
0624826	Hose Restraint, Bumper Tray, 2.00" Straps, Fasteners, Pair	Center Hose Tray Restraint There will be one (1) pair of hose tray restraint straps located over the center mounted tray. The restraints will be 2.00" wide black nylon straps with seat belt buckle fasteners provided. The straps will be used to secure the hose in the tray.

0614646	No Lift & Tow Package, Imp/Vel, AXT, SFR/Enf	
0002270	Tow Hooks, Chrome	TOW HOOKS Two (2) chromed steel tow hooks will be installed under the bumper and attached to the front frame members. The tow hooks will be designed and positioned to allow up to a 6,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow hooks will not be used for lifting of the apparatus.
0648332	Cab, Enforcer, 7010	CAB The Enforcer cab will be designed specifically for the fire service and manufactured by the chassis builder. The cab will be built by the apparatus manufacturer in a facility located on the manufacturer's premises. For reasons of structural integrity and enhanced occupant protection, the cab will be a heavy duty design, constructed to the following minimal standards. The cab will have 12 main vertical structural members located in the A-pillar (front cab corner posts), B-pillar (side center posts), C-pillar (rear corner posts), and rear wall areas. The A-pillar will be constructed of solid A356-T5 aluminum castings. The B-pillar and C-pillar will be constructed from 0.13" wall extrusions. The rear wall will be constructed of two (2) 2.00" x 2.00" outer aluminum extrusions and two (2) 2.00" x 1.00" inner aluminum extrusions. All main vertical structural members will run from the floor to 4.625" x 3.864" x 0.090" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.25" thick corner casting at each of the front corners of the roof assembly. The front of the cab will be constructed of a 0.13" firewall plate, covered with a 0.090" front skin (for a total thickness of 0.22"), and reinforced with a full width x 0.50" thick cross-cab support located just below the windshield and fully welded to the engine tunnel. The cross-cab support will run the full width of the cab and weld to each A-pillar, the 0.13" firewall plate, and the front skin. The cab floors will be constructed of 0.125" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.375" of structural material at the front floor area. The front floor area will also be supported with two (2) triangular 0.30" wall extrusions that also provides the mounting point for the cab lift. This tubing will run from the floor wireway of the cab to the engine tunnel side plates, creating the structure to support the forces created when lifting the cab. The cab will be 96.00" wide (outside door skin to outside door skin) to maintain maximum maneuverability. The forward cab section will have an overall height (from the cab roof to the ground) of approximately 99.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of approximately 109.00". The overall height listed will be calculated based on a truck configuration with the lowest suspension weight rating, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension will increase the overall height listed. The floor to ceiling height inside the crew cab will be 64.50" in the center and outboard positions. The crew cab floor will measure 46.00" from the rear wall to the back side of the rear facing seat risers. The medium block engine tunnel, at the rearward highest point (knee level), will measure 61.50" to the rear wall. The big block engine tunnel will measure 51.50" to the rear wall. The crew cab will be a totally enclosed design with the interior area completely open to improve visibility and verbal communication between the occupants. The cab will be a full tilt cab style. A 3-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab. CAB ROOF DRIP RAIL For enhanced protection from inclement weather, a drip rail will be furnished on the sides of the cab. The drip rail will be painted to match the cab roof, and bonded to the sides of the cab. The drip rail will extend the full length of the cab roof. INTERIOR CAB INSULATION The cab will include 1.00" insulation in the ceiling, 1.50" insulation in the side walls, and 2.00" insulation in the rear wall to maximize acoustic absorption and thermal insulation. FENDER LINERS Full circular inner fender liners in the wheel wells will be provided. PANORAMIC WINDSHIELD A one (1)-piece safety glass windshield will be provided with over 2,775 square inches of clear viewing area. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: outer light, middle safety laminate, and inner light. The outer light layer will provide superior chip resistance. The middle safety laminate layer will prevent the windshield glass pieces from detaching in the event of breakage. The inner light will provide yet another chip resistant layer. The cab windshield will be bonded to the aluminum windshield frame using a urethane adhesive. A custom frit pattern will be applied on the outside perimeter of the windshield for a finished automotive appearance. WINDSHIELD WIPERS Three (3) electric windshield wipers with washer will be provided that meet FMVSS and SAE requirements. The washer reservoir will be able to be filled without raising the cab.

0747442	Engine Tunnel, X12, MX13, Enforcer	ENGINE TUNNEL Engine hood side walls will be constructed of 0.375" aluminum. The top will be constructed of 0.125" aluminum and will be tapered at the top to allow for more driver and passenger elbow room. The engine hood will be insulated for protection from heat and sound. The noise insulation keeps the dBA level within the limits stated in the current NFPA1901 standards. The engine tunnel will be no higher than 17.00" off the crew cab floor.
0633594	Rear Wall, Interior, Adjustable Seating	INTERIOR CREW CAB REAR WALL ADJUSTABLE SEATING (PATENT PENDING) The interior rear wall of the crew cab will have mounting holes every 2.75" to allow for adjustability of the forward facing crew cab seating along the rear wall. Seats will be adjustable with use of simple hand tools allowing departments flexibility of their seating arrangement should their department needs change.
0632103	Rear Wall, Exterior, Cab, Saber FR/Enforcer	CAB REAR WALL EXTERIOR COVERING The exterior surface of the rear wall of the cab will be overlaid with bright aluminum treadplate except for areas that are not typically visible when the cab is lowered.
0639727	Cab Lift, Elec/Hyd, Manual Override, Saber FR/Enforcer	CAB LIFT A hydraulic cab lift system will be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves. Hydraulic pump will have a manual override for backup in the event of electrical failure. Lift controls will be located on the right side pump panel or front area of the body in a convenient location. The cab will be capable of tilting 43 degrees to accommodate engine maintenance and removal. The cab will be locked down by a 2-point normally closed spring loaded hook type latch that fully engages after the cab has been lowered. The system will be hydraulically actuated to release the normally closed locks when the cab lift control is in the raised position and cab lift system is under pressure. When the cab is completely lowered and system pressure has been relieved, the spring loaded latch mechanisms will return to the normally closed and locked position. The hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position. For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the left side between the chassis and cab frame when the cab is in the raised position. This device will be manually stowed to its original position before the cab can be lowered. Cab Lift Interlock The cab lift system will be interlocked to the parking brake. The cab tilt mechanism will be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism will be disabled.
0695930	Grille, Bright Finished, Front of Cab, Enforcer	GRILLE A bright finished aluminum mesh grille screen, inserted behind a bright finished grille surround, will be provided on the front center of the cab.
0647932	Not Required, Trim, S/S Band, Across Cab Face, AXT/Dash CF/Saber/Enforcer	
0015440	No Chrome Molding, On side of cab	
0569263	Mirrors, Retractable, West Coast Style, Remote, w/Remote Convex	MIRRORS A Retractable Aerodynamic, Model 613295, dual vision, motorized, west coast style mirror with chrome finish will be mounted on each side of the front cab door with spring loaded retractable arms. The flat glass and convex glass will be adjustable with a remote control within reach of the driver.

0648170	Door, Half-Height, Saber FR/Enforcer 4-Door Cab, Raised Roof	DOORS To enhance entry and egress to the cab, the forward cab door openings will be a minimum of 37.50" wide x 63.37" high. The crew cab doors will be located on the sides of the cab and will be constructed in the same manner as the forward cab doors. The crew cab door openings will be a minimum of 34.30" wide x 73.25" high. The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.093". The exterior door skins will be constructed from 0.090" aluminum. A customized, vertical, pull-down type door handle will be provided on the exterior of each cab door. The finish of the door handle will be chrome/black. The exterior handle will be designed specifically for the fire service to prevent accidental activation, and will provide 4.00" wide x 2.00" deep hand clearance for ease of use with heavy gloved hands. Each door will also be provided with an interior flush, open style paddle handle that will be readily operable from fore and aft positions, and be designed to prevent accidental activation. The interior handles will provide 4.00" wide x 1.25" deep hand clearance for ease of use with heavy gloved hands. The cab doors will be provided with both interior (rotary knob) and exterior (keyed) locks exceeding FMVSS standards. The keys will be Model 751. The locks will be capable of activating when the doors are open or closed. The doors will remain locked if locks are activated when the doors are opened, then closed. A full length, heavy duty, stainless steel, piano-type hinge with a 0.38" pin and 11 gauge leaf will be provided on all cab doors. There will be double automotive-type rubber seals around the perimeter of the door framing and door edges to ensure a weather-tight fit. A chrome grab handle will be provided on the inside of each cab door for ease of entry. A red webbed grab handle will be installed on the crew cab door stop strap. The grab handles will be securely mounted. The bottom cab step at each cab door location will be located below the cab doors and will be exposed to the exterior of the cab.
0655543	Door Panel, Brushed Stainless Steel, Saber/Enforcer 4-Door Cab	Door Panels The inner cab door panels will be constructed out of brushed stainless steel.
0630636	Controls, Electric Roll-Up Windows, 4dr, 4 Driver Controls, Saber FR/Enforcer	ELECTRIC OPERATED CAB DOOR WINDOWS All four (4) cab doors will be equipped with electric operated windows with one (1) flush mounted automotive style switch on each door. The driver's door will have four (4) switches, one (1) to control each door window. Each switch will allow intermittent or auto down operation for ease of use. Auto down operation will be actuated by holding the window down switch for approximately 1 second.
0638310	Steps, 4-Door Cab, Saber FR/Enforcer	CAB STEPS The forward cab and crew cab access steps will be a full size two (2) step design to provide largest possible stepping surfaces for safe ingress and egress. The bottom steps will be designed with a grip pattern punched into bright aluminum treadplate material to provide support, slip resistance, and drainage. The bottom steps will be a bolt-in design to minimize repair costs should they need to be replaced. The forward cab steps will be a minimum 25.00" wide, and the crew cab steps will be 21.65" wide with a 10.00" minimum depth. The inside cab steps will not exceed 16.50" in height. The vertical surfaces of the step well will be aluminum treadplate.
0770200	Handrail, Exterior, Hansen, Knurled, Alum, LED Backlit, 4-Door Cab	CAB EXTERIOR HANDRAILS A Hansen knurled aluminum handrail will be provided adjacent to each cab and crew cab door opening to assist during cab ingress and egress. Each handrail will be provided with blue LED lights. The lights will be activated when the cab or crew cab doors are opened and when the parking light switch is activated and the parking brake is applied. The LED lights may be load managed.
0892638	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	STEP LIGHTS There will be six (6) white LED step lights with chrome housing installed for cab and crew cab access steps. One (1) light for the left access steps. Two (2) lights for the left side crew cab access steps. Two (2) lights for the right side crew cab access steps. One (1) light for the right side access step. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The lights will be activated when the battery switch is on and the adjacent door is opened.
0583698	Fenders, S/S on cab, Extra Wide, Saber/Enf	FENDER CROWNS Stainless steel fender crowns will be installed at the cab wheel openings.
0557023	Handrail, 10", Below Cab Windshield, Pair	HANDRAILS BELOW CAB WINDSHIELD A 10.00" long x 1.25" diameter handrail will be mounted below the front cab windshield, one (1) on each side. The handrails will be extruded aluminum with a ribbed design to provide a positive gripping surface.

0042105	No Windows, Side of Crew Cab	
0012090	Not Required, Windows, Front/Side of raised roof	
0779036	Windows, Rear CC, (2) 14.75" x 7.25", Saber FR/Enforcer	REAR WALL WINDOWS There will be two (2) windows, located one (1) each side, on the rear wall of the crew cab. The windows will measure 14.75" wide x 7.25" high.
0722796	Dash, Poly, Saber FR/Enforcer	CAB DASH The driver side dash, switch panel located to the right of the driver, and center console will be an easily removable high impact resistant polymer cover. The instrument gauge cluster will be surrounded with a high impact ABS plastic contoured to the same shape of the instrument gauge cluster. The officer side dash will be a flat top design with an upper beveled edge to provide easy maintenance and will be constructed out of aluminum and painted to match the cab interior.
0634206	Mounting Provisions, 1/4" Alum, Full Engine Tunnel, Saber FR/Enforcer	MOUNTING PLATE ON ENGINE TUNNEL Equipment installation provisions will be installed on the engine tunnel. A .25" smooth aluminum plate will be bolted to the top surface of the engine tunnel. The plate will follow the contour of the engine tunnel and will run the entire length of the engine tunnel. The plate will be spaced off the engine tunnel 1.00" to allow for wire routing below the plate. The mounting surface will be painted to match the cab interior.
0750824	Cab Interior, Vinyl Headliner, Saber FR/Enforcer, CARE	CAB INTERIOR The cab interior will be constructed of primarily metal (painted aluminum) to withstand the severe duty cycles of the fire service. The engine tunnel will be padded and covered, on the top and sides, with dark silver gray 36 ounce leather grain vinyl resistant to oil, grease, and mildew. For durability and ease of maintenance, the cab interior side walls will be painted aluminum. The rear wall will be painted aluminum. The headliner will be installed in both forward and rear cab sections. Headliner material will be vinyl. A sound barrier will be part of its composition. Material will be installed on an aluminum sheet and securely fastened to interior cab ceiling. The forward portion of the cab headliner will permit easy access for service of electrical wiring or other maintenance needs. All wiring will be placed in metal raceways. CAB INTERIOR UPHOLSTERY The cab interior upholstery will be 36 oz dark silver gray vinyl.
0753903	Cab Interior, Paint Color, Saber FR/Enforcer	CAB INTERIOR PAINT The cab interior metal surfaces, excluding the rear heater panels, will be painted fire smoke gray, vinyl texture paint. The rear heater panels will be painted black, vinyl textured paint.
0052100	Floor, Rubber Padded, Cab & Crew Cab, Saber/Enforcer	CAB FLOOR The cab and crew cab floor areas will be covered with Polydamp™ acoustical floor mat consisting of a black pyramid rubber facing and closed cell foam decoupler. The top surface of the material has a series of raised pyramid shapes evenly spaced, which offer a superior grip surface. Additionally, the material has a 0.25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels.

0722696	HVAC, Enforcer, CARE	DEFROST/AIR CONDITIONING SYSTEM A ceiling mounted combination heater, defroster and air conditioning system will be installed in the cab above the engine tunnel area. Cab Defroster A 54,000 BTU heater-defroster unit with 690 SCFM of air flow will be provided inside the cab. The heater-defrost will be installed in the forward portion of the cab ceiling. Air outlets will be strategically located in the cab header extrusion per the following: One (1) adjustable will be directed towards the left side cab window One (1) adjustable will be directed towards the right side cab window Six (6) fixed outlets will be directed at the windshield The defroster will be capable of clearing 98 percent of the windshield and side glass when tested under conditions where the cab has been cold soaked at 0 degrees Fahrenheit for 10 hours, and a 2 ounce per square inch layer of frost/ice has been able to build up on the exterior windshield. The defroster system will meet or exceed SAE J382 requirements. Cab/Crew Auxiliary Heater There will be one (1) 31,000 BTU auxiliary heater with 560 SCFM of air flow provided in the left side rear facing seat riser with a dual scroll blower. An aluminum plenum incorporated into the cab structure used to transfer heat to the forward left side position. Air Conditioning A condenser will be a 59,644 BTU output that meets and exceeds the performance specification will be mounted on the radiator. The air conditioning system will be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 75 degrees Fahrenheit at 50 percent relative humidity within 30 minutes. The cooling performance test will be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of 4 hours. The evaporator unit will be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator will include one (1) high performance heating core, one (1) high performance cooling core with (1) plenum directed to the front and one (1) plenum directed to the rear of the cab. The rear plenum will be covered with a formed plastic cover. The evaporator unit will have a 52,000 BTU at 690 SCFM rating that meets and exceeds the performance specifications. Adjustable air outlets will be strategically located on the forward plenum cover per the following: Four (4) will be directed towards the seating position on the left side of the cab Four (4) will be directed towards the seating position on the right side of the cab Adjustable air outlets will be strategically located on the rear plenum cover per the following: Minimum of five (5) will be directed towards crew cab area A high efficiency particulate air (HEPA) filter will be included for the system. Access to the filter cover will be hinged with two (2) thumb latches. The air conditioner refrigerant will be R-134A and will be installed by a certified technician. Climate Control An automotive style controller will be provided to control the heat and air conditioning system within the cab. The controller will have three (3) functional knobs for fan speed, temperature, and air flow distribution (front to rear) control. The system will control the temperature of the cab and crew cab automatically by pushing the center of the fan speed control knob. Rotate the center temperature control knob to set the cab and crew cab temperature. The AC system will be manually activated by pushing the center of the temperature control knob. Pushing the center of the air flow distribution knob will engage the AC for max defrost, setting the fan speeds to 100 percent and directing all air flow to the overhead forward position. The system controller will be located within panel position #12. Gravity Drain Tubes Two (2) condensate drain tubes will be provided for the air conditioning evaporator. The drip pan will have two (2) drain tubes plumbed separately to allow for the condensate to exit the drip pan. No pumps will be provided.
0624005	Sun Visor, Vinyl/Fabric, AXT, Dash CF, Qtm, Saber FR/Enforcer	SUN VISORS There will be two (2) vinyl covered sun visors provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab. There will be a black plastic thumb latch provided to help secure each sun visor in the stowed position.
0622887	Grab Handles, Driver Door Post, Officer Door Post Low, Saber FR/Enforcer	GRAB HANDLE A black rubber covered grab handle will be mounted on the door post of the driver and officer's side cab door to assist in entering the cab. The officer's side grab handle will be mounted on the lower portion of the door post. The grab handle will be securely mounted to the post area between the door and windshield.
0583938	Lights, Engine Compt, Custom, Auto Sw, Wln 3SC0CDCR, 3" LED, Trim	ENGINE COMPARTMENT LIGHTS There will be one (1) Whelen, Model 3SC0CDCR, 12 volt DC, 3.00" white LED light(s) with Whelen, Model 3FLANGEC, chrome flange kit(s) installed under the cab to be used as engine compartment illumination. These light(s) will be activated automatically when the cab is raised.

0631830	Fluid Check Access, Saber FR/Enforcer, Arrow XT	ACCESS TO ENGINE DIPSTICKS For access to the engine oil and transmission fluid dipsticks, there will be a door on the engine tunnel, inside the crew cab. The door will be on the rear wall of the engine tunnel, on the vertical surface. The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling. The door will have a rubber seal for thermal and acoustic insulation. One (1) flush lift and turn latch will be provided on the access door.
0583042	Side Roll and Frontal Impact Protection	CAB SAFETY SYSTEM The cab will be provided with a safety system designed to protect occupants in the event of a side roll or frontal impact, and will include the following: A supplemental restraint system (SRS) sensor will be installed on a structural cab member behind the instrument panel. The SRS sensor will perform real time diagnostics of all critical subsystems and will record sensory inputs immediately before and during a side roll or frontal impact event. A slave SRS sensor will be installed in the cab to provide capacity for eight (8) crew cab seating positions. A fault-indicating light will be provided on the vehicle's instrument panel allowing the driver to monitor the operational status of the SRS system. A driver side front air bag will be mounted in the steering wheel and will be designed to protect the head and upper torso of the occupant, when used in combination with the 3-point seat belt. A passenger side knee bolster air bag will be mounted in the modesty panel below the dash panel and will be designed to protect the legs of the occupant, when used in combination with the 3-point seat belt. Air curtains will be provided in the outboard bolster of outboard seat backs to provide a cushion between occupant and the cab wall. Suspension seats will be provided with devices to retract them to the lowest travel position during a side roll or frontal impact event. Seat belts will be provided with pre-tensioners to remove slack from the seat belt during a side roll or frontal impact event. Frontal Impact Protection The SRS system will provide protection during a frontal or oblique impact event. The system will activate when the vehicle decelerates at a predetermined G force known to cause injury to the occupants. The cab and chassis will have been subjected, via third party test facility, to a crash impact during frontal and oblique impact testing. Testing included all major chassis and cab components such as mounting straps for fuel and air tanks, suspension mounts, front suspension components, rear suspensions components, frame rail cross members, engine and transmission and their mounts, pump house and mounts, frame extensions and body mounts. The testing provided configuration specific information used to optimize the timing for firing the safety restraint system. The sensor will activate the pyrotechnic devices when the correct crash algorithm, wave form, is detected. The SRS system will deploy the following components in the event of a frontal or oblique impact event: - Driver side front air bag - Passenger side knee bolster air bag - Air curtains mounted in the outboard bolster of outboard seat backs - Suspension seats will be retracted to the lowest travel position - Seat belts will be pre-tensioned to firmly hold the occupant in place Side Roll Protection The SRS system will provide protection during a fast or slow 90 degree roll to the side, in which the vehicle comes to rest on its side. The system will analyze the vehicle's angle and rate of roll to determine the optimal activation of the advanced occupant restraints. The SRS system will deploy the following components in the event of a side roll: - Air curtains mounted in the outboard bolster of outboard seat backs - Suspension seats will be retracted to the lowest travel position - Seat belts will be pre-tensioned to firmly hold the occupant in place
0622617	Seating Capacity, 6 Seats	SEATING CAPACITY The seating capacity in the cab will be six (6).
0766159	Seat, Driver, USSC, Valor, P1A, Air Ride, I-Back, Safety, Saber FR/Enforcer	DRIVER SEAT A USSC Valor air suspension I-back seat will be provided in the cab for the driver. For increased convenience, the seat will include a manual control to adjust the horizontal position (6.00" travel). To provide flexibility for multiple driver configurations, the seat will have a reclining back, adjustable from 15 degrees back to 15 degrees forward. The seat will include the following features incorporated into the side roll protection system: - Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position. - A suspension seat safety system will be included. When activated in the event of a side roll, this system will pretension the seat belt and retract the seat to its lowest travel position. Shipped loose with the seat will be no additional contaminant mitigation vinyl covers. The seat will be furnished with a 3-point, shoulder type seat belt.

0766079		Seat, Officer, USSC, Valor, P1A, Air Ride, I-Back, Safety, Saber FR/Enforcer	OFFICER SEAT A USSC, P1A, air suspension seat will be provided in the cab for the officer. For optimal comfort, the seat will be provided with 17.00" deep cushion. For increased convenience, the seat will include a manual control to adjust the height (3.00" travel) and horizontal position (4.25" travel). The seat back will be an I-Back style with an adjustable recline. The seat will include the following features incorporated into the side roll protection system: Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position. A suspension seat safety system will be included. When activated in the event of a side roll, this system will pretension the seat belt, then retract the seat to its lowest travel position. Shipped loose with the seat will be no additional contaminant mitigation vinyl covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0002517		Not Required, Radio Compartment	
0893909	SP	Cabinet, Rear Facing, LS, 26.75 W x 20 H x 23 D, Ext Acc Only, SFR/Enf	REAR FACING LEFT SIDE CABINET A rear facing cabinet will be provided in the crew cab at the left side outboard position. The cabinet will be 26.75" wide x 20.00" high x 23.00" deep. The cabinet will include no adjustable shelves or trays in the cabinet interior. The cabinet will include no louvers. The cabinet will provide access only from outside the cab with one (1) reverse hinged double pan door painted to match the cab exterior with a locking D-ring latch with #751 key. The door will be located on the side of the cab over the wheelwell. A pneumatic stay arm will be provided as a door stop. The clear door opening will be 17.00" wide x 17.50" high. The exterior access will be provided with a brushed stainless steel scuffplate on the lower door frame. The cabinet will be constructed of smooth aluminum and painted to match the cab interior. Cabinet Light There will be one (1) white LED strip light installed on the right side of the exterior cabinet door opening. The lighting will be controlled by an automatic door switch.
0102783		Not Required, Seat, Rr Facing C/C, Center	
0727359	SP	Cabinet, Rear Facing, RS, 26.75 W x 20 H x 22 D, Ext Acc Only, SFR/Enf	REAR FACING RIGHT SIDE CABINET A rear facing cabinet will be provided in the crew cab at the right side outboard position. The cabinet will be 26.75" wide x 20.00" high x 22.00" deep. The cabinet will include no adjustable shelves or trays in the cabinet interior. The cabinet will include no louvers. The cabinet will also provide access from outside the cab with one (1) reverse hinged double pan door painted to match the cab exterior with a locking D-ring latch with #751 key. A pneumatic stay arm will be provided as a door stop. The exterior clear door opening will be 17.00" wide x 17.50" high. The exterior access will be provided with a brushed stainless steel scuffplate on the lower door frame. The cabinet will be constructed of smooth aluminum, and painted to match the cab interior. Cabinet Light There will be one (1) white LED strip light installed on the left side of the exterior cabinet door opening. The lights will be controlled by an automatic door switch.
0757156		Seat, Forward Facing C/C, DS Outboard, USSC, Valor, I-Back, Foldup, Safety, SFR/Enf	FORWARD FACING LEFT SIDE OUTBOARD SEAT There will be one (1) forward facing, USSC Valor foldup seat provided at the driver side outboard position in the crew cab. For optimal comfort, and to maximize accessibility to the crew cab, the seat will be provided with 17.00" deep cushion. The seat back will be an I-back style with an adjustable recline angle. To ensure safe operation, the seat will be equipped with a sensor in the seat cushion and belt receptacle that will activate an alarm indicating the seat is occupied but not buckled. The seat will include the following features incorporated into the side roll protection system: Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position. A seat safety system will be included. When activated, this system will pretension the seat belt. The seat will be furnished with a 3-point, shoulder type seat belt. Shipped loose with the seat will be no additional contaminant mitigation vinyl covers.
0795034		Seat, Forward Facing C/C, Center, (2) USSC, Valor, SCBA, Safety, Saber FR/Enf	FORWARD FACING CENTER SEATS There will be two (2) forward facing, USSC Valor seats provided at the center position in the crew cab. For optimal comfort, the seats will be provided with a 15.00" deep foam cushion. The seat backs will be an SCBA style with 90 degree back. The SCBA cavity will be adjustable from front to rear in 0.75" increments to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will include the following features incorporated into the side roll protection system: A seat safety system will be included. When activated, this system will pretension the seat belt. The seats will be furnished with a 3-point, shoulder type seat belt. Shipped loose with the seats will be no additional contaminant mitigation vinyl covers.

0757157	Seat, Forward Facing C/C, PS Outboard, USSC, Valor, I-Back,Foldup,Safety,SFR/Enf	FORWARD FACING PASSENGER SIDE OUTBOARD SEAT There will be one (1) forward facing, USSC Valor foldup seat provided at the passenger side outboard position in the crew cab. For optimal comfort, the seat will be provided with a 17.00" deep cushion. The seat back will be an I-back style with an adjustable recline angle. The seat will include the following features incorporated into the side roll protection system: Side air curtain will be mounted integral to the outboard bolster of the seat back. The air curtain will be covered by a decorative panel when in the stowed position. A seat safety system will be included. When activated, this system will pretension the seat belt around the occupant to firmly hold them in place in the event of a side roll. Shipped loose with the seat will be no additional contaminant mitigation vinyl covers. The seat will be furnished with a 3-point, shoulder type seat belt.
0782746	Upholstery, Seats In Cab, All Vinyl, USSC, CARE	SEAT UPHOLSTERY All seat upholstery will be leather grain gray vinyl resistant to oil, grease and mildew. The cab will have six (6) seating positions.
0543991	Bracket, Air Bottle, Hands-Free II, Cab Seats	AIR BOTTLE HOLDERS All SCBA type seats in the cab will have a "Hands-Free" auto clamp style bracket in its backrest. For efficiency and convenience, the bracket will include an automatic spring clamp that allows the occupant to store the SCBA bottle by simply pushing it into the seat back. For protection of all occupants in the cab, in the event of an accident, the inertial components within the clamp will constrain the SCBA bottle in the seat and will exceed the NFPA standard of 9G. There will be a quantity of two (2) SCBA brackets.
0735335	Door, Access, Front, (1) Rear Facing Seat Risers, No Heater	ACCESS DOOR An access door will be provided in the front edge of the right side rear facing seat riser with a drop down door. The drop down door will be provided with a Southco C2 black powder coated raised trigger locking latch and painted to match the cab interior. There will be no louvers.
0603866	Seat Belt, Dual Retractor, ReadyReach, Saber FR/Enforcer	SEAT BELTS All cab and tiller cab (if applicable) seating positions will have red seat belts. To provide quick, easy use for occupants wearing bunker gear, the female buckle and seat belt webbing length will meet or exceed the current edition of NFPA 1901 and CAN/ULC - S515 standards. The 3-point shoulder type seat belts will include height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter. The 3-point shoulder type seat belts will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position. The 3-point shoulder type belts will also include the ReadyReach D-loop assembly to the shoulder belt system. The ReadyReach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location. Any flip up seats will include a 3-point shoulder type belts only. To ensure safe operation, the seats will be equipped with seat belt sensors in the seat cushion and belt receptacle that will activate an alarm indicating a seat is occupied but not buckled.
0602464	Helmet Storage, Provided by Fire Department, NFPA 2016	HELMET STORAGE PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, section 14.1.7.4.1 requires a location for helmet storage be provided. There is no helmet storage on the apparatus as manufactured. The fire department will provide a location for storage of helmets.
0647647	Lights, Dome, FRP Dual LED 4 Lts	CAB DOME LIGHTS There will be four (4) dual LED dome lights with grey bezels provided. Two (2) lights will be mounted above the inside shoulder of the driver and officer and two (2) lights will be installed and located, one (1) on each side of the crew cab. The color of the LED's will be red and white. The white LED's will be controlled by the door switches and the lens switch. The color LED's will be controlled by the lens switch. In order to ensure exceptional illumination, each white LED dome light will provide a minimum of 10.1 foot-candles (fc) covering an entire 20.00" x 20.00" square seating position when mounted 40.00" above the seat.
0896451	Enhanced Software for Cab and Crew Cab Dome Lts	ENHANCED SOFTWARE FOR CAB AND CREW CAB DOME LIGHTS The cab and crew cab dome lights will remain on for 10 seconds for improved visibility after the doors are closed. The dome lights will dim after 10 seconds or immediately if the vehicle's transmission is put into gear.
0602637	Portable Hand Light, Provided by Fire Dept, Pumper NFPA 2016 Classification	PORTABLE HAND LIGHTS, PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, section 5.9.4 requires two portable hand lights mounted in brackets fastened to the apparatus. The hand lights are not on the apparatus as manufactured. The fire department will provide and mount these hand lights.
0603606	Cab Instruments, Ivory Gauges,	CAB INSTRUMENTATION The cab instrument panel will include gauges, an LCD display, telltale indicator lamps, control

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

Gauges

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

Voltmeter gauge (volts):

Low volts (11.8 VDC)

Amber caution indicator on the information center with intermittent alarm

Amber caution light on gauge assembly

High volts (15.5 VDC)

Amber caution indicator on the information center with intermittent alarm

Amber caution light on gauge assembly

Very low volts (11.3 VDC)

Red warning indicator on the information center with a steady alarm

Amber caution light on gauge assembly

Very high volts (16.0 VDC)

Red warning indicator on the information center with a steady alarm

Amber caution light on gauge assembly

Engine Tachometer (RPM)

Speedometer MPH (Major Scale), KM/H (Minor Scale)

Fuel level gauge (Empty - Full in fractions):

Low fuel (1/8 full)

Amber caution indicator on the information center with intermittent alarm

Amber caution light on gauge assembly

Very low fuel (1/32 full)

Red caution indicator on the information center with steady alarm

Amber caution light on gauge assembly

Engine Oil pressure Gauge (PSI):

Low oil pressure to activate engine warning lights and alarms

Red caution indicator on the information center with steady alarm

Amber caution light on gauge assembly

Front Air Pressure Gauges (PSI):

Low air pressure to activate warning lights and alarm

Red warning indicator on the information center with a steady alarm

Amber caution light on gauge assembly

Rear Air Pressure Gauges (PSI):

Low air pressure to activate warning lights and alarm

Red warning indicator on the information center with a steady alarm

Amber caution light on gauge assembly

Transmission Oil Temperature Gauge (Fahrenheit):

High transmission oil temperature activates warning lights and alarm

Amber caution indicator on the information center with intermittent alarm

Amber caution light on gauge assembly

Engine Coolant Temperature Gauge (Fahrenheit):

High engine temperature activates an engine warning light and alarms

Amber caution indicator on the information center with intermittent alarm

Amber caution light on gauge assembly

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

Low fluid (1/8 full)

Amber indicator light in gauge dial

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

Indicator Lamps

To promote safety, the following telltale indicator lamps will be located on the instrument panel in clear view of the driver. The indicator lamps will be "dead-front" design that is only visible when active. The colored indicator lights will have descriptive text or symbols.

The following amber telltale lamps will be present:

Low coolant

Trac cntl (traction control) (where applicable)

Check engine

Check trans (check transmission)

Aux brake overheat (Auxiliary brake overheat)

Air rest (air restriction)

Caution (triangle symbol)

Water in fuel

DPF (engine diesel particulate filter regeneration)

Trailer ABS (where applicable)

Wait to start (where applicable)

HET (engine high exhaust temperature) (where applicable)

ABS (antilock brake system)

MIL (engine emissions system malfunction indicator lamp) (where applicable)

Side roll fault (where applicable)

Front air bag fault (where applicable)

The following red telltale lamps will be present:

Warning (stop sign symbol)

Seat belt

Parking brake

Stop engine

Rack down

The following green telltale lamps will be provided:

Left turn

Right turn

Battery on

The following blue telltale lamp will be provided:

High beam

Alarms

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

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

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

Indicator Lamp and Alarm Prove-Out

A system will be provided which automatically tests telltale indicator lights and alarms located on the cab instrument panel. Telltale indicators and alarms will perform prove-out at initial power-up to ensure proper performance.

Control Switches

For ease of use, the following controls will be provided immediately adjacent to the cab instrument panel within easy reach of the driver. All switches will have backlit labels for low light applications.

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

Panel back lighting intensity control switch: A three (3)-position momentary rocker switch will be provided. Pressing the top half of the switch, "Panel Up" increases the panel back lighting intensity and pressing the bottom half of the switch, "Panel Down" decreases the panel back lighting intensity. Pressing the half or bottom half of the switch several times will allow back lighting intensity to be gradually varied from minimum to maximum intensity level for ease of use.

Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will turn off and deactivate vehicle ignition. The second switch position will activate vehicle ignition and will perform prove-out on the telltale indicators and alarms for 3 to 5 seconds after the switch is turned on. A green indicator lamp is activated with vehicle ignition. The third momentary position will temporarily silence all active cab alarms. An alarm "chirp" may continue as long as alarm condition exists. Switching ignition to off position will terminate the alarm silence feature and reset function of cab alarm system.

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

Hazard switch will be provided on the instrument panel or on the steering column.

Heater, defroster, and air conditioning control panel.

Windshield wiper control will include low, high and intermittent modes.

Turn signal arm: A self-canceling turn signal with high beam headlight will be provided.

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

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

High idle engagement switch: A momentary rocker switch with integral indicator lamp will be provided. The switch will activate and deactivate the high idle function. The "OK To Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch will indicate when the high idle function is engaged.

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

Emergency switching will be controlled by multiple individual warning light switches for various groups or areas of emergency warning lights. An Emergency Master switch provided on the instrument panel that enables or disables all individual warning light switches is included.

An additional "Emergency Master" button will be provided on the lower left hand corner of the gauge panel to allow convenient control of the "Emergency Master" system from inside the driver's door when standing on the ground.

Custom Switch Panels

The design of cab instrumentation will allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There will be positions for up to four (4) switch panels in the lower instrument console and up to six (6) switch panels in the overhead visor console. All switches have backlit labels for low light conditions.

Diagnostic Panel

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

The diagnostic panel will include the following:

Engine diagnostic port

Transmission diagnostic port

ABS diagnostic port

Roll sensor diagnostic port

Command Zone USB diagnostic port

ABS diagnostic switch (blink codes flashed on ABS telltale indicator)

Diesel particulate filter regeneration switch (where applicable)

Diesel particulate filter regeneration inhibit switch (where applicable)

Cab LCD Display

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

		dedicated function. The upper left section will display the outside ambient temperature. The upper right section will display the following, along with other configuration specific information: Odometer Trip mileage PTO hours Fuel consumption Engine hours The bottom section will display INFO, CAUTION, and WARNING messages. Text messages will automatically activate to describe the cause of an audible caution or warning alarm. The LCD will be capable of displaying multiple text messages should more than one caution or warning condition exist.
0509511	Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	AIR RESTRICTION INDICATOR A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm will be provided.
0543751	Light, Do Not Move Apparatus	"DO NOT MOVE APPARATUS" INDICATOR A flashing red indicator light, located in the driving compartment, will be illuminated automatically per the current NFPA requirements. The light will be labeled "Do Not Move Apparatus If Light Is On." The same circuit that activates the Do Not Move Apparatus indicator will activate a steady tone alarm when the parking brake is released.
0509042	Messages, Open Dr/DNMT, Color Dsply,	DO NOT MOVE TRUCK MESSAGES Messages will be displayed on the Command Zone™, color display located within sight of the driver whenever the Do Not Move Truck light is active. The messages will designate the item or items not in the stowed for vehicle travel position (parking brake disengaged). The following messages will be displayed (where applicable): Do Not Move Truck DS Cab Door Open (Driver Side Cab Door Open) PS Cab Door Open (Passenger's Side Cab Door Open) DS Crew Cab Door Open (Driver Side Crew Cab Door Open) PS Crew Cab Door Open (Passenger's Side Crew Cab Door Open) DS Body Door Open (Driver Side Body Door Open) PS Body Door Open (Passenger's Side Body Door Open) Rear Body Door Open DS Ladder Rack Down (Driver Side Ladder Rack Down) PS Ladder Rack Down (Passenger Side Ladder Rack Down) Deck Gun Not Stowed Lt Tower Not Stowed (Light Tower Not Stowed) Fold Tank Not Stowed (Fold-A-Tank Not Stowed) Aerial Not Stowed (Aerial Device Not Stowed) Stabilizer Not Stowed Steps Not Stowed Handrail Not Stowed Any other device that is opened, extended, or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved will be displayed as a caution message after the parking brake is disengaged.
0611683	Switching, Cab Instrument Lower Console & Overhead, Membrane, Enforcer WiFi MUX	SWITCH PANELS The emergency light switch panel will have a master switch for ease of use plus individual switches for selective control. Each switch panel will contain eight (8) membrane-type switches each rated for one million (1,000,000) cycles. Panels containing less than eight (8) switch assignments will include non-functioning black appliques. The built-in switch panels will be located in the lower console or overhead console of the cab. Additional switch panel(s) will be located in the overhead position(s) above the windshield or in designated locations on the lower instrument panel layout. The switches will be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch will be illuminated white whenever back lighting is activated and illuminated green whenever the switch is active. An active illuminated switch will flash when interlock requirements are not met or device is actively being load managed. For ease of use, a two (2)-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch will be placed in the center of the switch. The label will allow light to pass through the letters for ease of use in low light conditions.
0802940	Wiper Control, 2-Speed with Intermittent, Saber FR/Enforcer	WIPER CONTROL Wiper control will consist of a two (2)-speed windshield wiper control with intermittent feature and windshield washer controls. The control will be located above the ignition switch.

0548004	Wiring, Spare, 15 A 12V DC 1st	SPARE CIRCUIT There will be two (2) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power The negative wire will be connected to ground Wires will be protected to 15 amps at 12 volts DC Power and ground will terminate officer side dash area Termination will be with heat shrinkable butt splicing Wires will be sized to 125 percent of the protection The circuit(s) may be load managed when the parking brake is set.
0548006	Wiring, Spare, 15 A 12V DC 2nd	SPARE CIRCUIT There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 15 amps at 12 volts DC. Power and ground will terminate driver side dash, officer side dash, one each between the center forward facing seats in a painted box attached to the rear wall. Termination will be with 15 amp, power point plug with rubber cover. Wires will be sized to 125 percent of the protection. This circuit(s) may be load managed when the parking brake is set.
0548007	Wiring, Spare, 15 A 12V DC 3rd	SPARE CIRCUIT There will be four (4) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 15 amps at 12 volts DC. Power and ground will terminate each seating position, leave loose with a 6' coil. Termination will be with heat shrinkable butt splicing. Wires will be sized to 125 percent of the protection. This circuit(s) may be load managed when the parking brake is set.
0548013	Wiring, Spare, 20 A 12V DC 2nd	SPARE CIRCUIT There will be seven (7) pair of wires, including a positive and a negative, installed on the apparatus. The above wires will have the following features: The positive wire will be connected directly to the battery power. The negative wire will be connected to ground. Wires will be protected to 20 amps at 12 volts DC. Power and ground will terminate forward upper area of each body compartment, leave loose with a 6' coil. Termination will be with 3/8" studs and plastic covers. Wires will be sized to 125 percent of the protection. This circuit(s) may be load managed when the parking brake is set.
0803875	Radio, AM/FM/WB, Jensen, Frt,Rear Aux In/Frt,Rear USB/Bluetooth	STEREO RADIO A Jensen, heavy duty AM/FM / Bluetooth / Weatherband stereo radio, with front and rear auxiliary input will be installed per instrument panel layout. There will be 5.25" speakers installed one (1) pair of 5.25" speakers in the cab and one (1) pair of 5.25" speakers in the crew cab. The antenna will be a roof-mounted rubber antenna located in an open space, on the cab roof. The following features will be included: - 180 watts max power output (45W x 4) - Bluetooth® streaming audio and controls (A2DP/AVRCP) with hands-free calling (HFP) - Electronic AM/FM tuner (US/Euro) - iPod®/iPhone® ready via USB - SiriusXM-Ready® - Seven-channel NOAA weatherband with S.A.M.E. technology - USB 2.0 for playback of MP3 & WMA audio files - RBDS with PTY search - Front and rear USB input - Front and rear AUX input
0615386	Vehicle Information Center, 7" Color Display, Touchscreen, MUX	INFORMATION CENTER An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing. The information center will have the following specifications: Operate in temperatures from -40 to 185 degrees Fahrenheit An Optical Gel will be placed between the LCD and protective lens Five weather resistant user interface switches Grey with black accents Sunlight Readable Linux operating system Minimum of 1000nits rated display Display can be changed to an available foreign language A LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area. Programmed to read US Customary

General Screen Design

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

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

An amber background/text color will indicate a caution condition

A red background/text color will indicate a warning condition

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

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

Home/Transit Screen

This screen will display the following:

Vehicle Mitigation (if equipped)

Water Level (if the water level system includes compatible communications to the information center)

Foam Level (if the foam level system includes compatible communications to the information center)

Seat Belt Monitoring Screen

Tire Pressure Monitoring (if equipped)

Digital Speedometer

Active Alarms

On Scene Screen

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

Battery Voltage

Fuel

Oil Pressure

Coolant Temperature

RPM

Water Level (if equipped)

Foam Level (if equipped)

Foam Concentration (if equipped)

Water Flow Rate (if equipped)

Water Used (if equipped)

Active Alarms

Virtual Buttons

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

Page Screen

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

Diagnostics

Faults

Listed by order of occurrence

Allows to sort by system

Interlock

Throttle Interlocks

Pump Interlocks (if equipped)

Aerial Interlocks (if equipped)

PTO Interlocks (if equipped)

Load Manager

A list of items to be load managed will be provided. The list will provide a description of the load. The lower the priority numbers the earlier the device will be shed should a low voltage condition occur.

The screen will indicate if a load has been shed (disabled) or not shed.

"At a glance" color features are utilized on this screen.

Systems

Command Zone

Module type and ID number

Module Version

Input or output number

Circuit number connected to that input or output

Status of the input or output

Power and Constant Current module diagnostic information

Foam (if equipped)

Pressure Controller (if equipped)

Generator Frequency (if equipped)

Live Data

General Truck Data

Maintenance

Engine oil and filter

Transmission oil and filter

Pump oil (if equipped)

Foam (if equipped)

Aerial (if equipped)

Setup

Clock Setup

Date & Time

12 or 24 hour format

Set time and date

Backlight

Daytime

Night time

Sensitivity

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

0734857

Collision Mitigation, HAAS Alert (R2V), HA5

COLLISION MITIGATION

There will be a HAAS Alert®, Model HA5 Responder-to-Vehicle (R2V) collision avoidance system provided on the apparatus. The HA5 cellular transponder module will be installed behind the cab windshield, as high and near to the center as practical, to allow clear visibility to the sky. The module dimensions are 5.40" long x 2.70" wide x 1.30" high, and operating temperature range is -40 degree C to 85 degree C.

The transponder will be connected to the vehicle's emergency master circuit and battery direct power and ground.

While responding with emergency lights on, the HA5 transponder sends alert messages via cellular network to motorists in the vicinity of the responding truck that are equipped with the WAZE app.

While on scene with emergency lights on, the HA5 transponder sends road hazard alerts to motorists in the vicinity of the truck that are equipped with the WAZE app.

The HA5 Responder-to-Vehicle (R2V) collision avoidance system will include the transponder and a 5 year cellular plan subscription.

Activation of the HAAS Alert system requires a representative of the customer to accept the End User License Agreement (EULA) via an on-line portal.

0606247	Vehicle Data Recorder w/CZ Display Seat Belt Monitor	VEHICLE DATA RECORDER There will be a vehicle data recorder (VDR) capable of reading and storing vehicle information provided. The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A USB cable can be used to connect the VDR to a laptop to retrieve required information. The program to download the information from the VDR will be available to download on-line. The vehicle data recorder will be capable of recording the following data via hardwired and/or CAN inputs: Vehicle Speed - MPH Acceleration - MPH/sec Deceleration - MPH/sec Engine Speed - RPM Engine Throttle Position - % of Full Throttle ABS Event - On/Off Seat Occupied Status - Yes/No by Position Seat Belt Buckled Status - Yes/No by Position Master Optical Warning Device Switch - On/Off Time - 24 Hour Time Date - Year/Month/Day Seat Belt Monitoring System A seat belt monitoring system (SBMS) will be provided on the Command Zone™ color display. The SBMS will be capable of monitoring up to 10 seating positions indicating the status of each seat position per the following: Seat Occupied & Buckled = Green LED indicator illuminated Seat Occupied & Unbuckled = Red LED indicator with audible alarm No Occupant & Buckled = Red LED indicator with audible alarm No Occupant & Unbuckled = No indicator and no alarm The seat belt monitoring screen will become active on the Command Zone color display when: The home screen is active: and there is any occupant seated but not buckled or any belt buckled with an occupant. and there are no other Do Not Move Apparatus conditions present. As soon as all Do Not Move Apparatus conditions are cleared, the SBMS will be activated. The SBMS will include an audible alarm that will warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.
0735006	Intercom, David Clark, 4-Pos, 2-Radio, (D,O,RPTT), 2obC, U3805	INTERCOM SYSTEM There will be a four (4) position David Clark, Model U3800, intercom system with single radio interface capability at the driver and officer positions and remote radio push to talk buttons located per switch panel layout. Two (2) crew cab outboard seats will have intercom only capability. The following components will be provided: One (1) U3805 Radio Cord Junction Module Two (2) U3815 Radio interface modules (Driver, Officer) Two (2) Remote Push To Talk Button Kits One (1) U3800 Master station (1 Crew) One (1) U3801 Remote headset intercom station (1 Crew) One (1) C3820 Power cord All necessary station cables and connectors
0637058	David Clark Universal Radio Interfaces Included with Single/Dual System	RADIO / INTERCOM INTERFACE INCLUDED All radio interfaced stations will have universal radio interfaces installed. The interface wiring will be routed within the cab to to be provided .
0597914	Headset, David Clark, H3442 Under Helmet, Flex Mic	UNDER THE HELMET HEADSET There will be four (4) under the helmet, headset(s) provided D, O, 2 C. Each David Clark, Model H3442, headset will feature: 5' Coiled cord Noise cancelling electric microphone Flexible microphone boom rotates 200 degrees for left or right dress Microphone on/off button Comfort Gel Earseals 23 dB noise reduction
0681408	Hangers For Headsets, NFPA, Each	HEADSET HANGERS There will be four (4) headset hanger(s) installed driver's seat, officer's seat, driver's side inboard forward facing seat and passenger's side inboard forward facing seat. The hanger(s) will meet NFPA 1901, Section 14.1.11, requirement for equipment mounting.
0687904	Antenna Mount, Custom Chassis, Cable Routed to Behind Officer Seat	RADIO ANTENNA MOUNT There will be two (2) standard 1.125", 18 thread antenna-mounting base(s) installed best available on the cab roof with high efficiency, low loss, coaxial cable(s) routed to behind the officer seat. A weatherproof cap will be installed on the mount.

0653526	Camera, Pierce, Driver Mux, Rear Camera Only	VEHICLE CAMERA SYSTEM There will be a color vehicle camera system provided with the following: One (1) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse The camera images will be displayed on the driver's vehicle information center display. Audio from the microphone on the active camera will be emitted by an amplified speaker with volume control located behind the driver seat. The following components will be included: One (1) SV-CW134639CAI, camera One (1) amplified speaker (if applicable) All necessary cables
0523921	Recess, Rear Vision Camera	RECESS REAR CAMERA A rear camera recess will be provided in the center at the rear .
0890416	Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT	ELECTRICAL POWER CONTROL SYSTEM The primary power distribution will be located forward of the officer's seating position and be easily accessible while standing on the ground for simplified maintenance and troubleshooting. Additional electrical distribution centers will be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components. The electrical distribution centers will be located strategically throughout the vehicle to minimize wire length. For ease of maintenance, all electrical distribution centers will be easily accessible. All distribution centers containing fuses, circuit breakers and/or relays will be easily accessible. Distribution centers located throughout the vehicle will contain battery powered studs for supplying customer installed equipment thus providing a lower cost of ownership. Circuit protection devices, which conform to SAE standards, will be utilized to protect electrical circuits. All circuit protection devices will be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers will be Type-I automatic reset (continuously resetting). When required, automotive type fuses will be utilized to protect electronic equipment. Control relays and solenoid will have a direct current rating of 125 percent of the maximum current for which the circuit is protected per NFPA. Solid-State Control System A solid-state electronics based control system will be utilized to achieve advanced operation and control of the vehicle components. A fully computerized vehicle network will consist of electronic modules, electronic control modules to include black housings, a power indicator and status indicator located near their point of use to reduce harness lengths and improve reliability. The control system will comply with SAE J1939-11 recommended practices. The control system will operate as a master-slave system whereas the main control module instructs all other system components. The system will contain patented Mission Critical software that maintains critical vehicle operations in the unlikely event of a main controller error. The system will utilize a Real Time Operating System (RTOS) fully compliant with OSEK/VDX™ specifications providing a lower cost of ownership. For increased reliability and simplified use the control system modules will include the following attributes: Green LED indicator light for module power Red LED indicator light for network communication stability status Control system self test at activation and continually throughout vehicle operation No moving parts due to transistor logic Software logic control for NFPA mandated safety interlocks and indicators Integrated electrical system load management without additional components Integrated electrical load sequencing system without additional components Customized control software to the vehicle's configuration Factory and field programmable to accommodate changes to the vehicle's operating parameters To assure long life and operation in a broad range of environmental conditions, the solid-state control system modules will meet the following specifications: Module circuit board will meet SAE J771 specifications Operating temperature from -40C to +70C Storage temperature from -40C to +70C Vibration to 50g IP67 rated enclosure (Totally protected against dust and also protected against the effect of temporary immersion between 15 centimeters and one (1) meter) Operating voltage from eight (8) volts to 32 volts DC The main controller will activate status indicators and audible alarms designed to provide warning of problems before they become critical. Circuit Protection and Control Diagram Copies of all job-specific, computer network input and output (I/O) connections will be provided with each chassis. The sheets will indicate the function of each module connection point, circuit protection information (where applicable), wire numbers, wire colors and load management information. On-Board Electrical System Diagnostics The on-board information center will include the following diagnostic information: Text description of active warning or caution alarms Simplified warning indicators Amber caution indication with intermittent alarm Red warning indication with steady tone alarm Advanced diagnostic feature will be provided in this control system. From the Command Zone display or connected wireless device, these features allow the user to monitor the real-time status of every input or output on the vehicle. It also allows users logged in as an administrator to force on inputs or outputs to assist the troubleshooting process. TCU Module with WiFi An in cab module will provide WiFi wireless interface and data logging capability. The WiFi interface will comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz. The module will communicate through a black WiFi antenna allowing a line of site communication range of up to 300 feet with a roof mounted antenna.

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

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

The TCU will provide a means to download the TCU information and update software in the device.

Indicator Light and Alarm Prove-Out System

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

Voltage Monitor System

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

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

Dedicated Radio Equipment Connection Points

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

12-volt 40-amp battery switched power

12-volt 60-amp ignition switched power

12-volt 60-amp direct battery power

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

EMI/RFI Protection

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

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

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

0896456

Prognostics, Electrical System

ELECTRICAL SYSTEM PROGNOSTICS

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

The system will send automatic indications to the Command Zone™ information center and/or wireless enabled devices to proactively alert of upcoming service intervals.

Prognostics will include the following:

Engine oil and filter

Transmission oil and filter

0624253	Electrical System, Enforcer MUX	ELECTRICAL All 12-volt electrical equipment installed by the apparatus manufacturer will conform to modern automotive practices. All wiring will be high temperature crosslink type. Wiring will be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers will be provided which conform to SAE Standards. Wiring will be color, function and number coded. Function and number codes will be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors will be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment will be installed utilizing the following guidelines: All holes made in the roof will be caulked with silicon. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof. Any electrical component that is installed in an exposed area will be mounted in a manner that will not allow moisture to accumulate in it. Exposed area will be defined as any location outside of the cab or body. Electrical components designed to be removed for maintenance will not be fastened with nuts and bolts. Metal screws will be used in mounting these devices. Also a coil of wire will be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work. Corrosion preventative compound will be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections will require this compound in the plug to prevent corrosion and for easy separation (of the plug). All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area. All electrical terminals in exposed areas will have silicon (1890) applied completely over the metal portion of the terminal. All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, will be furnished. Rear identification lights will be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads will be protected from damage by installing a false bulkhead inside the rear compartments. An operational test will be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order. The results of the tests will be recorded and provided to the purchaser at time of delivery.
0079166	Batteries, (4) Exide Grp 31, 950 CCA ea, Threaded Stud	BATTERY SYSTEM There will be four (4) 12 volt Exide®, Model 31S950X5W, batteries that include the following features will be provided: 950 CCA, cold cranking amps 190 amp reserve capacity - High cycle - Group 31 - Rating of 3800 CCA at 0 degrees Fahrenheit 760 minutes of reserve capacity - Threaded stainless steel studs Each battery case will be a black polypropylene material with a vertically ribbed container for increased vibration resistance. The cover will be manifold vented with a central venting location to allow a 45 degree tilt capacity. The inside of each battery will consist of a "maintenance free" grid construction with poly wrapped separators and a flooded epoxy bottom anchoring for maximum vibration resistance.
0008621	Battery System, Single Start, All Custom Chassis	BATTERY SYSTEM There will be a single starting system with an ignition switch and starter button provided and located on the cab instrument panel. MASTER BATTERY SWITCH There will be a master battery switch provided within the cab within easy reach of the driver to activate the battery system. An indicator light will be provided on the instrument panel to notify the driver of the status of the battery system.
0002698	Battery Compartment, Saber/Enforcer	BATTERY COMPARTMENTS Batteries will be placed on non-corrosive mats and stored in well ventilated compartments located under the cab. Heavy-duty, 2/0 gauge, color coded battery cables will be provided. Battery terminal connections will be coated with anti-corrosion compound. Battery solenoid terminal connections will be encapsulated with semi-permanent rubberized compound. JUMPER STUDS One (1) set of battery jumper studs with plastic color-coded covers will be included on the battery compartments.
0531327	Charger, Sngl Sys, Kussmaul, 12 HO, 091-170-12	BATTERY CHARGER A Kussmaul Autocharge 12 HO, 091-170-12 battery charger will be provided. A display bar graph, indicating the state of charge, will be provided. The charger will have a maximum output of 20 amps and a fully automatic regulation. The battery charger will be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.
0786339	Location, Charger, Cab Behind Driver Seat, Saber FR/Enforcer	Battery charger will be located in the cab behind the driver's seat.

0530949	Location, Bat Chrg Ind, Driver's Seat Riser	The battery charger indicator will be located on the driver's seat riser.
0016857	Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super	AUTO EJECT FOR SHORELINE There will be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus. The shoreline inlet(s) will include red weatherproof flip up cover(s). There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting. The shoreline(s) will be connected to the battery charger. There will be a mating connector body supplied with the loose equipment. There will be a label installed near the inlet(s) that state the following: Line Voltage Current Rating (amps) Phase Frequency
0026800	Shoreline Location	The shoreline receptacle will be located in the driver side lower step well of cab.
0121711	Alternator, 320 amp, Leece-Neville 4962PA, Sgl Sys	ALTERNATOR A Leece-Neville, Model 4962PA, alternator will be provided. It will have a rated output current of 320 amps, as measured by SAE method J56. The alternator will feature an integral, self diagnostic regulator and rectifier. The alternator will be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.
0092582	Load Manager/Sequencer, MUX	ELECTRONIC LOAD MANAGER An electronic load management (ELM) system will be provided that monitors the vehicles 12-volt electrical system, automatically reducing the electrical load in the event of a low voltage condition, and automatically restoring the shed electrical loads when a low voltage condition expires. This ensures the integrity of the electrical system. For improved reliability and ease of use, the load manager system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load management tasks. Load management systems which require additional components will not be allowed. The system will include the following features: System voltage monitoring. A shed load will remain inactive for a minimum of five minutes to prevent the load from cycling on and off. Sixteen available electronic load shedding levels. Priority levels can be set for individual outputs. High Idle to activate before any electric loads are shed and deactivate with the service brake. If enabled: "Load Man Hi-Idle On" will display on the information center. Hi-Idle will not activate until 30 seconds after engine start up. Individual switch "on" indicator to flash when the particular load has been shed. The information center indicates system voltage. The information center, where applicable, includes a "Load Manager" screen indicating the following: Load managed items list, with priority levels and item condition. Individual load managed item condition: ON = not shed SHED = shed SEQUENCER A sequencer will be provided that automatically activates and deactivates vehicle loads in a preset sequence thereby protecting the alternator from power surges. This sequencer operation will allow a gradual increase or decrease in alternator output, rather than loading or dumping the entire 12 volt load to prolong the life of the alternator. For improved reliability and ease of use, the load sequencing system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load sequencing tasks. Load sequencing systems which require additional components will not be allowed. Emergency light sequencing will operate in conjunction with the emergency master light switch. When the emergency master switch is activated, the emergency lights will be activated one by one at half-second intervals. Sequenced emergency light switch indicators will flash while waiting for activation. When the emergency master switch is deactivated, the sequencer will deactivate the warning light loads in the reverse order. Sequencing of the following items will also occur, in conjunction with the ignition switch, at half-second intervals: Cab Heater and Air Conditioning Crew Cab Heater (if applicable) Crew Cab Air Conditioning (if applicable) Exhaust Fans (if applicable) Third Evaporator (if applicable)

0783153	Headlights, Rect LED, JW Spkr Evo 2, AXT/DCF/Enf/Imp/Sab/Vel	HEADLIGHTS There will be four (4) JW Speaker®, Model 8800, 4" x 6" rectangular LED lights mounted in the front quad style, chrome housing on each side of the cab grille: the outside light on each side will contain a part number 055***1 low beam module the inside light on each side will contain a part number 055***1 high beam module the headlights to include chrome bezels The low beam lights will be activated when the headlight switch is on. The high beam and low beam lights will be activated when the headlight switch and the high beam switch is activated.
0797346	Light, Directional, WIn 600 Cmb, Cab Crn, Wrp Bzl Outside Wrn Lts Enf, Sab FR	DIRECTIONAL LIGHTS There will be two (2) Whelen 600 series, amber LED combination directional/marker lights provided. The lights will be located on the outside cab corners, next to the warning lights. The lens color(s) to be clear.
0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	INTERMEDIATE LIGHT There will be two (2) Weldon, Model 9186-8580-29, amber LED turn signal marker lights furnished, one (1) each side, in the rear fender panel. The light will double as a turn signal and marker light.
0735474	Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts, Saber FR/Enforcer	CAB CLEARANCE/MARKER/ID LIGHTS There will be seven (7) amber LED lights provided per the following: Three (3) amber LED identification lights will be installed in the center of the cab above the windshield. Two (2) amber LED clearance lights will be installed, one (1) on each outboard side of the cab above the windshield as close to the outside of the apparatus as practical. Two (2) amber LED clearance lights will be installed, one (1) on each side of the cab as high and far forward as practical. The lights will be installed without guards.
0625210	Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED, AXT/Enf	FRONT CAB SIDE CLEARANCE/MARKER LIGHTS There will be two (2) Truck-Lite®, Model 19036Y, amber LED lights installed to the outside of the chrome wrap around bezel, one (1) on each side of the cab. The lights will activate as additional directional lights with the corresponding directional circuit.
0563675	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts	REAR CLEARANCE/MARKER/ID LIGHTING There will be three (3) Truck-Lite®, Model 33050R, LED lights used as identification lights recessed and located at the rear of the apparatus per the following: As close as practical to the vertical centerline Centers spaced not less than 6.00" or more than 12.00" apart Red in color All at the same height There will be two (2) Truck-Lite, Model 33050R, LED lights recessed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following: To indicate the overall width of the vehicle One (1) each side of the vertical centerline As near the top as practical Red in color To be visible from the rear All at the same height There will be two (2) Truck-Lite, Model 33050R, LED lights recessed on the side of the apparatus as marker lights as close to the rear as practical per the following: To indicate the overall length of the vehicle One (1) each side of the vertical centerline As near the top as practical Red in color To be visible from the side All at the same height There will be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground. There will be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground. Per FMVSS 108 and CMVSS 108 requirements.
0804514	Lights, Tail, WIn M62BTT* Red Stop/Tail & M62T* Amber Dir Arw For Hsg	REAR FMVSS LIGHTING The rear stop/tail and directional lighting included in the rear tail light housing will include the following: Two (2) Whelen®, Model M62BTT, 4.30" high x 6.70" wide x 1.40" deep brake/tail lights with red LEDs Two (2) Whelen, Model M62T, 4.30" high x 6.70" wide x 1.40" deep directional lights with amber LEDs. The directional lights will be set to Steady On (Arrow) flash pattern. The lens color(s) to be clear.

0561471	Lights, Backup, Wln M6BUW, LED, For Tail Lt Housing	There will be two (2) Whelen Model M6BUW, LED backup lights provided in the tail light housing.
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	LICENSE PLATE BRACKET One (1) license plate bracket constructed of stainless steel will be provided at the rear of the apparatus. One (1) white LED light with chrome housing will be provided to illuminate the license plate. A stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.
0556842	Bezels, Wln, (2) M6 Chrome Pierce, For mtg (4) Wln M6 lights	LIGHTING BEZEL There will be two (2) Whelen, Model M6FCV4P, four (4) place chromed ABS housings with Pierce logos provided for the rear M6 series stop/tail, directional, back up, scene lights or warning lights.
0589905	Alarm, Back-up Warning, PRECO 1040	BACK-UP ALARM A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse will be provided. The device will sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.
0626588	Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	CAB PERIMETER SCENE LIGHTS There will be four (4) TecNiq, Model T10-LC00-1, 15.00" lights with white LEDs and 45 degree stainless steel brackets provided per the following: one (1) under the driver's side cab access step one (1) under the passenger's side cab access step one (1) under the passenger's side crew cab access step one (1) under the driver's side crew cab access step The lights will be activated when the battery switch is on, when the respective door is open and by the same control selected for the body perimeter lights.
0617901	Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	PUMP HOUSE PERIMETER LIGHTS There will be two (2) TecNiq, Model T10-LC00-1, 15.00" white 12 volt DC LED weatherproof strip lights provided under the pump panel running boards, one (1) each side. The lights will be controlled by the same means as the body perimeter lights.
0626579	Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear Step	BODY PERIMETER SCENE LIGHTS There will be two (2) TecNiq, Model T10-LC00-1, 15.00" 12 volt DC LED strip lights provided at the rear step area of the body, one (1) each side shining to the rear. The perimeter scene lights will be activated when a switch within reach of the driver is activated and the parking brake is applied.
0896454	Enhanced Software for Perimeter Lts	ENHANCED SOFTWARE FOR PERIMETER LIGHTS All perimeter lights and scene lights will be deactivated when the parking brake is released. The cab and crew cab perimeter lights will dim after 10 seconds or immediately if the vehicle's transmission is put into gear.
0661576	Lights, Step, P25 LED 4lts, Perimeter Scene Lt Sw	STEP LIGHTS There will be four (4) white LED, step lights provided. One (1) step light will be provided on each side, on the front compartment face and two (2) step lights at the rear to illuminate the tailboard. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. These step lights will be activated by the perimeter scene lights switch in the cab. All other steps on the apparatus will be illuminated per the current edition of NFPA 1901.
0679615	Bracket, Alum. Trdplate, 12V Surface Mounted Flood Lights, Compt Top, Each	12 VOLT LIGHT BRACKET There will be two (2) aluminum treadplate bracket(s) installed center above LS2 and RS2, outward as much as possible for the surface mounted flood light(s). The bracket(s) will have all wiring totally enclosed.
0776357	Light, Visor, Wln, 12V P*H2* Pioneer, Cnt Feature, 1st	12 VOLT LIGHTING There will be one (1) Whelen® Model P*H2*, 17,750 lumens 12 volt DC light(s) with a combination of flood and spot optics provided on the front visor, centered. The housing(s) painted parts of this light assembly to be black. The light(s) will be controlled by a switch at the driver's side switch panel, by a switch at the left side pump panel and by a switch at the passenger's side switch panel. These light(s) may be load managed when the parking brake is applied.

0768059	Lights, WIn, PCPSM2* Pioneer, 12 VDC, 2nd	12 VOLT DC SCENE LIGHTS There will be two (2) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC powered light(s) with white LEDs installed on the cab located, Above RS2, center over the rear wheel, mount in the 4 way box outboard, and above the EMS compartment on the RS of the cab.. The surface mount housing(s) will be provided with a black cover. The light(s) will be activated by a switch at the driver's side switch panel, by a switch at the left side pump panel, by a switch at the passenger's side switch panel and by a switch in a stainless steel cup located on the passenger's side at the rear of the apparatus no more than 72.00" from the ground. The light(s) may be load managed when the parking brake is applied.
0768061	Lights, WIn, PCPSM2* Pioneer, 12 VDC, 1st	12 VOLT DC SCENE LIGHTS There will be two (2) Whelen® Model PCPSM2*, 16,000 lumens 12 volt DC powered light(s) with white LEDs installed on the cab located, Above LS2, center over the rear wheel, mount in the 4 way box outboard, and above the EMS compartment on the LS of the cab. The surface mount housing(s) will be provided with a black cover. The light(s) will be activated by a switch at the driver's side switch panel, by a switch at the left side pump panel, by a switch at the passenger's side switch panel and by a switch in a stainless steel cup located on the driver's side at the rear of the apparatus no more than 72.00" from the ground. The light(s) may be load managed when the parking brake is applied.
0766906	Lights, WIn, PCPSM1*, Pioneer, 12 VDC, 1st	12 VOLT LIGHTING There will be two (2) Whelen® Model PCPSM1*, 10,444 lumens 12 volt DC surface mount light(s) installed on the body of the apparatus located, REAR BULKHEAD HIGH, ONE PER SIDE. The light(s) will include black housing(s) with a chrome cover. The light(s) will be controlled by a switch at the driver's side switch panel, by a switch at the left side pump panel, by a switch at the passenger's side switch panel and by a switch in a recessed cup located at the driver's side rear bulkhead. The light(s) may be load managed when the parking brake is applied.
0532358	Not Required, Deck Lights, Other Hose Bed & Rear Lighting	
0768474	Lights, Hose Bed, Below Alum Cvr, Amdor AY-LB-12HW040, 40" LED 4lts	LIGHTS BELOW HOSE BED COVER There will be four (4) Amdor Model AY-LB12HW040, 700 lumens, 40.00" white LED lights provided to illuminate the hose bed area. Two (2) LED light strips will be installed on the driver's side hose bed cover 30.00" from the front and rear of the hose bed, as close to the hinge as practical. Two (2) LED light strips will be installed on the passenger's side hose bed cover 30.00" from the front and rear of the hose bed, as close to the hinge as practical. The lights will be activated when the battery switch is on, and when the hosebed cover is raised.
0645677	Lights, Not Required, Rear Work, Alt. 12 Volt Lights At Rear Body	
0892704	Lights, Walk Surf, 8-P25 LED, Hose Bed Cover, Overall Height Restrictions	WALKING SURFACE LIGHT There will be eight (8) P25 12 volt DC LED lights with chrome housing provided on the hose bed cover to illuminate the walking surface. The lights will be located near the hose bed cover hinges evenly spaced four (4) on each side. The lights will be activated when the body step lights are on.
0060115	Pumper, Medium, Aluminum, 2nd Gen	
0554271	Body Skirt Height, 20"	

0028244	Tank, Water, 500 Gallon, Poly, Med	WATER TANK Booster tank will have a capacity of 500 gallons and be constructed of polypropylene plastic by United Plastic Fabricating, Incorporated. Tank joints and seams will be nitrogen welded inside and out. Tank will be baffled in accordance with NFPA Bulletin 1901 requirements. Baffles will have vent openings at both the top and bottom to permit movement of air and water between compartments. Longitudinal partitions will be constructed of .38" polypropylene plastic and will extend from the bottom of the tank through the top cover to allow for positive welding. Transverse partitions will extend from 4.00" off the bottom of the tank to the underside of the top cover. All partitions will interlock and will be welded to the tank bottom and sides. Tank top will be constructed of .50" polypropylene. It will be recessed .38" and will be welded to the tank sides and the longitudinal partitions. Tank top will be sufficiently supported to keep it rigid during fast filling conditions. Construction will include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions. Two (2) of the dowels will be drilled and tapped (.50" diameter, 13.00" deep) to accommodate lifting eyes. A sump that will be sized dependent on the tank to pump plumbing will be provided at the bottom of the water tank. Sump will include a drain plug and the tank outlet. Tank will be installed in a fabricated cradle assembly constructed of structural steel. Sufficient crossmembers will be provided to properly support bottom of tank. Crossmembers will be constructed of steel bar channel or rectangular tubing. Tank will "float" in cradle to avoid torsional stress caused by chassis frame flexing. Rubber cushions, .50" thick x 3.00" wide, will be placed on all horizontal surfaces that the tank rests on. Stops or other provision will be provided to prevent an empty tank from bouncing excessively while moving vehicle. Mounting system will be approved by the tank manufacturer.
0003405	Overflow, 4.00" Water Tank, Poly	Fill tower will be constructed of .50" polypropylene and will be a minimum of 8.00" wide x 14.00" long. Fill tower will be furnished with a .25" thick polypropylene screen and a hinged cover. An overflow pipe, constructed of 4.00" schedule 40 polypropylene, will be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle.
0028104	Foam Cell Required	
0633066	Sleeve, Through Tank	SLEEVE, PLUMBING, THROUGH TANK Two (2) sleeves will be provided in the water tank for a 3.00" pipe to the rear.
0553729	Not Required, Restraint, Water Tank, Heavy Duty	
0003429	Not Required, Direct Tank Fill	
0003424	Not Required, Dump Valve	
0048710	Not Required, Jet Assist	
0030007	Not Required, Dump Valve Chute	
0514778	Not Required, Switch, Tank Dump Master	
0126633	Hose Bed, Aluminum, Pumper	HOSE BED The hose bed will be fabricated of .125"-5052 aluminum with a nominal 38,000 psi tensile strength. Upper and rear edges of side panels will have a double break for rigidity. The upper inside area of the beavertails will be covered with brushed stainless steel to prevent damage to painted surface when hose is removed. Flooring of the hose bed will be removable aluminum grating with the top surface corrugated to aid in hose aeration. The grating slats will be a minimum of 0.50" x 4.50" with spacing between slats for hose ventilation.
0723549	Painted Hose Bed	The hose bed interior walls will be painted to match the lower body color.
0003481	Hose Bed Capacity, Special	Hose bed will accommodate to be provided.

0083488	Divider, Hose Bed, .25" Unpainted	HOSE BED DIVIDER Three (3) hosebed dividers will be furnished for separating hose. Each divider will be constructed of a .25" brushed aluminum sheet. Flat surfaces will be sanded for uniform appearance, or constructed of brushed aluminum. Divider will be fully adjustable by sliding in tracks, located at the front and rear of the hose bed. Divider will be held in place by tightening bolts, at each end. Acorn nuts will be installed on all bolts in the hose bed which have exposed threads.
0010133	Cross-Divider, Hose Bed	A cross-divider will be provided just behind the fill tower. The divider will be bolted to the side sheet.
0530804	Cover, Hose Bed, Alum Treadplate	HOSE BED COVER A two (2) section hose bed cover, constructed of .125" bright aluminum treadplate will be furnished. The cover will be hinged with full length stainless steel piano hinge. The sides will be slanted down. A stationary bridgework support assembly will be provided at the rear to support the cover. The cover will be reinforced so that it can support the weight of a man walking on the cover. The cover is designed with the left cover opening first. If access to the water tank fill tower is blocked by the hose bed cover, then a hinged door will be provided in it so that the tank may be filled without raising cover doors. Chrome grab handles and four (4) gas filled cylinders will be provided to assist in opening and closing the cover. A handrail is to be provided at the rear, in the center of the support, to assist in opening the cover. The hose bed cover will be connected to the Do Not Move Truck indicator. The light will be activated if the cover is not in the stowed position and the parking brake is released.
0697328	Flap, Rear of Alum Hose Bed Cover, Two Piece, Vinyl, w/Seat Belt Buckles	HOSEBED END FLAP A pair of black vinyl flaps will be installed on the rear, one for each of the aluminum treadplate hose bed covers. The vinyl flap will be secured to the hose bed cover with quarter turn fasteners. Each vinyl flap will have (2) nylon tie down straps with seat belt buckles to secure the flaps at their base.
0013512	Running Boards, 12.75" Deep	RUNNING BOARDS Running boards will be fabricated of .125" bright aluminum treadplate. Each running board will be supported by a welded 2.00" square tubing and channel assembly, which will be bolted to the pump compartment substructure. Running boards will be 12.75" deep and spaced .50" away from the pump panel. A splash guard will be provided above the running board treadplate.
0689497	Tailboard, T-Shaped, 24" & 8" Deep, Angled Corners	TAILBOARD The tailboard will also be constructed of .125" bright aluminum treadplate and spaced .50" from the body, as well as supported by a structural steel assembly. The tailboard area will be 24.00" deep in the center area and 8.00" deep to the rear of the side compartments. The tailboard will be T-shaped. The outboard sides of the tailboard will be angled at 45 degrees beginning at the point where the body meets the tailboard at the outboard edge angling rearward to the rear edge of the tailboard. The exterior side will be flanged down and in for increased rigidity of tailboard structure.
0690037	Wall, Rear, Smooth Aluminum/Body Material	REAR WALL, SMOOTH ALUMINUM/BODY MATERIAL The rear facing surfaces of the center rear wall will be smooth aluminum. The bulkheads, the surface to the rear of the side body compartments, will be smooth and the same material as the body. Any inboard facing surfaces below the height of the hosebed will be aluminum diamondplate.
0889214	Tow Eyes, w/Tow Bar, 2G Pumper	REAR TOW EYES Two (2) tow eyes, which are an integral part of the body mounting substructure, will be installed below the rear of the truck. The tow eyes will be of adequate strength to allow the truck to be pulled from the eyes. REAR TOW BAR One (1) tow bar will be installed under the tailboard, 3.00" forward from the rear of the tailboard. With air ride suspension and a 65 gallon fuel tank, the tow bar will be located .50" further rearward than normal when there is this combination of options. The tow bar assembly will be designed and positioned to allow up to a 30-degree upward angled pull of 17,000 lb, or a 20,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow bar design will have been tested and evaluated using finite element analysis techniques.
0590934	Hose Restraint, Running Board, Straps, FV Fastener	RUNNING BOARD HOSE RESTRAINT A pair of 2.00" wide black nylon straps with seat belt buckle fasteners will be provided for each hose tray to secure the hose during travel. There will be One (1) hose tray located in the left side running board.

0003634	Tray, Hose, Running Board, Soft Suction Hose, 25' of 5.00"	HOSE TRAY One (1) hose tray will be recessed in the left hand side running board. Capacity of the tray will be 25.00' of 5.00" soft suction hose. Rubber matting will be installed on the floor of the tray to provide proper ventilation. Drain holes will be provided.
0895820	Construction, Compt, Alum, 2G Pumper	COMPARTMENTATION Body and compartments will be fabricated of 0.125", 5052-H32 aluminum. Side compartments will be an integral assembly with the rear fenders. Circular fender liners will be provided for prevention of rust pockets and ease of maintenance. Side compartment flooring will be of the sweep out design with the floor higher than the compartment door lip. The side compartment door opening will be framed by flanging the edges in 1.75" and bending out again 0.75" to form an angle. Drip protection will be provided above the doors by means of bright aluminum extrusion, formed bright aluminum treadplate or polished stainless steel. The top of the compartment will be covered with bright aluminum treadplate rolled over the edges on the front, rear and outward side. These covers will have the corners welded. Side compartment covers will be separate from the compartment tops. Front facing compartment walls will be covered with bright aluminum treadplate. All screws and bolts which protrude into a compartment will have acorn nuts on the ends to prevent injury. UNDERBODY SUPPORT SYSTEM Due to the severe loading requirements of this pumper a method of body and compartment support suitable for the intended load will be provided. The backbone of the support system will be the chassis frame rails which is the strongest component of the chassis and is designed for sustaining maximum loads. Forward to the rear axle, the support system will include "L"-shaped support members bolted to the chassis frame rails. These welded support members will include vertical formed channels, horizontal structural channels, and support gussets. These parts extend from the chassis frame outward underneath the body. Rearward to the rear axle, the body support system will include two rearward facing "L"-shaped support members bolted to the chassis frame rails. These support members will be connected to the two body supporting crossmembers forming a boxed foundation for the rear body support system. Steel upper platform decks will be mounted on the top of these support members to create a floating substructure which will result in a 500 lb equipment support rating per lower compartment. All structural components of this system will be made from high strength 50K steel plate material or structural steel componentry. The steel frames as well as the steel vertical angles will be treated with an epoxy E-coat to provide resistance to corrosion and chemicals as standard. The floating substructure will be separated from the horizontal members with neoprene elastomer isolators. These isolators will reduce the natural flex stress of the chassis from being transmitted to the body. Isolators will have a broad load range, proven viability in vehicular applications, be of a fail-safe design and allow for all necessary movement in three (3) transitional and rotational modes. The neoprene isolators will be installed in a pattern which assimilates a three (3)-point mounting pattern to reduce the natural flex of the chassis being transmitted to the body. A design with body compartments hanging on the chassis in an unsupported fashion will not be acceptable. AGGRESSIVE WALKING SURFACE All exterior surfaces designated as stepping, standing, and walking areas will comply with the required average slip resistance of the current NFPA standards. LOUVERS Louvers will be stamped into compartment walls to provide the proper airflow inside the body compartments and to prevent water from dripping into the compartment. Where these louvers are provided, they will be formed into the metal and not added to the compartment as a separate plate. TESTING OF BODY DESIGN Body structural analysis will be fully tested. Proven engineering and test techniques such as finite element analysis, strain gauging, and model analysis will be performed with special attention given to fatigue, life and structural integrity of the body and substructure. Body will be tested while loaded to its greatest in-service weight. The criteria used during the testing procedure will include: Raising opposite corners of the vehicle tires 9.00" to simulate the twisting a truck may experience when driving over a curb. Making a 90 degree turn, while driving at 20 mph to simulate aggressive driving conditions. Driving the vehicle at 35 mph on a washboard road. Driving the vehicle at 55 mph on a smooth road. Accelerating the vehicle fully, until reaching the approximate speed of 45 mph on rough pavement. Evidence of actual testing techniques will be made available upon request.

0083650	LS 152" Rollup, Full Height Front & Rear	LEFT SIDE COMPARTMENTATION The left side compartmentation will consist of three (3) rollup door compartments. A full height, rollup door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 34.50" wide x 66.63" high x 25.88" deep in the lower 25.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 28.75" wide x 56.88" high. A rollup door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 32.88" high x 12.00" deep. The clear door opening will be a minimum of 58.25" wide x 23.13" high. A full height, rollup door compartment behind the rear wheels will be provided.The interior dimensions of this compartment will be 47.75" wide x 67.63" high x 12.00" deep. A section of this compartment will be 25.88" deep for the first 31.50" width x 26.00" height directly behind the rear wheels. The clear door opening will be a minimum of 44.75" wide x 57.88" high. The interior height of the compartments will be measured from the compartment floor to the ceiling. The spool of the rollup door at the top of the compartment takes up some usable space. The depth of the compartments will be measured from the back wall to the inside of the door frame. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one (1) hand.
0083658	RS 152" Rollup, Full Height Front & Rear	RIGHT SIDE COMPARTMENTATION The right side compartmentation will consist of three (3) rollup door compartments. A full height, rollup door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 34.50" wide x 66.63" high x 25.88" deep in the lower 25.00" of the compartment and 12.00" deep in the remaining upper portion. The clear door opening will be a minimum of 28.75" wide x 56.88" high. A rollup door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 66.50" wide x 32.88" high x 12.00" deep. The clear door opening will be a minimum of 58.25" wide x 23.13" high. A full height, rollup door compartment behind the rear wheels will be provided.The interior dimensions of this compartment will be 47.75" wide x 67.63" high x 12.00" deep. A section of this compartment will be 25.88" deep for the first 31.50" width x 26.00" height directly behind the rear wheels. The clear door opening will be a minimum of 44.75" wide x 57.88" high. The interior height of the compartments will be measured from the compartment floor to the ceiling. The spool of the rollup door at the top of the compartment takes up some usable space. The depth of the compartments will be measured from the back wall to the inside of the door frame. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one (1) hand.
0594005	Doors, Rollup, Amdor, Side Compartments	SIDE COMPARTMENT ROLLUP DOOR(S) There will be six (6) compartment doors installed on the side compartments, double faced, aluminum construction, painted one (1) color to match the lower portion of the body and manufactured by AMDOR™ brand rollup doors. Door(s) will be constructed using 1.00" extruded double wall aluminum slats which will feature a flat smooth interior surface to provide maximum protection against equipment hang-up. The slats will be connected with a structural driven ball and socket hinge designed to provide maximum curtain diaphragm strength. Mounting and adjusting the curtain will be done with a clip system that connects the curtain to the balancer drum allowing for easy tension adjustment without tools. The slats will be mounted in reusable slat shoes with positive snap-lock securement. Each slat will incorporate weather tight recessed dual durometer seals. One (1) fin will be designed to locate the seal within the extrusion. The second will serve as a wiping seal which will also allow for compression to prevent water ingress. The doors will be mounted in a one (1)-piece aluminum side frame with recessed side seals to minimize seal damage during equipment deployment. All seals including side frames, top gutters and bottom panel are to be manufactured utilizing non-marring materials. Bottom panel flange of rollup door will be equipped with two (2) cut-outs to allow for easier access with gloved hands. A polished stainless steel lift bar with locking key latches to be provided for each roll-up door. The keys to be Model 751 to match all compartment and cab doors. The lift bar will be located at the bottom of door with striker latches installed at the base of the side frames. Side frame mounted door strikers will include support beneath the stainless steel lift bar to prevent door curtain bounce, improve bottom seal life expectancy and to avoid false door ajar signals. All injection molded rollup door wear components will be constructed of Type 6 nylon. Each rollup door will have a 3.00 inch diameter balancer/tensioner drum to assist in lifting the door. The header for the rollup door assembly will not exceed 4.00". A heavy-duty magnetic switch will be used for control of open compartment door warning lights.
0083701	Compt, Rear, Rollup, 44.50" FF, 25.88" D	REAR COMPARTMENTATION A roll-up door compartment above the rear tailboard will be provided. The interior dimensions of this compartment will be 40.00" wide x 47.38" high x 25.88" deep. The spool of the rollup door at the top of the compartment takes up some usable space. The depth of the compartment will be calculated with the compartment door closed. A louvered, removable access panel will be furnished on the back wall of the compartment. The rear compartment will be open into the rear side compartments. The clear door opening of this compartment will be a minimum of 33.25" wide x 37.63" high. Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

0594003	Door, Amdor, Rollup, Rear Compartment	ROLLUP REAR COMPARTMENT DOOR The rear compartment will have a rollup door. The door will be double faced, aluminum construction, satin aluminum and manufactured by AMDOR™ brand rollup doors. The door will be constructed using 1.00" extruded double wall aluminum slats which will feature a flat smooth interior surface to provide maximum protection against equipment hang-up. The slats will be connected with a structural driven ball and socket hinge designed to provide maximum curtain diaphragm strength. Mounting and adjusting the curtain will be done with a clip system that connects the curtain to the balancer drum allowing for easy tension adjustment without tools. The slats will be mounted in reusable slat shoes with positive snap-lock securement. Each slat will incorporate weather tight recessed dual durometer seals. One (1) fin will be designed to locate the seal within the extrusion. The second will serve as a wiping seal which will also allow for compression to prevent water ingress. The door will be mounted in a one (1)-piece aluminum side frame with recessed side seals to minimize seal damage during equipment deployment. All seals including side frames, top gutters and bottom panel are to be manufactured utilizing non-marring materials. Bottom panel flange of rollup door will be equipped with two (2) cut-outs to allow for easier access with gloved hands. A polished stainless steel lift bar with locking key latches to be provided for each roll-up door. The keys to be Model 751 to match all compartment and cab doors. The lift bar will be located at the bottom of door with striker latches installed at the base of the side frames. Side frame mounted door strikers will include support beneath the stainless steel lift bar to prevent door curtain bounce, improve bottom seal life expectancy and to avoid false door ajar signals. All injection molded rollup door wear components will be constructed of Type 6 Nylon. The door will have a 3.00 inch diameter balancer/tensioner drum to assist in lifting the door. The header for the rollup door assembly will not exceed 4.00". A heavy-duty magnetic switch will be used for control of open compartment door warning lights.
0554995	No Body Modification Required	
0616670	Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door, Pumper/Tanker	COMPARTMENT LIGHTING There will be seven (7) compartment(s) with two (2) white 12 volt DC LED compartment light strips. The dual light strips will be centered vertically along each side of the door framing. There will be two (2) light strips per compartment. The dual light strips will be in all body compartment (s). Any remaining compartments without light strips will have a 6.00" diameter Truck-Lite, Model: 79384 light. Each light will have a number 1076 one filament, two wire bulb. Opening the compartment door will automatically turn the compartment lighting on.
0687146	Shelf Tracks, Painted	MOUNTING TRACKS There will be seven (7) sets of tracks for mounting shelf(s) in LS1, LS2, LS3, RS1, RS2, RS3 and B1. These tracks will be installed vertically to support the adjustable shelf(s), and will be full height of the compartment. The tracks will be painted to match the compartment interior.
0600350	Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations	ADJUSTABLE SHELVES There will be 15 shelves with a capacity of 500 lb provided. The shelf construction will consist of .188" aluminum painted spatter gray with 2.00" sides. Each shelf will be infinitely adjustable by means of a threaded fastener, which slides in a track. The shelves will be held in place by .12" thick stamped plated brackets and bolts. The location(s) will be determined at a later date.
0647091	Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides	SLIDE-OUT FLOOR MOUNTED TRAY There will be two (2) floor mounted slide-out tray(s) provided. Each tray will have 2.00" high sides and a minimum capacity rating of 500 lb in the extended position. Each tray will be constructed of aluminum painted spatter gray There will be two undermount-roller bearing type slides rated at 250lb each provided. The pair of slides will have a safety factor rating of 2. To ensure years of dependable service, the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117. To ensure years of easy operation, the slides will require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request. Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand. The location(s) will be LS1 and B1.

0725644	Cabinet, Drawer Assembly, CTECH, Three Drawers, Up To 24" Wide	DRAWER ASSEMBLY A slide-out drawer assembly will be installed LS3. The clear dimensions of the first drawer starting at the top will be 4.00" with a face plate that is 5.00" high x 21.00" deep. The clear dimensions of the second drawer will be 7.75" with a face plate that is 8.00" high x 21.00" deep. The clear dimensions of the third drawer will be 7.75" with a face plate that is 8.00" high x 21.00" deep. Each drawer will be the same width and not exceed 24.00". The drawers will have a capacity of 250 pounds. The drawers will be mounted in a cabinet housing constructed of light gray powder coated aluminum with anodized aluminum frames. The housing will be 24.00" deep, and completely enclose the drawer. A full-length aluminum extruded rail will be provided at the top edge of each drawer. This rail will act as the latching mechanism as well as the handle for each drawer. There will be a total of one (1) provided.
0726441	Partition, Trans Rear Compt	PARTITION, TRANSVERSE REAR COMPARTMENT Two (2) partitions will be bolted in place to separate the left and right side rear compartments from the rear tailboard compartment. The partition will be body material painted spatter gray.
0004005	Alum Treadplate on Compt Floor	COMPARTMENT FLOOR SCUFFPLATE Aluminum treadplate will be provided on the floor of six (6) compartments. The locations will be, ALL COMPARTMENTS EXCEPT LS3. The edges of the treadplate will be completely caulked before installation to prevent corrosion.
0024016	Rub Rail, Aluminum Extruded, Side & Rear of Body	RUB RAIL Bottom edge of the side and rear of the body compartments will be trimmed with a bright aluminum extruded rub rail. Trim will be 2.12" high with 1.38" flanges turned outward for rigidity. The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.
0784810	Fender Crowns, Rear, Stainless, Wider Than Std, w/Removable Liner	BODY FENDER CROWNS Polished stainless steel fender crowns will be provided around the rear wheel openings with a dielectric barrier will be provided between the fender crown and the fender sheet metal to prevent corrosion. These fender crowns must be wide enough to prevent splashing onto the body from the specified tires. The fender crowns will be held in place with stainless steel screws that thread directly into a composite nut and not directly into the parent body sheet metal to eliminate dissimilar metals contact and greatly reduce the chance for corrosion. Rubber wetting will be provided between the body and crown. BODY FENDER LINER A painted to match the lower body color fender liner will be provided. The liners will be removable to aid in the maintenance of rear suspension components.
0519849	Not Required, Hose, Hard Suction	HARD SUCTION HOSE Hard suction hose will not be required.
0626229	Handrails, Side Pump Panels, Per Print	HANDRAILS The handrails will be 1.25" diameter knurled aluminum to provide a positive gripping surface. Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces. Drain holes will be provided in the bottom of all vertically mounted handrails. Handrails will be provided to meet NFPA 1901 section 15.8 requirements. The handrails will be installed as noted on the sales drawing.
0004126	Handrails, Beavertail, Standard	HANDRAILS One (1) vertical handrail will be located on each rear beavertail.
0004146	Handrail, Rear, Below Hose Bed, Full Width	HANDRAIL One (1) full width horizontal handrail will be provided below the hose bed at the rear of the apparatus.

0622393	Compt, Air Pack Fender Panel	AIR PACK STORAGE A total of one (1) air pack compartment(s) will be provided and located LS forward. The air pack compartment(s) will be tapered to match the profile of the space available in the fender. The compartment(s) will be approximately 15.50" wide at the top and 5.00" wide at the bottom for the wheel cutout. The compartment(s) will be 15.50" tall at the body side compartment and 6.00" tall at the wheel cutout. The compartment(s) will be 26.00" deep and have a drain hole. Inside the compartment, black Dura-Surf friction reducing material glued to the floor will be provided. A painted stainless steel hinged door with a Southco raised trigger C2 black lever latch will be provided to contain the air pack. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.
0657522	Compt, Air Bottle, Triple, Fender Panel	AIR BOTTLE STORAGE (Triple) A quantity of two (2) air bottle compartments designed to hold (3) air bottles up to 7.25" in diameter x 26.00" deep will be provided on the right side forward of the rear wheels and on the right side rearward of the rear wheels. A painted stainless steel door with a Southco raised trigger C2 black lever latch will be provided to contain the air bottle. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal. Inside the compartment, black Dura-Surf friction reducing material will be provided. AIR BOTTLE COMPARTMENT STRAP A strap will be provided in the air bottle compartment(s) to help contain the air bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment.
0004225	Ladder, 24' Duo-Safety 900A 2-Section	EXTENSION LADDER There will be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.
0004230	Ladder, 14' Duo-Safety 775A Roof	ROOF LADDER There will be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.
0787027	Ladders Btwn Tank & S.Sht, RS, Ext'd Rr, Encl'd Complete, RPH, Special Mounting	LADDER STORAGE The ladders will be stored between the water tank and the right side compartments. The ladders will extend into the pump compartment just to the rear of the water pump discharges. The ladder storage area will be enclosed as practical by means of sheet metal to protect the ladders from road dirt. The ladders that extend into the pump house will also be enclosed. A black rubber boot will be provided to enclosed the ladders in the gap between the pump house and the body. Each ladder will be stored vertically in a separate stainless steel storage trough. Each stainless steel trough will be lined with Dura-Surf nylon slides. A bright aluminum treadplate enclosure will be provided at the rear of the body to properly contain the ladders. This enclosure will extend to the rear of the side body compartments. The ladders will be stored roof ladder to be fly section inboard. The enclosure will also include a vertically hinged aluminum treadplate door with a D-handle latch to access the ladders.
0733387	Ladder, 10' Duo-Safety Folding 585A	FOLDING LADDER One (1) 10.00' aluminum, Series 585-A, Duo-Safety folding ladder will be installed.
0733796	Trough, Folding Ladder, Ladder Storage Btwn Tank & S.Sht	FOLDING LADDER STORAGE There will be storage designated right side for folding ladders stored between the side sheet in a stainless steel trough in the ladder storage compartment.
0725371	Compt w/Door, Backboard, Over Pump	BACKBOARD STORAGE A transverse area over the pump and rearward of the crosslays will hold two (2) storage troughs. A blister will be supplied at each side to enclose the backboards due to their length. The backboards will be accessible from either side of the vehicle through the aluminum treadplate door(s) with a flush lift and turn latch. The door(s) will be hinged along the rearward edge. The size of the backboard(s) to be stored will be 72.00" long x 18.00" wide x 2.00" high.
0602877	Pike Pole, Pumper, Provided by Fire Department, NFPA 2016	PIKE POLE PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) 8 ft or longer pike pole mounted in a bracket fastened to the apparatus. The pike pole is not on the apparatus as manufactured. The fire department will provide and mount the pike pole. The pike pole(s) will be a Duo-Safety 10' pike pole.
0733783	Trough, Pike Pole 8' or Longer, Btwn Tank & S.Sht Ladder Storage	PIKE POLE STORAGE There will be storage designated right side for Two (2) pike poles 8' or longer stored in a trough between the side sheet and tank in the ground ladder storage compartment.

0602875	Pike Pole, 6', Pumper, Provided by Fire Department, NFPA 2016	6' PIKE POLE PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) 6' pike pole or plaster hook mounted in a bracket fastened to the apparatus. The pike pole is not on the apparatus as manufactured. The fire department will provide and mount the pike pole. The pike pole(s) will be a Duo-Safety 6' pike pole.
0733065	Not Required	
0004379	Bell, 12" Chrome w/Eagle, Mounted on Cab Corner	BELL A chrome plated, 12.00" bronze cast bell, complete with an eagle, will be mounted on the passenger side radius corner of cab face. The cab will be properly reinforced to support the weight of the bell. A rope pull, for the bell, will be installed inside the cab.
0785102	Steps, Folding, Front of Body, Cargo Bed Access, w/LED, Trident	FOLDING STEPS FRONT OF BODY Folding steps will be provided full height on the left side body compartments to provide access to the cargo bed. Steps will be spaced evenly on the sales drawing. Actual quantity may vary due to pump panel interferences but will meet the NFPA required maximum stepping height. The Trident steps will be bright finished, non-skid with a black tread coating on the stepping surface. The step will incorporate an LED light to illuminate the stepping surface. The steps can be used as a hand hold with two openings wide enough for a gloved hand.
0592994	Steps, Folding, Rear of Body, w/LED, Trident	REAR FOLDING STEPS Bright finished, non-skid folding steps with a black tread coating on the stepping surface will be provided at the rear. Each step will incorporate an LED light to illuminate the stepping surface. The steps can be used as a hand hold with two openings wide enough for a gloved hand.
0650261	I Zone Bracket, Pair, Folding Style	I-ZONE BRACKETS Two (2) flip-out I-Zone brackets will be provided and mounted at the rear of the apparatus, MATCH 35147 EXACTLY. The brackets will be designed with adequate reinforcement to eliminate flexing of the body (oil canning).
0007590	Pump House, Side Control, 52", Control Zone	PUMP COMPARTMENT The pump compartment will be separate from the hose body and compartments so that each may flex independently of the other. It will be a fabricated assembly made of the same material as the rear body using tubing, angles and channels which supports both the fire pump and the side running boards. The pump compartment will be mounted on the chassis frame rails with rubber biscuits in a four point pattern to allow for chassis frame twist. Pump compartment, pump, plumbing and gauge panels will be removable from the chassis in a single assembly. PUMP MOUNTING Pump will be mounted to a substructure which will be mounted to the chassis frame rail using rubber isolators. The mounting will allow chassis frame rails to flex independently without damage to the fire pump. LEFT SIDE PUMP CONTROL PANELS All pump controls and gauges will be located at the left side of the apparatus and properly identified. Layout of the pump control panel will be ergonomically efficient and systematically organized. The pump operator's control panel will be removable in two (2) main sections for ease of maintenance: The upper section will contain sub panels for the mounting of the pump pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable). Sub panels will be removable from the face of the pump panel for ease of maintenance. Below the sub panels will be located all valve controls and line pressure gauges. The lower section of the panel will contain all inlets, outlets, and drains. All push/pull valve controls will have 1/4 turn locking control rods with polished chrome plated zinc tee handles. Guides for the push/pull control rods will be chrome plated zinc castings securely mounted to the pump panel. Push/pull valve controls will be capable of locking in any position. The control rods will pull straight out of the panel and will be equipped with universal joints to eliminate binding. IDENTIFICATION TAGS The identification tag for each valve control will be recessed in the face of the tee handle. All discharge outlets will have color coded identification tags, with each discharge having its own unique color. Color coding will include the labeling of the outlet and the drain for each corresponding discharge. All line pressure gauges will be mounted directly above the corresponding discharge control tee handles and recessed within the same chrome plated casting as the rod guide for quick identification. The gauge and rod guide casting will be removable from the face of the pump panel for ease of maintenance. The casting will be color coded to correspond with the discharge identification tag. All remaining identification tags will be mounted on the pump panel in chrome plated bezels. The pump panel on the right side will be removable with lift and turn type fasteners. Trim rings will be installed around all inlets and outlets.

0053227	Raised Pump House Structure, Side Control Vert Up-Right Moved Inboard For Ladder	PUMPHOUSE STRUCTURE A special pumphouse structure is required to accommodate the ladders stored between the tank and the sidesheet. The vertical upright support will need to be moved inboard.
0004425	Pump, Waterous, CSU, 1500 GPM, Single Stage	PUMP Pump will be a Waterous CSU, 1500 gpm single (1) stage midship mounted centrifugal type. Pump will be the class "A" type. Pump will deliver the percentage of rated discharge at pressures indicated below: - 100% of rated capacity at 150 psi net pump pressure. - 70% of rated capacity at 200 psi net pump pressure. - 50% of rated capacity at 250 psi net pump pressure. Pump body will be close-grained gray iron, bronze fitted, and horizontally split in two (2) sections for easy removal of the entire impeller shaft assembly (including wear rings). Pump will be designed for complete servicing from the bottom of the truck, without disturbing the pump setting or apparatus piping. Pump case halves will be bolted together on a single horizontal face to minimize chance of leakage and facilitate ease of reassembly. No end flanges will be used. Discharge manifold of the pump will be cast as an integral part of the pump body assembly and will provide a minimum of three (3) 3.50" openings for flexibility in providing various discharge outlets for maximum efficiency. The three (3) 3.50" openings will be located as follows: one (1) outlet to the right of the pump, one (1) outlet to the left of the pump, and one (1) outlet directly on top of the discharge manifold. Impeller shaft will be stainless steel, accurately ground to size. It will be supported at each end by sealed, anti-friction ball bearings for rigid precise support. Impeller will have flame plated hubs assuring maximum pump life and efficiency despite any presence of abrasive matter in the water supply. Bearings will be protected from water and sediment by suitable stuffing boxes, flinger rings, and oil seals. No special or sleeve type bearings will be used.
0004481	Seal, Grafoil, Waterous	PUMP PACKING Stuffing boxes will be of the conventional two (2) piece, split-gland type, to permit adjustment or replacement of Grafoil packing without disturbing the pump. Water will be fed into stuffing box lantern rings for proper lubrication and cooling when the pump is operating. Lantern rings will be located at the inner ends of the stuffing boxes, to avoid having to remove them when replacing pump packing. Wear rings will be bronze and easily replaceable to restore original pump efficiency and eliminate the need to replace the entire pump casing due to wear.
0559769	Trans, Pump, Waterous C20 Series	PUMP TRANSMISSION The pump transmission will be made of a three (3) piece, aluminum, horizontally split casing. Power transfer to pump will be through a high strength Morse HY-VO silent drive chain. By the use of a chain rather than gears, 50% of the sprocket will be accepting or transmitting torque, compared to two (2) or three (3) teeth doing all the work. Drive shafts will be 2.35" diameter hardened and ground alloy steel and supported by ball bearings. The case will be designed to eliminate the need for water cooling.
0635600	Pumping Mode, Stationary Only	PUMPING MODE An interlock system will be provided to ensure that the pump drive system components are properly engaged so that the apparatus can be safely operated. The interlock system will be designed to allow stationary pumping only.
0605126	Pump Shift, Air Mnl Override, Split Shaft, Interlocked, Waterous	AIR PUMP SHIFT Pump shift engagement will be made by a two (2) position sliding collar, actuated pneumatically (by air pressure), with a three (3) position air control switch located in the cab. A manual back-up shift control will also be located on the left side pump panel. Two (2) indicator lights will be provided adjacent to the pump shift inside the cab. One (1) green light will indicate the pump shift has been completed and be labeled "pump engaged". The second green light will indicate when the pump has been engaged, and that the chassis transmission is in pump gear. This indicator light will be labeled "OK to pump". The pump shift will be interlocked to prevent the pump from being shifted out of gear when the chassis transmission is in gear to meet NFPA requirements. The pump shift control in the cab will be illuminated to meet NFPA requirements.
0003148	Transmission Lock-up, EVS	TRANSMISSION LOCK-UP The direct gear transmission lock-up for the fire pump operation will engage automatically when the pump shift control in the cab is activated.
0004547	Auxiliary Cooling System	AUXILIARY COOLING SYSTEM A supplementary heat exchange cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the engine water. The heat exchanger will be a separate unit. It will be installed in the pump or engine compartment with the control located on the pump operator's control panel. The exchanger will be plumbed to the master drain valve.
0014486	Not Required, Transfer Valve, Single Stage Pump	

0746501	Valve, Relief Intake, Elkhart	INTAKE RELIEF VALVE - PUMP There will be One (1) Elkhart Style 40 relief valve(s) installed on the suction side of the pump preset at 125 psig. The relief valve(s) will have a working range of 75 psi to 250 psi. The outlet will terminate below the frame rails with a 2.50" National Standard hose thread adapter and will have a "do not cap" warning tag. The relief valve pressure control will be located behind behind the right side pump panel with a stainless steel access door .
0794959	Controller, Pressure, Pierce, Pump Boss, PBA300	PRESSURE CONTROLLER A Pierce Pump Boss Model PBA300 pressure governor will be provided. A pressure transducer will be installed in the water discharge manifold on the pump. The display panel will be located at the pump operator's panel.
0621185	Primer, Trident, Air Prime, Air operated, Auto w/Gauge	PRIMING PUMP The priming pump will be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi based AirPrime System, conforming to standards outlined in the current edition of NFPA 1901. All wetted metallic parts of the priming system are to be of brass and stainless steel construction. One (1) priming control will open the priming valve and start the pump primer. The control will have a three position switch for automatic, off or test. In the sentry mode (automatic) the primer will sense when the pump losses discharge pressure and start the pump primer. The primer will automatically stop once the pump has pressure. A vacuum gauge will indicate the vertical elevation of water in feet during priming operation.
0044552	Line, 0.50" Recirculating w/Check Valve	RECIRCULATING LINE WITH CHECK VALVE A 0.50" diameter recirculating line, from the pump to the water tank, will be furnished with a control installed at the pump operator's control panel. A check valve will be provided in this line to prevent the back flow of water from the tank to the pump if the valve is left in the open position.
0658368	Thermal Relief Valve, OPM, w/Red Warning Light, Waterous Pump	THERMAL RELIEF VALVE A Waterous Overheat Protection Manager (OPM) will be included on the pump that monitors pump water temperature and opens to relieve water to cool the pump when the temperature of the pump water exceeds 140 Degrees F (60 C) and a red warning light that is triggered when the water in the pump reaches 180 F (82 C). The warning light will act as an additional protection device if the temperature in the pump keeps rising after the valve opens. The warning light with a test switch will be mounted on the pump operator panel. The discharge line will be plumbed to ground.
0780364	Manuals, Pump, (2) Total, Electronic Copies	PUMP MANUALS There will be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals will be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual will cover pump operation, maintenance, and parts.
0602512	Plumbing, Stainless Steel and Hose, Single Stage Pump, Control Zone	PLUMBING, STAINLESS STEEL AND HOSE All inlet and outlet lines will be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's will be equipped with brass or stainless steel couplings. All stainless steel hard plumbing will be a minimum of a schedule 10 wall thickness. Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping will be equipped with victaulic or rubber couplings. Plumbing manifold bodies will be ductile cast iron or stainless steel. All piping lines are to be drained through a master drain valve or will be equipped with individual drain valves. All drain lines will be extended with a hose to drain below the chassis frame. All water carrying gauge lines will be of flexible polypropylene tubing. All piping, hose and fittings will have a minimum of a 500 PSI hydrodynamic pressure rating.
0795135	Plumbing, Stainless Steel, w/Foam System	FOAM SYSTEM PLUMBING All piping that is in contact with the foam concentrate or foam/water solution will be stainless steel. The fittings will be stainless steel or brass. Cast iron pump manifolds will be allowed.
0004645	Inlets, 6.00" - 1250 GPM or Larger Pump	MAIN PUMP INLETS A 6.00" pump manifold inlet will be provided on each side of the vehicle. The suction inlets will include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.
0014650	Pump Suction Tube(s), Short, All	SHORT SUCTION TUBE(S) The suction tube(s) on the water pump will have short suction tube(s) installed to allow for installation of adapters, elbows or intake valves without excessive overhang.

0004646	Cap, Main Pump Inlet, Long Handle, NST, VLH	MAIN PUMP INLET CAP The main pump inlets will have National Standard Threads with a long handle chrome cap. The cap will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0084610	Valves, Akron 8000 series- All	VALVES All ball valves will be Akron® Brass. The Akron valves will be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve. Valves will have a ten (10) year warranty.
0016158	Valve, Inlet(s) Recessed, Side Cntrl, "Control Zone"	The location of the valve for the one (1) inlet will be recessed behind the pump panel.
0004700	Control, Inlet, at Valve	INLET CONTROL The side auxiliary inlet(s) will incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism will indicate the position of the valve.
0004660	Inlet (1), Left Side, 2.50"	LEFT SIDE INLET There will be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet will be provided with a strainer, chrome swivel and plug.
0004680	Inlet, Right Side, 2.50"	RIGHT SIDE INLET There will be one (1) auxiliary inlet with a 2.50" valve at the right side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet will be provided with a strainer, chrome swivel and plug.
0034720	Anode, Zinc, Pair, Pump Inlets	ANODE, INLET A pair of sacrificial zinc anodes will be provided in the water pump inlets to protect the pump from corrosion.
0092569	No Rear Inlet (Large Dia) Requested	
0064116	No Rear Inlet Actuation Required	
0092696	Not Required, Cap, Rear Inlet	
0009648	No Rear Intake Relief Valve Required on Rear Inlet	
0092568	No Rear Auxiliary Inlet Requested	
0723049	Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	INLET BLEEDER VALVE A 0.75" bleeder valve will be provided for each side gated inlet. The valves will be located behind the panel with a "T" swing style handle control extended to the outside of the panel. The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. The water discharged by the bleeders will be routed below the chassis frame rails.
0014751	Tank to Pump, (1) 3.00" Valve, 3.00" Plumbing, Reverse Linkage	TANK TO PUMP The booster tank will be connected to the intake side of the pump with heavy duty piping and a quarter turn 3.00" full flow line valve with the control remotely located at the operator's panel. The tank to pump line will run straight (no elbows) from the pump into the front face of the water tank and down into the tank sump. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing. The control on the pump panel will be "in" when the valve is open and "out" when the valve is closed. A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.
0004905	Outlet, Tank Fill, 1.50"	TANK REFILL A 1.50" combination tank refill and pump re-circulation line will be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.

0062133	Control, Outlets, Manual, Pierce HW if applicable	DISCHARGE OUTLET CONTROLS The discharge outlets will incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The valve operating mechanism will indicate the position of the valve. If a handwheel control valve is used, the control will be a minimum of a 3.9" diameter stainless steel handwheel with a dial position indicator built in to the center of the handwheel. Any 3.00 inch or larger discharge valve will be a slow-operating valve in accordance with NFPA 16.7.5.3.
0004940	Outlet, Left Side, 2.50"	LEFT SIDE DISCHARGE OUTLETS There will be Two (2) discharge outlets with a 2.50" valve on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.
0005091	Elbow, Left Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	LEFT SIDE OUTLET ELBOWS The 2.50" discharge outlets located on the left side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092570	Not Required, Outlets, Left Side Additional	
0035094	Not Required, Elbow, Left Side Outlets, Additional	
0004945	Outlet, Right Side, 2.50"	RIGHT SIDE DISCHARGE OUTLETS There will be One (1) discharge outlet with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter.
0025091	Elbow, Right Side Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	RIGHT SIDE OUTLET ELBOWS The 2.50" discharge outlets located on the right side pump panel will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092571	Not Required, Outlets, Right Side Additional	
0089584	Not Required, Elbow, Right Side Outlets, Additional	
0005047	Outlet, 4" w/4" Right, Handwheel	LARGE DIAMETER DISCHARGE OUTLET There will be a 4.00" discharge outlet with a 4.00" Akron valve installed on the right side of the apparatus, terminating with a 4.00" (M) National Standard hose thread adapter. This discharge outlet will be actuated with a handwheel control at the pump operator's control panel. An indicator will be provided to show when the valve is in the closed position.
0005097	Elbow, Large Dia Outlet, 30 Deg, 4.00" FNST x 5.00" Storz	LARGE DIAMETER OUTLET ELBOWS The 4.00" outlet(s) will be furnished with one (1) 4.00" (F) National Standard hose thread x 5.00" Storz elbow adapter with Storz cap.
0649939	Outlet, Front, 1.50" w/2" Plumbing	FRONT DISCHARGE OUTLET There will be one (1) 1.50" discharge outlet piped to the front of the apparatus and located on the top of the right side of the front bumper. Plumbing will consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe will be used in the plumbing where appropriate. The piping will terminate with a 1.50" NST with 90 degree stainless steel swivel. There will be automatic drains provided at all low points of the piping.
0004995	Outlet, Rear, 2.50"	REAR DISCHARGE OUTLET There will be Two (2) discharge outlets piped to the rear of the hose bed, one (1) each side, installed so proper clearance is provided for spanner wrenches or adapters. Plumbing will consist of 2.50" piping along with a 2.50" full flow ball valve with the control from the pump operator's panel.

0045091	Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	REAR OUTLET ELBOWS The 2.50" discharge outlets located at the rear of the apparatus will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092574	Not Required, Outlet, Rear, Additional	
0085695	Not Required, Elbow, Rear Outlets, Large, Additional	
0092573	Not Required, Outlet, Hose Bed/Running Board Tray	
0752097	Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	DISCHARGE CAPS/ INLET PLUGS Chrome plated, rocker lug, caps with chain will be furnished for all discharge outlets 1.00" thru 3.00" in size, besides the pre-connected hose outlets. Chrome plated, rocker lug, plugs with chain will be furnished for all auxiliary inlets 1.00" thru 3.00" in size. The caps and plugs will incorporate a thread design to automatically relieve stored pressure in the line when disconnected.
0723042	Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	OUTLET BLEEDER VALVE A 0.75" bleeder valve will be provided for each outlet 1.50" or larger. Automatic drain valves are acceptable with some outlets if deemed appropriate with the application. The valves will be located behind the panel with a T swing style handle control extended to the outside of the side pump panel. The handles will be chrome plated and provide a visual indication of valve position. The T swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. Bleeders will be located at the bottom of the pump panel. They will be properly labeled identifying the discharge they are plumbed in to. The water discharged by the bleeders will be routed below the chassis frame rails.
0638545	Outlet, 3.00" Deluge Riser, Elkhart Valve w/Handwheel	DELUGE RISER A 3.00" deluge riser will be installed above the pump in such a manner that a monitor can be mounted and used effectively. Piping will be installed securely so no movement develops when the line is charged. The riser will be gated and controlled at the pump operator's panel. The outlet will include an Elkhart Unibody valve with a Pierce handwheel control.
0543581	Monitor, Elkhart Stinger 8297-10, No Ground Base	MONITOR An Elkhart Model 8297-98 "Stinger" monitor will be properly installed on the deluge riser. This monitor will include the fixed base only. The monitor will be painted to match the lower body.
0046998	Nozzle, Elkhart SM-1250, Manual, ST-194 Tips and 282A shaper	MONITOR NOZZLE An Elkhart #SM-1250 Select-O-Matic manual pattern control master stream nozzle will be provided. Also included is an Elkhart ST-194 Quad stack tips and 282A shaper.
0544561	Mount, Elkhart #8298 (for Elkhart Stinger), Adapter, Flange	MONITOR MOUNTING BASE An Elkhart Model 8298 deck mount base for an Elkhart "Stinger" monitor will be properly installed on the deluge riser via the 3.00" four bolt flange. The base will NOT BE PAINTED per the manufacturers recommendations.
0723726	Speedlay Module Not Required	
0722432	Hose Restraint Not Required, No Speedlay Module	
0723395	Speedlays, Not Required	
0723394	Speedlays, Not Required	

0029210	Crosslays Sngl Sheet, (2+) 1.50", Spl. Cap/Arrangement	CROSSLAY HOSE BEDS, 1.50" Two (2) crosslays with 1.50" outlets will be provided. Each bed to be capable of carrying full height to match the deadlay, both crosslays no wider than 7.50" clear and will be plumbed with 2.00" i.d. pipe and gated with a 2.00" quarter turn ball valve. Outlets to be equipped with a 1.50" National Standard hose thread 90 degree swivel located in the hose bed so that hose may be removed from either side of apparatus. The crosslay controls will be at the pump operator's panel. The center crosslay dividers will be fabricated of .25" aluminum and will provide adjustment from side to side. The divider will be unpainted with a brushed finish. Vertical scuffplates, constructed of stainless steel, will be provided at the front and rear ends of the bed on each side of vehicle. Crosslay bed flooring will consist of removable perforated brushed aluminum.
0092183	Deadlay(s) No Plumbing, Spl Capacity,	DEADLAY HOSE BEDS One (1) deadlay bed, without plumbing, will be provided above the pump compartment capable of carrying the clear width set at 9.00", match the height of the front crosslay bed, and make the deadlay the forward bed in front of the crosslays.. The center crosslay dividers will be fabricated of .25" aluminum and will provide adjustment from side to side. The divider will be unpainted with a DA finish. The remainder of the crosslay bed will be painted job color. Stainless steel vertical scuffplates will be provided at hose bed ends (each side of vehicle). Bottom of hose bed ends (each side) will also be equipped with a stainless steel scuffplate. Deadlay bed flooring will consist of removable perforated brushed aluminum.
0751312	Hose Restraint, Crosslays, Vinyl, (2) Seat Belt Buckle, Tether Release	CROSSLAY/DEADLAY HOSE RESTRAINT A black vinyl cover restraint will be provided across the ends of crosslay(s)/deadlay(s) to secure the hose during travel. The webbing assembly is to be attached at the bottom of the crosslay (s)/deadlay(s) with footman loops as a permanent attachment and is attached at the top outside corners with two (2) seat belt buckles. The female end is permanently attached above the crosslay(s)/deadlay(s) and the male end attached to the webbing. There will be a metal bar, to connect the buckles, and an attached web strap, to allow a single pull release. The color of the release strap will be orange.
0029260	Not Required, Speedlays	
0750536	Hose Restr, Spdly, Not Required, No Spdly	
0615255	Cover, Crosslay, 3/16" Alum Treadplate, Front Hinge	CROSSLAY COVER A hinged .19" aluminum treadplate cover will be installed over the crosslay hose beds. It will include a latch at each end of the cover to hold it securely in place, a chrome grab handle at each end for opening and closing the cover and a foam rubber gasket where the cover comes into contact to a painted surface. The cover will be provided with rubber latch hold open device. The hinge will be to the front of the hose beds.
0019853	Crosslays, 8.00" Lower Than Standard - Control Zone w/9.00" Raised PH	CROSSLAY 8.00" LOWER THAN STANDARD The crosslays will be lowered 8.00" from standard.
0005216	Reel, Booster, Aluminum - Over Pump, Left Side	BOOSTER HOSE REEL A Hannay electric rewind booster hose reel will be installed over the pump in a recessed open compartment on the left side of the apparatus. Reel will be fabricated of aluminum and have highly polished end discs. A polished stainless steel roller and guide assembly will be mounted on the reel side of the apparatus. Discharge control will be provided at the pump operator's panel. Plumbing to the reel will consist of 1.50" Aeroquip hose and a 1.50" valve.
0005280	Switches, Reel Rewind - (1) Each Pump Panel	Reel motor will be protected from overload with a circuit breaker rated to match the motor. Two (2) electric rewind control switches will be provided, one (1) installed on each pump panel.
0075300	Hose, Booster - 100' of 1.00"/800 PSI	Booster hose, 1.00" diameter and 100 feet, with chrome plated Barway, or equal couplings will be provided. Working pressure of the booster hose will be a minimum of 800 psi.
0025244	Capacity, Hose Reel 100' of 1"	Capacity of the hose reel will be 100 feet of 1.00" booster hose.
0007428	Nozzle for Booster Reel Not Req'd	

0515688	Gauge, Hose Reel, (Match Panel Gauges)	PRESSURE GAUGE There will be a pressure gauge provided for one (1) hose reel(s). The gauge will be located per pump panel layout. The gauge will match the discharge outlet gauges.
0021954	Cutout for Reel Access, One, w/ S/S Trim	HOSEREEL ACCESS A cutout will be provided in the side sheet next to the booster hose reel. This cutout will allow access to the hose and provide a window to view the reel. Stainless steel trim will be mounted horizontally and vertically around the cutout.
0622237	Roller Assembly, Additional	There will be one (1) additional polished stainless steel roller and guide assembly mounted right side.

HUSKY 3 FOAM PROPORTIONER

A Pierce Husky® 3 foam proportioning system will be provided. The Husky 3 is an on demand, automatic proportioning, single point, direct injection system suitable for all types of Class A and B foam concentrates, including the high viscosity (6000 cps), alcohol resistant Class B foams. Operation will be based on direct measurement of water flow, and remain consistent within the specified flows and pressures. The system will automatically proportion foam solution at rates from .1 percent to 3 percent regardless of variations in water pressure and flow, up to the maximum rated capacity of the foam concentrate pump.

The design of the system will allow operation from draft, hydrant, or relay operation.

System Capacity

The system will have the ability to deliver the following minimum foam solution flow rates at accuracies that meet or exceed NFPA requirements at a pump rating of 150 psi.

100 gpm @ 3 percent

300 gpm @ 1 percent

600 gpm @ 0.5 percent

Class A foam setting in .1 percent increments from .1 percent to 1 percent. Typical settings of 1 percent, .5 percent and .3 percent (maximum capacity will be limited to the plumbing and water pump capacity).

Control System

The system will be equipped with a digital electronic control display located on the pump operators panel. Push button controls will be integrated into the panel to turn the system on/off, control the foam percentage, and to set the operation modes.

The percent of injection will have a preset. This preset can be changed at the fire department as desired. The percent of injection will be able to be easily changed at the scene to adjust to changing demands.

Three (3) .50 tall LEDs will display the foam percentage in numeric characters. Three (3) indicator LEDs will also be included, one (1) green, one (1) red, and one (1) yellow. The LEDs will indicate various system operation or error states.

The indications will be:

Solid Green - System On

Solid Red - Valve Position Error

Solid Yellow - Priming System

Flashing Green - Injecting Foam

Flashing Red - Low Tank Level

Flashing Yellow - Refilling Tank

The control display will house a microprocessor, which receives input from the systems water flow meter while also monitoring the position of the foam concentrate pump. The microprocessor will compare the values of the water flow versus the position/rate of the foam pump, to ensure the proportion rate is accurate. One (1) check valve will be installed in the plumbing to prevent foam from contaminating the water pump.

Hydraulic Drive System

The foam concentrate pump will be powered by an electric over hydraulic drive system. The hydraulic system and motor will be integrated into one (1) unit.

Foam Concentrate Pump

The foam concentrate pump will be of positive displacement, self-priming; linear actuated design, driven by the hydraulic system. The pump will be constructed of brass body; chrome plated stainless steel shaft, with a stainless steel piston. In order to increase longevity of the pump, no aluminum will be present in its construction.

A relief system will be provided which is designed to protect the drive system components and prevent over pressuring the foam concentrate pump

The foam concentrate pump will have minimum capacity for 3 gpm with all types of foam concentrates with a viscosity at or below 6000 cps including protein, fluoroprotein, AFFF, FFFP, or AR-AFFF. The system will deliver only the amount of foam concentrate flow required, without recirculating foam back to the storage tank. Recirculating foam concentrate back to the storage tank can cause agitation and premature foaming of the concentrate, which can result in system failure. The foam concentrate pump will be self-priming and have the ability to draw foam concentrate from external supplies such as drums or pails.

External Foam Concentrate Connection

An external foam pick-up will be provided to enable use of a foam agent that is not stored on the vehicle. The external foam pick-up will be designed to allow continued operation after the on-board foam tank is empty, or the use of foam different than the foam in the foam tank.

Panel Mounted External Pick-Up Connection / Valve

A bronze three (3)-way valve will be provided. The unit will be mounted to the pump panel. The valve unit will function as the foam system tank to pump valve and external suction valve. The external foam pick-up will be one (1) 0.75" male connection GHT (garden hose thread) with a cap.

Pick-Up Hose

A 0.75" flexible hose with an end for insertion into foam containers will be provided. The hose will be supplied with a 0.75" female swivel GHT (garden hose thread) swivel connector. The hose will be shipped loose.

Discharges

The foam system will be plumbed to the right side of front bumper, hose reel in left side of dunnage area, left rear outlet, right rear outlet, front crosslay and rear crosslay.

System Electrical Load

The maximum current draw of the electric motor and system will be no more than 55 amperes at 12 VDC.

0592527	Refill, Foam Tank, Integral, Husky 3	SINGLE FOAM TANK REFILL The foam system's proportioning pump will be used to fill the foam tank. This will allow use of the auxiliary foam pick-up to pump the foam from pails or a drum on the ground into the foam tank. A foam shut-off switch will be installed in the fill dome of the tank to shut the system down when the tank is full. The fill operation will be controlled by a mode in the foam system controller. While the proportioner pump is filling the tank, the controller will display a flashing yellow LED to indicate that the tank is filling. When the tank is full, as determined by the float switch in the tank dome, the pump will stop and the controller will shut the yellow LED off. If it attempted to use tank fill and the refill valve and suction valve are in the wrong position(s), then a red LED will illuminate to indicate the improper valve position(s). When the valves are positioned properly, then filling will commence.
0031896	Demonstration, Foam System, Dealer Provided	
0005446	Foam Cell, 20 Gallon, Not Reduce Water	FOAM TANK The foam tank will be an integral portion of the polypropylene water tank. The cell will have a capacity of 20 gallons of foam with the intended use of Class A foam. The foam cell will not reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.
0894580	Drain, 1.00", Foam Tank #1, Husky 3 Foam System, "T" Swing Handle	FOAM TANK DRAIN The foam tank drain will be a 0.75" drain valve with a "T" swing handle. The drain will have 1.00" fittings located inside the pump/plumbing compartment.
0091079	Not Required, Foam Tank #2	
0091112	Not Required, Foam Tank #2 Drain	
0746445	Approval Dwg, Pump Operator's Panel, Includes Color And Label Tags	The following drawing(s) will be provided for approval by the customer. The drawing(s) will be made for up One (01) Truck apparatus and/or similar Pierce job number. PUMP OPERATOR'S PANEL DRAWING A detailed drawing to scale of the pump operator's panel will be provided for the customer to review. The drawing will include all of the gauges, controls, switching, etc., located on the pump operator's panel. The customer will be allowed to make changes and/or mark-ups to this approval drawing. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved pump operator's panel drawing will become part of the contract documents. Due to the way drain(s), bleeder(s), operational/maintenance tag(s) and NFPA required warning tag(s) are placed on pump panel(s), these items will NOT be shown on any pump panel approval drawing(s). These item(s) will be placed on pump panel(s) at the fire apparatus manufacturer discretion. COLOR CODED TAGS A detailed drawing/chart of the colors used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved drawing/chart of the colors will become part of the contract documents. SPECIAL TEXT/VERBIAGE TAGS A detailed drawing/chart of the text/verbiage used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved drawing/chart of the text/verbiage will become part of the contract documents.
0032479	Pump Panel Configuration, Control Zone	PUMP PANEL CONFIGURATION The pump panel configuration will be arranged and installed in an organized manner that will provide user-friendly operation.
0629252	Material, Pump Panels, Side Control Black Vinyl	PUMP AND GAUGE PANEL The pump and gauge panels will be constructed of aluminum with a black vinyl finish. A polished aluminum trim molding will be provided around each panel.
0664612	Panel, Pump Access - Vertical Hinged, Right Side, Hinged Left Side Gauge Pnl	The right side pump panel will be vertically hinged and fastened with lift and turn fasteners. The left side operators pump panel will be secured using screws. The upper left side gauge panel will be horizontally hinged and fastened with lift and turn latches.

0583824	Light, Pump Compt, Wln 3SC0CDCR LED White	PUMP COMPARTMENT LIGHT There will be one (1) Whelen®, Model 3SC0CDCR, 3.00" white 12 volt DC LED light(s) with Whelen, Model 3FLANGEC, flange(s) installed in the pump compartment. There will be a switch accessible through a door on the pump panel included with this installation.
0586382	Gauges, Engine, Included With Pressure Controller	Engine monitoring graduated LED indicators will be incorporated with the pressure controller. Also provided at the pump panel will be the following: - Master Pump Drain Control
0005601	Throttle, Engine, Incl'd w/Press Controller	
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle,Green	THROTTLE READY GREEN INDICATOR LIGHT There will be a green indicator light integrated with the pressure governor and/or engine throttle installed on the pump operators panel that is activated when the pump is in throttle ready mode.
0549333	Indicators, Engine, Included with Pressure Controller	
0745568	Indicator Light, Pump Panel, Ok To Pump, Green	OK TO PUMP INDICATOR LIGHT There will be a green indicator light installed on the pump operators panel that is activated when the pump is in Ok To Pump mode.
0049174	Compartment, Cab Lift Control, Pump Panel, S/S Door	COMPARTMENT, CAB LIFT CONTROL PANEL A compartment will be provided at the pump panel, left side. This compartment will be large enough to house the control panel for the cab lift. A stainless steel door will be provided.
0553643	Control, Air Horn at Pmp Pnl, Red Switch	AIR HORN SWITCH An air horn control switch will be provided at the pump operator's control panel. This switch will be red and properly labeled. The switch will be located within easy reach of the operator in the electrical switch panel.
0066121	Drains, LS, Keep Area Under Main Inlet Clear	DRAINS, LEFT SIDE The drains on the left side pump panel will be located to keep the area under the main pump inlet clear for customer installed piston intake valve.
0081262	Drains, RS, Keep Area Under Main Inlet Clear	RIGHT SIDE DRAINS The drains on the right side pump panel will be located to keep the area under the main pump inlet clear for customer installed piston intake valve.
0044860	Test Port, Electronic, Pump RPM, Waterous Pump	TEST PORT An electronic pump RPM test port will be provided.
0005689	Gauges, 4.50" Master, Class 1, 30"-0-600psi	VACUUM AND PRESSURE GAUGES The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated ©. The gauges will be a minimum of 4.50" in diameter and will have white faces with black lettering, with a pressure range of 30.00"-0-600#. The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel. Test port connections will be provided at the pump operator's panel. One will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and polished stainless steel plugs. They will be marked with a label.
0511100	Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	PRESSURE GAUGES The individual "line" pressure gauges for the discharges will be Class 1© interlube filled. They will be a minimum of 2.00" in diameter and have white faces with black lettering. Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut. Gauges will have a pressure range of 30"-0-400#. The individual pressure gauge will be installed as close to the outlet control as practical. This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.

0607159	Gauge, Water Level, FRC, WLA 300-A00, TankVision Pro	WATER LEVEL GAUGE A Fire Research TankVision Pro model WLA300-A00 water tank indicator gauge will be installed on the pump operators panel. The gauge kit will include an electronic indicator module, a pressure sensor, and a 10' sensor cable. The gauge will show the volume of water in the tank on nine (9) easy to see super bright RGB LEDs. A wide view lens over the LEDs will provide for a viewing angle of 180 degrees. The gauge case will be waterproof, manufactured of Polycarbonate/Nylon material, and have a distinctive blue label. The program features will be accessed from the front of the indicator module. The program will support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns to display tank volume, adjustable brightness control levels and a data link to connect remote indicators. Low water warnings will include flashing LEDs at 1/4 tank and down chasing LEDs when the tank is almost empty. The gauge will receive an input signal from an electronic pressure sensor. The sensor will be mounted from the outside of the water tank near the bottom. No probe will be placed on the interior of the tank. Wiring will be weather resistant and have automotive type plug-in connectors.
0084763	Gauge, Ernst Sight Water Level, w/Red Ball, IATS	WATER LEVEL GAUGE, ADDITIONAL An additional water level gauge will be provided. An Ernst sight tube water level indicator with a floating red ball will be mounted on the gauge panel with an unrestricted view for the operator.
0604354	Gauge, Foam Level, FRC, Tank Vision Pro, WLA 360-A00, Class "A"	CLASS "A" FOAM LEVEL GAUGE A Fire Research TankVision Pro model WLA360-A00 cell/tank level indicator kit will be installed on the pump operators panel. The kit will include an electronic indicator module, a pressure sensor, a 10' sensor cable and a tank vent. The indicator will show the volume of Class "A" foam concentrate in the cell/tank on nine (9) easy to see super bright RGB LEDs. A wide view lens over the LEDs will provide for a viewing angle of 180 degrees. The indicator case will be waterproof, manufactured of Polycarbonate/Nylon material and have a distinctive green label. The program features will be accessed from the front of the indicator module. The program will support self-diagnostics capabilities, self-calibration, six (6) programmable colored light patterns to display cell/tank volume, adjustable brightness control levels and a data link to connect remote indicators. Low foam level warnings will include flashing LEDs at 1/4 cell/tank and down chasing LEDs when the cell/tank is almost empty. The indicator will receive an input signal from an electronic pressure sensor. The sensor will be mounted from the outside of the foam cell/tank near the bottom. No probe will be placed on the interior of the cell/tank. Wiring will be weather resistant and have automotive type plug-in connectors.
0682503	Light Shield/Step 8", LED, P25 LED Stp Lt	STEP/LIGHT SHIELD There will be an aluminum treadplate stepping surface no less than 8.00" deep and properly reinforced to support a man's weight, installed over the pump operators panel. There will be 12 volt DC white LED lights installed under the step to illuminate the controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus. These lights will be activated by the pump panel light switch. Additional lights will be included every 18.00" depending on the size of the pump house. One (1) pump panel light will come on when the pump is in ok to pump mode. There will be a light activated above the pump panel light switch when the parking brake is applied. This is to afford the operator some illumination when first approaching the control panel. There will be one (1) white LED, step light provided above this step. In order to ensure exceptional illumination, each step light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light. The step light will be activated by the pump panel light switch.
0003930	Microphone & Speaker w/Plain Door - Pump Operator's Position, Body Bulkhead	MICROPHONE AND SPEAKER COMPARTMENT A microphone and speaker compartment with a polished stainless steel door will be furnished adjacent to the pump operator's panel. The compartment size will be 12.00" high x 9.00" wide x 6.00" deep.
0606694	Air Horns, (2) Hadley, 6" Round, eTone, In Bumper	AIR HORN SYSTEM Two (2) Hadley®, eTone, chrome air horns will be recessed in the front bumper. The air horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed to prevent the loss of air in the brake system.
0606835	Location, Air Horns, Bumper, Each Side, Outside Frame, Outboard (Pos #1 & #7)	Air Horn Location The air horns will be located on each side of the bumper, towards the outside.
0757092	Control, Air Horn, Multi Select	Air Horn Control The air horn(s) will be activated by the following:
0757081	Control, Air Horn, Ft Sw, LS	Left side foot switch
0723391	Control, Air Horn, Chrome Push Button Sw, RS	Right side chrome push button switch

0602752	Siren, Wln 295HFS2 Remote, Single Amp, Other Speaker, Non-NFPA 2016	ELECTRONIC SIREN A Whelen 295HFS2, electronic remote siren with noise canceling microphone will be provided. This siren to be active when the battery switch is on and that emergency master switch is on. NFPA 1901, 2016 edition, Section 13.9.1.1 requires the siren manufacturer to certify the siren as meeting the requirements of SAE J1849, <i>Emergency Vehicle Sirens</i> . Per the fire department specification, the siren and siren speaker come from separate manufacturers and a certification is therefore not valid. The apparatus will be non compliant to NFPA 1901 standards at time of contract execution.
0790527	Location, Electronic Siren, Center Dash Switch Panel, Saber FR	The electronic siren head will be located in switch panel # 13 area of the center dash switch panel.
0076156	Control, Elec Siren, Head Only	The electronic siren will be controlled on the siren head only. No horn button or foot switches will be provided.
0601330	Speaker, (1) Federal, ES100C w/ESFMT-EF Recess Mnt & S/S Grille	SPEAKER There will be one (1) Federal Signal DynaMax®, Model ES100, 100 watt speaker provided. The speaker will use a Federal Signal, Model ESFMT-EF, recess mount with stainless steel grille. The speaker will be connected to the siren amplifier.
0601556	Location, Speaker, Frt Bumper, Recessed, Left Side, Outside Frame, Inbrd (Pos 6)	The speaker will be recessed in the left side of the front bumper, just outside of the frame rail.
0895310	Siren, Federal Q2B	AUXILIARY MECHANICAL SIREN There will be a Federal Signal Model Q2B mechanical siren furnished and installed in the front of the apparatus. The Q2B will be chrome finish. The siren will have a 2-gauge cable connected to a power solenoid that is connected by a 2-gauge cable ran battery direct to the primary chassis batteries and will be labeled Q2B+ at the battery. The power solenoid will only be enabled when the emergency master switch is on. The siren will have a 2-gauge ground wire connected to the chassis battery stud. The cable will be labeled Q2B- at the battery. When the chassis battery switch is on, and the emergency master switch is on, the Q2B siren will be activated by the following:
0006097	Location of Siren, Recessed in Bumper	The mechanical siren will be recessed in the front bumper on the right side. The siren will be properly supported using the bumper framework.
0748305	Control, Mech Siren, Multi Select	MECHANICAL SIREN CONTROL The mechanical siren will be activated by the following:
0748282	Control Mech Siren, Ft Sw LS	Left side foot switch.
0731979	Control Mech Siren, Push Button Sw, Chrome, RS	Right side chrome push button switch.
0731683	Sw, Siren Brake, Mom Rocker, Red Outline, Lower Sw Pnl, Mux	A momentary rocker switch with red outline around the black switch will be included in the lower switch panel to activate the siren brake.
0734674	Sw, Siren Brake, Mom Rocker, Red Outline, RS Overhead Sw Pnl, Mux	A momentary rocker switch will be included in the right side overhead switch panel to activate the siren brake. There will be a red outline decal around the black rocker switch.
0046087	Guard, Q2B Siren Recessed In Bumper, 2-Horizontal Bars	Q2B SIREN GUARD A chrome plated guard will be provided over the Q2B siren recessed in front bumper extension. Guard will consist of two (2) horizontal chrome plated bars.
0746353	Not Required, Warning Lights Intensity	

0768755	Lightbar, Wln, Freedom IV-D, 81", RRRRRW RWOptRWRWRRRRR	FRONT ZONE UPPER WARNING LIGHTS There will be an 81.00" Whelen® Freedom™ IV LED lightbar mounted on the cab roof. The lightbar will include the following: One (1) red flashing LED module in the left side rear corner position. One (1) red flashing LED module in the left side end position. One (1) red flashing LED module in the left side front corner position. One (1) red flashing LED module in the left side first front position. One (1) red flashing LED module in the left side second front position. One (1) white flashing LED module in the left side third front position. One (1) red flashing LED module in the left side fourth front position. One (1) white flashing LED module in the left side fifth front position. One (1) red flashing LED module in the left side sixth front position. One (1) 795 LED traffic light controller set to national standard high priority in the center position. One (1) red flashing LED module in the right side sixth front position. One (1) white flashing LED module in the right side fifth front position. One (1) red flashing LED module in the right side fourth front position. One (1) white flashing LED module in the right side third front position. One (1) red flashing LED module in the right side second front position. One (1) red flashing LED module in the right side first front position. One (1) red flashing LED module in the right side front corner position. One (1) red flashing LED module in the right side end position. One (1) red flashing LED module in the right side rear corner position. There will be clear lenses included on the lightbar. The following switches may be installed in the cab on the switch panel to control the lightbar: a switch to control the flashing LED modules the traffic light controller will be by a cab switch with emergency master control there will be a passenger's side momentary cab switch with no emergency master control to activate the traffic light controller The four (4) white flashing LED modules and the traffic light controller will be deactivated when the parking brake is applied. The eight (8) red flashing LED modules in the front positions and two (2) red flashing LED modules in the rear corner positions may be load managed when the parking brake is applied.
0605741	Lightbars, Wln, Freedom IV, 2-21.5", RRRR RRRR	SIDE WARNING LIGHTS There will be two (2) 21.50" Whelen Freedom IV LED lightbars mounted on the roof, one (1) on each side, over the crew cab doors. Each lightbar will include the following: One (1) red flashing LED module in the outside rear corner position. One (1) red flashing LED module in the rear outside position. One (1) red flashing LED module in the front outside position. One (1) red flashing LED module in the outside front corner position. There will be clear lenses included on the lightbar. There will be a switch in the cab on the switch panel to control the lightbars. These lights may be load managed when the parking brake is applied.
0016380	No Additional Lights Req'd, Side Zone Upper	
0899300	Lights, Front Zone, Wln M6** M6RS M6RS M6**, Inside Steady Burn, 4lts Q Bez	FRONT ZONE LOWER LIGHTS There will be four (4) Whelen®, 4.31" high x 6.75" wide x 1.37" deep lights installed on the cab face above the headlights, in a common bezel matching the one for the headlamps per the following. One (1) Model M6** flashing light installed in the left side outside position. The left side outside warning light to include red LEDs. One (1) Model M6RS steady burning light installed in the left side inside position. The light will include red LEDs. One (1) Model M6RS steady burning light installed in the right side inside position. The light will include red LEDs. One (1) Model M6** flashing light installed in the right side outside position. The right side outside warning light to include red LEDs. The lens color(s) to be clear. The housing to be polished and the trim shall be chrome. There will be a switch in the cab on the switch panel to control the lights.
0653937	Flasher, Headlight Alternating	HEADLIGHT FLASHER The high beam headlights will flash alternately between the left and right side. There will be a switch installed in the cab on the switch panel to control the high beam flash. This switch will be live when the battery switch and the emergency master switches are on. The flashing will automatically cancel when the hi-beam headlight switch is activated or when the parking brake is set.

0625377	Lights, Side Zone Lower, Wln M6**, M6**, M6V2** 6lts	SIDE ZONE LOWER LIGHTING There will be six (6) Whelen®, 4.32" high x 6.75" long LED lights with Model M6FC, chrome flanges installed per the following: Two (2) Model M6**, flashing warning lights, one (1) each side on the bumper extension. The side front lights to be red. Two (2) Model M6**, flashing warning lights, BEHIND THE CREW CAB DOORS. The side middle lights to be red. Two (2) Model M6V2*, flashing warning lights with lower scene LEDs, OVER THE REAR REAR WHEELS. The side rear lights to be red. The warning light lens color(s) to be clear. There will be a switch in the cab on the switch panel to control the warning lights. The scene lights will be activated by a switch at the driver's side switch panel and side scene lights activated when the chassis transmission is shifted into reverse.
0896616	Lights, Door Interior Flash, 4 Dr Cab, Weldon 8401-0000-20 Strip Light	INTERIOR CAB DOOR WARNING LIGHTS There will be four (4) Weldon, Model 8401-0000-20, 16" long x 3/4" High x 5/8" deep amber 12 volt DC LED flashing strip lights provided. One (1) light on the left side cab door. One (1) light on the right side cab door. One (1) light on the right side crew cab door. One (1) light on the left side crew cab door. Each light will be located over the door window.. Each light will be activated when the battery switch is on, respective door is opened and no other controls are on. Each light will be installed so the flash pattern directs traffic away from the doors.
0895609	Connectors, Door Interior Flash, All Cabs, Butt Splice	ELECTRICAL CONNECTORS FOR WARNING LIGHTS The lights will be installed with an insulated crimped factory butt splice connection.
0564655	Lights, Rear Zn Lwr, Wln M6*C LED, Clear Lens, For Tail Lt Housing	REAR ZONE LOWER LIGHTING There will be two (2) Whelen®, Model M6*C, LED flashing warning lights located at the rear of the apparatus. The driver's side rear light to be red The passenger's side rear light to be red Both lights will include a lens that is clear. There will be a switch located in the cab on the switch panel to control the lights.
0686562	Light, Rear Zone Up, Wln MCFLED2* LED	REAR UPPER ZONE WARNING LIGHTS There will be two (2) Whelen, Model MCFLED2* LED warning beacons provided at the rear of the truck, one (1) each side. The color of the lights will be: The rear upper light(s) on the driver's side to be red. The rear upper light(s) on the passenger's side to be red. All lenses will be clear. There will be a switch located in the cab on the switch panel to control the beacons.
0006551	Not Required, Lights, Rear Upper Zone Blocking	
0006615	Mtg, Rear Warn Lts, On Top of Comp	The rear warning lights will be mounted on top of the compartmentation with all wiring totally enclosed. The rear deck lights will be mounted on the beavertails as high as possible.
0791528	Light, Traffic Directing, Wln TAL65, 36.00" Long, TACTL5	TRAFFIC DIRECTING LIGHT There will be one (1) Whelen®, Model TAL65, 36.00" long x 2.87" high x 2.25" deep, amber LED traffic directing light installed at the rear of the apparatus. The Whelen, Model TACTL5, control head will be included with this installation. The controller will be energized when the battery switch is on. The auxiliary flash not activated.
0551728	Location, Traf Dir Lt, Recessed with S/S Trim	This traffic directing light will be recessed with a stainless steel trim plate at the rear of the apparatus as high as practical.
0530282	Location, Traf Dir Lt Controller, Overhead Switch Panel DS Right End	The traffic directing light control head will be located in the driver side overhead switch panel in the right panel position.

0779722	Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Body	120 VOLT RECEPTACLE There will be one (1), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with an interior stainless steel wall plate, installed TO BE PROVIDED. The NEMA configuration for the receptacle(s) will be 5-20R. The receptacle(s) will be powered from the shoreline inlet. There will be a label installed near the receptacle(s) that state the following: Line Voltage Current Rating (amps) Phase Frequency
0519934	Not Required, Brand, Hydraulic Tool System	
0649753	Not Required, PTO Driven Hydraulic Tool System	
0007150	Bag of Nuts and Bolts	LOOSE EQUIPMENT The following equipment will be furnished with the completed unit: One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.
0779624	SP Monitor, Elkhart RAM XD, 500 GPM, Shaper, Tips, Nozzle, Bracket	MONITOR, ELKHART RAM XD one (1) Elkhart RAM XD monitor rated for 500 GPM complete with automatic nozzle (model #3896/RAN), stream shaper (model #282-A), stacked tips (model #ST-197-A), and mounting bracket (model #8296-MB).
0602516	NFPA Required Loose Equipment, Pumper, NFPA 2016, Provided by Fire Department	NFPA REQUIRED LOOSE EQUIPMENT PROVIDED BY FIRE DEPARTMENT The following loose equipment as outlined in NFPA 1901, 2016 edition, section 5.9.3 and 5.9.4 will be provided by the fire department. 800 ft (60 m) of 2.50" (65 mm) or larger fire hose. 400 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose. One (1) handline nozzle, 200 gpm (750 L/min) minimum. Two (2) handline nozzles, 95 gpm (360 L/min) minimum. One (1) smoothbore of combination nozzle with 2.50" shutoff that flows a minimum of 250 gpm. One (1) SCBA complying with NFPA1981 for each assigned seating position, but not fewer than four (4), mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer. One (1) spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space(s). One (1) first aid kit. Four (4) combination spanner wrenches. Two (2) hydrant wrenches. One (1) double female 2.50" (65 mm) adapter with National Hose threads. One (1) double male 2.50" (65 mm) adapter with National Hose threads. One (1) rubber mallet, for use on suction hose connections. Two (2) salvage covers each a minimum size of 12 ft x 14 ft (3.7 m x 4.3 m). One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, <i>Standard for High Visibility Public Safety Vests</i> , and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front. Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (152 mm) from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band. Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities. One (1) automatic external defibrillator (AED). Four (4) ladder belts meeting the requirements of NFPA 1983, <i>Standard on Fire Service Life Safety Rope and System Components</i> (if equipped with an aerial device). If the supply hose carried does not use sexless couplings, an additional double female adapter and double male adapter, sized to fit the supply hose carried, will be carried mounted in brackets fastened to the apparatus. If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side will be carried. Any intake connection larger than 3.00" (75 mm) will include a pressure relief device that meets the requirements of 16.6.6. If the apparatus does not have a 2.50" National Hose (NH) intake, an adapter from 2.50" NH female to a pump intake will be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake. If the supply hose carried has other than 2.50" National Hose (NH) threads, adapters will be carried to allow feeding the supply hose from a 2.50" NH thread male discharge and to allow the hose to connect to a 2.50" NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.

0602407	Soft Suction Hose, Provided by Fire Department, Pumper NFPA 2016 Classification	SOFT SUCTION HOSE PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, section 5.8.2.1 requires a minimum of 20' of suction hose or 15' of supply hose will be carried. Hose is not on the apparatus as manufactured. The fire department will provide suction or supply hose.
0027023	No Strainer Required	
0602538	Extinguisher, Dry Chemical, Pumper NFPA 2016 Class, Provided by Fire Department	DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, section 5.9.4 requires one (1) approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus. The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.
0602360	Extinguisher, 2.5 Gal. Pressurized Water, Pumper NFPA 2016, Provided by Fire Dept	WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, section 5.9.4 requires one (1) 2.5 gallon or larger water extinguisher mounted in a bracket fastened to the apparatus. The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.
0602679	Axe, Flathead, Pumper NFPA 2016 Classification, Provided by Fire Department	FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) flathead axe mounted in a bracket fastened to the apparatus. The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.
0602667	Axe, Pickhead, Pumper NFPA 2016 Classification, Provided by Fire Department	PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) pickhead axe mounted in a bracket fastened to the apparatus. The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

0741569	Paint Process / Environmental Requirements, Appleton	PAINT PROCESS The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows: <u>Manual Surface Preparation</u> - All exposed metal surfaces on the custom cab and body will be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces will be removed and sanded to a smooth finish. Exterior seams will be sealed before painting. Exterior surfaces that will not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate. <u>Chemical Cleaning and Pretreatment</u> - All surfaces will be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces will be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces will be properly cleaned and treated using a high temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion. <u>Surfacer Primer</u> - The Surfacer Primer will be applied to a chemically treated metal surface to provide a strong corrosion protective basecoat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a Critical aesthetic finish. The Surfacer Primer is a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded. <u>Finish Sanding</u> - The Surfacer Primer will be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat. <u>Sealer Primer</u> - The Sealer Primer is applied prior to the Basecoat in all areas that have not been previously primed with the Surfacer Primer. The Sealer Primer is a two-component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated. <u>Basecoat Paint</u> - Two coats of a high performance, two component high solids polyurethane basecoat will be applied. The Basecoat will be applied to a thickness that will achieve the proper color match. The Basecoat will be used in conjunction with a urethane clear coat to provide protection from the environment. <u>Clear Coat</u> - Two (2) coats of Clear Coat will be applied over the Basecoat color. The Clear Coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style and roll-up doors will be Clear Coated to match the body. Paint warranty for the roll-up doors will be provided by the roll-up door manufacturer. After the cab and body are painted, the color will be verified to make sure that it matches the color standard. Electronic color measuring equipment will be used to compare the color sample to the color standard entered into the computer. Color specifications will be used to determine the color match. A Delta E reading will be used to determine a good color match within each family color. All removable items such as brackets, compartment doors, door hinges, and trim will be removed and painted separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly. The paint finish quality levels for critical areas of the apparatus (cab front and sides, body sides and doors, and boom lettering panels) are to meet or exceed Cadillac/General Motors GMW15777 global paint requirements. Orange peel levels are to meet or exceed the #6 A.C.T.standard in critical areas. The manufacture's written paint standards will be available upon request. Environmental Impact Contractor will meet or exceed all current state regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions: Topcoats and primers will be chrome and lead free. Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals. Particulate emission collection from sanding operations will have a 99.99 percent efficiency factor. Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter is used, it will have an efficiency rating of 98 percent. Water wash systems will be 99.97 percent efficient Water from water wash booths will be reused. Solids will be removed on a continual basis to keep the water clean. Paint wastes are disposed of in an environmentally safe manner. Empty metal paint containers will be recycled to recover the metal. Solvents used in clean-up operations will be recycled on-site or sent off-site for distillation and returned for reuse. Additionally, the finished apparatus will not be manufactured with or contain products that have ozone depleting substances. Contractor will, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with his state EPA rules and regulations.
0709566	Paint, Two-Tone Color, Enforcer	TWO-TONE CAB PAINT The cab will be painted two-tone with the upper section painted #101 black and the lower section painted #268 RED. There will be a standard two-tone cab paint break provided. There will be a standard cab shield provided.
0709845	Paint, Single Color, Body	BODY PAINT The body will be painted to match the lower section of the cab.

0646897	Paint Chassis Frame Assy, E-Coat, Standard	PAINT CHASSIS FRAME ASSEMBLY The chassis frame assembly will be finished with primer and gloss paint to match the lower job color before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components treated with epoxy E-coat protection prior to paint: Two (2) C-channel frame rails Components that are included with the chassis frame assembly that will be painted not e-coated are: Cross members Axles Suspensions Steering gear Battery boxes Bumper extension weldment Frame extensions Body mounting angles Rear Body support substructure (front and rear) Pump house substructure Air tanks Steel fuel tank Castings Individual piece parts used in chassis and body assembly The E-coat process will meet the technical properties shown.
0693797	No Paint Required, Aluminum Front Wheels	
0693792	No Paint Required, Aluminum Rear Wheels	
0733739	Paint, Axle Hubs	AXLE HUB PAINT All axle hubs will be painted to match lower job color.
0007230	Compartment, Painted, Spatter Gray	COMPARTMENT INTERIOR PAINT The interior of all compartments will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.
0544129	Reflective Band, 1"-6"-1"	REFLECTIVE STRIPES Three (3) reflective stripes will be provided across the front of the vehicle and along the sides of the body. The reflective band will consist of a 1.00" black stripe at the top with a 1.00" gap then a 6.00" black stripe with a 1.00" gap and a 1.00" black stripe on the bottom.
0007356	Reflective across Cab Face	The reflective band provided on the cab face will be at the headlight level.
0536954	Stripe, Chevron, Rear, Diamond Grade, Pumper	REAR CHEVRON STRIPING There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear compartment door, will be covered. The colors will be red and fluorescent yellow green diamond grade. Each stripe will be 6.00" in width. This will meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface will be covered with chevron striping.
0079341	Jog, In Reflective Stripe "Hockey Stick"	JOG IN REFLECTIVE STRIPE There will be one (1) "Hockey Stick" style jog(s) in the reflective stripe located each side of the vehicle. Each stripe will be angled upward at approximately a 45 degree angle.
0065687	Stripe, Reflective, Cab Doors Interior	CAB DOOR REFLECTIVE STRIPE A 6.00" x 16.00" white reflective stripe will be provided across the interior of each cab door. The stripe will be located approximately 1.00" up from the bottom, on the door panel. This stripe will meet the NFPA 1901 requirement.
0027372	Lettering Specifications, (GOLD STAR Process)	LETTERING The lettering will be totally encapsulated between two (2) layers of clear vinyl.
0686428	Lettering, Gold Leaf, 3.00", (41-60)	LETTERING Forty-one (41) to sixty (60) genuine gold leaf lettering, 3.00" high, with outline and shade will be provided.

0772003	Manual, Fire Apparatus Parts, USB Flash Drive, Custom	FIRE APPARATUS PARTS MANUAL There will be one (1) custom parts manual(s) in USB flash drive format for the complete fire apparatus provided. The manual(s) will contain the following: - Job number - Part numbers with full descriptions - Table of contents - Parts section sorted in functional groups reflecting a major system, component, or assembly - Parts section sorted in alphabetical order - Instructions on how to locate parts Each manual will be specifically written for the chassis and body model being purchased. It will not be a generic manual for a multitude of different chassis and bodies. Service Parts Internet Site The service parts information included in these manuals are also available on the Pierce website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.
0772037	Manual, Chassis Service, USB Flash Drive, Custom	CHASSIS SERVICE MANUALS There will be one (1) chassis service manuals on USB flash drives containing parts and service information on major components provided with the completed unit. The manual will contain the following sections: - Job number - Table of contents - Troubleshooting - Front Axle/Suspension - Brakes - Engine - Tires - Wheels - Cab - Electrical, DC - Air Systems - Plumbing - Appendix The manual will be specifically written for the chassis model being purchased. It will not be a generic manual for a multitude of different chassis and bodies.
0773381	Manual, Chassis Operation, (1) USB Flash Drive, Custom	CHASSIS OPERATION MANUAL The chassis operation manual will be provided on one (1) USB flash drive.
0030008	Warranty, Basic, 1 Year, Apparatus, WA0008	ONE (1) YEAR MATERIAL AND WORKMANSHIP A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.
0696698	Warranty, Engine, Cummins, 5 Year, WA0181	ENGINE WARRANTY A Cummins five (5) year limited engine warranty will be provided. A limited warranty certificate, WA0181, is included with this proposal.
0684953	Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	STEERING GEAR WARRANTY A Sheppard three (3) year limited steering gear warranty will be provided. A copy of the warranty certificate will be submitted with the bid package.
0596017	Warranty, Frame, 50 Year, Custom Chassis, WA0013	FIFTY (50) YEAR STRUCTURAL INTEGRITY The Pierce custom chassis frame limited warranty certificate, WA0013, is included with this proposal.
0595698	Warranty, Axle, 3 Year, TAK-4, WA0050	FRONT AXLE THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY The Pierce TAK-4 suspension limited warranty certificate, WA0050, is included with this proposal.
0733306	Warranty, Single Axle, 5 Year, Meritor General Service, WA0384	SINGLE REAR AXLE FIVE (5) YEAR MATERIAL AND WORKMANSHIP WARRANTY A Meritor™ Axle 5 year limited warranty will be provided.
0652758	Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	ABS BRAKE SYSTEM THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY A Meritor Wabco™ ABS brake system limited warranty certificate, WA0232, is included with this proposal.
0019914	Warranty, Structure, 10 Year, Custom Cab, WA0012	TEN (10) YEAR STRUCTURAL INTEGRITY The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.

0744240	Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	TEN (10) YEAR PRO-RATED PAINT AND CORROSION A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.
0524627	Warranty, Electronics, 5 Year, MUX, WA0014	FIVE (5) YEAR MATERIAL AND WORKMANSHIP The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.
0695416	Warranty, Pierce Camera System, WA0188	CAMERA SYSTEM WARRANTY A Pierce fifty four (54) month warranty will be provided for the camera system.
0647720	Warranty, Pierce LED Strip Lights, WA0203	COMPARTMENT LIGHT WARRANTY The Pierce 12 volt DC LED strip lights limited warranty certificate, WA0203, is included with this proposal.
0046369	Warranty, 5-year EVS Transmission, Standard Custom, WA0187	TRANSMISSION WARRANTY The transmission will have a five (5) year/unlimited mileage warranty covering 100 percent parts and labor. The warranty will be provided by Allison Transmission. Note: The transmission cooler is not covered under any extended warranty you may be getting on your Allison Transmission. Please review your Allison Transmission warranty for coverage limitations.
0685945	Warranty, Transmission Cooler, WA0216	TRANSMISSION COOLER WARRANTY The transmission cooler will carry a five (5) year parts and labor warranty (exclusive to the transmission cooler). In addition, a collateral damage warranty will also be in effect for the first three (3) years of the warranty coverage and will not exceed \$10,000 per occurrence. A copy of the warranty certificate will be submitted with the bid package.
0688798	Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	WATER TANK WARRANTY A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.
0596025	Warranty, Structure, 10 Year, Body, WA0009	TEN (10) YEAR STRUCTURAL INTEGRITY The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.
0693126	Warranty, AMDOR, Roll-up Door, 10 Year/5 Year Painted, WA0185	ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY An AMDOR roll-up door limited warranty will be provided. The roll-up door will be warranted against manufacturing defects for a period of ten (10) years . A five (5) year limited warranty will be provided on painted roll up doors. The limited warranty certificate, WA0185, is included with this proposal.
0734463	Warranty, Pump, Waterous, 7 Year Parts, WA0382	PUMP WARRANTY The Waterous pump will be provided with a Seven (7) year material and workmanship limited warranty . A copy of the warranty certificate will be submitted with the bid package (no exception).
0648675	Warranty, 10 Year S/S Pumping, WA0035	TEN (10) YEAR PUMP PLUMBING WARRANTY The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.
0657990	Warranty, Foam System, Husky 3, WA0231	FOAM SYSTEM WARRANTY The Husky 3 foam system limited warranty certificate, WA0231, is included with this proposal.
0595820	Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	TEN (10) YEAR PRO-RATED PAINT AND CORROSION A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.
0595421	Warranty, Goldstar, 3 Year, Apparatus, WA0018	THREE (3) YEAR MATERIAL AND WORKMANSHIP The Pierce Goldstar gold leaf lamination limited warranty limited warranty certificate, WA0018, is included with this proposal.
0683627	Certification, Vehicle Stability, CD0156	VEHICLE STABILITY CERTIFICATION The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification will be provided at the time of bid.

0736243	Certification, Engine Installation, Enforcer, Cummins X12, 2021, CD0170	ENGINE INSTALLATION CERTIFICATION The fire apparatus manufacturer will provide a certification, along with a letter from the engine manufacturer stating they approve of the engine installation in the bidder's chassis. The certification will be provided at the time of delivery.
0686786	Certification, Power Steering, CD0098	POWER STEERING CERTIFICATION The fire apparatus manufacturer will provide a certification stating the power steering system as installed meets the requirements of the component supplier. The certification will be provided at the time of bid.
0892691	Certification, Cab Integrity, Saber FR/Enforcer, CD0189	CAB INTEGRITY CERTIFICATION The fire apparatus manufacturer will provide a cab crash test certification with this proposal. The certification will state that a specimen representing the substantial structural configuration of the cab has been tested and certified by an independent third party test facility. Testing events will be documented with photographs, real-time and high-speed video, vehicle accelerometers, cart accelerometers, and a laser speed trap. The fire apparatus manufacturer will provide a state licensed professional engineer to witness and certify all testing events. Testing will meet or exceed the requirements below: SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks. European Occupant Protection Standard ECE Regulation No.29. SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks. Side Impact The cab will be subjected to dynamic preload where a 14,320-lb moving barrier is slammed into the side of the cab at 5.50 mph, striking with an impact of 13,000 ft-lb of force. This test is part of the SAE J2422 test procedure and more closely represents the forces a cab will see in a rollover incident. Frontal Impact The same cab will withstand a frontal impact of 32,600 ft-lb of force using a moving barrier in accordance with SAE J2420. Additional Frontal Impact The same cab will withstand a frontal impact of 65,098 ft-lb of force using a moving barrier. (Twice the force required by SAE J2420) Roof Crush The cab will be subjected to a roof crush force of 22,500 lb. This value meets the ECE 29 criteria, and is equivalent to the front axle rating up to a maximum of ten (10) metric tons. Additional Roof Crush The same cab will be subjected to a roof crush force of 110,000 lbs. (Four and a half times the load criteria of ECE 29) The same cab will withstand all tests without any measurable intrusion into the survival space of the occupant area. There will be no exception to any portion of the cab integrity certification. Nonconformance will lead to immediate rejection of bid.
0631973	Certification, Cab Door Durability, Saber FR/Enforcer, CD0137	CAB DOOR DURABILITY CERTIFICATION Robust cab doors help protect occupants. Cab doors will survive a 200,000 cycle door slam test where the slamming force exceeds 20 G's of deceleration. The bidder will certify that the sample doors similar to those provided on the apparatus have been tested and have met these criteria without structural damage, latch malfunction, or significant component wear.
0631978	Certification, Windshield Wiper Durability, Saber FR/Enforcer, CD0132	WINDSHIELD WIPER DURABILITY CERTIFICATION Visibility during inclement weather is essential to safe apparatus performance. Windshield wipers will survive a 3 million cycle durability test in accordance with section 6.2 of SAE J198 <i>Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles</i> . The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.
0631974	Certification, Electric Window Durability, Saber FR/Enforcer, CD0133	ELECTRIC WINDOW DURABILITY CERTIFICATION Cab window roll-up systems can cause maintenance problems if not designed for long service life. The window regulator design will complete 30,000 complete up-down cycles and still function normally when finished. The bidder will certify that sample doors and windows similar to those provided on the apparatus have been tested and have met these criteria without malfunction or significant component wear.
0631977	Certification, Seat Belt Anchors and Mounting, Saber FR/Enforcer, CD0134	SEAT BELT ANCHOR STRENGTH Seat belt attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat belt anchor design will withstand 3000 lb of pull on both the lap and shoulder belt in accordance with FMVSS 571.210 Seat Belt Assembly Anchorages. The bidder will certify that each anchor design was pull tested to the required force and met the appropriate criteria. SEAT MOUNTING STRENGTH Seat attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat mounting design will be tested to withstand 20 G's of force in accordance with FMVSS 571.207 Seating Systems. The bidder will certify, at time of delivery, that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.

0735949	Certification, Cab HVAC System Performance, SFR/Enf, CD0165/CD0167/CD0174/CD0175	PERFORMANCE CERTIFICATIONS Cab Air Conditioning Good cab air conditioning temperature and air flow performance keeps occupants comfortable, reduces humidity, and provides a climate for recuperation while at the scene. The cab air conditioning system will cool the cab from a heat-soaked condition at 100 degrees Fahrenheit to an average of 78 degrees Fahrenheit in 30 minutes. The bidder will certify that a substantially similar cab has been tested and has met these criteria. Cab Defroster Visibility during inclement weather is essential to safe apparatus performance. The defroster system will clear the required windshield zones in accordance with SAE J381 Windshield Defrosting Systems Test Procedure And Performance Requirements - Trucks, Buses, And Multipurpose Vehicles. <i>The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.</i> Cab Auxiliary Heater <i>Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. An auxiliary cab heater will warm the cab 77 degrees Fahrenheit from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder will certify, at time of delivery, that a substantially similar cab has been tested and has met these criteria.</i>
0545073	Amp Draw Report, NFPA Current Edition	AMP DRAW REPORT The bidder will provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system. The manufacturer of the apparatus will provide the following: Documentation of the electrical system performance tests. A written load analysis, which will include the following: The nameplate rating of the alternator. The alternator rating under the conditions specified per: Applicable NFPA 1901 or 1906 (Current Edition). The minimum continuous load of each component that is specified per: Applicable NFPA 1901 or 1906 (Current Edition). Additional loads that, when added to the minimum continuous load, determine the total connected load. Each individual intermittent load. All of the above listed items will be provided by the bidder per the applicable NFPA 1901 or 1906 (Current Edition).
0002758	Amp Draw, NFPA/ULC Radio Allowance	
0799248	Appleton/Florida BTO	
0000018	PUMPER, 2ND GEN	
0000012	PIERCE CHASSIS	
0004713	ENGINE, OTHER	
0046396	EVS 4000 Series TRANSMISSION	
0020011	WATEROUS PUMP	
0020009	POLY TANK	
0028048	FOAM SYSTEM	
0020006	SIDE CONTROL	
0020007	AKRON VALVES	
0020015	ABS SYSTEM	
0658751	PUMPER BASE	

PRODUCT SPECIFICATIONS

Exhibit "B"

Bid #924



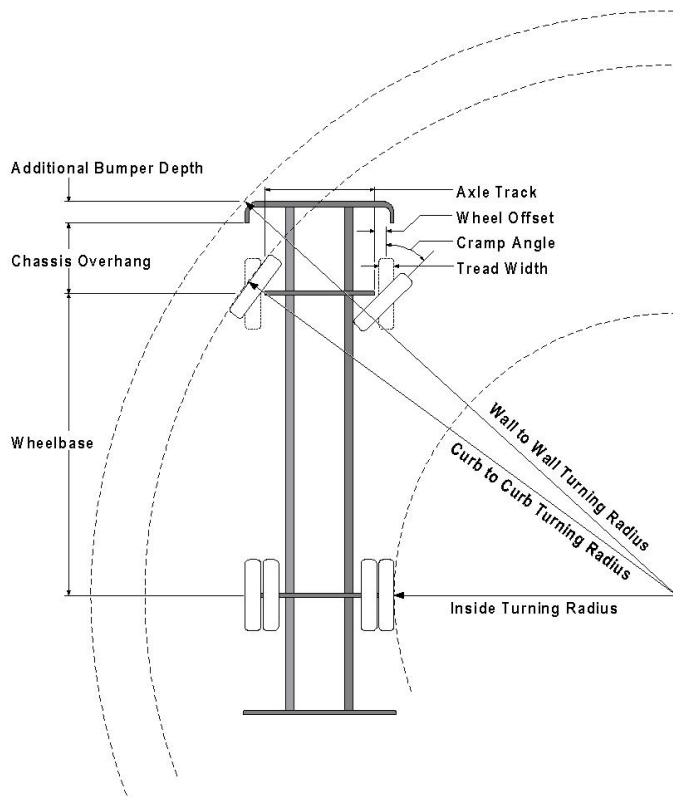


Turning Performance Analysis

08/29/2022

Bid Number: 924
Department: City of Seaside FD

Chassis: Enforcer Chassis
Body: Pumper, Medium, Aluminum, 2nd Gen



Parameters:

*Inside Cramp Angle:	45°
Axle Track:	82.92 in.
Wheel Offset:	4.68 in.
Tread Width:	16.3 in.
Chassis Overhang:	65.95 in.
Additional Bumper Depth:	13 in.
Front Overhang:	78.95 in.
Wheelbase:	191.5 in.

Calculated Turning Radii:

Inside Turn:	14 ft. 11 in.
Curb to curb:	28 ft. 11 in.
Wall to wall:	32 ft. 11 in.

Category	Option	Description
Axle, Front, Custom	0629940	Axle, Front, Oshkosh TAK-4, Non Drive, 22,800 lb, Enforcer
Wheels, Front	0660547	Wheels, Front, Accuride, 22.50" x 12.25", Aluminum, Hub Pilot
Bumpers	0606557	Bumper, 13" Extended, Saber FR/Enforcer
Tires, Front	0899438	Tires, Front, Goodyear, Armor MAX MSA, 425/65R22.50, 20 ply

Notes:

*Actual Inside cramp angle may be less than shown.

Curb to Curb turning radius calculated for 9.00 inch curb.

Definitions:

Inside CrampAngle	Maximum turning angle of the front inside fire.
Axle Track	King-pin to King-pin distance of front axle.
Wheel Offset	Offset from the center line of the wheel to the King-pin.
Tread Width	Width of the tire tread.
Chassis Overhang	Distance of the center line of the front axle to the front edge of the cab. This does not include the bumper depth.
Additional Bumper Wheel	Depth that the bumper assembly adds to the front overhang.
Wheelbase	Distance between the center lines of the vehicles front and rear axles.
Inside Turning Radius	Radius of the smallest circle around which the vehicle can turn.
Curb to Curb Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures assumes a curb height of 9 inches.
Wall to Wall Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures takes into account any front overhang due to chassis , bumper extensions and or aerial devices.



Electrical Analysis

8/29/2022

Bid #: 924 **Job #:**

Desc: Seaside FD Enforcer Pumper **Sales Rep:** Myers, Rich

Customer: City of Seaside FD **Organization:** Golden State Fire Apparatus, Inc

Option: Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT **Type:** Multiplexed

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0001244	High Idle w/Electronic Engine, Custom		0.00	1.20	0.00
0005216	Reel, Booster, Aluminum - Over Pump, Left Side		0.00	36.00	0.00
0010670	ABS Wabco Brake System, Single rear axle		0.00	6.00	0.00
0044860	Test Port, Electronic, Pump RPM, Waterous Pump		0.00	0.00	0.08
0079166	Batteries, (4) Exide Grp 31, 950 CCA ea, Threaded Stud		0.00	3.00	0.00
0543751	Light, Do Not Move Apparatus		0.00	0.80	0.00
0548004	Wiring, Spare, 15 A 12V DC 1st		0.00	0.00	30.00
0549333	Indicators, Engine, Included with Pressure Controller		0.00	0.35	0.00
0553643	Control, Air Horn at Pmp Pnl, Red Switch		0.00	0.16	0.00
0561471	Lights, Backup, WIn M6BUW, LED, For Tail Lt Housing		0.00	3.20	0.00
0583824	Light, Pump Compt, WIn 3SC0CDCR LED White		0.00	0.36	0.00
0583938	Lights, Engine Compt, Custom, Auto Sw, WIn 3SC0CDCR, 3"		0.00	0.30	0.00
0589905	Alarm, Back-up Warning, PRECO 1040		0.00	0.50	0.00
0602637	Portable Hand Light, Provided by Fire Dept, Pumper NFPA 2016		0.00	0.50	0.00
0604354	Gauge, Foam Level, FRC, Tank Vision Pro, WLA 360-A00, Class		0.00	0.00	1.23
0605741	Lightbars, WIn, Freedom IV, 2-21.5", RRRR RRRR		0.00	0.00	14.56
0621185	Primer, Trident, Air Prime, Air operated, Auto w/Gauge		0.00	0.01	0.00
0624939	Foam Sys, Husky 3, Single Agent, Multi Select Feature		0.00	55.00	0.00
0630636	Controls, Electric Roll-Up Windows, 4dr, 4 Driver Controls, Saber		0.00	26.00	0.00
0639727	Cab Lift, Elec/Hyd, Manual Override, Saber FR/Enforcer		0.00	180.00	0.00
0653526	Camera, Pierce, Driver Mux, Rear Camera Only		0.00	1.20	0.00
0653937	Flasher, Headlight Alternating		0.00	0.00	0.08
0687994	Engine Brake, Jacobs Compression Brake, Cummins Engine		0.00	0.42	0.00
0735006	Intercom, David Clark, 4-Pos, 2-Radio, (D,O,RPTT), 2obC, U3805		0.00	0.00	0.50
0766906	Lights, WIn, PCPSM1*, Pioneer, 12 VDC, 1st		0.00	0.00	12.00
0768059	Lights, WIn, PCPSM2* Pioneer, 12 VDC, 2nd		0.00	0.00	24.00
0768061	Lights, WIn, PCPSM2* Pioneer, 12 VDC, 1st		0.00	0.00	24.00
0776357	Light, Visor, WIn, 12V P*H2* Pioneer, Cnt Feature, 1st		0.00	0.00	13.00
0803875	Radio, AM/FM/WB, Jensen, Frt,Rear Aux In/Frt,Rear		0.00	0.00	2.00
0895310	Siren, Federal Q2B		0.00	100.00	0.00
0896616	Lights, Door Interior Flash, 4 Dr Cab, Weldon 8401-0000-20 Strip		0.00	0.64	0.00
0548006	Wiring, Spare, 15 A 12V DC 2nd	Load Managed	0.00	0.00	60.00
0548007	Wiring, Spare, 15 A 12V DC 3rd	Load Managed	0.00	0.00	60.00
0548013	Wiring, Spare, 20 A 12V DC 2nd	Load Managed	0.00	0.00	140.00
0722696	HVAC, Enforcer, CARE	Load Managed	0.00	0.00	100.00
0002758	Amp Draw, NFPA/ULC Radio Allowance	NFPA	5.00	0.00	0.00
0083650	LS 152" Rollup, Full Height Front & Rear	NFPA	4.50	0.00	4.50
0083658	RS 152" Rollup, Full Height Front & Rear	NFPA	4.50	0.00	4.50
0083701	Compt, Rear, Rollup, 44.50" FF, 25.88" D	NFPA	0.90	0.00	0.90
0092582	Load Manager/Sequencer, MUX	NFPA	0.56	0.56	0.00
0563675	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts	NFPA	0.35	0.00	0.00
0564655	Lights, Rear Zn Lwr, WIn M6*C LED, Clear Lens, For Tail Lt	NFPA	1.80	2.70	0.00
0568012	Air Dryer, Wabco System Saver 1200, Heater, 2010	NFPA	7.81	0.00	0.00
0586382	Gauges, Engine, Included With Pressure Controller	NFPA	0.30	0.00	0.00
0602752	Siren, WIn 295HFS2 Remote, Single Amp, Other Speaker, Non-	NFPA	1.40	12.60	0.00
0603606	Cab Instruments, Ivory Gauges, Chrome Bezels, Enf MUX	NFPA	1.26	0.00	0.00
0605126	Pump Shift, Air Mnl Override, Split Shaft, Interlocked, Waterous	NFPA	1.00	0.00	0.00

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply



Electrical Analysis

8/29/2022

Bid #: 924 **Job #:**

Desc: Seaside FD Enforcer Pumper **Sales Rep:** Myers, Rich

Customer: City of Seaside FD **Organization:** Golden State Fire Apparatus, Inc

Option: Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi CZT **Type:** Multiplexed

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0607159	Gauge, Water Level, FRC, WLA 300-A00, TankVision Pro	NFPA	1.23	0.00	0.00
0615386	Vehicle Information Center, 7" Color Display, Touchscreen, MUX	NFPA	1.20	0.00	0.00
0617901	Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	NFPA	0.80	0.00	0.00
0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29	NFPA	0.10	0.90	0.00
0625210	Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED,	NFPA	0.12	0.00	0.00
0625377	Lights, Side Zone Lower, Wln M6**, M6**, M6V2** 6lts	NFPA	5.28	9.22	0.00
0626579	Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear	NFPA	0.80	0.00	0.00
0626588	Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	NFPA	1.60	0.00	0.00
0647647	Lights, Dome, FRP Dual LED 4 Lts	NFPA	0.80	0.80	0.00
0648332	Cab, Enforcer, 7010	NFPA	6.80	10.20	0.00
0661576	Lights, Step, P25 LED 4lts, Perimeter Scene Lt Sw	NFPA	1.00	0.00	0.00
0682503	Light Shield/Step 8", LED, P25 LED Stp Lt	NFPA	4.00	0.00	0.00
0686562	Light, Rear Zone Up, Wln MCFLED2* LED	NFPA	3.00	0.00	0.00
0727359	Cabinet, Rear Facing, RS, 26.75 W x 20 H x 22 D, Ext Acc Only,	NFPA	0.20	0.20	0.00
0735474	Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts, Saber	NFPA	0.35	0.00	0.00
0736410	Engine, Cummins X12, 500 hp, 1700 lb-ft, W/OBD, EPA 2021,	NFPA	10.00	0.00	0.00
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure	NFPA	0.10	0.00	0.00
0745568	Indicator Light, Pump Panel, Ok To Pump, Green	NFPA	0.10	0.00	0.00
0758657	DEF Tank, 8.0 Gallon, LS Fill, Rear of Rear Axle, Common Door	NFPA	0.60	11.40	0.00
0768474	Lights, Hose Bed, Below Alum Cvr, Amdor AY-LB-12HW040, 40"	NFPA	2.40	0.00	0.00
0768755	Lightbar, Wln, Freedom IV-D, 81",	NFPA	6.48	5.16	14.72
0770200	Handrail, Exterior, Hansen, Knurled, Alum, LED Backlit, 4-Door	NFPA	0.80	0.00	0.00
0783153	Headlights, Rect LED, JW Spkr Evo 2, AXT/DCF/Enf/Imp/Sab/Vel	NFPA	4.20	4.20	0.00
0791528	Light, Traffic Directing, Wln TAL65, 36.00" Long, TACTL5	NFPA	0.60	1.20	0.00
0794959	Controller, Pressure, Pierce, Pump Boss, PBA300	NFPA	1.80	0.00	0.00
0797346	Light, Directional, Wln 600 Cmb, Cab Crn, Wrp Bzl Otside Wrn Lts	NFPA	0.70	0.70	0.00
0801886	Trans, Allison 6th Gen, 4500 EVS P, Imp/Vel/Enf	NFPA	2.00	2.00	0.00
0804514	Lights, Tail, Wln M62BTT* Red Stop/Tail & M62T* Amber Dir Arw	NFPA	0.83	2.49	0.00
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	NFPA	0.07	0.00	0.00
0892638	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	NFPA	1.00	0.00	0.00
0892704	Lights, Walk Surf, 8-P25 LED, Hose Bed Cover, Overall Height	NFPA	0.07	0.00	0.00
0893909	Cabinet, Rear Facing, LS, 26.75 W x 20 H x 23 D, Ext Acc Only,	NFPA	0.20	0.20	0.00
0899300	Lights, Front Zone, Wln M6** M6RS M6RS M6**, Inside Steady	NFPA	3.60	5.40	0.00
0121711	Alternator, 320 amp, Leece-Neville 4962PA, Sgl Sys	S	0.00	0.00	0.00
Load Totals:			92.21	485.57	506.07

Note: Minimum Continuous Load is in "Blocking Right of Way" mode.(Reference current edition of NFPA 1901)

Note: Intermittent Load items are not factored in on any alternator load comparisons. These items are included on the report for reference only and should be looked at as amp draw exclusion items. (Reference current edition of NFPA 1901)

Note: Total Connected Load "Demand" represents Total Connected Load minus any Load Managed items

Alternator Output at Idle: 182.00

Alternator Output at Governed Speed: 277.00

Minimum Continuous Load	
Supply:	182.00
Demand:	92.21
Variance:	89.79

Total Connected Load	
Supply:	277.00
Demand:	238.28
Variance:	38.72

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply



DEALER
SUPPLIED
EQUIPMENT
AND/OR
SERVICES

Bid #916

DEALER SUPPLIED EQUIPMENT and/or SERVICES

The following items and/or services will be provided by Golden State Fire Apparatus Inc. (GSFA) prior to final delivery:

LICENSED MANUFACTURER

The State of California Vehicle Code, section 11701 requires “every manufacturer of a vehicle subject to registration shall make application to the Department of Motor Vehicles (DMV) for a license containing a general distinguishing number”. The manufacturer has a current license at time of proposal and shall provide a copy upon request. Temporary licenses are not acceptable.

LICENSED DEALERSHIP

The State of California Vehicle Code, section 11701 requires a “dealer in vehicles of a type subject to registration, shall make application to the Department of Motor Vehicles (DMV) for a license containing a general distinguishing number”. Golden State Fire Apparatus, Inc. has a current license at time of bid as outlined above and is available upon request. Temporary licenses are not acceptable.

LICENSED SALES REPRESENTATIVE

The State of California Vehicle Code, section 11800 requires that it shall be “unlawful for any person to function as a vehicle salesperson without having first procured a license issued by the Department of Motor Vehicles (DMV)”. The representative has a current vehicle salespersons license at time of proposal and shall provide a copy upon request. Temporary licenses are not acceptable.

VEHICLE REGISTRATION

The State of California Vehicle Code section 11739 requires that the “dealer of a new motor vehicle sale is responsible for applying for the title, securing vehicle registration, and obtaining license plates for the Customer” through the Department of Motor Vehicles (DMV). Golden State Fire Apparatus, Inc. is a factory-authorized dealer of the vehicle being sold and is authorized to register with the State of California as a new vehicle manufacturer.

GSFA will make all necessary applications and complete all transfer papers, including applying for California Exempt “E” license plates.

WEEKLY PROGRESS PHOTOGRAPHS

GSFA will provide weekly photographs of the apparatus or the major components as they are being constructed. The photographs will commence at the start of the manufacturing process and will continue through production by the manufacturer. The reports will show the progress of the apparatus through the course of each week. Special attention will be given to show the unique features and aspects of the apparatus as construction progresses.

PRE-CONSTRUCTION, FACTORY TRIP

A pre-construction trip to the manufacturing facility will be provided for four (4) Customer representative(s). The intent of this trip is to review and finalize, in detail, the specifications prior to the start of production. The pre-construction trip will have a duration of three (3) days and two (2) nights and be scheduled at times mutually agreed upon between GSFA and the Customer. Costs for airfare, lodging, meals, and ground transportation while at the manufacturer’s location will be the responsibility of GSFA. Air travel will be from one of the following airports: Sacramento, San Francisco, or San Jose.

Costs such as Customer ground transportation in California, Customer airport parking, Customer luggage fees and Customer incidentals while traveling to the factory will be the responsibility of the Customer. Flight reservations are non-refundable and in the event of a cancellation after booking, the Customer will be responsible for all costs associated with this cancellation, which may include not only the original

ticket cost but also any change or cancellation fees imposed by the airline and/ or travel agency. Flight reservations are also non-transferable.

FINAL INSPECTION, FACTORY TRIP

A final inspection trip to the manufacturing facility will be provided for four (4) Customer representative(s). The intent of this trip is to ensure that the apparatus is built to specification and to detect any deficiencies that require correction. The final inspection trip will have a duration of three (3) days and two (2) nights and be scheduled at times mutually agreed upon between GSFA and the Customer. Costs for airfare, lodging, meals, and ground transportation while at the manufacturer's location will be the responsibility of GSFA. Air travel will be from one of the following airports: Sacramento, San Francisco, or San Jose.

Costs such as Customer ground transportation in California, Customer airport parking, Customer luggage fees and Customer incidentals while traveling to the factory will be the responsibility of the Customer. Flight reservations are non-refundable and in the event of a cancellation after booking, the Customer will be responsible for all costs associated with this cancellation, which may include not only the original ticket cost but also any change or cancellation fees imposed by the airline and/ or travel agency. Flight reservations are also non-transferable.

CHANGE ORDER / CONTINGENCY FUND

A change order / contingency fund in the sum of \$10,000 is included in the bid price to cover the cost of change orders, unforeseen items or required work that may come up during construction. Any unused portion of this fund will be credited back on the final invoice or reimbursed in the form of a check to the City of Seaside.

DELIVERY TO AUTHORIZED SERVICE FACILITY

GSFA will, at their expense, deliver the apparatus (including any applicable equipment, spare parts, and supplies) to their Northern California facility in Sacramento for a dealer preparation inspection.

To ensure proper break in of all components while still under warranty, the apparatus shall be delivered under its own power - rail or truck freight shall not be acceptable.

PRE-DELIVERY SERVICE

After transportation from the factory and prior to delivery, the apparatus will receive a pre-delivery service to confirm proper operation and correction of any issues found as a result of said inspection. The Golden State Fire Apparatus, Inc. pre-delivery service consists of the following:

- Engine Compartment and Undercarriage – Check for any broken mounting brackets and inspect for correct capacities of the following (if applicable): engine oil, coolant, power steering fluid, washer reservoir fluid, transmission fluid, rear end fluid, pump transmission oil, and primer oil.
- Interior – Operate all doors, windows, and locks for proper adjustment. Check upholstery.
- Exterior – Repair reasonable paint scratches or chips. Tighten any loose hardware and inspect tires and wheels for proper pressure and lug torquing.
- Road Test – With the water tank (if applicable) full, the apparatus will be driven approximately twenty miles which allows the drive train components to get up to operating temperature. Road test will be on both city and highway roads. A DOT compliant brake test will be conducted to ensure the system is holding air. The brake condition and wheel seals will also be inspected.

- Electrical - Operate all lights, sirens, and other electrical accessories to verify operation.
- Pump - If applicable, vacuum test the pump to hold for 15 minutes. After vacuum test, operate the relief valve, transfer valve and check pump shift. Check water tank for leaks and inspect water level gauge for calibration. With discharge caps loose, rapid test all individual gauges and main gauges for calibration. Lubricate valve rods.
- Foam System – If applicable, tighten caps and connect foam lines. Test selector, valves, metering valve and operation of foam system (including flush).
- Fuel Tank - Fuel tank will be filled at the dealership location prior to final delivery.
- DEF Tank - DEF tank will be filled at the dealership location prior to final delivery.
- Wash - The apparatus will be thoroughly washed at the dealership location prior to final delivery.

FINAL DELIVERY (CUSTOMER LOCATION)

GSFA will, at their expense, deliver the Product (including any applicable equipment, spare parts, and supplies) to the Customer specified address once completed. Prior to delivery of the Product, Customer agrees to provide proof of liability and physical damage insurance to GSFA. GSFA will not release the Product to the Customer until such proof of insurance is provided.

It is the responsibility of the Customer to have any outstanding balance due, paid in full to GSFA, prior to or at the time that the Product is complete and ready to deliver. If payment is late or delivery is delayed pending payment, a daily finance charge of \$150.00 and a daily storage fee of \$50.00 may apply until such payment is received.

Due to insurance liability, the Product will not be delivered without full acceptance and full payment (or prior written agreement between the Customer and GSFA).

END OF DEALER SUPPLIED EQUIPMENT and/or SERVICES

PRODUCT WARRANTIES

Exhibit "C"

Bid #924





Fire and Rescue Apparatus

One (1) Year Material and Workmanship

Basic Apparatus

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Portions of the apparatus manufactured by Pierce shall be free from defects in material and workmanship
Warranty Begins:	The date the apparatus is placed in service, or 60 days from the original buyer invoice date, whichever comes first.
Warranty Period Ends After:	Twelve (12) months.
Conditions and Exclusions: See Also Paragraphs 2 thru 4	No specific exclusions apply

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

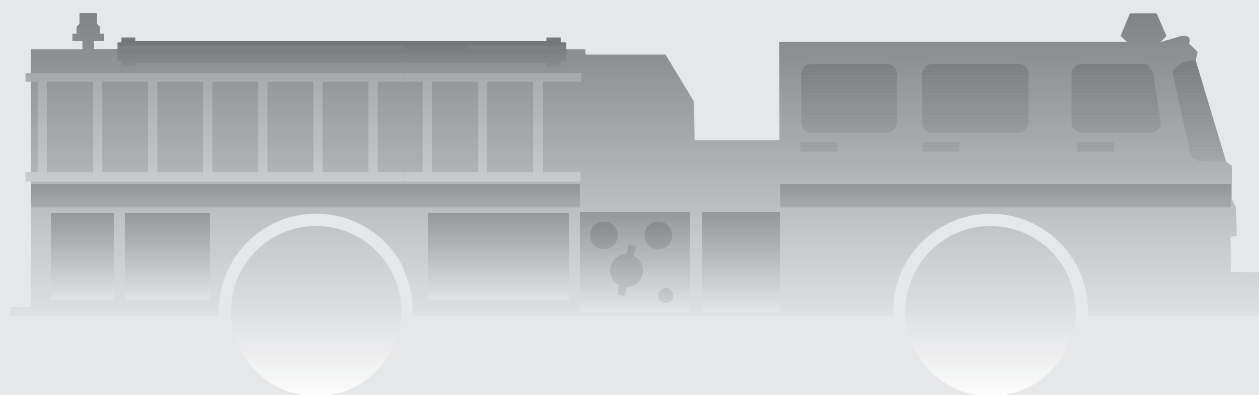
Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Cummins Warranty

Worldwide

Fire Apparatus/Crash Trucks



Coverage

Products Warranted

This Warranty applies to new diesel Engines sold by Cummins and delivered to the first user on or after April 1, 2007, that are used in fire apparatus truck and crash truck* applications Worldwide.

Base Engine Warranty

The Base Engine Warranty covers any failures of the Engine which result, under normal use and service, from a defect in material or factory workmanship (Warrantable Failure). This Coverage begins with the sale of the Engine by Cummins and ends five years or 100,000 miles (160,935 kilometers), whichever occurs first, after the date of delivery of the Engine to the first user.

Engine aftertreatment components included in the Cummins Critical Parts List (CPL) and marked with a Cummins part number are covered under Base Engine Warranty.

Additional Coverage is outlined in the Emission Warranty section.

These Warranties are made to all Owners in the chain of distribution and Coverage continues to all subsequent Owners until the end of the periods of Coverage.

Cummins Responsibilities

Cummins will pay for all parts and labor needed to repair the damage to the Engine resulting from a Warrantable Failure.

Cummins will pay for the lubricating oil, antifreeze, filter elements, belts, hoses and other maintenance items that are not reusable due to the Warrantable Failure.

Cummins will pay for reasonable labor costs for Engine removal and reinstallation when necessary to repair a Warrantable Failure.

Cummins will pay reasonable costs for towing a vehicle disabled by a Warrantable Failure to the nearest authorized repair location. In lieu of the towing expense, Cummins will pay reasonable costs for mechanics to travel to and from the location of the vehicle, including meals, mileage and lodging when the repair is performed at the site of the failure.

Owner Responsibilities

Owner is responsible for the operation and maintenance of the Engine as specified in Cummins Operation and Maintenance Manuals. Owner is also responsible for providing proof that all recommended maintenance has been performed.

Before the expiration of the applicable Warranty, Owner must notify a Cummins distributor, authorized dealer or other repair location approved by Cummins of any Warrantable Failure and make the Engine available for repair by such facility. Except for Engines disabled by a Warrantable Failure, Owner must also deliver the Engine to the repair facility.

Service locations are listed on the Cummins Worldwide Service Locator at cummins.com.

Owner is responsible for the cost of lubricating oil, antifreeze, filter elements and other maintenance items provided during Warranty repairs unless such items are not reusable due to the Warrantable Failure.

Owner is responsible for communication expenses, meals, lodging and similar costs incurred as a result of a Warrantable Failure.

Owner is responsible for non-Engine repairs and for "downtime" expenses, cargo damage, fines, all applicable taxes, all business costs and other losses resulting from a Warrantable Failure.

Owner is responsible for a \$100 (U.S. Dollars) deductible per each service visit under this plan in the 3rd, 4th and 5th years of Base Engine Warranty. The deductible will not be charged during the first 2 years of the Base Engine Warranty.

Limitations

Cummins is not responsible for failures or damage resulting from what Cummins determines to be abuse or neglect, including, but not limited to: operation without adequate coolants or lubricants; overfueling; overspeeding; lack of maintenance of lubricating, cooling or intake systems; improper storage, starting, warm-up, run-in or shutdown practices; unauthorized modifications of the Engine.

Any unauthorized modifications to the aftertreatment could negatively effect emissions certification and void Warranty.

Cummins is also not responsible for failures caused by incorrect oil, fuel or diesel exhaust fluid or by water, dirt or other contaminants in the fuel, oil or diesel



exhaust fluid.

This Warranty does not apply to accessories supplied by Cummins which bear the name of another company. Such non-warranted accessories include, but are not limited to: alternators, starters, fans, air conditioning compressors, clutches, filters, transmissions, torque converters, vacuum pumps, power steering pumps, fan drives and air compressors. Cummins branded alternators and starters are covered for the first two years from the date of delivery of the Engine to the first user, or the expiration of the Base Engine Warranty, whichever occurs first.

Failures resulting in excessive oil consumption are not covered beyond the duration of the Coverage or 100,000 miles (160,935 kilometers) or 7,000 hours from the date of delivery of the Engine to the first user, whichever of the three occurs first. Before a claim for excessive oil consumption will be considered, Owner must submit adequate documentation to show that consumption exceeds Cummins published standards.

Failures of belts and hoses supplied by Cummins are not covered beyond the first year from the date of delivery of the Engine to the first user or the duration of the Warranty, whichever occurs first.

Parts used to repair a Warrantable Failure may be new Cummins parts, Cummins approved rebuilt parts or repaired parts. Cummins is not responsible for failures resulting from the use of parts not approved by Cummins.

A new Cummins or Cummins approved rebuilt part used to repair a Warrantable Failure assumes the identity of the part it replaced and is entitled to the remaining Coverage hereunder.

Cummins Inc. reserves the right to interrogate Electronic Control Module (ECM) data for purposes of failure analysis.

CUMMINS DOES NOT COVER WEAR OR WEAROUT OF COVERED PARTS.

CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

THIS WARRANTY AND THE EMISSION WARRANTY SET FORTH HEREINAFTER ARE THE SOLE WARRANTIES MADE BY CUMMINS IN REGARD TO THESE ENGINES. CUMMINS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OR OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Emission Warranty

Products Warranted

This Emission Warranty applies to new Engines marketed by Cummins that are used in the United States** in vehicles designed for transporting persons or property on a street or highway. This Warranty applies to Engines delivered to the first user on or after September 1, 1992.

Coverage

Cummins warrants to the first user and each subsequent purchaser that the Engine is designed, built and equipped so as to conform at the time of sale by Cummins with all U.S. federal emission regulations applicable at the time of manufacture and that it is free from defects in material or factory workmanship which would cause it not to meet these regulations within the longer of the following periods: (A) Five years or 100,000 miles (160,935 kilometers) of operation, whichever occurs first, as measured from the date of delivery of the Engine to the first user or (B) The Base Engine Warranty.

If the vehicle in which the Engine is installed is registered in the state of California, a separate California Emission Warranty also applies.

Limitations

Failures, other than those resulting from defects in material or factory workmanship, are not covered by this Warranty.

Cummins is not responsible for failures or damage resulting from what Cummins determines to be abuse or neglect, including, but not limited to: operation without adequate coolants or lubricants; overfueling; overspeeding; lack of maintenance of lubricating, cooling or intake systems; improper storage, starting, warm-up, run-in or shutdown practices; unauthorized modifications of the Engine.

Any unauthorized modifications to the aftertreatment could negatively effect emissions certification and void Warranty.

Cummins is also not responsible for failures caused by incorrect oil, fuel or diesel exhaust fluid or by water, dirt or other contaminants in the fuel, oil or diesel exhaust fluid.

Cummins is not responsible for non-Engine repairs, "downtime" expenses, cargo damage, fines, all applicable taxes, all business costs or other losses resulting from a Warrantable Failure.

**CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL
OR CONSEQUENTIAL DAMAGES.**

* Airport operated crash trucks and fire department
operated trucks employed to respond to fires,
hazardous material releases, rescue and other
emergency-type situations.

** United States includes American Samoa, the
Commonwealth of Northern Mariana Islands, Guam,
Puerto Rico and the U.S. Virgin Islands.



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Columbus, IN 47202-3005
U.S.A.

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R. H. SHEPPARD CO., INC.
101 Philadelphia St.
Hanover, PA 17331
Pierce Manufacturing Inc.
2600 American Drive
Appleton, WI 54912

LIMITED WARRANTY: The R. H. Sheppard Co. Inc., ("Sheppard") warrants all M110PKG1 and M110SAU1 steering gears manufactured and sold to Pierce Manufacturing Inc. ("Pierce") for application on Pierce TAK-4 equipped vehicles to be free from defects of workmanship and material under normal use and service for a period of thirty six months from the in service date of the vehicle to its original owner.

Vehicle applications where Sheppard product is used require an application approval before production build. If Pierce uses Sheppard product for any purpose or application which has not been approved by Sheppard in advance, including aftermarket devices (defined as a device added to the steering system directly or indirectly affecting the performance or operation of the Sheppard product in its approved application) not tested and approved by Sheppard this limited warranty **SHALL NOT APPLY AND SHALL BE VOID. SHEPPARD MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED. SHEPPARD EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.**

SHEPPARD SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES OR FOR LOSS OR DAMAGE DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF A PRODUCT. Pierce expressly acknowledges its obligation to inform all users (customers) of the above disclaimer.

CONDITIONS: Claims under this Limited Warranty may only be made by Pierce. In no event shall Sheppard be held liable for warranty charges by unauthorized persons. No allowance will be made for repairs or alterations, unless made with the written consent of Sheppard. Authorized Pierce dealers shall be the only authorized repair facility for Sheppard products applied to Pierce vehicles. Any warrantable repair made under this Limited Warranty must be made on or before 36 months of the in-service date for the Product to which the claim relates. Sheppard shall not be liable for claims made after such date. Sheppard product fitted to Pierce vehicles that are repaired at a repair facility other than an authorized Pierce dealer within the warranty period will be considered for payment under the guidelines of this agreement only by joint written consideration of Sheppard and Pierce warranty departments. It shall be the responsibility of the Pierce warranty department to notify Sheppard if and when this situation occurs. Sheppard will not be held responsible for damage to other steering components such as but not limited to pumps and reservoirs due to improper adjustment of steering gear relief plungers. Vehicle downtime and towing will not be considered under warranty.

REMEDIES: The sole and exclusive remedy of Pierce for Sheppard's breach of the foregoing warranty is limited to the return and repair or reimbursement as follows:

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 2

Warranty Support: In support of the Pierce dealer network, Sheppard will provide a toll-free "Hotline" service to assist in the diagnosis and troubleshooting of steering problems. The R. H. Sheppard Co., Inc. Field Service Department can be reached at 1-800-274-7437 for assistance. Sheppard will require that Pierce dealers contact this toll-free "Hotline" for approval before product is removed from a vehicle in a warranty situation. When contacted regarding a warranty situation, the Sheppard representative will provide an authorization number for removal of the product. This Returned Goods Authorization (RGA) number must be included in all warranty correspondence and attached to all returned goods.

Procedure: In the event of a warranty situation, the servicing dealer shall contact the Sheppard Hotline and receive an RGA number before replacing any steering gear. For M110PKG1 and M110SAU1 steering gear models, the dealer will first obtain an RGA number from Sheppard, and then order the replacement gear from Pierce. Replacement M110PKG1 and M110SAU1 steering gears shall be shipped from Pierce once those models are in full production. A warranty claim for both parts and labor will then be generated by the dealer and sent to Pierce. After reviewing the claim, Pierce will submit it to Sheppard for reimbursement.

Parts Reimbursement: Sheppard agrees to reimburse Pierce at Pierce's purchase price plus 30% mark-up for parts found to be defective within the warranty period. Parts being returned for warranty consideration shall be sent to the R. H. Sheppard Company, 447 E. Middle St., Hanover, PA 17331 ATTN: Warranty Dept. Sheppard's determination as to whether the part is covered by the foregoing warranty is final and conclusive. Sheppard requires the return of complete steering gears only. Individual seals replaced under warranty **should not** be returned unless specifically requested by Sheppard. All parts being returned for warranty consideration must be clearly tagged with all pertinent warranty information including, but not limited to (1) Returned Goods Authorization number (RGA); (2) claim number; (3) date in service; (4) date of failure; (5) mileage; (6) part number; (7) labor hours; (8) dealer labor rate and; (9) dollar amount claimed. Claims submitted without prior authorization are subject to rejection under this agreement.

Labor: Labor to repair Sheppard product found to be defective within the warranty period will be reimbursed at not more than 10 hours per vehicle. Labor shall be reimbursed at the rate of \$85.00 USD per hour for M110PGK1 and M110SAU1 steering gears.

Freight: Pierce will collect M110PGK1 and M110SAU1 warranty material at a designated collection point. Inbound freight to the Pierce collection point will be the responsibility of Pierce. All warranty material should be returned from the Pierce collection point to R. H. Sheppard Co. Freight Collect by a Sheppard-specified common carrier based on location of the Pierce collection point. Sheppard does not require the return of failed seals. Any freight charges incurred for the return of seals will be the responsibility of Pierce. Parts returned for warranty consideration without prior authorization are subject to rejection under this agreement and may be subject to a charge back of inbound freight charges. Parts rejected under this warranty will be returned to Pierce Freight Collect or scrapped by Sheppard at Pierce's discretion.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 3

Outside Purchases: Pierce authorized dealers shall be the only outlet for repair, warranty service and parts for Sheppard products applied to Pierce vehicles. Sheppard will not be responsible for consumables such as hoses, belts, fluids, fittings or miscellaneous shop material that may be required for the repair of the product.

Warranty Documentation: Warranty credit memos will be issued monthly to the Pierce Warranty Department. Monthly credit memos will include (1) claim number; (2) part number; (3) parts reimbursement; (4) labor reimbursement; (5) any applicable Pierce reference number and; (6) reason for rejection or acceptance of the claim. Credit memos will be issued in U.S. funds. Debits for warranty claims will not be accepted under this agreement. Claim disposition will constitute the final and conclusive resolution of warranty claims.

Parts Retention: Sheppard will retain parts submitted for warranty consideration for a period of sixty (60) days for any material found to be rejected for warranty. Sheppard will notify Pierce within sixty (60) days of receipt of Sheppard's determination as to whether any such part is covered by this warranty. Warranty reimbursement will be issued within thirty days of receipt of material at Sheppard.

Good-Will Requests: Good-Will requests will be considered jointly between Sheppard and Pierce for equitable compensation.

RECALLS: Sheppard retains the right to review information regarding federal motor vehicle recall and /or product repair programs if Sheppard products fitted to Pierce vehicles are alleged to be non-compliant with federal motor vehicle safety standards. Sheppard retains the right to review any claims of product defect or non-compliance before participating in reimbursement of expenses incurred as a result of alleged non-compliance or defect of its products. Sheppard agrees to negotiate in good faith for the reimbursement of expenses incurred by Pierce for all administrative, material and labor cost and expense associated with any recall where Sheppard product is found to be defective or non-compliant with federal motor vehicle standards.

MISCELLANEOUS: This writing constitutes the full complete and final statement of Sheppard's limited warranty for M110PKG1 and M110SAU1 products sold to Pierce. All prior oral or written correspondence, test data, negotiations, representations, understandings and the like regarding products are merged in this writing and extinguished by it. This limited warranty may not be altered, amended extended or modified except by a writing signed by the President or Vice President of Sheppard. No employee, vendor, dealer, distributor or other representative of Sheppard has authority to make statements to extend, expand, alter or amend the terms of this Limited Warranty. Sheppard expressly disclaims any statements contrary to the Limited Warranty. Sheppard's failure at any time to enforce any of the terms and conditions stated herein shall not constitute a waiver of any provisions herein. This Limited Warranty shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 4

Any legal actions which may arise as a result of disputes, controversies or claims arising out of or related to this limited warranty shall be in such forum as Sheppard and Pierce shall agree, or, in the absence of agreement, in a court of appropriate jurisdiction other than in the county in which either party is located. This Limited Warranty shall not be assigned by Pierce.

COOPERATIVE EFFORT: Sheppard and Pierce agree to work cooperatively toward expanding this warranty coverage to a period of sixty months from the in service date. These cooperative efforts shall focus on examining the effects of increased heat generated by 2007 model engines and its impact on the entire power steering system.

AGREEMENT: This agreement is effective April 3, 2006 and may be modified by mutual agreement between Sheppard and Pierce of a signed amendment to be attached to the original Limited Warranty. There are no third party beneficiaries to this Limited Warranty. This warranty agreement applies to Pierce authorized dealers only. It does not encompass any special arrangements that Pierce may now have or that Pierce may enter into, with any other segments of the trucking industry. This warranty agreement does not apply to non-conforming product removed at Pierce assembly plants.

This Limited Warranty agreement between the R. H. Sheppard Co., Inc and Pierce Manufacturing Inc. may be terminated by either party with thirty days written notice prior to termination.

Signed at Pierce Manufacturing Inc., Appleton, WI this _____ day of _____, 2006.

R. H. SHEPPARD CO., INC.

PIERCE MANUFACTURING INC.

Authorized Signature

Authorized Signature

Title

Title



Fire and Rescue Apparatus

Lifetime Fifty (50) Year Structural Integrity

Custom Chassis Frame

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Custom chassis frame rail manufactured by Pierce shall be free from defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Fifty (50) Years (Expected Life of Apparatus)
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Three (3) Year Material and Workmanship TAK-4 Independent Front Suspension

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The TAK-4 Front Independent Suspension and Steering Gears shall be free from defects in material and workmanship.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Three (3) Years -or- 30,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty excludes brake pads, brake rotors, seal boots and shock absorbers.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

SUPPLIER

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the purchaser who first puts the product in service ("Buyer"):

Coverage:	The Meritor axle shall be covered by Meritor as indicated in the attached Meritor warranty coverage description
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Five (5) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	The exclusions listed in the attached Meritor warranty description shall apply.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

6/29/2020 WA0384

MERITOR® COMMERCIAL VEHICLE SYSTEMS

WARRANTY/MODEL YEAR 2020 VEHICLES



MERITOR





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How to Read Warranty Coverage

Number of Years	Mileage (in thousands) Unl=Unlimited	P=Parts Only P&L=Parts & Labor
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Notice:

Models or components that are approved for use by Meritor's vocational guidelines contained in Meritor Publication TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, which are not specifically listed, are warranted for one year, unlimited miles, parts only (1/Unl/P).

Products purchased on an incomplete vehicle (glider) are limited to one year, unlimited miles parts only (1/Unl/P).

Advantage Program

Purchasing additional coverage on select components will continue to safeguard your investment against major repair costs after the initial base coverage expires. You can find out more about the Advantage Program by visiting www.meritor.com or by contacting Meritor at 866-OnTrac1 (866-668-7221).



LINEHAUL WARRANTY INFORMATION

Linehaul Vehicles

■ Bulk Hauler	■ Flatbed	■ Livestock Hauler	■ Refrigerated Freight
■ Chip Hauler (Truck)*	■ General Freight	■ Moving Van	■ Tanker
■ Doubles	■ Grain Hauler	■ Pipe Hauler	■ Triples

* Chip Hauler vehicles require specific axle models listed below and Linehaul condition to be eligible for Linehaul warranty consideration.

Linehaul Typically Is

- High mileage operation (over 60,000 miles/year)
- Well maintained major highways of concrete or asphalt construction
- Greater than 30 miles between starting and stopping

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 5/750/P&L

FD-965	FF-967	MFS-12-122B-N	MFS-12-132C-N	MFS-13-122B-N	MFS-13B-122C-N
FF-941	FG-941	MFS-12-122C-N	MFS-12E-132B-N	MFS-13-122C-N	MFS-13B-132B-N
FF-942	FG-943	MFS-12E-122A-N	MFS-12E-132C-N	MFS-13-132B-N	MFS-13B-132C-N
FF-943	MFS-10-122A	MFS-12E-122B-N	MFS-12-143A-N	MFS-13-132C-N	MFS-14-122A-N
FF-944	MFS-10-143A-N	MFS-12E-122C-N	MFS-12E-143A-N	MFS-13-143A-N	MFS-14-124A-N
FF-961	MFS-10-144A-N	MFS-12-124A-N	MFS-12-144A-N	MFS-13-144A-N	MFS-14-143A-N
FF-966	MFS-12-122A-N	MFS-12-132B-N	MFS-13-122A-N	MFS-13B-122B-N	MFS-14-144A-N

Rear Drive Single Axles – 5/750/P&L

RS-19-144/145/A	RS-21-145	RS-23-160
MS-19-14X	RS-21-160	RS-23-161
MS-21-144	MS-23-17X	RS-23-186

Rear Drive Tandem/Tridem Axles – 5/750/P&L

RT-34-144/P/A	MA-40-165	MT-40-14XHE
RT-40-145/A	MA-40-175	MT-40-144/P
RT-40-160/P ^{1,2}	MT-34-14X/P	MT-40-943
RT-46-160/P ^{1,2}	MT-40-14T/P	MT-40-943-SP
RT-46-164EH/P ^{1,2}	MT-40-14X/P	RZ-166 ²
RT-50-160/P ^{1,2}	MT-40-14X/P	RZ-188

Drivelines

RPL	5/500/P, 1/Unl/P&L
MXL	3/350/P, 1/Unl/P&L
155N	1/Unl/P
92N	1/Unl/P

¹ These models required for Chip Hauler and Linehaul warranty consideration.
² Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.



LINEHAUL WARRANTY INFORMATION

Brake Components

Cam Q Series Trailer Brakes	5/500/P, 1/100/L
Q+ Drum Brake™	5/500/P, 1/Unl/P&L
ASA	5/500/P, 1/Unl/P&L
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
STEELite X30 Drum Brake™ ²	12-Years or Wearable Life/P
EX+ Air Disc Brake™	5/500/P, 1/Unl/L
EX+ Air Disc Brake Extended Standard Warranty ³	5/500/P&L

¹ Includes: bushing, seal, cam, ASA lubrication and wear coverage of 3/500/P&L.

² Based on stamped wear diameter max.

³ Applies only to MA761 friction material code CD brake assembly i.e. EX225LXXCDXXX

Trailer Axles

Beam and Brackets	5/500/P, 1/100/L
Wheel End Systems ¹	
Standard System ²	1/100/P&L
PreSet by Meritor ³	5/500/P&L
AxlePak ⁵	5P/L
AxlePak ⁷	7P/L

¹ Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

² When installed by Meritor.

³ Requires approved hubcap stating PreSet by Meritor on hubcap face.

⁴ When specified with AxlePak5 wheel end system, coverage on MTIS thru-tee and stator is 5/Unl/P, 1/Unl/L.

⁵ When specified with AxlePak7 wheel end system, coverage on MTIS thru-tee and stator is 7/Unl/P, 1/Unl/L.

(For brake components and ABS coverage, refer to appropriate product warranties.)

TAG/Pusher Axles¹

TQ, TQD, TR, TRD Beam and Brackets	5/750/P&L
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¹ For brake components and ABS Coverage, refer to appropriate product warranties.

Meritor Tire Inflation System

MTIS Components	5/Unl/P, 1/Unl/L
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Trailer Air Suspension Systems

MPA38/40 (Tandem Axle Parallelogram) ¹	
Major Structural Components	5/500/P, 1/100/L
Curbing Damage Warranty ²	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Shock Absorbers	2/200/P&L
Air Springs	2/200/P, 1/100/L
Bushings	5/P, 3/L
PinLoc Air Controls	1/100/P&L
PinLoc Actuator	3/300/P&L
MPA20 (Single Axle Parallelogram)	
Major Structural Components	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Shock Absorbers	2/200/P&L
Air Springs	2/200/P, 1/100/L
Bushings	5/P, 3/L
MTA (Trailing Arm)	
Major Structural Components	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Shock Absorbers	2/200/P&L
Air Springs & Rebound Straps	2/200/P, 1/100/L
Bushings	5/500/P, 3/300/L

¹ Fastener torque coverage is limited to 2/Unl/P&L when torqued by Meritor (For axle and ABS coverage, refer to appropriate product warranties.)

² “Curbing damage” is defined as deformation (bending, buckling, or breakage), caused by sudden impact with a curb or similar fixed object. Damage to the RideSentry slider box (the suspension sliding subframe, consisting of the frame rails, crossmembers, and central A-frame assembly), caused by accidental trailer impact with a curb or similar fixed object, is eligible for warranty coverage. Damage to other components or damage resulting from collision with another vehicle, rollover or fire is not covered under this provision. Warranty is not transferrable to another trailer VIN, and coverage does not apply if the trailer is deemed to be a total loss, scrapped, or otherwise not salvageable.



GENERAL SERVICE WARRANTY INFORMATION

General Service Vehicles

■ Auto Hauler	■ Intercity Coach	■ Pipe Hauler	■ Tanker Trailer
■ Beverage Truck	■ Intermodal Chassis	■ Platform Auto Hauler	■ Tour Bus
■ Chip Hauler	■ Livestock Hauler	■ Rear Engine Integral Coach	■ Wrecker
■ Cross Country Coach	■ Meat Packer	■ Recreational Vehicles	
■ Flatbed	■ Moving Van	■ Refrigerated Freight	
■ Front Engine Commercial Chassis	■ Municipal Truck	■ School Bus	
■ Front Engine Integral Coach	■ Newspaper Delivery	■ Stake Truck	
■ General Freight	■ Pick-Up and Delivery	■ Tanker	

General Service Typically Is

- Lower mileage operations (less than 60,000 miles/year)
- Generally, on-road service (less than 10% off-road)
- An average of three (3) miles between starting and stopping

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 2/Unl/P&L

FD-965	FL-943	MFS-8-163B-N	MFS-12E-132B-N	MFS-13-132C-N	MFS-16-143A-N
FF-941	MFS-6-151A-N	MFS-10-122A	MFS-12-132C-N	MFS-13B-132B-N	MFS-18-133A-N
FF-942	MFS-6-153B-N	MFS-10-143A-N	MFS-12E-132C-N	MFS-13B-132C-N	MFS-18-135A-N
FF-943	MFS-6-162B-N	MFS-10-144A-N	MFS-12-143A-N	MFS-13-143A-N	MFS-18-193A-N
FF-944	MFS-6-153C-N	MFS-12-122A-N	MFS-12-144A-N	MFS-13-144A-N	MFS-20-133A-N
FF-946	MFS-6-162C-N	MFS-12E-122A-N	MFS-12E-143A-N	MFS-14-122A-N	MFS-20-135A-N
FF-961	MFS-7-113C-N	MFS-12-122B-N	MFS-13-122A-N	MFS-14-124A-N	MFS-20-192A-N
FF-966	MFS-7-153C-N	MFS-12E-122B-N	MFS-13-122B-N	MFS-14-143A-N	MFS-20-193A-N
FF-967	MFS-7-163C-N	MFS-12-122C-N	MFS-13B-122B-N	MFS-14-144A-N	MFS-22-135A-N
FG-941	MFS-8-113B-N	MFS-12E-122C-N	MFS-13-122C-N	MFS-16-122A-N	MFS-22H-135A-N
FH-941	MFS-8-143A-N	MFS-12-124A-N	MFS-13B-122C-N	MFS-16-133A-N	MFS-22-193A-N
FH-946 ¹	MFS-8-153B-N	MFS-12-132B-N	MFS-13-132B-N	MFS-16-135A-N	MFS-22H-193A-N
FL-941					

¹ Can also be used with reduced steer angles in tag position in Coach Applications.

Front Drive/Non-Drive Steer Axles – 1/Unl/P&L

MX-08-130-FV (FSD-08A)	MX-16-130-FV (FSD-16A)	MX-21-130-SD (SDA-2100)
MX-10-130-FV (FSD-10A)	MX-18-130-FV (FSD-18A)	MX-23-130-FV (FSD-23A)
MX-12-130-FV (FSD-12A)	MX-18-130-SD (SDA-1800)	MX-23-130-SD (SDA-2300)
MX-13-130-FV (FSD-13A)	MX-20-130-FV (FSD-20A)	MX-29-130-FV (FSD-29A)
MX-14-130-FV (FSD-14A)	MX-21-130-FV (FSD-21A)	

Rear Drive Single Axles – 2/Unl/P&L

MS-17-13X	MS-21-14X	RC-23-160	RS-24-160	MS-30-616-SP
MS-17-14X	MS-21-144	RC-23-161	RC-25-160	RS-35-380
MS-19-13X	MS-23-17X	RC-23-162 ¹	RS-26-185	71162
MS-19-14X	RS-21-145/A	RC-23-165 ¹	MS-26-616	71163
RS-17-144/145/A	RS-21-160	RS-23-160	MS-26-616-SP	79163
RS-19-144/145/A	RC-22-145	RS-23-161	RS-30-185	
MS-21-13X	RC-22-145/A	RS-23-186	MS-30-616	

¹ 3/Unl/P&L if PreSet by Meritor.

Rear Drive Tandem/Tridem Axles – 2/Unl/P&L

MT-34-14X/P	MT-40-14XHE	RT-44-145/P	MT-58-616
RT-34-144/P/A	MT-40-144/P	RT-46-169	RT-58-185 ¹
MT-40-14T/P	RT-40-145/A	MT-52-616	MT-70-380
MT-40-14X/P	MT-44-14X/P	RT-52-185 ¹	RZ-188

¹ Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Rear Drive Tandem/Tridem - 3/Unl/P&L

RT-40-160/P	RT-50-160/P
RT-46-160/P	RZ-166
RT-46-164EH/P	

Rear Drive Axles – 1/Unl/P&L

11170	RND-14H
523	RND-16A

Drivelines

RPL	4/400/P, 1/Unl/P&L
MXL	3/350/P, 1/Unl/P&L
155N	1/Unl/P
92N	1/Unl/P

Transmission – 1/Unl/P&L

516	FAT 30
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PTO – 1/Unl/P&L

MPT-318	MPT-526	MPT-1702
MPT-500	MPT-531	MPT-175
MPT-510	MPT-543	MPT-185
MPT-518	MPT-170	MPT-190



GENERAL SERVICE WARRANTY INFORMATION

Brake Components

Cam Q Series Trailer Brakes	3/Unl/P, 1/Unl/L
Cam P ³	2/200/P
Cam	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
Q+ Drum Brake™ ³	2/200/P&L
ASA	3/Unl/P
ASA ³	2/200/P
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
STEELite X30 Drum Brake™ ²	12-Years or Wearable Life/P
EX+ Air Disc Brake™	2/Unl/P&L

¹ Includes: bushing, seal, cam, ASA lubrication and wear coverage of 1/Unl/P.

² Based on stamped wear diameter max.

³ Applies to Tour Bus and Cross Country Coach only.

Trailer Axles

Beam and Brackets ¹	5/Unl/P, 1/Unl/L
Wheel End Systems ²	
Standard System ³	1/Unl/P&L
AxlePak5 ⁴	5/P&L
AxlePak7 ⁵	7/P&L

¹ 9000 Series is 3/Unl/P, 1/Unl/L

² Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

³ When installed by Meritor.

⁴ When specified with AxlePak5 wheel end system, coverage on MTIS thru-tee and stator is 5/Unl/P, 1/Unl/L.

⁵ When specified with AxlePak7 wheel end system, coverage on MTIS thru-tee and stator is 7/Unl/P, 1/Unl/L.

(For brake components and ABS coverage, refer to appropriate product warranties.)

Chassis Axles (2000 Series/ChassiPak)

Beam & Brackets	6/Unl/P, 1/Unl/L
Wheel End Systems ¹	
Standard System	1/Unl/P&L
AxlePak7	7/P&L
Beam and Brackets	7/P, 1/L

¹ Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

Trailer Air Suspension Systems

MPA38/40 (Tandem Axle Parallelogram) ¹	
Major Structural Components	5/Unl/P, 1/Unl/L
Curbing Damage Warranty ²	5/500/P, 1/100/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs	2/Unl/P, 1/Unl/L
Bushings	5/P, 3/L
PinLoc Air Controls	1/Unl/P&L
PinLoc Air Actuator	3/Unl/P&L
MPA20 (Single Axle Parallelogram)	
Major Structural Components	5/Unl/P, 1/Unl/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs	2/Unl/P, 1/Unl/L
Bushings	5/P, 3/L
MTA (Trailing Arm)	
Major Structural Components	5/Unl/P, 1/Unl/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs and Rebound Straps	2/Unl/P, 1/Unl/L
Bushings ³	5/Unl/P, 3/Unl/L

(For axle and ABS coverage, refer to appropriate product warranties.)

¹ Fastener torque coverage is limited to 2/Unl/P&L when torqued by Meritor

² "Curbing damage" is defined as deformation (bending, buckling, or breakage), caused by sudden impact with a curb or similar fixed object. Damage to the RideSentry slider box (the suspension sliding subframe, consisting of the frame rails, crossmembers, and central A-frame assembly), caused by accidental trailer impact with a curb or similar fixed object, is eligible for warranty coverage. Damage to other components or damage resulting from collision with another vehicle, rollover or fire is not covered under this provision. Warranty is not transferrable to another trailer VIN, and coverage does not apply if the trailer is deemed to be a total loss, scrapped, or otherwise not salvageable.

³ Raw wood applications 3/Unl/P, 1/Unl/L

TAG/Pusher Axles

TQ, TQD, TR, TRD Beam and Brackets ¹	3/Unl/P, 1/Unl/L
MC14002, MC16003, FH946	2/Unl/P&L

(For brake components and ABS coverage, refer to appropriate product warranties.)

¹ 3/Unl/P&L if sold with PreSet by Meritor.

Meritor® Tire Inflation System

MTIS Components	5/Unl/P, 1/Unl/L
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HEAVY SERVICE/SPECIALTY VEHICLE WARRANTY INFORMATION

Heavy Service/Specialty Vehicle

■ Airport Rescue Fire Fighting (ARFF)	■ Dump	■ Michigan Special Steel Hauler	■ Steel Hauling
■ Airport Shuttle*	■ Equipment Hauling	■ Michigan Special Waste Vehicle	■ Tanker
■ Asphalt Truck	■ Flatbed Trailer Hauler	■ Municipal Dump	■ Tank Truck
■ Block Truck	■ Flatbed Truck	■ Rear Loader (Refuse)	■ Tractors with Pole Trailers
■ Bottom Dump Trailer Combination	■ Fracturing Truck	■ Recycling Truck	■ Tractor/Trailer with Jeeps
■ Cementing Vehicle	■ Front Loader	■ Residential Pick-Up (Refuse)	■ Transfer Dump
■ Commercial Pick-Up	■ Geophysical Exploration	■ Rigging Truck	■ Transfer Vehicle
■ Concrete Pumper	■ Hopper Trailer Combinations	■ Roll-Off	■ Utility Truck
■ Construction Material Hauler	■ Landscaping Truck	■ Scrap Truck	■ Winch Truck
■ Mixer	■ Liquid Waste Hauler	■ Semi-End Dump	
■ Demolition	■ Log Hauling	■ Sewer/Septic Vacuum	
■ Drill Rig	■ Lowboy	■ Shuttle Bus*	
	■ Michigan Special Gravel Trains	■ Side Loader	
	■ Michigan Special Log Hauler	■ Snowplow/Snowblower	

*Commercial chassis only

Heavy Service/Specialty Vehicle Typically Is

- Moderate mileage operation (less than 60,000 miles per year)
- On/Off road vocations (10% or more off-road)
- Moderate to frequent stops/starts (up to 10 stops per mile)

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Drive/Non-Drive Steer Axles – 2/Unl/P&L

FD-965	FL-941	MFS-10-143A-N	MFS-12-143A-N	MFS-13-144A-N	MFS-18-193A-N	MX-12-120
FF-941	FL-943	MFS-10-144A-N	MFS-12-144A-N	MFS-13-155	MFS-20-133A-N	MX-12-120 EVO
FF-942	MFS-6-151A-N	MFS-12-122	MFS-12-155	MFS-14-122	MFS-20-135A-N	MX-14-120
FF-943	MFS-6-153B	MFS-12E-122	MFS-13-122	MFS-14-124A-N	MFS-20-192A-N	MX-16-120
FF-944	MFS-6-162B	MFS-12-122B-N	MFS-13-122B-N	MFS-14-143A-N	MFS-20-193A-N	MX-18-120
FF-946	MFS-6-162C	MFS-12E-122B-N	MFS-13B-122B-N	MFS-14-144A-N	MFS-22-135A-N	MX-17-140
FF-961	MFS-7-113C-N	MFS-12-122C-N	MFS-13-122C-N	MFS-16-122A-N	MFS-22H-135A-N	MX-19-140
FF-966	MFS-7-153C-N	MFS-12E-122C-N	MFS-13B-122C-N	MFS-16-133A-N	MFS-22-193A-N	MX-21-140
FF-967	MFS-7-163C-N	MFS-12-124A-N	MFS-13-132B-N	MFS-16-135A-N	MFS-22H-193A-N	MX-21-160
FG-941	MFS-8-113B-N	MFS-12-132B-N	MFS-13B-132B-N	MFS-16-143A-N	RF-16-145	MX-23-160
FG-943	MFS-8-153B-N	MFS-12E-132B-N	MFS-13-132C-N	MFS-18-133A-N	RF-21-160	MX-810
FH-941	MFS-8-163B-N	MFS-12-132C-N	MFS-13B-132C-N	MFS-18-135A-N	MX-10-120	
FH-946	MFS-10-122A	MFS-12E-132C-N	MFS-13-143A-N	MFS-18-192A-N	MX-10-120 EVO	

Front Drive/Non-Drive Steer Axles – 1/Unl/P&L

MX-08-130-FV (FSD-08A)	MX-16-130-FV (FSD-16A)	MX-21-130-SD (SDA-2100)
MX-10-130-FV (FSD-10A)	MX-18-130-FV (FSD-18A)	MX-23-130-FV (FSD-23A)
MX-12-130-FV (FSD-12A)	MX-18-130-SD (SDA-1800)	MX-23-130-SD (SDA-2300)
MX-13-130-FV (FSD-13A)	MX-20-130-FV (FSD-20A)	MX-29-130-FV (FSD-29A)
MX-14-130-FV (FSD-14A)	MX-21-130-FV (FSD-21A)	

Rear Drive Single Axles – 2/Unl/P&L

MS-17-14X	RS-21-160	RS-24-160	MS-35-380
RS-17-144/145/A	RC-22-145	RS-25-160	RS-38-380
MS-19-14X	RC-23-160	MS-26-616	RC-25-160
RS-19-144	RH-23-160	MS-26-616-SP	RC-26-633
MS-21-114	RS-23-160	RS-26-185/380	MT-58-616
MS-21-14X	RC-23-161	MS-30-616	MT-58-616-SP
RS-21-145	RS-23-161	MS-30-616-SP	
RS-21-145/A	RS-23-186/380	RS-30-185/380	

Rear Drive Axles – 1/Unl/P&L

11170	RND-14H
523	RND-16A

Drivelines

RPL	3/Unl/P, 1/Unl/P&L
92N	1/Unl/P&L
MXL	1/Unl/P&L

Transmission – 1/Unl/P&L

516
FAT 30

PTO – 1/Unl/P&L

MPT-318	MPT-526	MPT-1702
MPT-500	MPT-531	MPT-175
MPT-510	MPT-543	MPT-185
MPT-518	MPT-170	MPT-190



HEAVY SERVICE/SPECIALTY VEHICLE WARRANTY INFORMATION

Rear Drive Tandem/Tridem Axles – 2/Unl/P&L

MT-34-14X/P	RT-44-145/P	RT-52-185/380 ^{1,2}	MT-70-380
RT-34-144/P/A	RT-46-169	MT-58-616	RZ-188
MT-40-14X/P	RT-58-160	MT-58-616-SP	
RT-40-145/A	MT-52-616	RT-58-185/380 ^{1,2}	
MT-44-14X/P	MT-52-616-SP	RT-70-380	

¹ Axle model designated will vary according to options and variations specified on these axles. Contact Meritor Axle Applications Engineering for details.

² Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Brake Components

Cam P	3/Unl/P
Cam P ³	2/100/P
Cam Cast Plus™	2/100/P&L
Q+ Drum Brake™	3/Unl/P&L
Q+ Drum Brake™ ²	2/100/P&L
ASA	3/Unl/P
ASA ²	2/100/P
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
EX+ Air Disc Brake	2/100/P&L

¹ Based on stamped wear diameter max.

² Applies to City Bus, Trolley, Shuttle Bus and Airport Shuttle only.

³ Warranty for all non-Meritor ASAs supplied by Meritor for all Heavy Service vocations is 1/100/P.

Rear Drive Tandem/Tridem - 3/Unl/P&L

RT-40-160/P/A ³
RT-46-160/P/A ^{1,3}
RT-46-164EH/P/A ^{2,3}
RT-50-160/P/A ³
RZ-166

¹ U.S. only. Canadian warranty = 1/Unl/P for combination vehicles only.

² Axle model designated will vary according to options and variations specified on these axles. Contact Meritor Axle Applications Engineering for details.

³ Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Meritor Tire Inflation System

MTIS Components	5/Unl/P, 1/Unl/L
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Trailer Air Suspension Systems

MTA (Trailing Arm)	
Major Structural Components ¹	5/Unl/P, 1/Unl/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs	2/Unl/P, 1/Unl/L
Bushings ¹	5/Unl/P, 3/Unl/L

¹ Raw wood applications 3/Unl/P, 1/Unl/L

(For axle and ABS coverage, refer to appropriate product warranties.)

Trailer Axles

Beam and Brackets ¹	5/Unl/P, 1/Unl/L
Wheel End Systems ²	
Standard System ³	1/Unl/P&L

¹ 9000 Series is 3/Unl/P, 1/Unl/L.

² Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

³ When installed by Meritor.

(For brake components and ABS coverage, refer to appropriate product warranties.)

Gearboxes – 1/Unl/P&L

MGX-240	MGX-376	MGX-448	MGX-506	MGX-528	MGX-546
MGX-279	MGX-377	MGX-456	MGX-514	MGX-533	MGX-550
MGX-279D	MGX-378	MGX-478	MGX-519	MGX-534	
MGX-280	MGX-380	MGX-480	MGX-520	MGX-536	
MGX-285	MGX-384	MGX-487	MGX-522	MGX-537	
MGX-292	MGX-402	MGX-488	MGX-524	MGX-541	
MGX-314	MGX-413	MGX-505	MGX-527	MGX-545	

Transfer Cases – 1/Unl/P

MTC-4213	MTC-3118-CV (358)	MTC-3209-GV (RTC-60/420)
MTC-4210	MTC-3120-FV (TC-143)	MTC-3209-GV (RTC-60/380)
MTC-4208	MTC-3124 (T-2119)	MTC-3209-GV (MTC-60/420)
MTC-4206-FV (TC-38)	MTC-3205-GV (MTC-25/247)	MTC-3209-GV (MTC-60/380)
MTC-3106-FV (TC-137)	MTC-3205-GV (MTC-25/350)	MTC-3212-CV (315 & 548B)
MTC-3111 (T-2111)	MTC-3205-GV (RTC-25/350)	MTC-3312-FV (TC-270)
MTC-3112-CV (529 & 548C)	MTC-3206-FV (TC-237)	MTC-3220-FC (TC-142)
MTC-3116 (T-2111)	MTC-3206-CS (544)	MTC-2212-CV (306)
MTC-3118-FV (TC-180 & TC-180-23)	MTC-3208-GV (RTC-50)	



FIRE AND EMERGENCY WARRANTY INFORMATION

Fire and Emergency Vehicles

- Aerial Ladder Truck
- Aerial Platform
- Ambulance
- Command Vehicle
- Crash Fire Rescue (CFR)
- Pumper
- Rapid Intervention Vehicle (RIV)
- Tanker

Fire and Emergency Typically Is

- Lower mileage operations (less than 20,000 miles/year)
- Generally, on-road service (less than 10% off-road)
- An average of three (3) miles between starting and stopping

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 5/Unl/P&L

FL-941	MFS-18-193A-N	MFS-22-135A-N
FL-943	MFS-20-133A-N	MFS-22H-135A-N
MFS-18-133A-N	MFS-20-135A-N	MFS-22-193A-N
MFS-18-135A-N	MFS-20-193A-N	MFS-22H-193A-N

Front Drive Steer Axles – 2/Unl/P&L

MX-19140	MX-21160	MX-23810
MX-21140	MX-23160	

Rear Drive Single Axles – 5/Unl/P&L

RC-23-160	RS-23-186	RS-26-185	RS-25-160
RS-23-160	RS-24-160	RS-30-185	
RS-23-161	RC-25-160	RS-35-380	

¹ 3/Unl/P&L if PreSet by Meritor.

Rear Drive Tandem/Tridem Axles – 5/Unl/P&L

MT-40-14X/P	RT-44-145/P	MT-52-616
MT-40-144/P	RT-46-160/P	RT-52-185 ¹
RT-40-145/A	RT-46-164EH/P	MT-58-616
RT-40-160/P	RT-46-169	RT-58-185 ¹
MT-44-14X/P	RT-50-160/P	MT-70-380

¹ Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Brake Components

Cam	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
ASA	3/Unl/P
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
EX+ Air Disc Brake™	2/Unl/P&L

¹ Includes: bushing, seal, cam, ASA lubrication and wear coverage of 1/Unl/P.

Drivelines

RPL	4/400/P, 1/Unl/L
MXL	3/350/P, 1/Unl/L
155N	1/Unl/P
92N	1/Unl/P

Transfer Cases – 1/Unl/P

MTC-4208	MTC-3111 (T-2111)
MTC-4210	MTC-3116 (T-2111)
MTC-4213	MTC-3124 (T-2119)



TRANSIT BUS WARRANTY INFORMATION

Transit Bus Vehicles

- Airport Shuttle
- City Bus
- Commuter Coach
- Shuttle Bus
- Transit Bus
- Trolley

Transit Bus Typically Is

- Moderate mileage operation (less than 50,000 miles per year)
- Moderate to frequent stops/starts (up to 10 stops per mile)

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Drive/Non-Drive Steer Axles – 5/300/P&L

FH-946 MFS-12-155
 FH-941¹ MFS-13-155

¹ Commuter coach only – 2/Unl/P&L

Drivelines

RPL 3/Unl/P, 1/Unl/L
 92N 1/Unl/P&L
 MXL 1/Unl/P&L

Rear Drive Single Axles – 5/300/P&L

RS-23-160 79163 RS-21-160
 RC-23-161 RC-23-162¹
 71163 RC-23-165¹

¹ Commuter coach only – 2/Unl/P&L

Tag Axles – 2/Unl/P&L

MC-14002
 MC-16003
 FH-946

Brake Components

Cam Cast Plus™ 2/100/P&L
 Q+ Drum Brake™¹ 2/100/P&L
 ASA¹ 2/100/P
 Hubs/Cast Drums and
 Other Wheel-end
 Components 1/Unl/P
 All Other Brakes 1/Unl/P
 EX+ Air Disc Brake 2/100/P&L

¹ Applies to City Bus, Trolley, Shuttle Bus and Airport Shuttle only.

Center Non-drive Axles – 5/300/P&L

MC-26000
 71063
 79063



OFF-HIGHWAY SERVICE WARRANTY INFORMATION

Industrial And Off-Highway Service Vehicles

■ Load-On/Load-Off	■ Yard Jockey	■ Specialized Mining	■ Rail Car Mover
■ Port Tractor	■ All-Terrain Crane	■ Excavator	■ Loader
■ Rail Yard Spotter	■ Rough Terrain Crane	■ Compactor	■ Tow Tractor
■ Roll-On/Roll-Off	■ Forestry	■ Fertilizer Spreader	■ Pushback Tractor
■ Stevedoring Tractor	■ Material Handling	■ Snow Blower	
■ Trailer Spotter	■ Specialized Heavy Haul	■ Mining	

Industrial And Off-Highway Service Typically Is

- Low mileage operation
- Low speed vehicle speed restriction
- Vehicles are **not** typically licensed for highway use
- Six (6) starts/stops per mile (typical)

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Contact Meritor regarding specific application approval questions on any product line.

Drivelines – 1/Unl/P

RPL MXL

Front Non-Drive Steer Axles – 1/Unl/P

FF - 941	MFS-12-144A-N	MFS-18-193A-N
FF - 943	MFS-13-143A-N	MFS-20-133A-N
FF - 961	MFS-13-144A-N	MFS-20-135A-N
FF - 966	MFS-14-143A-N	MFS-20-192A-N
FG - 941	MFS-16-122A-N	MFS-20-193A-N
FG - 943	MFS-16-133A-N	MFS-22-135A-N
FL - 941	MFS-16-135A-N	MFS-22H-135A-N
FL - 943	MFS-16-143A-N	MFS-22-193A-N
FN - 951	MFS-18-133A-N	MFS-22H-193A-N
MFS-12-143A-N	MFS-18-135A-N	MON-ZO FAMILY

Brake Components

Cam P	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
ASA	3/Unl/P
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P

Planetary Axles – 1/Unl/P

MOB	MOF	MOS	MOZ
MOC	MOG	MOT	
MOD	MOH	MOX	
MOE	MOR	MOY	

Gearboxes – 1/Unl/P&L

MGX-240	MGX-376	MGX-448	MGX-506	MGX-528	MGX-546
MGX-279	MGX-377	MGX-456	MGX-514	MGX-533	MGX-550
MGX-279D	MGX-378	MGX-478	MGX-519	MGX-534	
MGX-280	MGX-380	MGX-480	MGX-520	MGX-536	
MGX-285	MGX-384	MGX-487	MGX-522	MGX-537	
MGX-292	MGX-402	MGX-488	MGX-524	MGX-541	
MGX-314	MGX-413	MGX-505	MGX-527	MGX-545	

Transfer Cases – 1/Unl/P

MTC-4213	MTC-3116 (T-2111)	MTC-3205-GV (RTC-25/350)	MTC-3209-GV (MTC-60/380)
MTC-4210	MTC-3118-FV (TC-180 & TC-180-23)	MTC-3206-FV (TC-237)	MTC-3212-CV (315 & 548B)
MTC-4208	MTC-3118-CV (358)	MTC-3206-CS (544)	MTC-3312-FV (TC-270)
MTC-4206-FV (TC-38)	MTC-3120-FV (TC-143)	MTC-3208-GV (RTC-50)	MTC-3220-FC (TC-142)
MTC-3106-FV (TC-137)	MTC-3124 (T-2119)	MTC-3209-GV (RTC-60/420)	MTC-2212-CV (306)
MTC-3111 (T-2111)	MTC-3205-GV (MTC-25/247)	MTC-3209-GV (RTC-60/380)	
MTC-3112-CV (529 & 548C)	MTC-3205-GV (MTC-25/350)	MTC-3209-GV (MTC-60/420)	



TERMS AND CONDITIONS

Coverage Exclusions

Product Description

All

The cost of any repairs, replacements or adjustments to a covered component (1) associated with noise; (2) resulting from the use or installation of non-genuine Meritor components or materials; (3) due to vibration associated with improper operation or misapplication of drivetrain components; and (4) damage resulting from corrosion.

For axle assemblies supplied by Meritor with suspension and interface brackets designed and/or attached by non-Meritor parties, Meritor warranty coverage does not apply to the brackets, bracket attachment methods, and field issues caused by brackets or bracket attachments to any covered component unless specified in a separate OEM agreement.

Front Axles

King Pin Bushings.

Rear Axles

Self-contained traction equalizers and oil filters. The use of NoSPIN differentials will result in the exclusion of axle shafts from warranty considerations. NoSPIN is a product of Eaton.

ASA

Boot and bushing. Bent, broken, over-torqued, missing or otherwise damaged pawl assemblies.

Cam Brake

Brake lining wear and brake shoe “rust-jacking.”

Disc Brake

Pad wear, rotor wear.

Coverage Limitations

Product Description

All

Any claim beyond 60 days from date of repair will not be accepted or honored under this warranty program. Products purchased on an incomplete vehicle (glider) are limited to one year, unlimited miles parts only (1/Unl/P).

Front Axles

Tie rod and tie rod ends limited to 3-year/300,000-mile or published vocational coverage, whichever is less. Wheel seals, gaskets and wheel bearings are covered for 1 year/unlimited miles if the wheel end equipment is supplied and assembled by Meritor.

Rear Axles

Pinion and through shaft seals limited to 3-year/300,000-mile or published vocational coverage, whichever is less, if yoke is installed by Meritor. If yoke is not installed by Meritor, then Meritor does not warrant pinion seals. Wheel seals, gaskets and wheel bearings are covered for 1 year/unlimited miles if the wheel end equipment is supplied and assembled by Meritor.

Rear Axles

The Meritor® breather part number A-2297-C-8765 with A-3196-J-1336 hose must be used for eligibility of any potential warranty consideration relating to contamination and/or loss of lube in axles.

Cam Brake

Limited to bracket, brake spider and camshaft structural integrity.

STEELite X30

Wearable life is up to the discard diameter of the drum.

Disc Brake

Warranty coverage for boots, seals, bushings and pins is 2/200/P. Warranty coverage for pads is 1/100/P.

Warranty coverage on vehicles with 1,850 lb-ft engine torque and over may be reduced on individual drivetrain components. Contact your Meritor representative for specific details.

TERMS AND CONDITIONS

(1) What is Covered by this Commercial Warranty?

Meritor Heavy Vehicle Systems, LLC warrants to the owner ("Owner") that the components listed in this publication, which have been installed by an Original Equipment Manufacturer ("OEM") as original equipment in vehicles licensed for on-highway use, will be free from defects in material and workmanship. This warranty coverage begins only after the expiration of the OEM's vehicle warranty for the applicable covered components. Warranty coverage ends at the expiration of the applicable time period from the date of vehicle purchase by the first Owner, or, the applicable mileage limitation, whichever occurs first. Duration of coverage varies by component and vocation as detailed elsewhere in this warranty statement.

Some components are warranted for parts only and the Owner must pay any labor costs associated with the repair or replacement of the component. Other components are warranted for both parts and reasonable labor to repair or replace the subject component. Components (whether new, used or remanufactured) installed as replacements under this warranty are warranted only for the remainder of the original period of time or mileage under the original warranty.

For certain components, coverage requires the use of specific extended drain interval or synthetic lubricants. For further information about lubrication and maintenance, see Meritor publication Maintenance Manual Number I and the applicable Meritor maintenance manual for the product in question. Other conditions and limitations applicable to this warranty are detailed below.

(2) Designation of Vocational Use Required.

To obtain warranty coverage, each Owner must notify Meritor through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the Meritor components have been incorporated prior to the vehicle in-service date. This notification may be accomplished by registering the vehicle through your OEM new truck and/or trailer dealer or with Meritor directly. Failure to notify Meritor of (I) the intended vocational use of the vehicle or (II) a change in vocational use from that which was originally designated, will result in the application of a one year, unlimited mileage, parts only warranty (1/Unl/P) from the initial in-service date.

A second Owner and each subsequent Owner must also notify Meritor as to the intended vocational use of the vehicle. This notification can be sent directly to Meritor or through the OEM new truck and/or trailer dealer. The duration and mileage coverage of this warranty cannot exceed the coverage extended to the first Owner after his or her initial designation of vocational use.

Coverage under Meritor's warranty requires that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

(3) What is the Cost of this Warranty?

There is no charge to the Owner for this warranty.

(4) What is not Covered by this Warranty?

This warranty does not cover normal wear and tear; nor does it cover a component that fails, malfunctions or is damaged as a result of (I) improper installation, adjustment, repair or modification (including the use of unauthorized attachments or changes or modification in the vehicle's configuration, usage, or vocation from that which was originally approved by Meritor), (II) accident, natural disaster, abuse, or improper use (including loading beyond the specified maximum vehicle weight or altering engine power settings to exceed the axle and/or driveline capacity), or (III) improper or insufficient maintenance (including deviation from approved lubricants, change intervals, or lube levels). This warranty does not cover any component or part that is not branded by Meritor. For vehicles that operate full or part time outside of the United States and Canada, a one year, unlimited mileage, parts only warranty (1/Unl/P) will apply.

(5) Remedy.

The exclusive remedy under this warranty shall be the repair or replacement of the defective component at Meritor's option. Meritor reserves the right to require that all applicable failed materials are available and/or returned to Meritor for review and evaluation.

(6) Disclaimer of Warranty.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESSED, IMPLIED OR STATUTORY INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

(7) Limitation of Remedies.

In no event shall Meritor be liable for special, incidental, indirect, or consequential damages of any kind or under any legal theory, including, but not limited to, towing, downtime, lost productivity, cargo damage, taxes, or any other losses or costs resulting from a defective covered component.

(8) To Obtain Service.

If the Owner discovers within the applicable coverage period a defect in material or workmanship, the Owner must promptly give notice to either Meritor or the dealer from which the vehicle was purchased. To obtain service, the vehicle must be taken to any participating OEM new truck and/or trailer dealer or authorized Meritor service location. The dealer will inspect the vehicle and contact Meritor for an evaluation of the claim. When authorized by Meritor, the dealer will repair or replace during the term of this warranty any defective Meritor component covered by this warranty.

(9) Entire Agreement.

This is the entire agreement between Meritor and the Owner about warranty and no Meritor employee or dealer is authorized to make any additional warranty on behalf of Meritor. This agreement allocates the responsibilities for component failure between Meritor and the Owner.

Product models, brands, names and trademarks depicted herein are the property of their respective owners and, except where otherwise indicated, are not in any way associated with Meritor Heavy Vehicle Systems, LLC, or any parent or affiliate, thereof.



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Fire and Rescue Apparatus

Three (3) Year Material and Workmanship Meritor Wabco ABS Brake System Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The Meritor Wabco ABS brake system shall be covered by Meritor Wabco as indicated in the attached Meritor Wabco warranty coverage description
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Three (3) Year
Conditions and Exclusions: See Also Paragraphs 2 thru 4	The exclusions listed in the attached Meritor Wabco warranty description shall apply.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

WARRANTY

MODEL YEAR 2021 VEHICLES



Warranty coverage is essential to protecting your investment. But understanding the full details of your coverage can be challenging. This straightforward approach allows you, our valued customer, to better understand how your specific vehicle applications will be covered in your region. Our component warranty coverage is provided according to vocation/usage categories listed below.

- Linehaul covers high mileage operation (over 60,000 miles/year) on well-maintained major highways of concrete or asphalt construction.
- General Service covers moderate mileage operations (less than 60,000 miles/year) on well-maintained public roads (less than 10 percent off-road) typically with less than three (3) stops per mile.
- Heavy Service (Vocational) covers vehicles with more than 10 percent off-road OR moderate to frequent starts/stops typically with more than three (3) stops per mile.
- Off-Highway Service covers lower mileage operations. Vehicles are not typically licensed for highway use.

How to Read Warranty Coverage (Example)

Number of Years	Mileage (in thousands) Unl=Unlimited	P=Parts Only P&L=Parts & Labor
3	300	P

- The standard aftermarket warranty for WABCO products - including WABCO Original parts, WABCO Reman Solutions, ProVia quality aftermarket parts and WABCO retrofit solutions - is one year, parts only from in-service date when purchased from ZF distributor networks or its affiliates and/or subsidiaries.

WABCO

WARRANTY - MODEL YEAR 2021 VEHICLES

LINEHAUL/GENERAL SERVICE WARRANTY INFORMATION

LINEHAUL/GENERAL SERVICE VEHICLES

- Aerial Ladder Truck
- Aerial Platform
- Ambulance
- Auto Hauler
- Beverage Truck
- Bulk Hauler
- Chip Hauler (Truck)
- Cross Country Coach
- Doubles
- Flatbed
- Front Engine Commercial Chassis
- Front Engine Integral Coach
- General Freight
- Grain Hauler
- Intercity Coach
- Intermodal Chassis
- Livestock Hauler
- Meat Packer
- Moving Van
- Municipal Truck
- Pipe Hauler
- Platform Auto Hauler
- Pumper
- Rear Engine Integral Coach
- Recreational Vehicles
- Refrigerated Freight
- School Bus
- Stake Truck
- Tanker
- Tanker Truck
- Triples
- Tour Bus
- Wrecker

LINEHAUL TYPICALLY IS

- High mileage operation (over 60,000 miles/year)
- Well maintained major highways of concrete or asphalt construction

GENERAL SERVICE TYPICALLY IS

- Moderate mileage operations (less than 60,000 miles/year)
- Well maintained public roads (less than 10% off-road)
- Less than three (3) stops per mile

WABCO Components ¹	
Air Management	
Air Brake Valves	1/100/P&L
Trailer Lift Axle Control Valve	
Trailer Control Line Filter ³	
Air Compressors (ALL) ²	2/200/P&L
Air Dryers (ALL)	3/300/P&L
Aerodynamics	
OptiFlow® TrailerSkirt	2/UnU/P
OptiFlow® Trailer Tail and AutoTail	2/UnI/P
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Electronic Braking System (EBS)	
Electronic Stability Control (ESC)	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Trailer ABS (Anti-Lock Braking System) ³	
Driveline Suspension Control	
Clutch Controls	2/200/P&L
Leveling Valves	1/100/P&L
OptiRide® Automated Manual Transmission (AMT)	
OptiRide® Electronically Controlled Air Suspension (ECAS)	3/300/P&L

WABCO Components ¹ (cont.)	
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	6/600/P
MAXXUS™ Truck Air Disc Brake	5/500/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 17 and 19 Air Disc Brake	2/Unl/P and 1/Unl/L
Pan 22 Air Disc Brake	5/500/P and 1/L
TRISTOP™ D Actuator w/ IBV or IRB	6/600/P
TRISTOP™ D Actuator	3/300/P
UNISTOP™ Actuator	2/200/P
Trailer MAXX22T™ Air Disc Brake	5/500/P and 1/L

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

HEAVY SERVICE (VOCATIONAL) WARRANTY INFORMATION

HEAVY SERVICE VEHICLES

- Airport Rescue Fire (ARF)
- Airport Shuttle
- Asphalt Truck
- Block Truck
- Bottom Dump Trailer
- Combination
- Cementing Vehicle
- City Bus
- Commercial Pick-Up
- Concrete Pumper
- Construction Material Hauler
- Crash Fire Rescue (CFR)
- Mixer
- Demolition
- Drill Rig
- Dump
- Emergency Service
- Equipment Hauling
- Flatbed Trailer Hauler
- Flatbed Truck
- Fracturing Truck
- Front Loader
- Geophysical Exploration
- Hopper Trailer Combinations
- Landscaping Truck
- Liquid Waste Hauler
- Log Hauling
- Lowboy
- Michigan Special Gravel Trains
- Michigan Special Log Hauler
- Michigan Special Steel Hauler
- Michigan Special Waste Vehicle
- Municipal Dump
- Newspaper Delivery
- Package Delivery
- Pick-up and Delivery
- Rapid Intervention Vehicle (RIV)
- Rear Loader
- Recycling Truck
- Residential Pick-Up/Waste
- Rigging Truck
- Roll-Off
- Scrap Truck
- Semi-End Dump
- Sewer/Septic Vacuum
- Shuttle Bus
- Side Loader
- Snowplow/Snowblower
- Steel Hauling
- Tanker
- Tank Truck
- Tractors with Pole Trailers
- Tractor/Trailer with Jeeps
- Transfer Dump
- Transfer Vehicle
- Transit Bus
- Trolley
- Utility Truck
- Winch Truck

HEAVY SERVICE TYPICALLY IS

- On/Off road vocations (10% or more off-road) OR
- Moderate to frequent starts/stops typically more than three (3) stops per mile



WABCO Components ¹	
Air Management	
Air Brake Valves	1/100/P&L
Air Compressors (ALL) ²	
Air Dryers (ALL)	
Trailer Control Line Filter ³	
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	2/200/P&L
Electronic Braking System (EBS)	3/300/P&L
Electronic Stability Control (ESC)	
Trailer ABS Valve ³	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Driveline Suspension Control	
OptiRide® Electronically Controlled Air Suspension (ECAS)	2/200/P&L
Leveling Valves	1/100/P&L
Clutch Controls	2/200/P&L
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
Trailer MAXX22T™	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

WARRANTY - MODEL YEAR 2021 VEHICLES

INDUSTRIAL/OFF-HIGHWAY SERVICE WARRANTY INFORMATION

INDUSTRIAL AND OFF-HIGHWAY SERVICE TYPICALLY IS

- Low mileage operation³
- Vehicles are not typically licensed for highway use

Market	Common Application Types
Agriculture	Fertilizer Spreader, Tractor, Heavy Duty Ag Trailers, Harvester, Sprayer, Skid Loader, Silage Bagger, Slurry Wagons, Grain Cart
Airport Support	Pushback Tractor, Towing Tugs, Aircraft Tow Tractor, Refueling Trucks, Food Service Trucks, Baggage Tractors, De-Icing Equipment, Runway Clearing Equipment
Construction	All-Terrain Crane, Rough Terrain Crane, Excavator, Compactor, Wheel Loader, Road Roller, Motor Grader, Articulated Dump Truck, Rubber Tire Road Roller, Backhoe Loaders, Haul Trucks, Scraper Rough Terrain Forklifts, Trenchers, Drills
Forestry	Logging Forwarder, Kidder, Loaders, Yard Forklifts, Harvesters Fellers
Material Handling	Port Tractor, Rail Yard Spotter, Stevedoring Tractor, Trailer Spotter, Yard Jockey, Scissor Lift, Straddle Carrier, Manlift, Forklift, Boom Lift Telehandlers, Aerial Work Platforms
Mining	Specialized Mining, Excavator, Haul Truck, Underground Loader, Service Trucks, Wheel Loaders, Scrapers, Load Haul Dumps, Personnel Transports, Bolters, Scalpers
Municipal	Street Sweeper, Utility Tractor, Utility Trucks, Tree Trimmers, Dump Trucks, Tow Trucks, Flat Bed Trucks, Winch Applications
Oil & Gas	Fracturing Trailer, Injector Heads, Top Drives, Jack/Lift Boats, Wireline Trucks, Load-On / Load-Off
Rail	Railcar Mover, Track Layers, Grinders, Platform Crane, Locomotive Railcars, Ballast Equipment, Winch Applications



WABCO Components ¹	
Air Management	
Air Brake Valves	2/Unl/P
Air Compressors (ALL)2	
Air Dryers (ALL)	
Brake Actuation	
Air/Hydraulic Actuators	2/Unl/P
Master Cylinders	
Remote Actuators	
Slave and Wheel Cylinders	
Two Fluid Actuators	
Brake Locks	
Brake Locks (ALL)	2/Unl/P
Electric Brake Locks	
Lever Locks	
Braking Systems	
ABS (Anti-Lock Braking System) Air	1/100/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Driveline Suspension Control	
Clutch Controls	1/100/P&L
Leveling Valves	
Electrohydraulics & Controls	
Electronic Pedals	2/Unl/P
Electrohydraulic Brake Valves (EBV)	
Pressure Switches	
Hydraulic Braking Solutions	
Accumulator Charging Valves	2/Unl/P
Hydraulic Throttle Controls and Switches	
Modulating Brake Valves	
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
Caliper Disc Brakes	2/Unl/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
Multiple Disc Brakes	2/Unl/P
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ Equivalent hours of service limit: 2,000 hours for all components.

TERMS AND CONDITIONS

COVERAGE EXCLUSIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

This Warranty shall not apply to the following, but not limited to: (1) damage to the product or its component parts caused by incorrect use, installation, maintenance or repair, including without limitation (a) improper fit of mating components or brackets, damaged threads, cut, broken, chafed, pinched or otherwise damaged wiring (sensors, harnesses and connectors), (b) sensors damaged during removal when seized in block, or associated with sensor adjustments/ alignments, and (c) damage resulting from the use or installation of non-genuine WABCO components or materials; (2) damage to the product, its component parts, or diminished product or component part performance due to incorrect operation, deviation from approved conditions or misapplication; (3) any unauthorized disassembly of the product or its component parts including without limitation (a) obliterated, defaced or missing WABCO or WABCO name plate, serial numbers or label identifying the device as a ZF product or WABCO component, (b) changes to sealed adjusting screws, and (c) opening or attempted repair of non-serviceable components; (4) malfunction of the component due to internal contamination of the vehicle system including without limitation (a) water and other contamination damage that is due to the use of a non-genuine air dryer cartridge or (b) valve failures due to contamination in air system, (5) complaints associated with noise, (6) damage resulting from corrosion (including oxidation of electrical devices and connections).

AIR DRYERS

Mounting brackets (see vehicle OEM). Desiccant cartridge housing only.

AIR SYSTEM COMPONENTS

Normal wear items; Gladhand seals, dash valve knobs, valve actuation handles, treadles, pedals.

ABS, ELECTRONIC STABILITY CONTROL (ESC), ROLL STABILITY CONTROL (RSC), OPTIRIDE®, ONGUARD® AND ONLANE®, COLLECTIVELY “ELECTRONICS”

Failure of electronic components due to overvoltage condition, improper grounding, electrostatic discharge (ESD), improper shielding, electromagnetic interference (EMI), or other wiring or installation issues. Malfunctions and failure codes caused by other electronic subsystem failures (data bus, engine, transmission, dashboard, etc.)

HYDRAULIC COMPONENTS

For certain components, brake fluid DOT3 or DOT4 is used as the operating medium. Use of any other fluid will void all warranties associated with that component. For hydraulic braking applications the brake fluid is considered a maintenance item. Maintenance intervals are listed in TB-1367.

COVERAGE LIMITATIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

Any claim beyond 60 days from date of repair will not be accepted or honored under this warranty program.

Products purchased on an incomplete vehicle (glider) are limited to one year, 1/Unl/P.

For vehicles that operate full- or part-time outside of the United States and Canada, a 1-Year/Unlimited Miles parts only (1/Unl/P) will apply.

TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

Proper diagnostics of WABCO Electronics may require the latest version of TOOLBOX PLUS™. Additional labor due to use of an outdated version of TOOLBOX™ software and/or the time to purchase or install the latest version of TOOLBOX PLUS™ are not covered under product warranty.

WARRANTY - MODEL YEAR 2021 VEHICLES

TERMS AND CONDITIONS

(1) What is Covered by this Commercial Warranty?

ZF CV Systems North America LLC and its North American subsidiaries and affiliates (ZF) warrant to the owner ("Owner") that the components listed in this publication, which have been installed by an Original Equipment Manufacturer ("OEM") as original equipment will be free from defects in material and workmanship. This warranty coverage begins from the original in-service date to the limits provided and runs concurrently with any warranties provided by OEMs and/or any distribution agreements and/or any service contracts that cover the components listed in this publication, if any. If the components listed in this publication are covered by an OEM warranty and/or service contract, then the OEM's warranty and/or service contract shall supersede ZF's warranty and Owner shall comply with all OEM's warranty and/or service contract requirements for claims under such OEM's warranty and/or service contract until those agreements expire. Once those agreements expire and provided the ZF warranty has not expired under the terms stated above, the ZF warranty will be in effect until its expiration date.

Warranty coverage ends at the expiration of the applicable time period from the date of vehicle purchase by the first Owner, or, the applicable mileage limitation, whichever occurs first. Duration of coverage varies by component and vocation as detailed previously in this publication. Some components are warranted for parts only and the Owner must pay any labor costs associated with the repair or replacement of the component. Other components are warranted for both parts and reasonable labor to repair or replace the subject component. Additional diagnostic time due to use of an outdated version of TOOLBOX™, time to purchase or install latest version of TOOLBOX™ are the responsibility of the authorized ZF distributor networks and are not covered under product warranty. Components installed as replacements under this warranty are warranted only for the remainder of the original period of time or mileage under the original warranty.

(2) Designation of Vocational Use Required. To obtain warranty coverage, each Owner must notify ZF through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the WABCO components have been incorporated prior to the vehicle in-service date. This notification may be accomplished by registering the vehicle through your OEM new truck and/or trailer dealer or with ZF directly. Failure to notify ZF of (I) the intended vocational use of the vehicle or (II) a change in vocational use from that which was originally designated, will result in the application of a one year, unlimited mileage, parts only warranty (1/Unl/P) from the initial in-service date. A second Owner and each subsequent Owner must also notify ZF as to the intended vocational use of the vehicle. This notification can be sent directly to ZF or through

the OEM new truck and/or trailer dealer. The duration and mileage coverage of this warranty cannot exceed the coverage extended to the first Owner after his or her initial designation of vocational use. Coverage under ZF's warranty requires that the application of products be properly approved pursuant to OEM and ZF, approvals.

- (3) What is the Cost of this Warranty? There is no charge to the Owner for this warranty.
- (4) What is not Covered by this Warranty? In addition to the items listed on "Coverage Exclusions," this warranty does not cover normal wear and tear, or service items; nor does it cover a component that fails, malfunctions or is damaged as a result of (a) improper handling, storage, installation, adjustment, repair or modification including the use of unauthorized attachments or changes or modification in the vehicle's configuration, usage, or vocation from that which was originally approved by ZF, (b) accident, fire or other casualty, natural disaster, road debris, negligence, misuse, abuse, or improper use (including loading beyond the specified maximum vehicle weight or altering engine power settings to exceed the brake system capacity), or (c) improper or insufficient maintenance (including deviation from maintenance intervals, approved lubricants, or lube levels). This warranty does not cover any component or part that is not sold by ZF.
- (5) To obtain service. If the owner discovers within the applicable coverage period a defect in material or workmanship, the Owner must promptly give notice to either ZF or the dealer from which the vehicle was purchased. To obtain service, the vehicle must be taken to any participating OEM dealer or ZF distributor networks' servicer. The dealer or ZF authorized servicer will inspect the vehicle and contact ZF for an evaluation of the claim. When authorized by ZF, the dealer or ZF authorized servicer will repair or replace during the term of this warranty any defective WABCO component covered by this warranty.
- (6) Disclaimer of Warranty and Limitation of remedies. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE LIMITED WARRANTY SET FORTH HEREIN IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR WARRANTY FOR HIDDEN OR LATENT DEFECTS, AND IN NO EVENT WILL ZF OR ANY OF ITS AFFILIATES BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, PROGRESSIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND.

- (7) Legal action. Any legal action or claim arising from or related to this Warranty, in contract or otherwise, must be commenced within one year from the accrual of that cause of action, or be barred forever. Any dispute arising in connection with this agreement shall be governed by and construed according to the laws of the State of Michigan and be brought, heard and determined exclusively in either the Circuit Court for the County of Oakland, State of Michigan or the United States District Court for the Eastern District of Michigan. The parties stipulate that the referenced venues are convenient.
- (8) Remedy. The exclusive remedy under this warranty shall be the repair or replacement of the defective component at ZF's option. ZF reserves the right to require that all applicable covered components are available and/or returned to ZF for review and evaluation. THE MAXIMUM LIABILITY, IF ANY, OF ZF FOR ALL DAMAGES, INCLUDING WITHOUT LIMITATION CONTRACT DAMAGES, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORT, IS LIMITED TO AN AMOUNT NOT TO EXCEED THE PURCHASE PRICE OF THE PRODUCT and where indicated in the product and application warranty information above, the inclusion of labor is limited to the standard repair time. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE LIMITATION OF DAMAGES PROVISION SET FORTH IN THIS PARAGRAPH SURVIVES BETWEEN THE ORIGINAL END USER AND ZF EVEN IF THE EXCLUSIVE REMEDY SET FORTH ABOVE IS DEEMED TO FAIL OF ITS ESSENTIAL PURPOSE. ZF may change the design or make improvements to its Products without incurring any warranty obligation for previously manufactured Product .
- (9) Entire Agreement. This is the entire agreement between ZF and the Owner about warranty and no, ZF employee, or dealer is authorized to make any additional warranty on behalf of ZF unless in writing and signed by an authorized representative of ZF.





**For further product details contact your distributor or the
WABCO Customer Care Center at 855-228-3203.**

About ZF Friedrichshafen AG

ZF is a global technology company and supplies systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies different kinds of vehicles. With its products, the company contributes to reducing emissions and protecting the climate.

ZF, which acquired WABCO Holdings Inc. on May 29, 2020, now has 160,000 employees worldwide with approximately 260 locations in 41 countries. In 2019, the two then-independent companies achieved sales of €36.5 billion (ZF) and \$3.4 billion (WABCO). For more information, visit: www.wabco-na.com



Fire and Rescue Apparatus

Ten (10) Year Structural Integrity

Custom Cab

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The Pierce Custom Cab shall be free from structural failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years - or - 100,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty applies only to the cab tubular support and mounting structures and other structural components of the cab of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus. This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0012



Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion

Cab

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Exterior surfaces of the cab painted by Pierce shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years
Conditions and Exclusions:	This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any: Topcoat Durability & Appearance: Gloss, Color Retention & Cracking 0-72 months 100% 73-96 months 50% 97-120 months 25% Integrity of Coating System: Adhesion, Blistering/Bubbling 0-36 months 100% 37-84 months 50% 85-120 months 25% Corrosion: Dissimilar Metal and Crevice 0-36 months 100% 37-48 months 50% 49-72 months 25% 73-120 months 10% Corrosion Perforation 0-120 months 100% This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty. Items not covered by this warranty include: (a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual). (b) UV paint fade. (c) Any cab not manufactured by Pierce.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Five (5) Year Material and Workmanship

Command Zone Electronics

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Command Zone control modules shall be free from failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Five (5) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty applies to all of the control modules for the Command Zone system, including the full color graphic displays. Related wire harnesses, cables and connectors are not covered under this limited warranty and are instead covered under the Pierce One Year Basic Apparatus Limited Warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0014



Fire and Rescue Apparatus

54 Months Material and Workmanship

Camera System

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	This limited warranty covers repairs to correct any defect related to materials or workmanship of the Sharpvision camera system installed on the apparatus occurring during the warranty period.
Warranty Begins:	The date of delivery.
Warranty Period Ends After:	Fifty - Four (54) months
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Ten (10) Year Material and Workmanship

Pierce 12V LED Strip Light

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	This limited warranty covers repairs to correct any defect related to materials or workmanship of the Pierce 12V LED strip lights installed on the apparatus occurring during the warranty period.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Year
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

NEW PRODUCT WARRANTY



**PARTICIPATING OEM SALES
DISTRIBUTOR SALES**

LIMITED WARRANTY ON NEW ALLISON AUTOMATIC TRANSMISSIONS USED IN EMERGENCY VEHICLE APPLICATIONS

Allison Transmission will provide for repairs or replacement, at its option, during the warranty period of each new Allison transmission listed below that is installed in an Emergency Vehicle in accordance with the following terms, conditions, and limitations.

WHAT IS COVERED

- **WARRANTY APPLIES** — This warranty is for new Allison transmission models listed below installed in an Emergency Vehicle and is provided to the original and any subsequent owner(s) of the vehicle during the warranty period.
- **REPAIRS COVERED** — The warranty covers repairs or replacement, at Allison Transmission's option, to correct any transmission malfunction resulting from defects in material or workmanship occurring during the warranty period. Needed repairs or replacements will be performed using the method Allison Transmission determines most appropriate under the circumstances.
- **TOWING** — Towing is covered to the nearest Allison Transmission Distributor or authorized Dealer only when necessary to prevent further damage to your transmission.
- **PAYMENT TERMS** — Warranty repairs, including parts and labor, will be covered per the schedule shown in the chart contained in section "APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE."
- **OBTAINING REPAIRS** — To obtain warranty repairs, take the vehicle to any Allison Transmission Distributor or authorized Dealer within a reasonable amount of time and request the needed repairs. A reasonable amount of time must be allowed for the Distributor or Dealer to perform necessary repairs.
- **TRANSMISSION REMOVAL AND REINSTALLATION** — Labor costs for the removal and re-installation of the transmission, when necessary to make a warranty repair, are covered by this warranty.
- **WARRANTY PERIOD** — The warranty period for all coverages shall begin on the date the transmission is delivered to the first retail purchaser, with the following exception:

Demonstration Service - A transmission in a new truck or bus may be demonstrated to a total of 5000 miles (8000 kilometers). If the vehicle is within this limit when sold to a retail purchaser, the warranty start date is the date of purchase. Normal warranty services are applicable to the demonstrating Dealer. Should the truck or bus be sold to a retail purchaser after these limits are reached, the warranty period will begin on the date the vehicle was first placed in demonstration service and the purchaser will be entitled to the remaining warranty.

APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE

APPLICABLE MODELS	WARRANTY LIMITATIONS (Whichever occurs first)		ADJUSTMENT CHARGE TO BE PAID BY THE CUSTOMER	
	Months	Transmission Miles Or Kilometers	Parts	Labor
MT, MD 3000, 3200, 3500, 3700	0-24	No Limit	No Charge	No Charge
HT with Hydraulic Controls	0-24	No Limit	No Charge	No Charge
AT, 1000 Series™, 2000 Series™, 2400 Series™	0-36	No Limit	No Charge	No Charge
HT with Electronic Controls	0-60	No Limit	No Charge	No Charge
HD 1000 EVS, 2100 EVS, 2200 EVS 2350 EVS, 2500 EVS, 2550 EVS, 3000 EVS, 3500 EVS, 4000, 4000 EVS, 4500, 4500 EVS, 4700, 4700 EVS, 4800, 4800 EVS	0-60	No Limit	No Charge	No Charge

WHAT IS NOT COVERED

- **DAMAGE DUE TO ACCIDENT, MISUSE, or ALTERATION** — Defects and damage caused as the result of any of the following are not covered:
 - Flood, collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle;
 - Misuse of the vehicle;
 - Installation into unapproved applications and installations;
 - Alterations or modification of the transmission or the vehicle, and
 - Damage resulting from improper storage (refer to long-term storage procedure outlined in the applicable Allison Service Manual)
 - Anything other than defects in Allison Transmission material or workmanship

NOTE: This warranty is void on transmissions used in vehicles currently or previously titled as salvaged, scrapped, junked, or totaled.

- **CHASSIS, BODY, and COMPONENTS** — The chassis and body company (assemblers) and other component and equipment manufacturers are solely responsible for warranties on the chassis, body, component(s), and equipment they provide. Any transmission repair caused by an alteration(s) made to the Allison transmission or the vehicle which allows the transmission to be installed or operated outside of the limits defined in the appropriate Allison Installation Guideline is solely the responsibility of the entity making the alteration(s).
- **DAMAGE CAUSED by LACK of MAINTENANCE or by the USE of TRANSMISSION FLUIDS NOT RECOMMENDED in the OPERATOR'S MANUAL** — Defects and damage caused by any of the following are not covered:
 - Failure to follow the recommendations of the maintenance schedule intervals applicable to the transmission;
 - Failure to use transmission fluids or maintain transmission fluid levels recommended in the Operator's Manual.
- **MAINTENANCE** — Normal maintenance (such as replacement of filters, screens, and transmission fluid) is not covered and is the owner's responsibility.
- **REPAIRS by UNAUTHORIZED DEALERS** — Defects and damage caused by a service outlet that is not an authorized Allison Transmission Distributor or Dealer are not covered.
- **USE of OTHER THAN GENUINE ALLISON TRANSMISSION PARTS** — Defects and damage caused by the use of parts that are not genuine Allison Transmission parts are not covered.
- **EXTRA EXPENSES** — Economic loss and extra expenses are not covered. Examples include but are not limited to: loss of vehicle use; inconvenience; storage; payment for loss of time or pay; vehicle rental expense; lodging; meals; or other travel costs.
- **"DENIED PARTY" OWNERSHIP** — Warranty repair parts and labor costs are not reimbursed to any participating or non-participating OEMs, dealers or distributors who perform warranty work for, or on behalf of, end users identified by the United States as being a "denied party" or who are citizens of sanctioned or embargoed countries as defined by the U.S. Department of Treasury Office of Foreign Assets Control. Furthermore, warranty reimbursements are not guaranteed if the reimbursement would be contrary to any United States export control laws or regulations as defined by the U.S. Department of Commerce, the U.S. Department of State, or the U.S. Department of Treasury.

OTHER TERMS APPLICABLE TO CONSUMERS AS DEFINED by the MAGNUSON-MOSS WARRANTY ACT

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Allison Transmission does not authorize any person to create for it any other obligation or liability in connection with these transmissions.

ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO THESE TRANSMISSIONS IS LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY. PERFORMANCE OF REPAIRS AND NEEDED ADJUSTMENTS IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (SUCH AS, BUT NOT LIMITED TO, LOST WAGES OR VEHICLE RENTAL EXPENSES) RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.**

** Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

OTHER TERMS APPLICABLE TO OTHER END-USERS

THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE ALLISON TRANSMISSION MODELS LISTED ABOVE AND IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALLISON TRANSMISSION DOES NOT AUTHORIZE ANY PERSON TO CREATE FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH SUCH TRANSMISSIONS. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WARRANTY OR ANY IMPLIED WARRANTY.

QUESTIONS

If you have any questions regarding this warranty or the performance of warranty obligations, you may contact any Allison Transmission Distributor or Dealer or write to:

Allison Transmission, Inc.
P.O. Box 894
Indianapolis, IN 46206-0894
Attention: Warranty Administration PF-9



Fire and Rescue Apparatus

Five (5) Year Material and Workmanship - Transmission Oil Cooler Three (3) Year Collateral Damage Coverage

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The transmission cooler shall be free from component or structural failures caused by defects in material and/or workmanship. Collateral damage up to \$10,000 per occurrence is available for the first three (3) years.
Warranty Begins:	The date of delivery to the first retail purchaser.
Warranty Period Ends After:	Five (5) Years on Oil Cooler and three (3) years on collateral damage coverage
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty. This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner. Towing is covered to the nearest distributor or authorized dealer only when necessary to prevent further damage to your transmission. Labor costs for the removal and reinstallation of goods may be covered when necessary to make repairs. Please contact your OEM for authorization. Replacement of cooler during the warranty period is limited to 100% of reasonable labor costs up to a maximum of \$700 to remove, replace, or repair the oil cooler.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

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

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.

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BULLETIN



TO: All Dealer Service Representatives

From: Kevin Hanegraaf

DATE: January 4, 2010

RE: UPF Tank Warranty Policy – Truck in Accident

Service Topic #292

To keep the UPF tank warranty valid on trucks that have been involved in a vehicular accident, it is UPF's policy that the customer must remove the tank from the truck and send it back to one of UPF's facilities for inspection. In the event that this does not take place, the warranty will be considered null and void.

The customer must remove and send the tank back to UPF for inspection in order to maintain the original warranty coverage, at which time it will be:

- *Filled with water*
- *Visually inspected*
- *Ultraviolet spark tested on articulating test stand in the dark*
- *Recommendation for repairs if necessary provided by UPF*
- *Fully evaluated and repaired by UPF*

If your customer chooses to leave the tank on the truck and wants a technician to inspect and/or repair the tank in the field, then **the warranty is no longer in effect.** This direction is upheld by UPF because the technician cannot inspect the entire tank when it is still installed on the truck.

Note: This memo is intended to relay the information Pierce has received on UPF's tank warranty for trucks that are in a vehicular accident. In the event of an actual claim, we direct you to consult with UPF's service Manager Maura Watts (800-638-8265 x253)



Fire and Rescue Apparatus Ten (10) Year Structural Integrity Apparatus Body Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The apparatus body shall be free from structural failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years - or - 100,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty applies only to the body tubular support and mounting structures and other structural components of the body of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus. This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



AMDOR Inc. TERMS OF BUSINESS AND GENERAL INFORMATION

Warranty:

All AMDOR Inc. roll-up door products are warranted for a period of 10 years from the date of delivery (with the exception of wet paint adhesion - please see below). AMDOR Inc. liability covers the replacement or repair of any component that fails due to defects in material and / or workmanship during the coverage period. We accept no liability for claims made for damages to any part (or parts) of a vehicle and / or machine (of any type) or injury claims by a person or persons assumed or alleged to have been brought about by the use or misuse of any product supplied by AMDOR Inc. Warranty coverage does not extend to door attachments including (but not limited to) decals, emblems, stripes and adhesives.

In order to initiate the claims process please contact your authorized representative of AMDOR Inc. Warranty claims must be accompanied by a written description providing full and reasonable details as to the nature of the defect. Upon receipt of your claim arrangements will be made to inspect the defective product (if necessary). Justified warranty claims will be repaired, exchanged, or credited to the customer's account at AMDOR Inc.'s discretion. All warranty claims must be approved in writing by the Customer Service Manager for AMDOR Inc. There are no exceptions to this clause.

Limited warranty coverage includes the labor associated with the disassembly and assembly of products deemed to be defective by AMDOR Inc. Labor allowances are based on a set time schedule as determined by AMDOR Inc. The maximum allowable hourly labor rate is \$ 50. All warranty labor claims must be approved in writing by an authorized representative of AMDOR Inc. prior to commencement of work. Allowances for removal and installation:

Curtain replacement:	3/4 hour
Balancer replacement:	1 hour
Door ajar switch	3/4 hour
Bottom Panel Assembly:	1/2 hour
Slat replacement:	3/4 hour
Door removal and replacement	1 1/2 hours

Items authorized for return must be accompanied by a Return Goods Authorization (RGA) number. We will accept collect shipments of items deemed to be defective provided that they are returned via the most economical carrier. Should items be

returned by means other than the most economical carrier the difference will be charged back to the sender.

AMDOR Inc. reserves the right to reject any claim when a product has been opened, interfered with or modified. Claims may also be rejected when damage to the product (or any sub-assembly) has been brought about by accident, misuse, abuse, vandalism, incorrect installation, temperature extremes, chemical exposure or any factor other than regular operating conditions.

Limited Wet Paint Match Adhesion Warranty

AMDOR Inc. warrants wet paint finishes applied by AMDOR utilizing our approved factory paint specification. All wet paint match colors must be approved in writing by an authorized OEM representative. AMDOR Inc. will provide a color spray out for this purpose. The time required for shipping and consideration of initial color spray outs will be considered over and above stated lead times. Warranty coverage will extend for a period of not less than 5 years from the date of delivery as determined by AMDOR Inc.'s Packing Slip. AMDOR reserves the right to determine whether individual units will be replaced and / or repaired by an AMDOR approved vendor. An allowance will be made for labor associated with the disassembly and assembly of individual units at the prescribed hourly rate of \$ 50 per hour. Compensation for labor will not exceed the maximum time allowance permitted for door removal and replacement. Written approval including specified allowance for time must be obtained from AMDOR prior to initiating work. Warranty coverage will extend to the following visible paint system defects:

- 1./ Loss of mechanical adhesion as evidenced by peeling, cracking or blistering which exposes the substrate material.
- 2./ Corrosion of the substrate due to paint system failure.
- 3./ Fading which results in a substantial departure from the primary AMDOR approved body color.

Wet paint adhesion limited warranty coverage will be excluded when damages to the system are determined by AMDOR Inc. to be a result of the following:

- 1./ Damage caused through the use of attachments including (but not limited to) decals, labels, adhesives, non factory approved coatings.
- 2./ Loss of gloss, discoloration or damage due to improper maintenance (including but not limited to) mechanical wash systems, pressure washers, steam cleaners, non approved wash or polishing agents.
- 3./ Abuse, acts of nature, excessive heat / cold, chemical exposure, vandalism and / or accidents.
- 4./ Scratches, chips, abrasions, or dents from any source.

This document supercedes all previous written and / or verbal warranties provided by AMDOR Inc. and / or it's affiliates.

Waterous Seven-Year Limited Warranty

WATEROUS warrants, to the original Buyer only, that products manufactured by WATEROUS will be free from defects in material and workmanship under normal use and service for a period of seven (7) years from the date the product is first placed in service, or seven and one-half (7-1/2) years from the date of shipment by WATEROUS, whichever period shall be the first to expire; provided the Buyer notifies WATEROUS, in writing, of the defect in said product within the warranty period, and said product is found by WATEROUS to be nonconforming with the aforesaid warranty. When required in writing by WATEROUS, defective products must be promptly returned by Buyer to WATEROUS at WATEROUS' plant at South St. Paul, Minnesota, or at such other place as may be specified by WATEROUS, with transportation and other charges prepaid. A Returned Material Authorization (RMA) is required for all products and parts and may be requested by phone, fax, email, or mail. The aforesaid warranty excludes any responsibility or liability of WATEROUS for:

- (a) damages or defects due to accident, abuse, misuse, abnormal operating conditions, negligence, accidental causes, use in non-firefighting applications, or improper maintenance, or attributable to written specifications or instructions furnished by Buyer;
- (b) defects in products manufactured by others and furnished by WATEROUS hereunder, it being understood and agreed by the parties that the only warranty provided for such products shall be the warranty provided by the manufacturer thereof which, if assignable, WATEROUS will assign to Buyer, if requested by Buyer;
- (c) any product or part, altered, modified, serviced or repaired other than by WATEROUS, without its prior written consent;
- (d) the cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation; and
- (e) normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, mechanical seals, etc.).

ALL OTHER WARRANTIES ARE EXCLUDED, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR ANY OTHER CAUSE OF ACTION, SHALL WATEROUS BE LIABLE FOR ANY PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR PERSONAL INJURY OR PROPERTY DAMAGES.

The exclusive remedy of Buyer and the sole liability of WATEROUS, whether based on contract, warranty, tort or any other basis of recovery whatsoever, is expressly limited at the election of WATEROUS to:

- (a) the replacement at the agreed point of delivery of any product or part, which upon inspection by WATEROUS or its duly authorized representative, is found not to conform to the limited warranty set forth above, or
- (b) the repair of such product or part, or
- (c) the refund or crediting to Buyer of the net sales price of the defective product or part.

BUYER'S REMEDIES CONTAINED HEREIN ARE EXCLUSIVE OF ANY OTHER REMEDY OTHERWISE AVAILABLE TO BUYER.

Waterous Company
125 Hardman Avenue South
South St. Paul, MN 55075 USA
www.waterousco.com

WATEROUS

F-2891 (04/15/20)

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Fire and Rescue Apparatus

Ten (10) Year Material and Workmanship Stainless Steel Piping Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Stainless steel piping shall be free from structural failures caused by defects in material and workmanship, or perforation caused by corrosion.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years - or - 100,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	Pierce's obligation under this warranty is limited to repairing or replacing without charge, as Pierce may elect, the stainless steel piping or components which Pierce determines to have failed due to defective material and workmanship, or perforation caused by corrosion. This warranty does not cover the use of fluoroprotein (FP) type foam. The sodium chloride within FP foam can cause long-term damage to system components if not thoroughly flushed immediately after use.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

One (1) Year Material and Workmanship Foam System & Five (5) Year Material and Workmanship Control Head Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Limited warranty 1 year parts and labor for the foam system and 5 years parts and labor for the control head.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	One (1) Year & Five (5) Year
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty. This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion

Custom Body

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Exterior surfaces of the body shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years
Conditions and Exclusions:	This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any: Topcoat Durability & Appearance: Gloss, Color Retention & Cracking 0-72 months 100% 73-96 months 50% 97-120 months 25% Integrity of Coating System: Adhesion, Blistering/Bubbling 0-36 months 100% 37-84 months 50% 85-120 months 25% Corrosion: Dissimilar Metal and Crevice 0-36 months 100% 37-48 months 50% 49-72 months 25% 73-120 months 10% Corrosion Perforation 0-120 months 100% This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty. Items not covered by this warranty include: (a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual). (b) UV paint fade. (c) Any cab not manufactured by Pierce.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Three (3) Year Material and Workmanship

Goldstar® Gold Leaf Lamination

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Each Goldstar® gold leaf lamination shall be free from defects in material and workmanship.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Three (3) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not cover damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

Billing Address:

SEASIDE, CITY OF
1635 Broadway
SEASIDE CA, 93955

Quote Date: 2022-09-14

Expiration Date: 2022-12-13

Contract Name: 36273 - SOURCEWELL

Quote Created By:

Jim Trevino
Motorola Manufacture Representative
jtrevino@daywireless.com
408-640-9861

Customer: SEASIDE, CITY OF
Contact Name: Paul Blaha

Currency: USD

Terms and Conditions: Net 30 days

Line #	Item Number	Description	Quantity	Unit List Price	Ext. List Price	Discount %	Discount \$	Unit Sale Price	Ext. Sale Price	APC
	APX™ 8500									
1	M37TSS9PW1AN	APX8500 ALL BAND MP MOBILE.	2	\$5,667.00	\$11,334.00	27.00%	\$1,530.09	\$4,136.91	\$8,273.82	0681
1a	GA09007AA	ADD: OUT OF THE BOX WIFI PROVISIONING.	2	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	0681
1b	GA00318AF	ENH: 5 YEAR ESSENTIAL SVC.	2	\$352.00	\$704.00	0.00%	\$0.00	\$352.00	\$704.00	0185
1c	G831AD	ADD: SPKR 15W WATER RESISTANT.	4	\$66.00	\$264.00	27.00%	\$17.82	\$48.18	\$192.72	0681
1d	GA00250AA	ADD: WIFI/GNSS STUBBY ANTENNA LMR240.	2	\$110.00	\$220.00	27.00%	\$29.70	\$80.30	\$160.60	0681
1e	G996AS	ENH: OVER THE AIR PROVISIONING.	2	\$110.00	\$220.00	27.00%	\$29.70	\$80.30	\$160.60	0681
1f	GA00580AA	ADD: TDMA OPERATION.	2	\$495.00	\$990.00	27.00%	\$133.65	\$361.35	\$722.70	0681
1g	GA01513AB	ADD: ALL BAND MOBILE ANTENNA (7/8/V/U).	2	\$105.00	\$210.00	27.00%	\$28.35	\$76.65	\$153.30	0681
1h	G628AC	ADD: REMOTE MOUNT CABLE 17 FT APX.	2	\$17.00	\$34.00	27.00%	\$4.59	\$12.41	\$24.82	0681
1i	GA01515AA	ADD: J600 ADAPTER CABLE.	2	\$105.00	\$210.00	27.00%	\$28.35	\$76.65	\$153.30	0681
1j	G51AT	ENH:SMARTZONE.	2	\$1,650.00	\$3,300.00	27.00%	\$445.50	\$1,204.50	\$2,409.00	0681
1k	GA00092AU	ADD: APXM DUAL E5 CH.	2	\$627.00	\$1,254.00	27.00%	\$169.29	\$457.71	\$915.42	0681
1l	GA05509AA	DEL: DELETE UHF BAND.	2	-\$800.00	-\$1,600.00	27.00%	-\$216.00	-\$584.00	-\$1,168.00	0681
1m	GA09001AA	ADD: WI-FI CAPABILITY.	2	\$330.00	\$660.00	27.00%	\$89.10	\$240.90	\$481.80	0681
1n	G843AH	ADD: AES ENCRYPTION AND ADP.	2	\$523.00	\$1,046.00	27.00%	\$141.21	\$381.79	\$763.58	0681
1o	G610AC	ADD: REMOTE MOUNT CABLE 30 FT APX.	2	\$28.00	\$56.00	27.00%	\$7.56	\$20.44	\$40.88	0681
1p	G444AH	ADD: APX CONTROL HEAD SOFTWARE.	2	\$0.00	\$0.00	0.00%	\$0.00	\$0.00	\$0.00	0681
1q	G67EH	ADD: REMOTE MOUNT E5 MP.	2	\$327.00	\$654.00	27.00%	\$88.29	\$238.71	\$477.42	0681
1r	GA00268AB	ADD: RFID LABEL APX.	2	\$28.00	\$56.00	27.00%	\$7.56	\$20.44	\$40.88	0681
1s	G806BL	ENH: ASTRO DIGITAL CAI OP APX.	2	\$567.00	\$1,134.00	27.00%	\$153.09	\$413.91	\$827.82	0681
1t	GA01670AA	ADD: APX E5 CONTROL HEAD.	2	\$717.00	\$1,434.00	27.00%	\$193.59	\$523.41	\$1,046.82	0681
1u	W22BA	ADD: STD PALM MICROPHONE APX.	4	\$79.00	\$316.00	27.00%	\$21.33	\$57.67	\$230.68	0681
1v	G361AH	ENH: P25 TRUNKING SOFTWARE APX.	2	\$330.00	\$660.00	27.00%	\$89.10	\$240.90	\$481.80	0681
1w	G387AD	ADD: MULTICAST VOTING SCAN.	2	\$220.00	\$440.00	27.00%	\$59.40	\$160.60	\$321.20	0681

Net Total \$17,415.16
Estimated Tax \$1,610.90

Estimated Freight \$139.32
Grand Total \$19,165.38

Ph: 510-839-5111
 TF: 800-443-3556
 Fax: 510-839-5325
oaksales@lncurtis.com
 UEI#: DDL5ADSWN7U7



Pacific North Division
 6723 Sierra Court, Suite C
 Dublin, CA 94568
www.LNCurtis.com
 Quotation No. 237428

Quotation

CUSTOMER:	SHIP TO:	QUOTATION NO.	ISSUED DATE	EXPIRATION DATE
Seaside City Fire Department California 1635 Broadway Avenue Seaside CA 93955	Seaside City Fire Department California 1635 Broadway Avenue Seaside CA 93955	237428	09/14/2022	10/14/2022
		SALESPERSON	CUSTOMER SERVICE REP	
		Randy Royal royal@lncurtis.com 831-535-9541	Randy Pascua rpascua@lncurtis.com 510-268-3302	

REQUISITION NO.	REQUESTING PARTY	CUSTOMER NO.	TERMS	OFFER CLASS
	Paul Blaha	C36290	Net 30	FR

F.O.B.	SHIP VIA	DELIVERY REQ. BY
DEST	Standard Shipping	

NOTES & DISCLAIMERS

Thank you for this opportunity to quote. We are pleased to offer requested items below. If you have any questions, need additional information, or would like to place an order, please contact your Customer Service Rep as noted above.

Safety Warning Notice: Products offered, sold, or invoiced herewith may have an applicable Safety Data Sheet (SDS) as prepared by the manufacturer of the product. Any handlers or users of product should refer to applicable SDS prior to handling or utilizing the product. Applicable SDS are included with shipment of products. For other important product notices and warnings, or to request an SDS, please contact Curtis or visit <https://www.lncurtis.com/product-notices-warnings>

Transportation is included in below pricing.

LN	QTY	UNIT	PART NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	1	EA	272889000-9 HURST	S789 E3 eDraulic Cutter 9Ah Package, Includes: - 1ea. S789 E3 Cutter - 2ea. 9Ah Batteries - 1ea. 110V Charger	\$13,356.00	\$13,356.00
2	1	EA	271855000-9 HURST	SP555 E3 eDraulic Spreader 9Ah Package, Includes: - 1ea. SP555E3 Spreader - 2ea. 9Ah Batteries - 1Ea. 110V Charger	\$14,616.00	\$14,616.00

Ph: 510-839-5111
TF: 800-443-3556
Fax: 510-839-5325
oaksales@lncurtis.com
UEI#: DDL5ADSWN7U7



Pacific North Division
6723 Sierra Court, Suite C
Dublin, CA 94568
www.LNCurtis.com
Quotation No. 237428

LN	QTY	UNIT	PART NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
3	1	EA	274886000-9 HURST	R522 E3 Ram 9Ah Package, Includes: - 1ea. R522 E3 Ram - 2ea. 9Ah Batteries - 1ea. 110V Charger	\$10,591.20	\$10,591.20

Small Business
CAGE Code: 5E720
DUNS Number: 009224163
SIC Code: 5099
Federal Tax ID: 94-1214350

This pricing remains firm until 10/14/2022. Contact us for updated pricing after this date.

Due to market volatility and supply shortages, we recommend contacting your local L.N. Curtis and sons office prior to placing your order to confirm pricing and availability. This excludes our GSA Contract and other Fixed Price Contracts which are governed by contract-specific prices, terms, and conditions.

Subtotal	\$38,563.20
Estimated Tax Total	\$3,567.10
Transportation	\$0.00
Total	\$42,130.30

[View Terms of Sale and Return Policy](#)



12328 Lower Azusa Road
Arcadia, CA 91006
(626) 652-0900

2552 Barrington Court
Hayward, CA 94545
(510) 887-6295

SALES QUOTE

SFD091422

Requested by
Justin Eldridge

Bill To: Seaside Fire Department
1635 Broadway Ave.
Seaside, CA 93955

Ship To: Same
Attn: Chief Paul Blaha

Phone: 831-899-6790

Email: pblaha@ci.seaside.ca.us

Date		Date Required	Cust. Order #	Tax Exempt #	Terms	F.O.B.	Salesperson	Ship Via
9/14/2022			QUOTE		Net 30	Destination	Richert	Drop Ship
Quantity	U/M		Description				Price	Amount
1	EA		SuperVac V16-BL-12-AC-SP 16" PPV Fan, (2) Milwaukee M18 12Ah Batteries and (2) AC Chargers with Shore Power				4,099.00	4,099.00
						Subtotal		\$4,099.00
						Sales Tax	9.250%	\$379.16
						Freight		\$0.00
						Total		\$4,478.16

QUOTATION: M4 MECHANICAL SWEEPER

DATE: 11/15/2022

CUSTOMER: City of Seaside

Terms: 30 Days Net

DEALER: Terry Equipment - Russell Dysard

FREIGHT: FOB - San Bernardino, CA

QUOTE NO.: Sourcewell Contract # 093021-GEP

UAO#

GLOBAL M4 STANDARD EQUIPMENT

High Visibility Cab (Glass Entry Door included)	5.6 cu yd Hopper (Volumetric)
69 dBA In-Cab Noise Level	Hopper Dump Alarm
Dust & Weather Sealed Cab	47" dia Gutter Brooms
Multi-Adjustable Suspension Seat	In-Cab Gutter Broom Pressure Adjustment
Tilt & Telescoping Steering Wheel	Tuf-Grip Disposable Gutter Broom Segments
Tinted Safety Windows & Windshield	32" x 56.5" Tube Type Pickup Broom
Left & Right Dual West Coast Mirrors	58" Wide Squeegee Type Elevator
Windshield Wiper/Washer	Cab Controlled Elevator Leafgate System
Ergonomic Go Pedal	LED Gutter Broom Spotlights
Coolant Temp, Oil Pressure & Voltmeter Gauges	Sealed Beam Headlights
Coolant, Eng Oil Pressure & Low Hyd Oil Warning Lights	Stop/Tail Lights, Clearance Lights
Speedometer, Tachometer & Hourmeter	Two 18 gal Hydraulic Oil Tanks
Fuel Level Gauge	Hydraulic Manifolds in LH Fender
250 gal Polyethylene & SS Water Tank	18.5' Turning Radius
15' Hydrant Hose with Coupling & Wrench	130 amp Heavy-Duty Alternator
Gutter Broom Water Spray Jets	All Sheet Metal Surfaces Primer Powder Coated
Pickup Broom Water Spray Jets	Sheet Metal Surfaces Powder Coated
Low Water Level Light in Cab	Fender Mounted Tool Box
Front Spray Bar	Four Wheel Disk Brakes
Buddy Seat	ABS Brake System
Front & Rear Suspension	Front & Rear Tie Downs with Tow Hooks
Electrical Systems Locker	1 Sweeper Service Manual in English
Engine Block Heater	1 Sweeper Parts Manual in English
Centauri Precleaner	1 Sweeper Operator Manual in English
Automatic Safety Props	Ergo Switch Standard
PM10 High Quality PUB (Pick Up Broom)	Rear View Camera Standard

QTY	DESCRIPTION	List Price	Contract Price	Extended Price
1	<u>M4 Brm Sweeper</u> , Cummins ISB6.7-280 HP, High Dump, Hydrostatic Drive, Dual Gutter Broom, A/C, Standard ERGO Sweeping Controls, 2021 Emissions	\$277,292	\$263,427	\$263,427

*** Powder Coated Paint - White W/ Gray Frame ***

AVAILABLE OPTIONS:

QTY	PT NO.	DESCRIPTION	List Price	Contract Price	Extended Price
	K323148	Elevator Flusher	\$1,085	\$1,031	
	K323150	Elevator & Hopper Flusher	\$1,220	\$1,159	
1	K323466	Elevator Ass'y 2-pc bottom 11 squeegee	\$3,243	\$3,081	\$3,081
1	K323753	GB Speed Control	\$1,294	\$1,229	\$1,229
1	K247011	Dual GB Tilt	\$4,969	\$4,720	\$4,720
	K247013	GB Tilt, Left Single	\$2,484	\$2,360	
	K247012	GB Tilt, Right Single	\$2,484	\$2,360	
1	K247077	Hopper Access Door	\$3,064	\$2,911	\$2,911
	K310154	Hopper Coating	\$5,207	\$4,946	

Delivery: 90-120 days after receipt of order

SIGNATURE:

DATE:

Freight - FOB San Bernardino, CA All prices are valid for 30 days.

Payment is strictly 30 days net. Late payment penalty 1% per month or part thereof.

Form GS-47.doc Rev: C 02/25/2013

5405 Industrial Parkway
San Bernardino, CA 92407
Tel : 1 (909) 713-1600
Fax : 1 (909) 713-1613

www.globalsweeper.com



QUOTATION: M4 MECHANICAL SWEEPER**DATE:** 11/15/2022**CUSTOMER:** City of Seaside**Terms:** 30 Days Net**DEALER:** Terry Equipment - Russell Dysard 909-665-0021**FREIGHT:** FOB San Bernardino, CA**QUOTE NO.:** Sourcewell Contract #093021-GEP**UAO#****AVAILABLE OPTIONS (continued):**

QTY	PT NO.	DESCRIPTION	List Price	Contract Price	Extended Price
1	K323495-SS	Stainless Steel Hopper	\$13,388	\$12,719	\$12,719
	M3JHE3	Triple Pump Option	\$3,511	\$3,335	Included
1	K325256	AM/FM Radio w/ CD	\$535	\$508	\$508
1	K901325	Aux Power Plug Adaptor Port	\$325	\$309	\$309
1	K318806	Seat, High Back, Air	\$1,101	\$1,046	\$1,046
1	K247172	Heated & Remote Controlled Mirrors with Heavy Duty Brack	\$1,785	\$1,696	\$1,696
1	K324458	L.E.D. Stop/Tail/Clearance/Marker Lights	\$892	\$848	\$848
1	K325221	Arrowstick (LED)	\$1,785	\$1,696	\$1,696
1	K325514	Limb Guard (Cab Beacon/Strobe)	\$283	\$269	\$269
	K302224	Fire Extinguisher	\$297	\$282	
	K324815	Daytime Running Lights	\$223	\$212	
	FBO11122	Additional Front Broom - Joystick Controlled	\$31,490	\$29,916	
	CNG12321	Alternative Fuel (CNG) Option w/8.9L CNG Engine	\$94,500	\$90,000	
1	NPN	Hopper Raise/Lower - Rear Fender Upgrade	\$273	259	\$259
	247838	Dual GB Extension	\$3,276	\$3,112	
	330769	High Speed Hopper Lift/Dump	\$2,048	\$1,945	
	302193	GB Plate - Bolt On	\$307	\$292	
	329557	PUB - Strip Broom 18 Piece	\$533	\$506	
1	326844	Cab Strobe (LED)	\$533	\$506	\$506
1	247632	Rear Flashing (LED) Strobes (mounted in hyd. Towers)(Qty.	\$533	\$506	\$506
1	27725	Front Flood Lights Dual Caltrans Style (LED)	\$819	\$778	\$778
1	316607	Rear Flood Lights Dual (LED)	\$491	\$467	\$467
	325808	Autolube - Full System M4	\$6,484	\$6,160	
1	329822	Remote Grease Block - 9 positions	\$1,638	\$1,556	\$1,556
1	322079	In-Cab Water Tank Gauge	\$478	\$454	\$454
1	326517	Battery Master Shutoff	\$287	\$273	\$273
	322420	Microtrap (PM-10 Option)	\$1,638	\$1,556	
1	311700	Dual Spring PUB Suspension	\$403	\$383	\$383
	322998	Elevator Stall Alarm	\$683	\$648	
1	326252	Reverse Sweep/Lift Option	\$819	\$778	\$778
	326566	Additional Rear Dock Bumpers	\$342	\$325	
1	320886	Extended Dock Bumpers (Qty. 2)	\$478	\$454	\$454
	329646	Spare Wheel/Tire - Front M4	\$1,502	\$1,426	
	329647	Spare Wheel/Tire - Rear M4	\$2,253	\$2,140	
	319802/3	GB Hour Meter - Dual (Qty. 2)	\$239	\$227	
	319773	PUB Hour Meter	\$239	\$227	
	325516	Hopper Emergency Lift w/Pump	\$1,502	\$1,426	
	329125	Hopper Vibrator	\$1,229	\$1,167	
	382245	Complete Set of Filters M4	\$819	\$778	
	NPN	Hopper Load Leveling Device	\$ 3,986	\$3,787	Included
1	NPN	Extra Hand Rail - For entering Cab - LH & RH fender mounted	\$ 677	\$677	\$677
1	Warranty	Cummins 5 year or 250,000 miles	\$ 2,925	\$2,779	\$2,779
1	Warranty	Parts only for years 2 - 5 Sweeper only	\$ 8,450	\$8,028	\$8,028

Contract Price	312,357.28
Contract Surcharge Effective 9-1-2022	31,235.73
Total Contract Price	343,593.01
Seaside Sales Tax @ 9.25%	31,782.35
Freight/PDI/Registration	5,000.00
Total Price	380,375.36

Delivery: 120-150 days after receipt of order**SIGNATURE:****DATE:**

Freight - FOB San Bernardino, CA All prices are valid for 30 days.

5405 Industrial Parkway
San Bernardino, CA 92407
Tel : 1 (909) 713-1600
Fax : 1 (909) 713-1613

www.globalsweeper.com





CITY OF SEASIDE STAFF REPORT

Item No.: 9.B.

TO: Traffic Advisory Committee

FROM: Jaime M. Fontes, City Manager

BY: Nisha Patel, Public Works Director/City Engineer
Leslie Llantero, Assistant Engineer

DATE: October 20, 2022

**SUBJECT: APPROVE A NEW TRAFFIC CALMING PROGRAM AS
RECOMMENDED BY THE TRAFFIC ADVISORY COMMITTEE**

RECOMMENDATION

Approve a new Traffic Calming Program as recommended by the Traffic Advisory Committee, that replaces the existing Traffic Calming Program previously approved by Council on July 7, 2016.

BACKGROUND

The Traffic Advisory Committee (TAC) unanimously approved the new Traffic Calming Program at their September 27, 2022 Special Meeting. Below is a synopsis of the changes and overview of the new Traffic Calming Program (Attachment 1)

The existing Traffic Calming Program (Attachment 2) was approved by the City Council on July 7, 2016. Revisions are needed to the current Program to improve the prioritization of traffic calming applications, evaluate applications according to a newly developed ranking system, consider funding of selected requests, and increase efficiency by managing the Program on an annual cycle.

Significant changes from the current to the new Traffic Calming Program include:

1. Removal of cut through traffic (pushing traffic onto another street) calming measures;
2. Elimination of criteria and thresholds needed to qualify for traffic calming measures. No application is disqualified based on thresholds. A traffic calming improvement is chosen based on highest rank amongst other applications submitted.
3. Implementation of a rank-based evaluation process. A rank-based evaluation process includes a point system for each of the following factors: traffic volume,

traffic speed, collision history, pedestrian facilities, bicycle facilities, adjacent land use, and unique conditions; and

4. Annualization of Program, which means all traffic calming applications will be reviewed, evaluated, and ranked at the same time every year. Based upon funding, the highest ranked applications will move forward for approval and implementation. The existing program processed applications on first come first serve basis.

The new Traffic Calming Program (Program), has been designed to help manage traffic speed-related concerns along local and collector streets throughout Seaside. The Program provides information on the application process, educates applicants on traffic calming, and describes traffic calming measures approved for implementation on City streets.

TAC recommends staff recommendation to approve the new Traffic Calming Program.

FISCAL IMPACT

There is no fiscal impact associated with approval of the new Traffic Calming Program.

ATTACHMENTS

1. DRAFT-Seaside Traffic Calming Program
2. July 7, 2016 Approved Traffic Calming Program

Reviewed for Submission to the City Council by:


Jaime M. Fontes, City Manager



CITY OF SEASIDE
TRAFFIC CALMING PROGRAM
JULY 27, 2022

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1. Introduction

The updated City of Seaside Traffic Calming Program has been designed to help manage speed-related traffic concerns along local and collector streets across the City.

Through this application-based program, residents identify vehicular speed-related concerns on their street to the City. Traffic calming measures may then be installed on streets pending a robust evaluation process led by the City's Public Works Department.

This update to the City of Seaside's Traffic Calming Program was developed by the City's Engineering staff with input from the Traffic Advisory Committee (TAC). In addition, the program was reviewed by the City Attorney and City Risk Manager.

The information provided within this document describes the updated process associated with the City's Traffic Calming Program as well as information for residents who would like to learn more about the Program and apply for traffic calming measures on their street.

Section 2 provides a broad overview of traffic calming, including what it is and is not.

Section 3 describes the updated Traffic Calming Program for the City of Seaside, including a description of the streets across the City that may be eligible for traffic calming

Section 4 describes the application process for residents, including the timelines and information on how the City will evaluate applications.

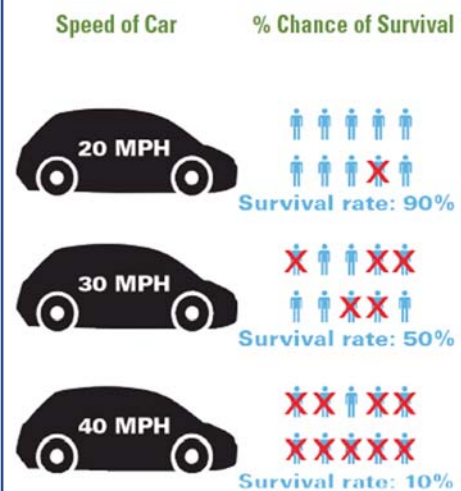
Section 5 provides an overview of the specific traffic calming measures that the City may use to address traffic calming in Seaside.

The Traffic Calming Program is meant to be a "living document" that may be updated over time to consider or reflect new or amended priorities for the Program, funding levels, and traffic calming effectiveness.

SPEED & SAFETY RELATIONSHIP

Vehicle speed is the biggest factor in determining if someone survives getting hit by a car.

A person walking hit by a car going 30 MPH is **six times** more likely to die than a person hit by a car moving at 20 MPH.



Seaside's Traffic Calming program makes the City's streets safer and more comfortable for everyone by **designing streets that encourage slower speeds.**

Do I Live on a Street Eligible for Traffic Calming?

Streets with the following characteristics are likely to be eligible residential streets:

- Streets that are classified as "Local" or "Collector" in the Seaside General Plan
- Streets with only two travel lanes (i.e., one travel lane in each direction)
- Streets without bus routes
- Streets that do not have fire stations on them

2. Traffic Calming Overview

What is Traffic Calming?

The Institute of Transportation Engineers (ITE) defines traffic calming as the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users. Traffic calming measures that are implemented successfully are effective and self-enforcing.

More specifically, traffic calming is used to:

- Achieve slow speeds for vehicles
- Reduce collision frequency and severity
- Increase the safety and perception of safety for non-motorized users of the street
- Reduce the need for police enforcement
- Enhance the street environment

Traffic calming measures intended to address vehicle speeds are implemented to enhance traffic and pedestrian safety and preserve neighborhood character and livability. There are a number of traffic calming measures that are available to achieve this effect. Specific measures that may be used on Seaside's streets are generally used to address issues with speeding and safety. Different types of traffic calming measures are appropriate on different types of streets. These typically include the use of the 3 E's: **engineering, education, and enforcement**.

The City of Seaside defines traffic calming as "the management of vehicular traffic speeds and volumes through educational, enforcement, and/or engineering measures to minimize the negative impacts on residents, pedestrians, bicyclists, and school children." The City's desire to 'calm' our streets is further described in the City's General Plan, which states that the City shall "use traffic calming methods within residential and mixed-use areas where necessary to create a pedestrian-friendly circulation system." (Policy C-1.5). **This program will focus on speed-related traffic calming.**

Education and Enforcement

Traffic calming measures may be complemented by **education** and **enforcement** efforts. Education initiatives empower residents to influence driver behavior to address subjects such as vehicular speeding, pedestrian safety, bicyclist behavior, distracted driving, and other behaviors that impact safety. These campaigns can take a variety of forms, including neighborhood signs and banners, flyers, bus shelter advertising, and neighborhood pledge programs. Enforcement activities employ the use of local police presence to make drivers aware of local speed limits and other traffic laws.

Engineering

Engineering treatments are traffic calming measures that are designed and constructed to manage speeds; this typically involves physical safety improvements such as speed cushions, speed tables, raised crosswalks, median islands, traffic circles, changes to lane widths, lane shifting, etc. These measures have been proven to reduce speeding and increase safety. Typically, speed cushions are the most common traffic calming measures given their effectiveness in managing vehicular speeds. Other

measures may be proposed if they are deemed more effective on a given street and/or are more cost effective. Please refer to Section 5 where each of the traffic control measures that are approved to be implemented on Seaside streets are described in greater detail.

This Traffic Calming Program relies primarily on the use of engineering treatments and education campaigns to address documented speeding concerns on the City's local and collector streets. However, this will not preclude Public Works from coordinating with the Seaside Police Department for enforcement of streets with the most egregious speeding issues.

What Traffic Calming Is Not

The City's Traffic Calming Program does not directly address cut-through traffic on Seaside's streets. Cut-through traffic can be difficult to quantify and can be more of a neighborhood-scale concern if through-traffic is simply addressed by 'pushing' the problem to another street. The intent of this program is to make Seaside's streets safer and more comfortable for all by reducing the speeds of vehicular traffic.

In addition, traffic calming does not include the use of regulatory measures such as stop signs. Unlike traffic signals or stop signs at intersections, which do not reduce mid-block speeds, traffic calming measures that are part of this program encourage slower vehicular speeds along the length of a block rather than at intersections.

However, this Program does not replace a resident's ability to contact Public Works or the Police Department about maintenance or other issues that do not fit the definition of 'traffic calming.' These requests will continue to be handled through standard City procedures. You can submit a request using the See Click Fix website (<https://seeclickfix.com/seaside>) or by emailing the TAC at PWinfo@ci.seaside.ca.us or call the Police Department at (831) 899-6748.

Stop signs designate right of way for drivers at intersections and can only be installed if certain warrants are met. Installed properly, a stop sign is a valuable and effective traffic control device. It is intended to help drivers, pedestrians, and bicyclists at an intersection know who has the right of way.

Stop signs are frequently ignored if not warranted and can be seen by drivers as "nuisances" or "speed breakers," and therefore have a higher chance of intentional violation. Often, those vehicles that do stop only slow down in the immediate vicinity of the stop sign and make up for lost time by driving faster between intersections. Misplaced stop signs can also create a false sense of security for pedestrians and an attitude of contempt in a motorist.

National guidelines, or warrants, have been developed to indicate when new stop signs should be installed. The warrants take into consideration, among other things, the probability of vehicles arriving at an intersection at the same time, the length of time traffic must wait to enter, and the availability of safe crossing opportunities.

3. Seaside's Traffic Calming Program

The City of Seaside's Traffic Calming Program is a resident-driven, application-based program that addresses speeding on local (residential) and collector streets in Seaside. See below for a description of the different categories of streets in Seaside. The program seeks to enhance street safety and neighborhood livability by reducing the negative impacts of fast-moving vehicular traffic on streets and creating safer and more comfortable streets for people walking, biking, and driving.

The goals of Seaside's Traffic Calming Program are to:

- Improve the safety and quality of life for residents, pedestrians, bicyclists, motorists, and students.
- Promote compliance with traffic laws while minimizing reliance on police resources.
- Approach traffic calming in a fair, consistent, transparent, and comprehensive manner.
- Establish a program that functions consistently with, and as a complement to, other City transportation programs and policies such as those related to Safe Routes to School.
- Recognize the unique character and integrated nature of the City's streets so that traffic and speeding are not shifted onto other neighborhood streets.
- Regularly use all available means of community outreach to encourage the availability and use of the program to interested residents, as well as inform the broader community.
- Monitor and evaluate traffic calming measures and procedures over time so that the adopted program remains timely and effective.
- Use traffic calming measures appropriate to the identified issue.

This Program focuses on lower-cost measures that are effective at slowing vehicular speeds on local and collector streets. Traffic calming solutions through the program are resident-directed, block-by-block solutions to address mid-block speeding on local and collector streets.

Seaside's engineers will evaluate the need for traffic calming on a block-by-block basis; a separate application must be submitted for any neighboring blocks.

The Program will be scheduled on an annual cycle, with the Program's phases described in subsequent sections taking place at the same time periods each year. An annual program cycle is more transparent, predictable, and easier to understand for Seaside residents versus a program with applications accepted and evaluated on a rolling-basis. In addition, the annual cycle provides residents with more certainty given expected annual funding levels and can provide shorter waiting time between acceptance into the program and implementation timelines. Finally, an annual program cycle results in a more efficient use of

staff resources. The process from the time an application is submitted to the time when traffic calming is implemented is described in Section 4.

Although applications will be evaluated in the fall of each year, residents may have questions throughout the year about the traffic calming process and about whether their street might be an appropriate candidate. Seaside Public Works staff will be available to respond to these questions and requests. In addition, if residents submit applications in advance of the annual deadline, Seaside staff will review the applications for completeness within 30 days of receipt and will request missing information, if applicable.

Email PWinfo@ci.seaside.ca.us and include "Traffic Calming" in the subject line to have questions answered about this program, traffic calming on your street, the status of your submitted application, or anything else related to slowing speeds!

What Streets in Seaside are Eligible for Traffic Calming?

Different categories of streets serve different transportation functions. Streets within the City of Seaside receive classifications based upon the transportation function that they serve. As described in the Seaside General Plan (August 2004), the City's streets are defined using a hierarchical classification system, and street categories are differentiated by size, function, and capacity.

Of the seven street categories described in the General Plan, the following are eligible to be considered for traffic calming:

- **Local Streets** provide direct access to abutting properties and have the function of serving local traffic movements within residential and commercial areas. All streets that are not designated as major streets are local streets. Local streets include both two-lane streets and one-way streets.
- **Collector Streets** provide traffic circulation between higher volume and higher speed arterial and local streets. They connect neighborhoods with neighborhood-related activity centers and provide limited direct access to abutting properties.

Arterial streets are not eligible for traffic calming under this program. They have the following definition:

- **Arterial Streets** provide the principal network for cross-town traffic. They also connect the City to external highway and freeway systems. Arterials generally have moderate traffic speeds and carry significant amounts of traffic. Primary traffic generators are and/or should be located on arterials. Minor Arterial streets carry lower traffic volumes and support a mix of local and through traffic.

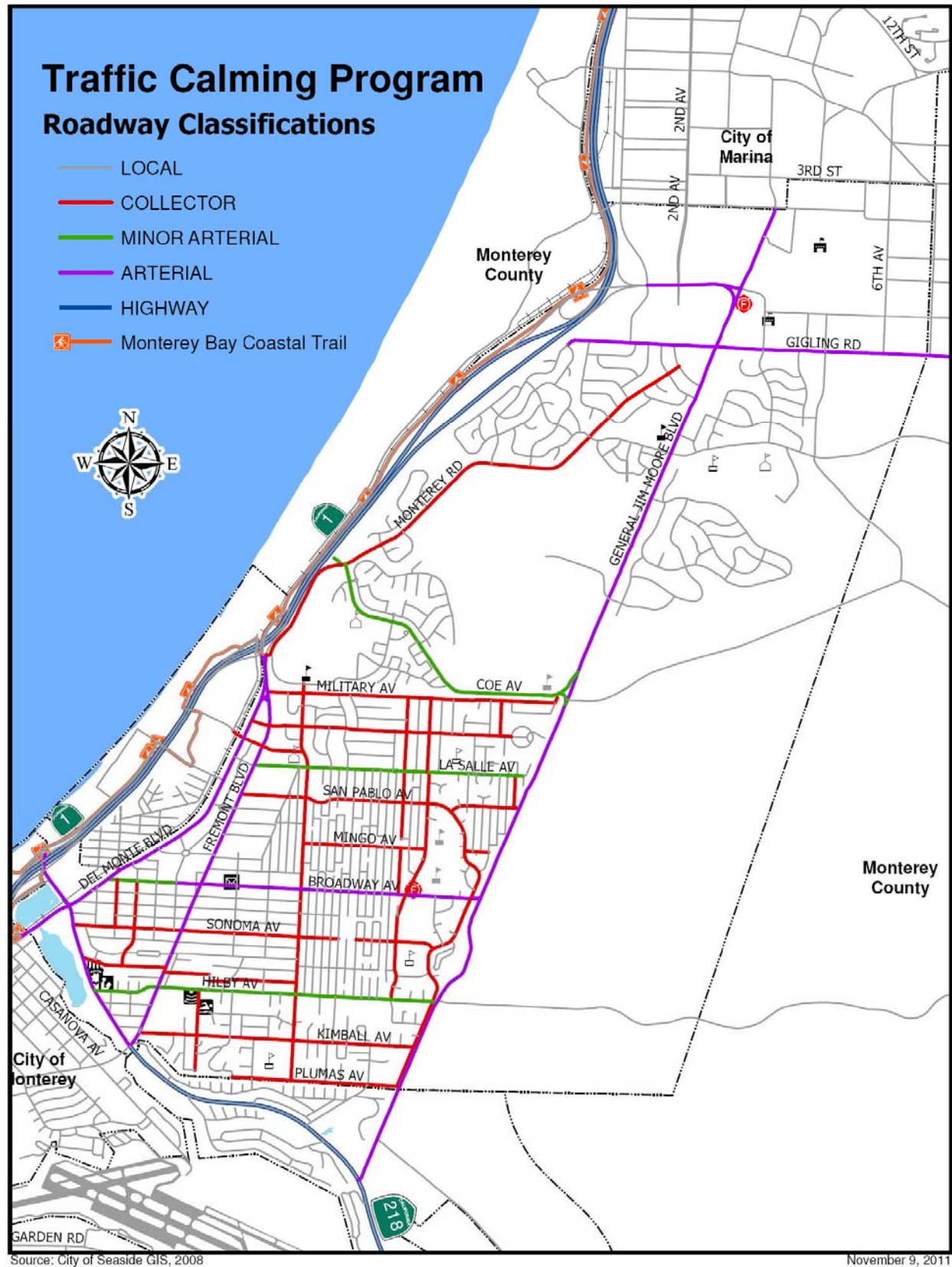
Arterial streets are ineligible because they serve a very different function and, correspondingly, carry significantly higher volumes of vehicles in addition to public transit and emergency response vehicles. Efforts to improve safety on these streets will be sought either in coordination with other projects or as independent projects prioritized based on need.

When developing traffic calming approaches, the various functions that a street serves must be taken into consideration. Neighborhood livability must be balanced with safety concerns and transportation, transit, and emergency service needs. Certain traffic calming techniques, if not implemented properly, could be counterproductive to competing needs.

The following streets serve as emergency response routes and require Fire Department approval for traffic calming treatments. See Appendix 1 for more information.

- Flores Street
- Hamilton Avenue
- Hilby Avenue
- Hillsdale Street
- Kimball Avenue
- Mescal Street
- Military Avenue
- Mingo Avenue
- Monterey Road
- Noche Buena Street
- Normandy Road
- Ord Grove Avenue
- Phoenix Avenue
- San Lucas Street
- San Pablo Avenue
- Second Street
- Terrace Street
- Waring Street
- Yosemite Street

The following figure shows City of Seaside streets and their functional classifications (from the Circulation Element of the Seaside General Plan, dated August 5, 2004).



Street Eligibility Criteria

The Seaside Public Works Department will measure speeds once applications are submitted. However, before you apply, you can also take a look at the resources below to see if your street may be likely to qualify.

Streets with the following characteristics are likely to be eligible local streets:

- Streets that are classified as “local” or “collector” in the Seaside General Plan (see map above)
- Streets with only two travel lanes (i.e., one travel lane in each direction)
- Streets without bus routes
- Streets that do not have fire stations on them

Seaside’s engineers will evaluate the need for traffic calming on a block-by-block basis; a separate application must be submitted for any neighboring blocks.

Traffic Calming Application Evaluation Criteria

If your street is eligible for traffic calming and a complete application is received by Seaside’s Public Works Department, data on your street will be collected to determine the severity of the speeding concern and identify other safety considerations. *The street must have documented vehicular speeding in order to be further considered.*

Other data that could be considered in determining whether streets receive traffic calming include the following. See Appendix 2 for a sample scoring sheet.

- **Vehicle counts** – Additional qualifying points will be given to those streets with higher traffic volumes.
- **Collisions** – The number of collisions that have been reported to the Police Department will be considered. Those streets with a higher number of reported collisions will receive additional qualifying points.
- **Adjacent Land Uses** – Adjacent land uses such as proximity to parks, school zones, commercial areas, community centers, bus routes, and bicycle networks could increase the ranking of your block.

4. Application Process

This section describes the process required to implement neighborhood traffic calming projects. This is an annual program, and the process will be followed along the same timelines each year, as described in the table below.

The following table is a summary of the key steps, who is responsible for initiating each step, and the approximate dates for each step. Applicants must complete each step before continuing to the next one.

DESCRIPTION	RESPONSIBILITY	DATES
STEP 1 – REQUEST ACTION		
Report the concern to the City's Public Works Department via the Traffic Safety Application	Applicant	Year round, though the deadline for applications for the upcoming year is September 30 of each year
STEP 2 – EVALUATION AND RANKING		
Data collection effort	Public Works Department	October/November
Application ranking	Public Works Department	October/November
STEP 3 – INFORM APPLICANTS		
Applicants are informed by email of the results of their applications	Public Works Department	November/December
STEP 4 – EDUCATION AND/OR ENFORCEMENT		
Education and enforcement tools are employed to calm traffic	Applicant and/or Public Works Department	December/January
STEP 5: ENGINEERING AND DESIGN		
Recommended traffic calming measures are designed	Public Works Department	January – March
STEP 6: TRAFFIC ADVISORY COMMITTEE APPROVAL		
Proposed traffic calming projects are reviewed by the City's Traffic Advisory Committee	Public Works Department / Traffic Advisory Committee	March – May
STEP 7: CITY COUNCIL APPROVAL		
Proposed traffic calming measures are ratified by the City Council	Public Works Department / City Council	May – June
STEP 8: TRAFFIC CALMING IMPLEMENTATION AND/OR CONSTRUCTION		
Project designs are finalized and construction begins	Public Works Department	June – September
STEP 9: MONITORING		
Project effectiveness may be evaluated	Public Works Department	October – November

Step 1 – Request Action (Year-Round, deadline on September 30 of each year)

Residents who would like to apply for traffic calming on their block are encouraged to submit an application (Appendix 4). Application forms for the annual program cycle will be available on October 1 of each year. Please submit your completed Traffic Calming Request Form in accordance with the

instructions provided on the form and below. This is the first step in the process of evaluating traffic calming for each street. ***The deadline for submitting completed applications and petitions for the current Traffic Calming Program cycle is September 30 of each year.***

A request can be filed by an individual, on behalf of a group of residents, or by any concerned group. Applicants must live on the block that is listed on the application.

A separate traffic calming application should be completed for each individual block with a traffic speed concern.

To be considered for traffic calming, you must obtain signatures from a majority of residences on your block, using the petition form that is attached to the application (see Appendix 4). Signatures are required as part of the application process to ensure community support before the planning process begins. If your block is selected for traffic calming, residents on your block will be given the opportunity to vote on the proposed traffic calming measure recommended by Seaside Public Works staff in advance of implementation.

Groups of blocks or entire neighborhoods cannot be considered for traffic calming as part of this program because this would require additional funding and staff resources in order to conduct the proper traffic analyses and a resulting community-wide planning process. These neighborhood-scaled projects typically lead to longer planning, design, and implementation timelines.

Please submit completed applications and petitions using one of the methods outlined below.

- a. Email – scan all pages of the completed application and petition and send to:
pwinfo@ci.seaside.ca.us. Please include “Traffic Calming Application” in the subject line.
- b. US Mail or Hand Delivery – send all pages of the completed application and petition to:
Traffic Calming Program
Seaside Public Works Department – Engineering Division
440 Harcourt Avenue
Seaside, CA 93955

Step 2 – Evaluation and Ranking (October/November)

Once valid applications with petitions are received, Seaside staff will collect data and assess traffic conditions on the block listed on the application, ranking traffic calming requests against others received in the same application year (see the Evaluation Worksheet in Appendix 2). The data that will be collected includes traffic speeds and vehicle counts as well as a review of the number of collisions that have taken place in each location. Once the data has been collected for all applications, they are prioritized based on traffic speeds, vehicle counts, collisions and adjacency to particular land uses within a short proximity to the street, which can include schools, parks, transit stops, health care facilities, and retail activity, among others. These land uses typically attract more people who travel by foot or on bicycle.

The projects will go to the TAC for approval based upon the evaluation and ranking. The number of accepted projects will depend on the available funding and what devices are recommended, as described in the Engineering Treatments section below.

Because the traffic calming program is on an annual cycle, the evaluation process for each block under consideration will take place at the same time each year; typically, in October and November.

Step 3 – Inform Applicants (November/December)

Once the highest-rated locations have for traffic calming are identified, Seaside staff will begin the process of reviewing these locations for the most appropriate engineering and/or education solution.

Seaside staff will inform all applicants of the results once the list of projects is identified. These responses could take one of these forms:

- Approved – locations are recommended for education and/or enforcement or engineering treatments in the current cycle.
- Denied – locations do not rank in the current cycle. Applicants wishing to be considered for traffic calming in future years are welcome to reapply. These applications will not otherwise be considered in future cycles.

This will take place in November and December of each year.

Step 4 – Education and/or Enforcement (December/January)

City staff may first suggest possible solutions for approved applications that do not involve the use of physical controls or impediments on the roadway system. These are primarily education and enforcement-based measures. Education efforts will consist of applicant-driven measures such as portable driver speed feedback signs, yard signs, neighbor observations, and neighborhood meetings. Enforcement measures include driver speed feedback signs and targeted enforcement activity on the part of the Public Safety's traffic enforcement officers.

After a period of no less than six months, the City will evaluate the effectiveness of the education and enforcement measures and determine if engineering treatments may be appropriate.

Step 5 – Engineering Treatments (January - March)

Seaside engineering staff will work on conceptual design and cost estimates for the recommended traffic calming measure(s) deemed most appropriate for each block. The design process for each project will be conducted by Seaside staff, or their engineering consultants, with comments from the Fire Department and Police Department.

For locations where the recommended device would require parking removal or displacement or may be considered a potentially controversial choice for the location, Seaside staff may offer to meet with interested residents. Seaside staff would work with the primary applicant to find a meeting location and would send the meeting announcement to all residents on the affected block.

The purpose of these neighborhood meeting would be for Seaside staff to present the pros and cons of one or two devices that would be appropriate for the location and take feedback from neighbors to advise the project's final design. Buy-in from residents would be obtained before proceeding to the TAC for approval.

For locations requiring this additional community outreach, the implementation cycle may be delayed compared to locations receiving standard measures.

Step 6 – Traffic Advisory Committee Approval (March - May)

The City's Traffic Advisory Committee (TAC) acts as an advisory board to the City Council and reviews all requests for traffic safety regulatory or control devices, signs and markings. The TAC is comprised of one City Councilmember, the Police Chief, the Fire Chief, the Community Development Director, and the City Engineer/Public Works Director.

The TAC will review each proposed traffic calming project at a regularly scheduled meeting, which are held once per quarter. Public Works staff will present the traffic calming project to the TAC and will seek a final recommendation from this group.

The TAC will either approve, deny, or return back to staff for further consideration. All actions taken by the TAC are recommended to the City Council for ratification.

Step 7 – City Council Action (May - June)

After TAC recommendation, each traffic calming project will be scheduled for City Council's consideration. The project will be presented at a City Council meeting and members of the public will have the opportunity to provide additional comment on the project, if desired.

If the proposed traffic calming project is approved by the City Council, the project will move on to the Construction phase.

Step 8 – Traffic Calming Implementation and/or Construction (June - September)

If the project is approved, the plans will be sent to the appropriate City department for implementation. Depending on the cost, construction of the approved traffic calming measures will be conducted by City staff or their contractors through a public bid process.

The implementation timeline is based on a number of factors, including type of measure(s), cost, construction schedule, and other construction in the area.

Step 9 – Monitoring (October – November)

Once a Traffic Calming Plan has been fully implemented and in effect for a period not less than one year, the City may choose to evaluate the effectiveness of the project by monitoring speeds and/or collisions. Based on this evaluation, City staff may recommend modifications to, or removal of traffic calming measures.

5. Traffic Calming Toolbox

The following section includes a brief description, key advantages and disadvantages, and sample photographs of each tool that has been approved for use on streets in the City of Seaside.

Traffic calming devices have been ordered from the least expensive and quickest to implement to those that are more expensive and would require construction. The City reserves the right to disallow certain devices on a project-by-project basis.

- Supplemental signs and pavement markings
- Striping centerlines
- Lane narrowing (striping)
- Staggered street parking
- Driver speed feedback signs (portable or nonportable)
- Median islands (painted or raised)
- Speed cushions
- Speed tables
- Raised crosswalks
- Midblock chokers
- Intersection curb extensions
- Neighborhood traffic circles

Supplemental Signs and Pavement Markings

On some streets, additional signage or pavement markings could assist in drawing motorist's attention to particular roadway conditions. Advance warning signs (e.g., pedestrian crossing ahead), supplemental regulatory signs (e.g., an added speed limit sign), "Share the Road" signs, and pavement markings (e.g., "Keep Clear", "Ped Xing") can be used, when warranted, based on engineering studies.

Advantages

- May highlight lesser-known roadway features
- Increases awareness
- Inexpensive to install

Disadvantages

- Excessive signage or markings reduces effectiveness

Approx. Cost: \$\$



Striping Centerlines

Striping for traffic calming is typically used to narrow lanes to about 10 feet wide. The primary benefit is to delineate lanes and to slow vehicle speeds. In addition, a centerline stripe helps drivers stay on the “right” side of the road and not use the entire roadway width as a travel lane. On wide roadways, the “unused” pavement created by restriping can sometimes be used to stripe a bicycle lane, parking lane, or pedestrian shoulder.

Advantages

- Can be quickly implemented
- Can slow travel speeds
- Improves safety by clearly designating travel paths for vehicles

Disadvantages

- May require additional reinforcement through education and enforcement
- May be incongruous with the typical look of a neighborhood street

Approx. Cost: \$\$



Lane Narrowing (Striping)

Edge-line striping is used to create narrow travel lanes (e.g., 10-foot), in order to give the impression of a skinny street. This visual narrowing encourages drivers to lower their speed. Edge-line striping is most applicable on wider local streets where speeding is an issue. Any “unused” pavement created by re-striping can sometimes be used to stripe a shoulder, parking lane, or bike facility.

Advantages

- Inexpensive to install
- Can be implemented quickly
- Can be used to delineate on-street parking
- Can improve safety by clearly delineating travel paths for various roadway users
- Does not slow emergency vehicles

Disadvantages

- Increases regular maintenance cost

Approx. Cost: \$\$



Staggered Street Parking

Providing designated spaces with markings can reduce the effective width of travel lanes, thereby slowing travel speeds. On streets with enough width, parallel parking alternating between sides of the road forms S-shaped driving path curves that slow driving speeds.

Advantages

- Can slow travel speeds
- Can add parking capacity
- Illustrates legal parking areas to drivers

Disadvantages

- May require additional reinforcement through education and enforcement

Approx. Cost: \$\$



Driver Speed Feedback Signs (Portable or Nonportable)

A speed display feedback sign is a device that measures each approaching vehicle's speed. The vehicle's speed is displayed next to the legal speed limit, reminding speeding drivers to slow to the speed limit. The device is either portable – attached to a moveable trailer – or nonportable – attached to a pole and not easily transferable to another location.

Advantages

- Provides immediate feedback to drivers on their driving speed
- Does not slow emergency vehicles
- Does not require City staff set-up or removal after the initial installation
- Effective in reducing speeds in the short-term

Disadvantages

- Not an enforcement tool
- Effectiveness may be temporary
- Less effective on multi-lane roads
- Subject to vandalism

Approx. Cost: \$\$\$



Median Islands (Painted or Raised)

Median islands are raised or painted islands in the center of a street that can be used to narrow lanes for speed control and/or to create a barrier to prohibit left turns into or from a side street. They can also be used for pedestrian refuges in the middle of a crosswalk.

Advantages

- May reduce collision potential
- Can reduce pedestrian crossing distance when used as a pedestrian refuge
- Provides opportunity for landscaping or other aesthetic features
- Redirects traffic to major streets and reduces cut-through traffic

Disadvantages

- If designed improperly, drivers can maneuver around a channelizing island to make an illegal movement
- Limits turns to and from the side street for local residents and emergency vehicles
- Can shift traffic to other street(s)
- Landscaping requires maintenance by City or residents

Approx. Cost: \$\$-\$\$\$



Speed Cushions

Speed cushions are a variation of a speed hump with a shorter height and space between the cushions. Cushions are approximately 3-inches high, rectangular in shape, 6 feet wide, and 6 to 14 feet in length.

Advantages

- Effectively reduces vehicle speeds
- Does not require parking removal
- May reduce vehicular volumes

Disadvantages

- May divert traffic to other neighborhood streets
- May encourage rapid acceleration between speed humps
- May slow emergency vehicles

Approx. Cost: \$\$\$



Speed Tables

Also known as a raised intersection, a speed table is a flat, raised area covering an entire intersection with ramps on all approaches. It is typically about 4" high and finished with textured pavement.

Advantages

- Effectively reduces vehicle speeds at intersections
- Enhances pedestrian safety
- Aesthetically pleasing

Disadvantages

- May require bollards to define the edge of the roadway
- Storm drainage modifications are necessary
- Slows emergency response times

Approx. Cost: \$\$



Raised Crosswalks

By raising the level of the crossing, pedestrians are more visible to approaching motorists. Raised crosswalks can be up to six inches high, 12 to 24 feet in length, and stretch the width of the street. They are outfitted with crosswalk markings and signage. Raised crosswalks are intended to reduce vehicle speeds where there is a large pedestrian crossing volume.

Advantages

- Improves pedestrian visibility to oncoming vehicles
- Can provide positive aesthetic value with pavement treatments
- Effective in reducing speeds

Disadvantages

- Textured materials, if used, can be expensive
- Impact to drainage needs to be considered
- May slow emergency vehicle response time
- Increased noise to adjacent residences

Approx. Cost: \$\$\$



Midblock Chokers

Chokers are midblock curb extensions that narrow a street by extending the sidewalk or widening the planting strip. Chokers are intended to reduce traffic volumes by making the roadway narrow so that only one car at a time can pass through it, or two cars can pass very slowly in opposite directions.

Advantages

- Reduces traffic volumes and speeds
- Reduces pedestrian crossing width and increases visibility of pedestrians
- May be preferred by emergency response agencies over other traffic calming measures

Disadvantages

- Potential loss of on-street parking
- May require reconstruction of gutters and storm drain features
- May require bicyclists to briefly merge with vehicular traffic

Approx. Cost: \$\$\$



Intersection Curb Extensions

Curb extensions reduce a roadway's width between its curbs, thereby increasing pedestrian visibility to oncoming vehicles and reducing the intersection crossing distance. Curb extensions can be accomplished by extending the curbs at an intersection towards the center of the roadway, or by building raised islands in the roadway, which allow for drainage and bike lane passage. Both measures tighten curb radii at the corner, shortening the pedestrian crossing distance and reducing the speeds of turning vehicles.

Advantages

- Improves pedestrian circulation and space
- Through and left-turn movements are easily negotiable by large vehicles
- Creates protected on-street parking bays
- Shortens pedestrian crossing distance
- Opportunity for landscaping and entrance feature
- Reduces speeds (especially right-turning vehicles) and traffic volumes

Disadvantages

- May slow right-turning emergency vehicles and large trucks
- Potential loss of on-street parking
- May require reconstruction of gutters and storm drain features
- May require bicyclists to briefly merge with vehicular traffic

Approx. Cost: \$\$\$



Neighborhood Traffic Circles

Traffic circles are raised circular islands, placed in intersections of local streets, around which traffic circulates. They are typically controlled by yield or stop signs on all approaches. Circles prevent drivers from speeding through intersections by impeding the straight-through movement and forcing drivers to slow down to yield. Drivers must first turn to the right, then to the left as they pass the circle, and then back to the right again after clearing the circle. Traffic circles are appropriate on streets with low to moderate traffic volumes and speed limits of 35 miles per hour or less. The islands are often landscaped.

Advantages

- If designed well, can have positive aesthetic value
- May reduce collision potential and collision severity
- Effective in moderating speeds and improving safety

Disadvantages

- Difficult for large vehicles (such as fire trucks) to circumnavigate
- Must be designed so that the circulating lane does not encroach on crosswalks
- May slow emergency vehicle response time
- Potential loss of on-street parking
- Landscaping must be maintained, either by City or by residents

Approx. Cost: \$\$\$

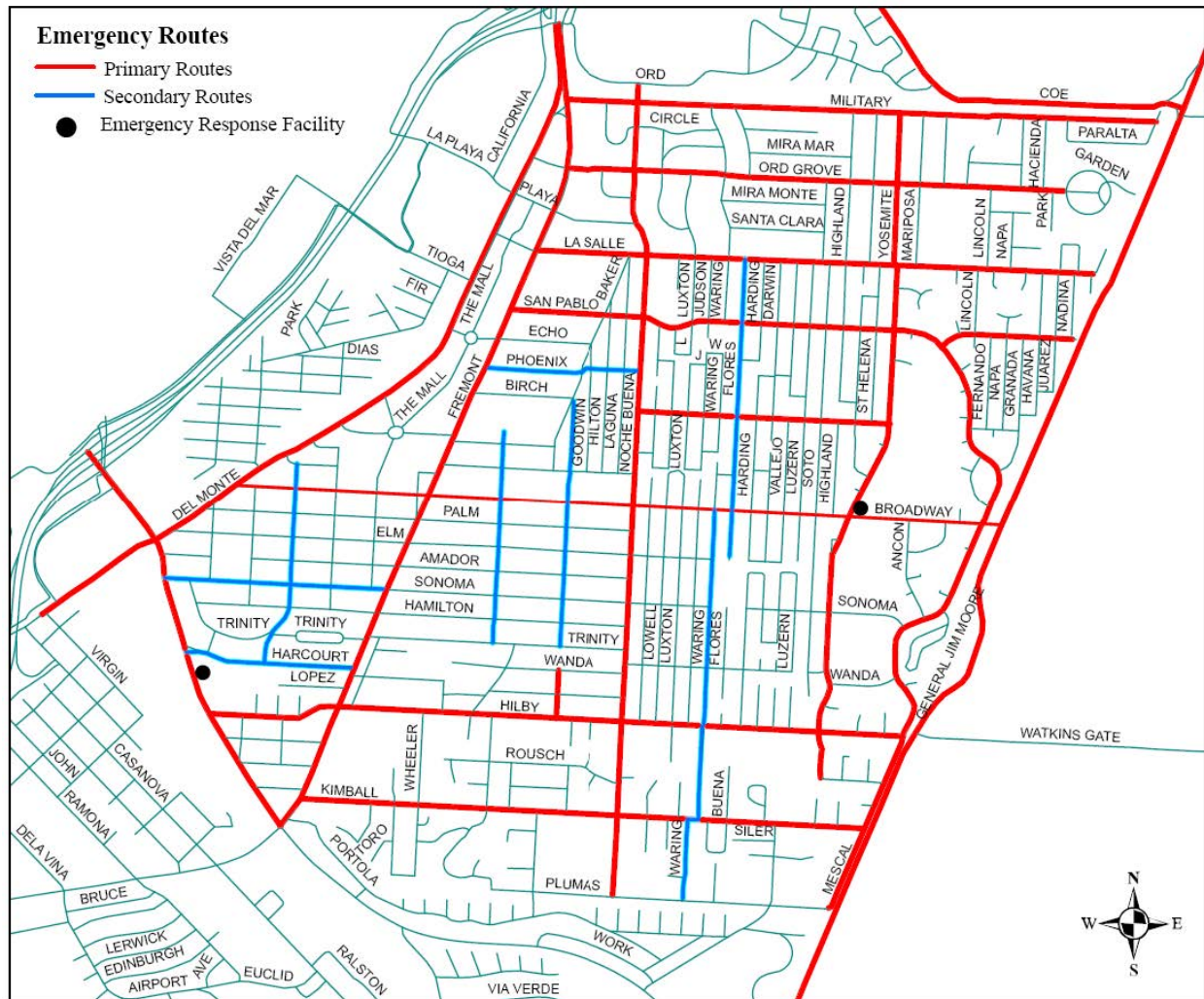


Appendix 1. Emergency Response Considerations

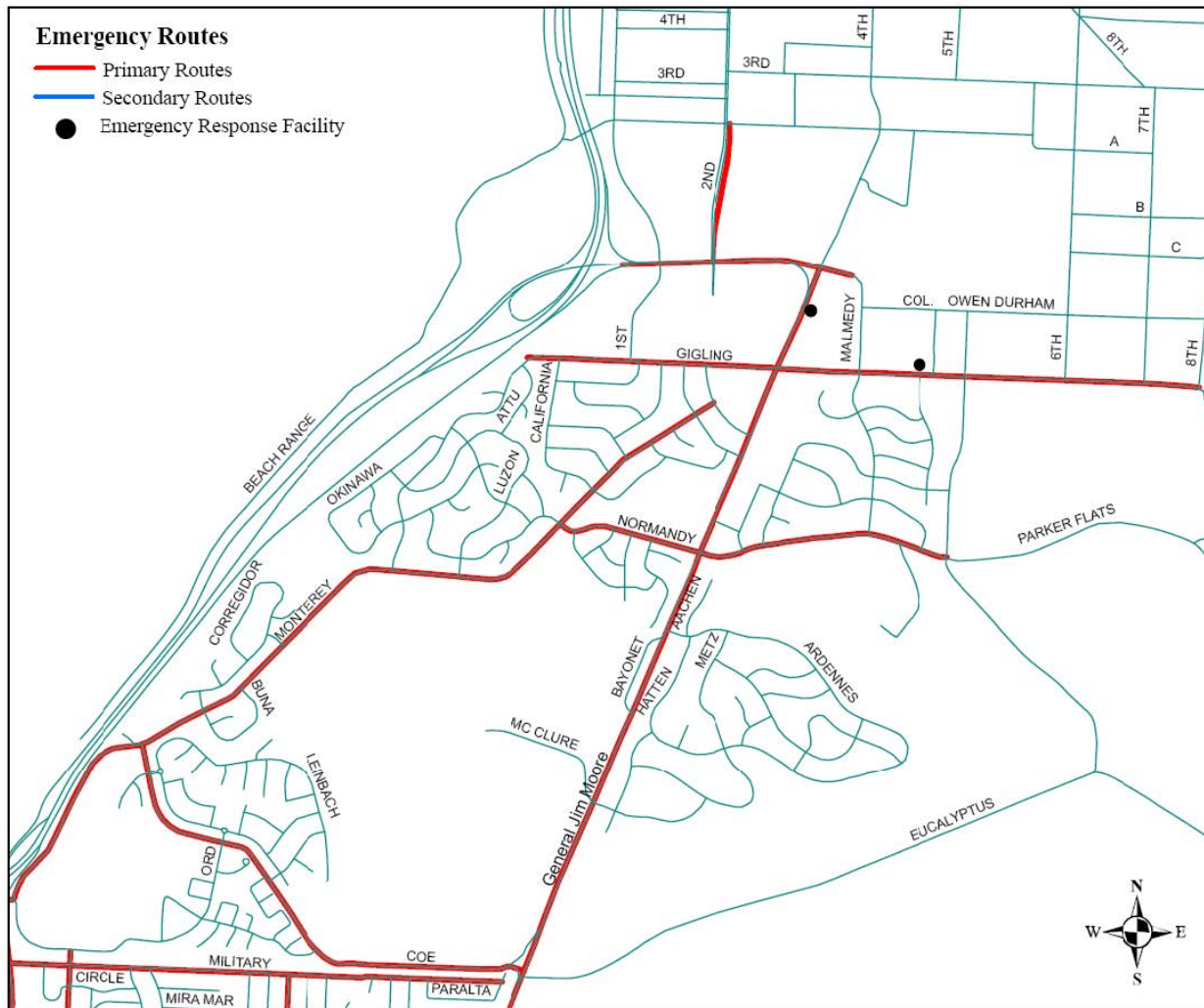
When new traffic calming measures are considered, provisions for emergency response must be clearly addressed. Certain measures (particularly vertical devices such as speed humps, speed tables and raised intersections) are not recommended for use on emergency response routes because of their impact on emergency response times. Also, there is concern that changes in the road surface could cause damage to emergency vehicles. Emergency vehicle access and timely response times shall be maintained in the City of Seaside. To these ends, the following policies have been developed to guide the traffic calming program in the City of Seaside:

1. Police and Fire Department personnel will be involved in the planning process for all proposed traffic calming measures, in order to minimize impacts to emergency response. During this review, several items will be considered, including the following: critical response routes (Refer to Figures 2A and 2B, Emergency Response Routes); special need facilities; access issues and necessary clearances (taking into consideration emergency response vehicle required turning radius, wheelbase and track width, and ground clearance).
2. The use of vertical devices such as raised intersections, speed humps and speed tables will be avoided on established emergency response routes or any street with critical speeds over 30 miles per hour or higher volume collectors (over 750 vehicles per hour).
3. Vertical devices shall not be installed in the direct vicinity of emergency response facilities.
4. The locations of features such as on-street parking and bus stops in the vicinity of proposed traffic-calming devices shall be taken into consideration and modifications shall be made as appropriate.
5. Any new traffic calming innovations will be evaluated on the basis of their effect on emergency response times, before they are approved for use.
6. Residents requesting traffic calming measures will be notified of the potential for slower response times after the devices are installed.

Emergency Response Routes – Seaside Proper



Emergency Response Routes – Seaside North



Appendix 2. Traffic Calming Evaluation Worksheet

This worksheet will be completed by the City of Seaside staff in accordance with the City's Traffic Calming Program. It will be used to prioritize the potential initiation of specific neighborhood traffic calming processes.

Date: _____

Location of Concern: _____

1. Traffic Volumes (mid-week volumes within the last two years)

Greater than 2,000 vehicles per day = 8 points

1,500 to 2,000 vehicles per day = 6 points

1,000 to 1,500 vehicles per day = 4 points

Fewer than 1,000 vehicles per day = 0 points

2. Reported Collision History on Local or Collector Streets

More than five collisions in a three-year period = 12 points

Two to four collisions in a three-year period = 9 points

One to three collisions in a three-year period = 6 points

3. Travel Speeds

85th percentile speed $\geq$ 10+ MPH over speed limit = 10 points

85th percentile speed $\geq$ 6+ MPH over speed limit = 6 points

85th percentile speed $\geq$ 3+ MPH over speed limit = 3 points

4. Pedestrian Facilities

There is essentially no pedestrian space available = 5 points

The pedestrian space needs improvement = 3 points

5. Bicycle Facilities

There are no bicycle facilities = 5 points

There are existing or planned bicycle facilities = 3 points

6. Adjacent Land Uses

The street segment is adjacent to parks, school, transit stop(s), shops, community facilities, etc. = 3 points for each school, 2 points for each other activity center destination (10 points maximum total)

7. Unique Conditions

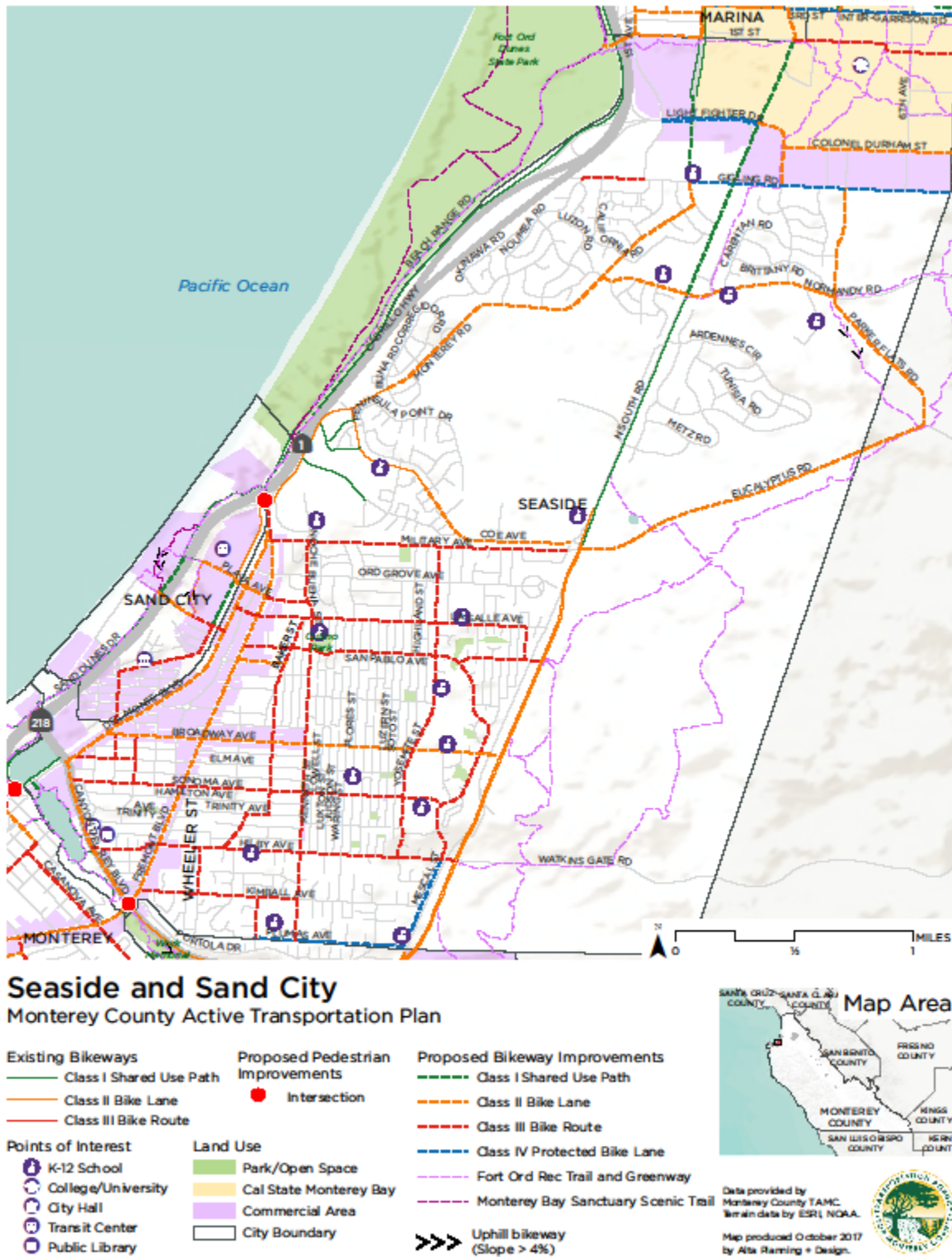
Unique conditions prevail such as sight distance constraints, parking on sidewalks, high truck volumes = 1 point for each unique condition (5 points maximum total)

Total Score: _____

Prepared By: _____

Note: Worksheet may be amended based on use experiences.

Appendix 3. Bicycle Network Map



Appendix 4. Traffic Calming Program Application

The City of Seaside defines traffic calming as “the management of vehicular traffic speeds and volumes through educational, enforcement and/or engineering measures to minimize the negative impacts on residents, pedestrians, bicyclists and school children.” **This program will focus on speed-related traffic calming.**

This form is to request review of your speed traffic concern along a Seaside neighborhood public street. Please fill out all sections and submit to:

Mail: Traffic Calming Program, Seaside Public Works Department – Engineering Division, 440 Harcourt Avenue
Seaside, CA 93955
Email: PWInfo@ci.seaside.ca.us

Applicant Contact Information

Name: _____ Email: _____

Address: _____ Phone #: _____

Location of Concern

Please describe the location of traffic concern.

Nature of Concern

Please describe the nature of the neighborhood problem you are concerned with (attach additional sheets if necessary).

Additional Comments and/or Documentation

Please add any additional comments or documents (e.g., map, photograph, sketch), if necessary, to further explain concerns.

Date: _____

Applicant Signature: _____

Please provide the names and signatures of residents and/or property owners within the affected area that support this request. Each person must reside at a different address and be at least 18 years of age. Note that only one signature per residence is allowed. All persons signing this petition agree that the contact person(s) above represent the affected area/neighborhood. Use the back side for additional names and signatures, if necessary. **The majority of residences in the affected area must sign this petition in order for the application to be considered.**

[illegible]



CITY OF SEASIDE TRAFFIC CALMING PROGRAM

APPROVED
NOVEMBER 17, 2011
MODIFIED JULY 7, 2016

ACKNOWLEDGEMENTS

THE CITY OF SEASIDE
TRAFFIC CALMING PROGRAM
MODIFIED JULY 07, 2016



SEASIDE CITY COUNCIL
Ralph Rubio, Mayor
Ian N. Oglesby, Mayor Pro Tem
Dennis Alexander
Dave R. Pacheco
Jason Campbell

TRAFFIC ADVISORY COMMITTEE
Dave Pacheco, City Councilmember
Rick Riedl, City Engineer
Rick Medina, Senior Planner
Vicki L.H. Myers, Police Chief
Brian Dempsey, Fire Chief

CITY OF SEASIDE STAFF
Leslie Llantero, Assistant Engineer
Scott Ottmar, Assistant Civil Engineer

ACKNOWLEDGEMENTS

THE CITY OF SEASIDE
TRAFFIC CALMING PROGRAM
NOVEMBER 17, 2011



SEASIDE CITY COUNCIL
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Steve Bloomer, Mayor Pro Tem
Dennis Alexander
Ian Oglesby
Alvin Edwards

TRAFFIC ADVISORY COMMITTEE
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CITY OF SEASIDE
TRAFFIC CALMING PROGRAM
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CITY OF SEASIDE TRAFFIC CALMING PROGRAM

A. EXECUTIVE SUMMARY

The Seaside General Plan states that the City shall: “Use traffic calming methods within residential and mixed use areas where necessary to create a pedestrian-friendly circulation system” (Policy C-1.5). The City of Seaside Traffic Calming Program was developed by Engineering and Planning Department staff with input from the Police and Fire Departments. In addition, the program was reviewed by the City Attorney and City Risk Manager. The traffic calming program is meant to be a “living document”, which will be revised as traffic calming projects are implemented and assessed.

This traffic calming program explores the pros and cons of a variety of traffic calming measures; evaluates these measures; provides recommendations for use of these measures; identifies criteria for traffic calming requests and outlines the process for the implementation of the improvements.

Traffic Calming in the City of Seaside is to be accomplished by identifying the nature and extent of traffic-related problems on a given street or a given area, then selecting and implementing cost-effective measures for addressing identified problems. The program is organized into two phases. All requests for traffic calming require meeting the minimum criteria to implement Phase I measures. If predetermined thresholds continue to be met or are exceeded after Phase I, then Phase II traffic calming measures will be considered. Phase II traffic calming measures involve physical modification of the street, such as partial medians or street closures. Phase II traffic calming projects require council approval to receive funding prior to design and implementation. The Traffic Advisory Committee will recommend appropriate traffic calming measures for each phase to directly address potential traffic issues.

The following lists recommended traffic calming measures to be considered in the City of Seaside:

	Type of Measure	Used for	Existing Neighborhood	New Development
1	Bulbouts/Curb Extensions	Speed	Yes	Yes
2	Digital Speed Signs (Phase I)	Speed	Yes	Yes
3	Entry Islands/ Neighborhood Signs	Speed	Yes	Yes
4	Lateral Shifts	Speed	No	Yes
5	Mid-Block Bulbouts/Curb Extensions	Speed	Yes	Yes
6	Neighborhood Sign Programs	Speed	Yes	Yes
7	Partial Medians	Speed	Yes	Yes
8	Pavement Treatments/Striping(Phase I)	Speed	Yes	Yes
9	Police Enforcement (Phase I)	Speed	Yes	Yes
10	Raised Intersections	Speed	Yes	Yes
11	Realigned Intersections	Speed	Yes	Yes
12	Speed Monitoring Trailers (Phase I)	Speed	Yes	Yes
13	Speed Tables	Speed	Yes	Yes

	Type of Measure	Used for	Existing Neighborhood	New Development
14	Traffic Circles/Roundabouts	Speed	No	Yes
15	Speed Cushions	Speed	Yes	Yes
15	Full Street Closure	Volume	Yes	No
16	Partial Street Closures	Volume	Yes	No
17	Restricted Movement Signage	Volume	Yes	Yes
18	Traffic Diverters / Forced Turn Islands	Volume	Yes	Yes

Following is a list of measures that are not recommended for use (refer to Appendix 2, page 14 for more information):

- Chicanes
- Speed Cameras
- Speed Bumps
- Speed Humps
- Speed Limit Signs
- Unwarranted Stop Signs

The traffic calming implementation process starts with the submittal of a traffic-calming project request to the Engineering Department by interested community members. Staff will conduct a study (including speed, volume and accident data) to determine whether or not traffic calming measures meet the predetermined thresholds. If thresholds are met and there is neighborhood consensus for traffic calming, then Phase I will be initiated. Phase I includes solutions that do not involve the use of physical controls or impediments on the roadway system. These are primarily education and enforcement based measures. Follow-up data collection will be obtained 3 to 6 months after Phase I is implemented to determine if traffic calming measures are successful. If the predetermined thresholds continue to be met or are exceeded, then staff will initiate Phase II. Phase II requests need to be authorized by the City Engineer supported by both Phase I traffic calming follow-up data and supported by the neighborhood to be considered by the City Council. Once the City Council has authorized a city funded traffic calming study, City staff will work with the public to develop neighborhood traffic calming plan that incorporates both Phase I and Phase II traffic calming measures.

B. INTRODUCTION

The City of Seaside Traffic Advisory Committee (TAC) regularly receives requests from local residents to calm traffic in their neighborhoods. In the past, these requests have been considered on a case-by-case basis. The Seaside General Plan states that the City shall: “Use traffic calming methods within residential and mixed use areas where necessary to create a pedestrian-friendly circulation system” (Policy C-1.5). The purpose of the City of Seaside Traffic Calming Program is to formalize the traffic calming process, in order to provide a consistent program for neighborhood traffic management.

What are Traffic Calming Measures?

The Institute of Transportation Engineers (ITE) defines traffic calming as: “changes in street alignment, installation of barriers, and other physical measures to reduce traffic speeds and/or cut-through volumes, in the interest of street safety, livability, and other public purposes.” Traffic calming measures are an attempt to enhance traffic and pedestrian safety and preserve neighborhood character and livability. There are a number of traffic calming measures that are available to achieve this effect. The specific measures are described in more detail in appendix 5, but are generally used to address problems with speeding, cut-through traffic, increased volume, and safety. The City often receives requests from residents and business owners for devices that are not appropriate to be used for calming traffic, including stop signs, “Children at Play” signs and traffic signals. A more detailed explanation is given in Appendix 2, Devices Not to be Used for Traffic Calming. When traffic calming measures are implemented successfully, they are effective and self enforcing.

C. GOALS AND OBJECTIVES OF TRAFFIC CALMING PROGRAM

The goals of the traffic calming program are to:

- Improve local residents' sense of well-being about their neighborhood streets and enhance pedestrian and vehicle safety in residential areas; and
- Calm traffic in commercial areas to foster a more pedestrian- and bicycle-friendly atmosphere in commercial districts where appropriate.

The objectives (not in priority order) of the traffic calming program are to:

- Encourage positive driver behavior in residential neighborhoods;
- Improve neighborhood livability by encouraging adherence to the speed limit;
- Encourage public involvement in the traffic calming process through workshops to identify concerns and appropriate calming devices for use in each neighborhood or business area;
- Improve the shopping experience for shoppers and encourage motorists to patronize local business, rather than speeding past them;
- Effectively balance public safety interests, including traffic mitigation and emergency response;
- Maintain emergency response routes by restricting the use of vertical devices (such as raised intersections) on emergency response routes;
- Design streets to respond to special needs of groups such as elderly, children and the disabled;
- Consider impacts to bicycle and pedestrian traffic when evaluating traffic control measures;
- Consider impacts to transit routes;
- Improve safety for pedestrians and bicyclists;
- Maintain capacity on collector and arterial streets;
- Enhance and maintain primary visitor routes;
- Integrate education, engineering, enforcement and enhancement; and
- Evaluate the effectiveness of traffic calming devices after installation.

D. EVALUATION OF TRAFFIC CALMING MEASURES

There are numerous traffic calming measures that may be implemented to address various traffic conditions. Some traffic calming measures are used to control traffic speed, some to control traffic volume, or in some case both. The following traffic calming measures were considered and have been divided into those designed to control traffic speeds and those designed to control volumes.

Speed Control Measures

1. Bulbouts
2. Chicanes (Not Recommended)
3. Digital Speed Signs
4. Entry Islands with Neighborhood Identification Signs
5. Lateral Shifts
6. Mid-Block Bulbouts
7. Neighborhood Sign Programs
8. Partial Medians
9. Pavement Treatments
10. Police Enforcement
11. Raised Intersections
12. Realigned Intersections
13. Speed Cameras (Not Recommended)
14. Speed Bumps (Not Recommended)
15. Speed Humps (Not Recommended)
16. Speed Limit Signs (Not Recommended)
17. Speed Monitoring Trailers
18. Speed Tables
19. Traffic Circles
20. Speed Cushions

Volume Control Measures

20. Full Street Closures
21. Partial Street Closures
22. Restricted Movement Signage
23. Traffic Diverters / Forced Turn Islands

Factors considered in this analysis included: impact on emergency vehicle response (refer to Appendices 5 - Emergency Response Issues; roadway functional classification (refer to Appendix 4 - Roadway Functional Classifications); appearance; cost; effectiveness; potential liability to the City; bicycle/pedestrian impacts; maintenance costs; and impact on street sweeping operations.

Appendix 2 – Not Used Traffic Control Measures and Appendix 3 – Recommended Traffic Control Measures details each of these measures, including descriptions, best applications, costs, pros and cons.

E. TRAFFIC CALMING CRITERIA

The following criteria and thresholds will be used to determine if the requested location qualifies for traffic calming measures:

- 1) The City will not implement traffic calming measures on arterial, minor arterial and collector streets. A map of the “Roadway Classification Map” is identified in Appendix 4. Staff can identify other actions if the street does not meet this basic criterion.
- 2) Neighborhood Support; prior to any data collection by the City, the applicant is requested to present a petition in conjunction with the Traffic Calming Request that identifies a majority of residents/property owner within the neighborhood block having the same concern for the speeding or traffic issue.
- 3) Collector and Minor Arterial Streets: requests for traffic calming for speed related complaints will be eligible only on streets with volumes less than 1,000 vehicles per day and the 85% speed is greater or equal to 7 miles over the speed limit.
- 4) Cut through traffic Thresholds; request for traffic calming for cut through traffic complaints for residential streets will be eligible for traffic calming if the average daily traffic is more than 1,600 vehicles per day. Traffic calming requests for cut through traffic complaints for collector and minor arterial streets will not be considered.

Criteria Matrix

STREET TYPE	NEIGHBORHOOD SUPPORT	SPEEDING THRESHOLD	CUT THROUGH THRESHOLD
Local/Residential	Majority of Block in Support	N/A	ADT>1,600 vpd
Collector Streets less than 1,000 vehicles per day	Majority of Block in Support	85% speed $\geq$ 7mph over posted speed limit	Not Considered
Minor Arterial Streets less than 1,000 vehicles per day	Majority of Block in Support	85% speed $\geq$ 7mph over posted speed limit	Not Considered
Arterial Streets	Not Considered	Not Considered	Not Considered

F. PROCESS FOR TRAFFIC CALMING REQUESTS

Staff will complete the traffic calming studies on a “first come – first serve” basis. Traffic calming measure will be implemented when funding becomes available. The traffic calming request process is illustrated by flow chart in Appendix 1.

Step 1 – Report the Issue

The first step is to report the issue or concern to the City of Seaside Engineering Division staff at (831) 899-6825. City staff will note the complaint and provide the applicant with a Traffic Calming Request Application (Appendix 6). This application will also be available at www.ci.seaside.ca.us. The application must be accompanied by a list of property owners and/or residents in support of the project. There is an application fee of \$50 dollars due at the time of application submission. When the application is submitted, City staff will evaluate the request to determine the nature of the problem, and determine if the location qualifies. Requests would then be reviewed and verified by the Seaside Traffic Advisory Committee (TAC). The TAC would determine if an application area is currently under study or has been studied before and warrants an updated review. Upon receipt of several complaints/issued specific to a neighborhood, City staff will report to the TAC as needed and will initiate a petition to neighboring residents of said affected location upon the direction from TAC.

Step 2 – Data Collection

When it is determined by the TAC that an application warrants a review, a request for data collection is forwarded to the Seaside Public Works Division staff, which will then determine a project study area, collect traffic volume, speed data and observe traffic patterns. At this time staff will confirm that a majority of residents within the project study area perceive a problem and support an implementation of traffic calming. The above mentioned thresholds identified in Section E will determine eligibility for traffic calming. Cut through or volume related requests will be evaluated with Phase II traffic calming measures.

Step 2A – Data Collection for Local/Residential Streets

Applications for traffic calming on local/residential streets will be forwarded to the Seaside Public Works Division staff, which will then determine a project study area, collect traffic volume, speed data and observe traffic patterns. At this point the applications for Phase II traffic calming measures on local/residential street can be streamlined only if the following can be met:

1. TAC reviews and recommends the phase II traffic calming measure for implementation; and
2. the majority of the residents within the project area perceive a problem and support an implementation of traffic calming device; and
3. the traffic calming measure can be funded by the neighborhood.

There will be no speed related threshold for local/residential streets. Cut through or volume related requests will only be considered if the threshold is met. After implementation, staff will monitor the traffic calming measure for effectiveness. No further steps needed.

Step 3 – Phase I Traffic Calming

If the street location exceeds the thresholds identified above, City staff will first suggest possible solutions that do not involve the use of physical controls or impediments on the roadway system. These are primarily education and enforcement based measures called Phase I traffic calming. These measures may include:

- Radar Speed Trailer Deployment – This is a temporary device that is primarily used to educate motorists regarding the fact that they may be significantly exceeding the posted speed limit.
- Traffic Enforcement Actions – This is traditional enforcement activity on the part of the Public Safety’s traffic enforcement officers. The intent is to modify behavior to result in a safer situation for all drivers and neighbors.
- Traffic Signing and Pavement Markers – Public Works staff will review all traffic signing and pavement markings in the area. If necessary, staff will install additional signing or striping. When appropriate, changes and additions will be reviewed with the interested neighbors.

Step 4 – Follow Up Data Collection

If one or more of the Phase I traffic Calming measures is implemented, City staff will collect speed and/ or volume data approximately three to six months after Phase I implementation to measure Phase I traffic calming effectiveness. If the measure/s were successful, and the thresholds identified in Section E above are not met or exceeded then the traffic calming process will end at this point. Repeat request will not be eligible for review within the first 3 years after last evaluation.

Step 5 – Phase II Traffic Calming: Plan Preparation, Design, Installation and Maintenance

Phase II requests must be recommended by the Traffic Advisory Committee and authorized by the City Engineer, supported by both Phase I traffic calming follow-up data and neighborhood support. Annually the City Council will be presented with Traffic Calming Phase II requests in conjunction with the City’s budget process. The City Council will prioritize request based upon a recommendation from the TAC. Criteria used to evaluate the prioritization will include public support, proposed cost estimate, accident history, speed data, traffic volume, proximity to schools or parks, availability of funding and matching funds. In the absence of City funding to implement Phase II traffic calming, residents of a neighborhood may also elect to fund traffic calming measure implementation improvements, or depending on the complexity of the project area create a special assessment district.

Step 6 – Preparation and Implementation of a Phase II Traffic Calming Plan

Once the City Council has authorized a city-funded traffic calming study, city staff will work with the public to develop neighborhood traffic calming plan that incorporates both Phase I and Phase II traffic calming measures. Possible solutions could involve physical modifications of the street intended to control traffic speeds and/or volumes. These traffic calming measures have been included in Appendix 3. The following general criteria must be met to consider the installation of any Phase II traffic calming measure:

- Installation should not significantly result in traffic diversion to other neighborhood streets.
- Depending on which Phase II traffic calming measures are used in a traffic calming plan, diversion may occur on adjacent streets, or in adjacent neighborhoods. For traffic calming plans where extensive diversion is expected, the City Council must approve an environmental review of the traffic calming plan as required by the California Environmental Quality Act (CEQA).

- At least 60% of the impacted residents as identified within the plan shall support the installation. Impacted residents include those fronting onto a street receiving the proposed traffic calming devices as well as those within an "area of impact" determined by the City Engineer.
- Devices shall be located a minimum of 25 feet from driveways, manholes, drain inlets, water valves, street monuments, and other appurtenances as deemed necessary and feasible.
- Devices shall be located a minimum of 25 feet from fire hydrants where feasible.
- Devices shall be installed only where a minimum safe stopping distance can be provided.
- Seaside Fire Department shall review the plan and make recommendations to assure that emergency response times or access are not negatively affected within designated emergency routes. Emergency routes are identified in Appendix 5.

Other subjective information will be considered:

- Physical characteristics (road width, alignment, parking);
- Neighborhood characteristics (Land uses, number of residents affected, setback of houses, potential impact of improvement(s);
- Accident history;
- Timing (can traffic calming be incorporated into scheduled infrastructure or development projects).

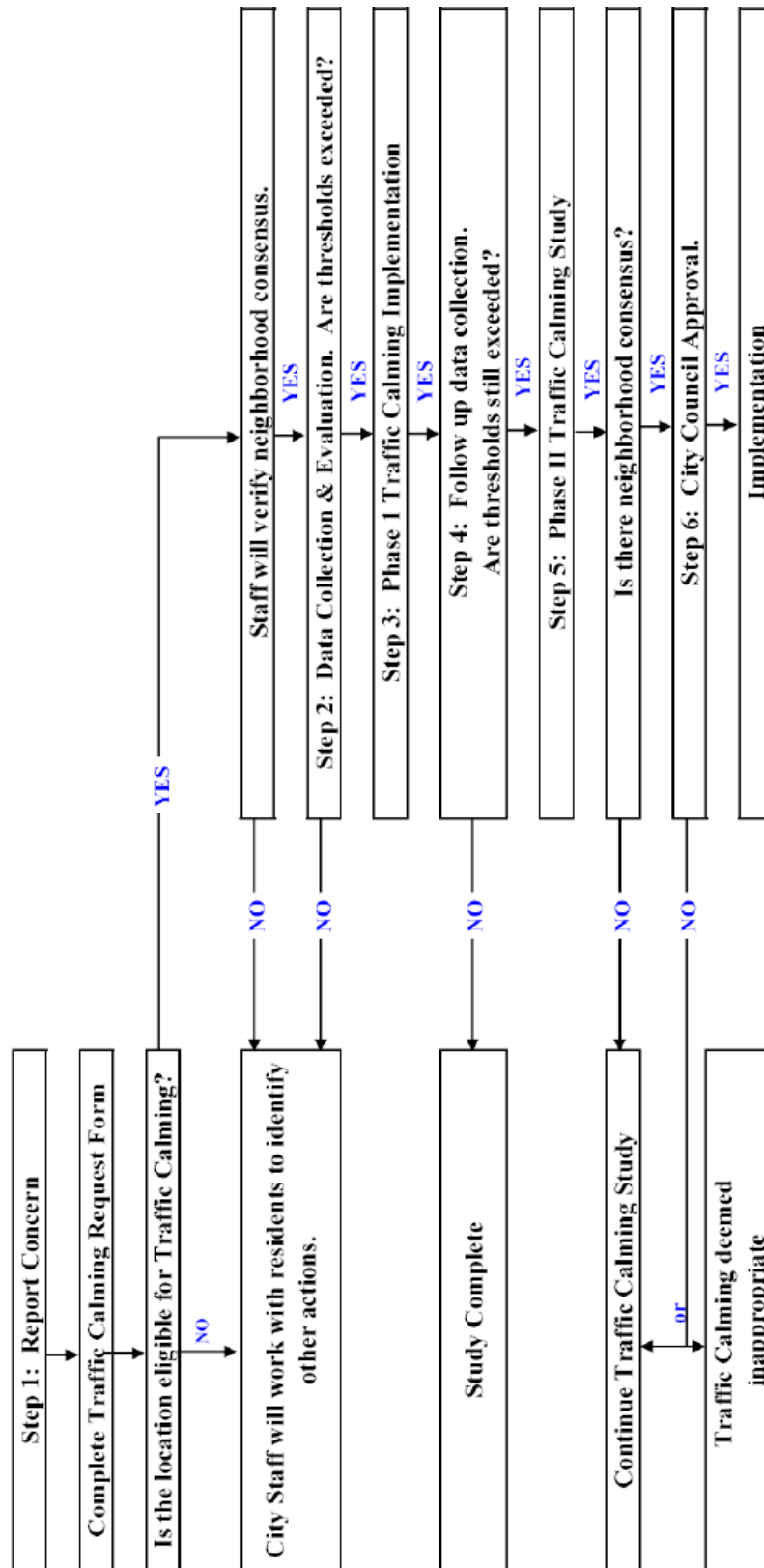
Step 7 – Follow Up Studies

Staff will monitor on an on going basis after implementation for effectiveness.

G. APPENDICES

- Appendix 1. Traffic Calming Flow Chart
- Appendix 2. Measures Not to be Used for Traffic Calming
- Appendix 3. Recommended Traffic Calming Measures – Speed & Volume Measures
- Appendix 4. Roadway Functional ClassificationS
- Appendix 5. Emergency Response Issues
- Appendix 6. Traffic Calming Request Application

APPENDIX 1 – TRAFFIC CALMING PROCEDURE FLOW CHART



APPENDIX 2. DEVICES NOT TO BE USED FOR TRAFFIC CALMING

The following devices are NOT to be used for traffic calming on City of Seaside streets:

Stop Signs: Stop signs are traffic control devices intended to control the right-of-way at intersections. Stop signs have not been found to be effective for use as speed control devices; in fact, they have been found to aggravate speeding conditions between stop locations. In addition to a number of negative environmental impacts from excessive use of stop signs (noise, air quality, fuel consumption), stop signs penalize all drivers, those driving the speed limit as well as those speeding. The City of Seaside follows state and federal warrants for the use of stop signs and unwarranted stop signs have been found to create more problems than they solve.

Traffic Signals: Traffic signals, like stop signs, are traffic control devices intended to control the right-of-way at intersections. Traffic signals are designed to improve safety and are installed where significant traffic conflicts require them. Traffic signals are generally used on higher volume, higher classification roadways and diminish the residential feel of a street. The City of Seaside follows state and federal warrants for the use of traffic signals based on traffic volume and accident history.

“Children at Play” Signs: Although commonly requested, these signs are not standard traffic control devices or warning signs. Studies made in cities where “Children at Play” signs were widely posted in residential areas show no evidence of having reduced pedestrian accidents or vehicle speed. Because there are children in most residential areas, the signs would warn of common conditions and could arguably be placed on every residential block. In fact, signs installed to warn motorists of normal conditions in residential areas usually fail to achieve the desired safety benefits. Even though some parents believe “Children at Play” signs increase safety, they cannot provide any degree of protection. The “Children at Play” sign is a direct and open suggestion that it is acceptable for children to play on residential streets. Obviously, children should not be encouraged to play in the roadway. “Children at Play” signs on City streets do not meet adopted signing standards. Specific warnings for schools, playgrounds, parks and other recreational facilities are available for use where warranted.

Chicanes: Chicanes consist of a series of bulbouts or curb extensions that narrow the street to one lane at selected points and force motorists to slow travel speed to maneuver between them. Also known as deviations, serpentine, reversing curves, or twists. Chicanes are designed to reduce vehicle speeds on long blocks (over 500 feet) that have an average daily traffic under 1,500 vehicles per day. Chicanes are not recommended for use in the City of Seaside because they may encourage “race car” behavior, with motorists traveling in straight line rather than with the alignment of the street, causing potential for head on collisions. They are not recommended for use in any area of the City.

Speed Cameras: Camera which catches and records speed data as well as unlawful driving. Speed cameras are often used as “red light cameras” to catch red signal runners. Can be used in place of enforcement as a device to monitor speeders and take pictures of their license to send them a ticket. Due to the controversial nature of speed cameras, they are not recommended for use in the City of Seaside.

Speed Bumps: Speed bumps are an abrupt raised area in the pavement surface which are typically 3 to 6 inches in height with a travel length of 6 inches to 3 feet. They can be manufactured or made of asphalt concrete. They are effective at controlling speeds on low volume, low speed roads, especially private driveways and parking lots. Speed Bumps are not recommended for use in the City of Seaside. There is a potential for City liability due to auto damage from bottom out and passenger injury from excessive speed over the hump. Emergency vehicles may have difficulty traveling over the humps and there is potential for response time delays. There is a potential for City liability due to auto damage from bottom out and passenger injury from excessive speed over the hump.

Speed Humps: Rounded raised area placed across the road. Speed humps typically raised 3 inches over 12 feet. Speed Humps can be manufactured or be created with asphalt.

Speed Limit Signs: Clearly posted signs defining the legal speed limit under normal conditions. Speed limit signs have not been shown to reduce traffic speeds, they are not recommended for use in the City of Seaside unless paired with a significant enforcement effort.

APPENDIX 3. RECOMMENDED TRAFFIC CONTROL MEASURES

This appendix describes speed and volume control recommended traffic control measures for use in the City of Seaside.

SPEED CONTROL MEASURES CONSIDERED

1. Bulbouts
2. Digital Speed Signs
3. Entry Islands with Neighborhood Identification Signs
4. Lateral Shifts
5. Mid-Block Bulbouts
6. Neighborhood Sign Programs
7. Partial Medians
8. Pavement Treatments
9. Police Enforcement
10. Raised Intersections
11. Realigned Intersections
12. Speed Monitoring Trailers
13. Speed Tables
14. Traffic Circles
15. Speed Cushions

1. Bulbouts

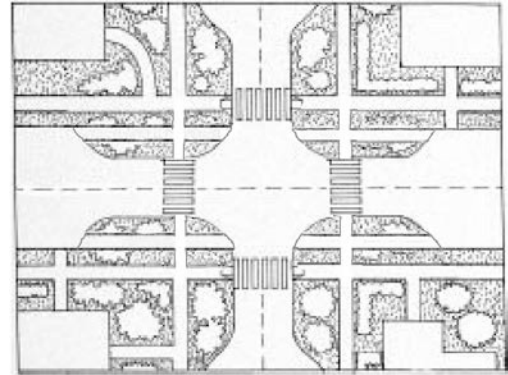
Description

Narrows an intersection through a set of curb bulbouts to create a narrow, single-lane for both travel directions. Also known as neckdowns, knuckles, curb extensions or intersection narrowing.

Best Application

Typically used at intersections where parking is able to be restricted. Narrowed street must restrict cars from passing each other through the intersection at higher than posted speeds. Best when street volumes are between 600 and 2,000 average daily traffic (ADT).

To assist large-vehicle entry, design intersection to enhance right-turn movements (place curb extension on right-side of entry). Recommended for use on minor arterials and collectors where an intersection must provide speed control and pedestrian accessibility.



Costs

- ❑ Installation: \$5,000 to \$20,000 per intersection depending on landscaping¹
- ❑ Maintenance: May be high depending on landscaping and street cleaning schedule

Pros

- ❑ Slows vehicles at an intersection entry-point.
- ❑ Improves visibility for pedestrians at intersections; helps to “pedestrianize” intersections by “reclaiming” pavement for pedestrian and streetscape amenities
- ❑ Reduces speed of turning motor vehicles due to reduced turning radius at intersection
- ❑ Encourages pedestrians to cross at designated locations
- ❑ Increases sight distance by preventing motorists from parking at corners
- ❑ Improves access for emergency responders and large vehicles at narrow streets that might otherwise be blocked by on-street parking
- ❑ Improves compliance with Americans with Disabilities Act (ADA) specifications
- ❑ Adds to public space and potential for community pocket park

Cons

- ❑ Limited vehicle speed reduction when design lacks substantial vertical or horizontal diversion to travel path
- ❑ Relatively high cost of curb and drainage modification and potentially addition of landscaping, decorative pavement or street furniture
- ❑ May create restrictions to bikeway capacity, depending on design
- ❑ May cause problems for trucks and right turn movements

Recommendation: Bulbouts are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development

¹ Burden, Dan. Streets and Sidewalks, People and Cars, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

2. Digital Speed Signs

Description

Speed sign in place of or mounted with a traditional speed limit sign with radar displaying motorist actual speed.

Best Application

Streets where speeding is a problem but legal speed limit knowledge and motorist actual speed is thought to be misunderstood or misguided. Recommended for use in school zones or on local and collector streets to heighten motorist attention. These signs are most effective if moved from location to location.



Costs

- ❑ Installation: \$2,000 - \$4,500 per application²
- ❑ Maintenance: Very low if signs are durable and vandalism is not present

Pros

- ❑ Educate motorists of their speed
- ❑ Popular with the Public, interpreted as City action
- ❑ Effective for temporary speed reduction needs
- ❑ Come with a variety of options including: solar, data collection, alarm, strobe light.
- ❑ Can be removed and relocated to different existing speed signs

Cons

- ❑ Traffic can easily disobey signs
- ❑ Duration of effectiveness is limited
- ❑ Not self enforcing
- ❑ Some motorists speed up in an effort to register a high speed

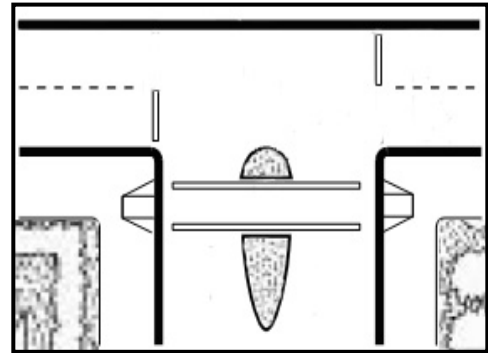
Recommendation: Digital speed signs are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

² "Domestic and US Speed Signs." Ingram Technologies. 13 Oct. 2008 <http://www.ingram-tech.com/us_signs.htm>.

3. Entry Islands with Neighborhood Identification Signs

Description

A raised island in the center of a two-way street that identifies the entrance to a neighborhood. Typically occurs at an intersection of a neighborhood street with another through street.



Best Application

Best where a local residential street meets a street with a higher roadway classification. Pedestrian visibility should be maintained at adjacent crosswalks. Recommended for local street intersections and intersections between collectors and local streets.

Costs

- ❑ Installation: Low cost when installed within existing right-of-way
- ❑ Maintenance: Dependent upon type of landscaping

Pros

- ❑ Notifies motorists of a change in the roadway character
- ❑ Helps to slow traffic as it enters a new neighborhood or lower street classification
- ❑ Provides opportunities for landscaping and/or monument signage
- ❑ May discourage neighborhood cut-through traffic
- ❑ Helps to enhance neighborhood identity

Cons

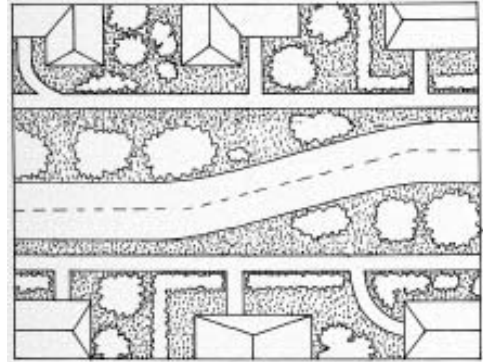
- ❑ May require maintenance and water for irrigation when landscaping is included
- ❑ May reduce road width for bike lanes
- ❑ May eliminate on-street parking where right-of-way is narrowed from the center
- ❑ Could make it difficult for turning vehicles
- ❑ Could fragment the City

Recommendation: Entry Islands are recommended for use new residential development. They should be carefully considered before placement in existing City of Seaside residential neighborhoods since they could fragment the City.

4. Lateral Shifts

Description

Curb extensions on otherwise straight streets that cause travel lanes to bend one way and then bend back to the original direction of travel. Also referred to as axial shifts, staggers, or jogs. With the correct angle of deflection, may be used on collectors or arterials with higher traffic volumes and posted speeds. Where possible, shifts may be combined with center medians to prevent short-cutting travel deflection.



Best Application

Best for new roads due to extent of shift in travel path. For best results in speed reduction, design for lateral shifts of at least one-lane width and angles of deflection of up to 45 degrees. Recommended for use on low volume arterials .

Costs

- ❑ Installation: May be significant if applied to existing roadway
- ❑ Maintenance: Depends on extent of landscaping

Pros

- ❑ May be created at moderate costs using protected parking bays, maintaining existing curb
- ❑ Can create attractive public park or open space where shift occurs
- ❑ Minimal impact on emergency response
- ❑ No impact to bikeway or on-street parking when roadway width is maintained

Cons

- ❑ Requires significant public right-of-way
- ❑ Typically results in only minor speed reductions if travel path is not significantly restricted
- ❑ Can eliminate on-street parking
- ❑ Cannot be used where right-of-way is restricted
- ❑ High cost of curb alignment and landscaping if roadway is redesigned

Recommendation: Lateral shifts are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

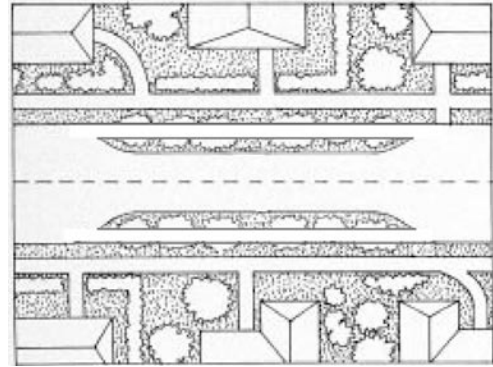
5. Mid-Block Bulbouts

Description

Curb extensions at midblock that narrow a street by widening the sidewalk or side planting strip. Also called pinch points, midblock narrowings, midblock yield points, or constrictions. May be parallel or angled.

Best Application

Narrow mid-block point to at least 18 feet or less than standard two lane width for desired effect; must restrict two-way travel to adequately reduce speeds. Best when street volumes are between 600 and 2,000 average daily trips (ADT). Recommended for use on local and collectors.



Costs

- ❑ Installation: \$5,000 to \$20,000 each depending on site conditions and desired landscaping³
- ❑ Maintenance: Moderate, depending on extent of landscaping

Pros

- ❑ Improves pedestrian and motorist safety; helps to “pedestrianize” mid-blocks
- ❑ Increases visibility for pedestrians due to heightened driver attention when negotiating obstacle
- ❑ Encourages pedestrians to cross at designated locations; provides opportunity for safe mid-block crossing
- ❑ Maintains emergency vehicle access; minimal response time impacts
- ❑ Improves compliance with Americans with Disabilities Act (ADA) specifications
- ❑ Adds to public space and potential for community pocket park and landscaping

Cons

- ❑ May have limited effect on vehicle speed reduction where substantial vertical or horizontal diversion is lacking
- ❑ Relatively high cost of curb and drainage modification and potentially addition of landscaping, decorative pavement or street furniture
- ❑ Perception that one-lane chokers are unsafe due to potential for approaching traffic head-on collision; 1.5-lane chokers create uncertainty for drivers of safety in passing oncoming traffic through choker.
- ❑ Significantly reduces on-street parking and bikeway capacity

Recommendation: Mid-block bulbouts are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

³ Burden, Dan. Streets and Sidewalks, People and Cars, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

6. Neighborhood Sign Programs

Description

Signs distributed within a neighborhood to inform and encourage motorists to observe the posted speed limits, calming measures and redirection rules. Signs must be in accordance with the California Edition of the Manual on Uniform Traffic Control Devices (MUCTD)



Best Application

Any street or neighborhood where speeding is problematic. Best when used in conjunction with police enforcement. Recommended for use on local and collectors.

Costs

- ❑ Installation: Approximately \$350 per sign
- ❑ Maintenance: Very low if signs are durable and vandalism is not present

Pros

- ❑ Useful as an educational tool for motorists travelling through neighborhood.
- ❑ Effective for temporary speed reduction needs
- ❑ No reduction in bike or parking capacity

Cons

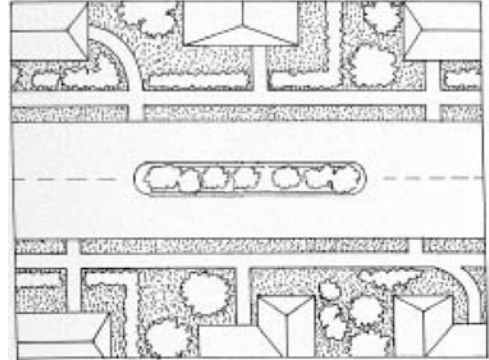
- ❑ Duration of effectiveness may be limited when motorists become used to signs without enforcement
- ❑ Not self-enforcing
- ❑ May contribute to additional 'sign pollution'

Recommendation: Neighborhood sign programs are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

7. Partial Medians

Description

Raised islands located along the centerline of a street that narrow the travel lanes. Also called midblock medians, median slow points, or median chokers. Placed at the entrance to a neighborhood, they are often called gateways. May be used effectively on curves or just outside of intersections.



Best Application

Most effective when used as short interruptions to an otherwise open street cross section, rather than long medians. Vegetation should not obscure visibility between motorists, bicyclists, and pedestrians at intersections and pedestrian crossing areas. Travel lane width should be maintained at least 12 feet wide with a maximum length between access points of 200 feet to accommodate emergency access. Recommended for use on minor arterials, collectors and local streets.

Costs

- ❑ Installation: \$15,000 to \$30,000 per 100 feet⁴
- ❑ Maintenance: Depends on extent of landscaping

Pros

- ❑ Narrowed travel lanes provide “friction” that reduces vehicle speeds
- ❑ Significant opportunity to add attractive landscape element to center of street
- ❑ Can be used to control traffic access to adjacent properties if desired
- ❑ Helps to “pedestrianize” street, especially when utilized along with a street crossing

Cons

- ❑ May narrow street right-of-way to less than design width
- ❑ Long medians may impact emergency access and operations
- ❑ May interrupt driveway access and result in downstream U-turns
- ❑ Requires removal of on-street parking
- ❑ May require bikeway to merge with travel way

Recommendation: Partial medians are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

⁴ Burden, Dan. Streets and Sidewalks, People and Cars, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

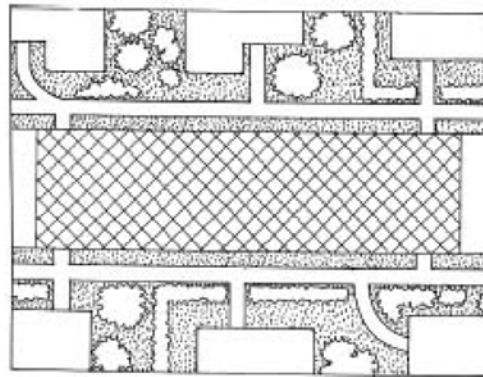
8. Pavement Treatments

Description

Varied pavement texture or color to heighten motorist awareness. Can include colored pavement, pavers or textured concrete.

Best Application

Where driver awareness needs to be heightened, for example a pedestrian crossing, center travel/turn lane, or approaching a non-highly visible intersection. Best served in commercial areas so not to interrupt adjacent residents. Recommended for use on minor arterials and collectors streets where a road section must provide motorist awareness and pedestrian accessibility.



Costs

- ❑ Installation: ~ \$30 per square foot
- ❑ Maintenance: Needs replacing ~twice as frequently as typical asphalt

Pros

- ❑ Add attractive pavement element to street
- ❑ Improves pedestrian safety with slowing speeds
- ❑ Pavement types are typically bicycle friendly
- ❑ Does not impact emergency response times

Cons

- ❑ More expensive than traditional asphalt
- ❑ Minimal impact on traffic speeds
- ❑ Potential noise problem for adjacent residents

Recommendation: Pavement treatments are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

9. Police Enforcement

Description

Establishment of regular police presence to monitor speeds and issue citations at problematic traffic areas.



Best Application

Streets with documented speeding problems in need of quick mitigation where established traffic restrictions are being violated. Effective in school zones or when new calming measures or restrictions are first implemented. Recommended for use on all street classifications.

Costs

Highly variable, depending on coverage area, time and staff requirements. May be partially offset by citation fees.

Pros

- ❑ Very effective calming during presence of police monitoring or expected police presence
- ❑ Flexible measure that can be implemented in almost any location with short notice

Cons

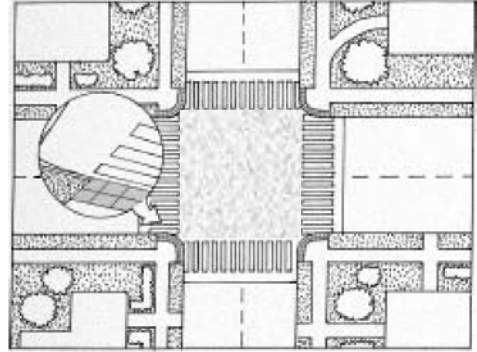
- ❑ Not self-enforcing due to temporary nature of calming when police are present
- ❑ Fines do not typically cover cost of enforcement
- ❑ May disrupt efficient traffic flow on high volume streets
- ❑ Short “memory effect” on motorists when enforcement officer is no longer present

Recommendation: Police enforcement is recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.
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10. Raised Intersections

Description

Flat raised area, typically 3-4 inches, covering entire intersections with ramps on all approaches often with brick or textured material on the flat section.



Best Application

Intersection where high pedestrian volume is anticipated especially when faced with high traffic speeds and little or no traffic controls (STOP sign or traffic signal). Design speed can be 20-30 mph and best used on collector or minor arterial streets.

Costs

- ❑ Installation: \$25,000 - \$70,000⁵
- ❑ Maintenance: ~\$500/year + additional paving needs

Pros

- ❑ No loss of on-street parking
- ❑ Safe and easy for bicyclists to cross
- ❑ Visually emphasizes a desirable intersection
- ❑ Increased Pedestrian safety at intersection

Cons

- ❑ Street cleaning vehicle consideration
- ❑ Not effective on grades
- ❑ Need sufficient sight distance
- ❑ Does not drastically reduce vehicle speeds due to non-abrupt nature of pavement rise
- ❑ Could cause some motorists to drive on and over sidewalk
- ❑ Could slow emergency vehicle response times
- ❑ City liability: Passenger damage from too quick speed over hump
- ❑ Could be noisy for nearby residents

Recommendation: Raised intersections are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development. They are not recommended for use on emergency response routes. Refer to Section D. 'Emergency Response Routes' for more information.

⁵ Burden, Dan. Streets and Sidewalks, People and Cars, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

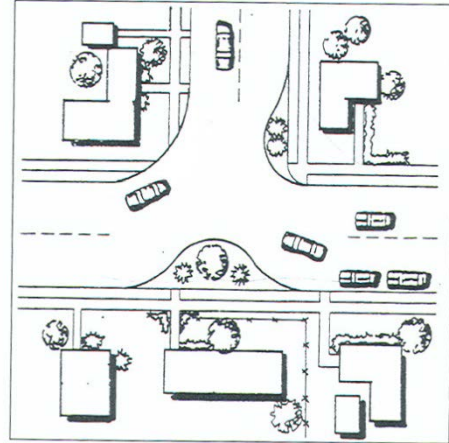
11. Realigned Intersections

Description

Realigns T-intersection to make the through movement a turning movement.

Best Application

Best on streets that approach other streets with a higher roadway classification and where traffic slowing is desired as it enters a neighborhood. Recommended for use at local street intersections and where collectors meet local streets at a T-intersection.



Costs

- ❑ Installation: High on existing streets due to total intersection re-design. Minimal additional cost for new streets.
- ❑ Maintenance: Dependent on extent of landscaping

Pros

- ❑ Provides landscaping opportunities
- ❑ Discourages traffic from continuing through a neighborhood or approaching a T-intersection at unsafe speeds
- ❑ Breaks up sight lines
- ❑ No loss of bikeway capacity, when appropriately designed

Cons

- ❑ May redirect traffic to another local street with less restriction
- ❑ May increase queue lengths at intersections
- ❑ High cost for existing intersections
- ❑ May change stop configuration and affect emergency response times
- ❑ Eliminates on-street parking where curbs are realigned

Recommendation: Realigned intersections are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

12. Speed Monitoring Trailers

Description

Mobile trailer with radar displaying motorist speed

Best Application

Streets where speeding is a problem but legal speed limit knowledge is thought to be misunderstood. Recommended for use on all street classifications. Speed trailers are most effective if moved from location to location on a regular basis

Costs

- ❑ Installation: \$3,000 per unit⁶
- ❑ Maintenance: ~\$500 per application

Pros

- ❑ Educate motorists of their speed
- ❑ Popular with the Public, interpreted as City action
- ❑ Effective for temporary speed reduction needs
- ❑ Some models have data collection capabilities and can be powered with solar energy

Cons

- ❑ Traffic can easily disobey signs
- ❑ Duration of effectiveness is limited
- ❑ Not self enforcing
- ❑ Some motorists speed up in an effort to register a high speed



Recommendation: Speed monitoring trailers are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

⁶ "Domestic and US Speed Signs." Ingram Technologies. 13 Oct. 2008 <http://www.ingram-tech.com/us_signs.htm>.

13. Speed Tables

Description

Flat topped raised areas placed across the road typically with textured material on the flat top region. Designed for entire wheelbase of a car to rest on top, often 3 inches high and 22 feet long. Possess higher design speeds than speed humps due to the less abrupt elevation change. Design speed approximately 25-30 mph and can be used on local streets.

Best Application

Low cost quick installation for a medium design speed street, great for improved pedestrian safety. Recommended for use on collector and residential streets. Not recommended for use on Emergency Vehicle Routes.

Costs

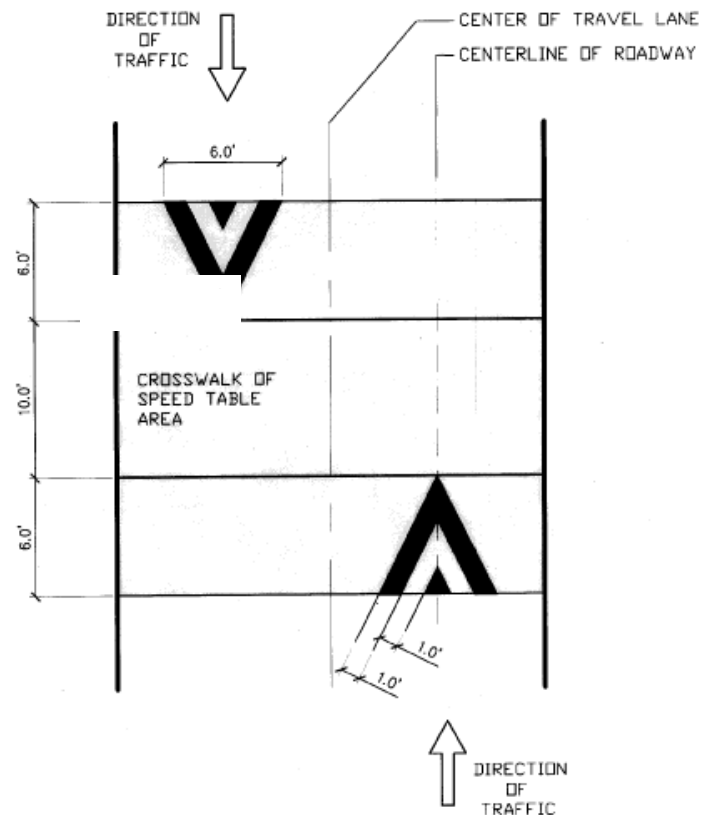
- ❑ Installation: \$5,000 - \$15,000⁷
- ❑ Maintenance: ~\$500/year

Pros

- ❑ Effective at reducing speeds
- ❑ No loss of on-street parking
- ❑ Bicycle friendly installation with setbacks from curb is easily achievable
- ❑ Design speeds greater than speed hump
- ❑ Less jarring on cars than speed humps
- ❑ Improved pedestrian safety as cars are more aware
- ❑ Good for localized problems

Cons

- ❑ Has minimal effect on trucks and SUV's
- ❑ Maintenance of asphalt placed non-monolithically (subject to increased cracking and potential for ponding creates maintenance problems)
- ❑ More expensive than speed humps by approx. \$500
- ❑ Could pose problems for emergency response vehicles
- ❑ Potential for City liability due to passenger damage from too quick speed over hump
- ❑ Street cleaning vehicle consideration



Recommendation: Speed tables are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development. They are not recommended for use on emergency response routes. Refer to Section D. Emergency Response Routes for more information.

⁷ Burden, Dan. Streets and Sidewalks, People and Cars, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

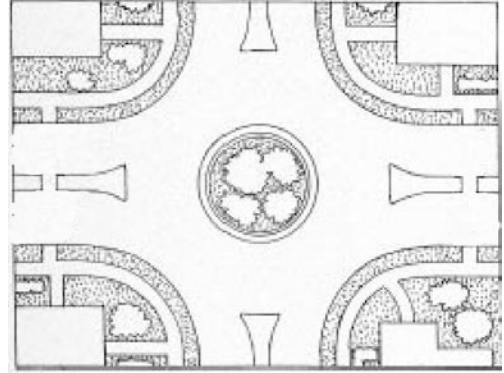
14. Traffic Circles

Description

Raised islands placed in intersections which cars circle around counterclockwise, typically controlled by YIELD signs on all approaches.

Best Application

Intersections with low traffic volumes and good sight distance where stop signs could be replaced for higher vehicle efficiency or where intersection speed calming is desired. Any design speed can be met. Should be applied on collector or local streets where left turn movements are limited.



Costs

- ❑ Installation: \$8,000 - \$15,000⁸
- ❑ Maintenance: Varies with landscape vs. sculpture vs. mountable

Pros

- ❑ Can be bicycle friendly as they would YIELD just as a car and circle
- ❑ Eliminates straight through traffic using high speeds
- ❑ Breaks up sight-lines on straight streets
- ❑ Can be designed as mountable for buses and other large vehicles

Cons

- ❑ Landscaping suggested for visibility (watering concerns)
- ❑ Large sight distance and good visibility required to remain safe when entering the intersection
- ❑ Potential loss of on-street parking to achieve good visibility
- ❑ Must have large intersection to accommodate full circle (Circle diameter should be minimum 90 feet)
- ❑ Large vehicle (such as fire emergency vehicles) inability to turn small-radius circles
- ❑ Potential for emergency response time delays of up to 6 seconds
- ❑ Makes pedestrian crossing difficult

Recommendation: Traffic circles are recommended for use in new developments. They are not recommended for existing neighborhoods. This is because in order to be effective, these circles should be at least 90 feet in diameter. There is not sufficient right-of-way in most existing neighborhoods to construct a circle that large.

⁸ Burden, Dan. Streets and Sidewalks, People and Cars, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

15. Speed Cushions

Description

Speed cushions are designed as several small speed humps across the width of the roadway with spaces between them. They are designed to force cars to slow down as they ride with one or both wheels on the humps and allow for larger vehicles, with wider axle, to straddle the cushions. Speed cushions can be designed using hot mix asphalt (HMA) or can be installed as rubberized units. Rubberized units come in 18" widths 42" long and can be pieced together to form the required width needed for any width of the street.



Best Application

Low cost quick installation for a medium design speed street. Recommended for use on low volume collector, residential streets and can be used on Emergency Vehicle Routes.

Costs

- ❑ Installation: \$8,000 - \$15,000⁹
- ❑ Maintenance: Very little maintenance.

Pros

- ❑ Can be bicycle friendly
- ❑ Eliminates straight through traffic using high speeds
- ❑ Speed cushions do not present any notable disadvantages for emergency vehicles.

Cons

- ❑ Potential loss of on-street parking
- ❑ Subject to streets with a speed limit of 30 mph or lower
- ❑ May divert traffic through neighboring streets

Recommendation: Speed cushions are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

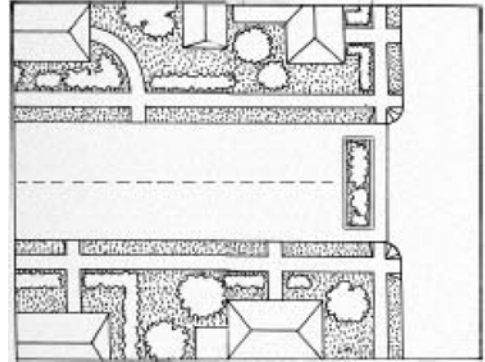
VOLUME CONTROL MEASURES

- 14. Full Street Closures
- 15. Partial Street Closures
- 16. Restricted Movement Signage
- 17. Traffic Diverters / Forced Turn Islands

14. Full Street Closures

Description

Barriers placed across a street to close the street completely to through traffic, usually leaving only sidewalks or bike paths open. Also called cul-de-sacs or dead-ends. May consist of landscaped islands, walls, gates, side-by-side bollards, or other obstructions that leave an opening smaller than the width of a small passenger car. A turn around area must be provided.



Best Application

Best used to eliminate cut-through traffic. Often used as a last resort after other calming measures are determined to be ineffective. May be designed to allow emergency access through temporary barriers. Recommended for use on local streets only.

Costs

- ❑ Installation: \$30,000 - \$100,000¹⁰
- ❑ Maintenance: Varies with landscape vs. sculpture vs. mountable

Pros

- ❑ Provides lower traffic volumes on targeted streets (only accessible to local traffic)
- ❑ Create bike and pedestrian zones when designs include parks, paths, public plazas or other public spaces

Cons

- ❑ May be controversial to local residents when limiting access
- ❑ Not effective as a speed reduction method as access is denied and speed problems are transferred to other routes
- ❑ Raises opposition from emergency responders when access is denied
- ❑ Reduces street network connectivity and capacity
- ❑ May increase traffic on parallel streets that carry diverted traffic
- ❑ Local residents are often resistant to change
- ❑ Could pose emergency response issues

***Note:** A Full Street Closure may cause through traffic to use parallel streets, thus creating a traffic volume problems on different streets. They should be used only where traffic is to be directed away from a residential neighborhood towards a collector or arterial in a commercial area.*

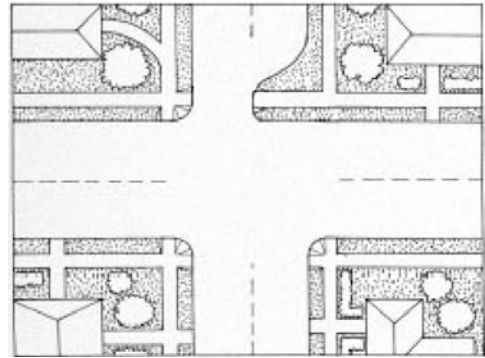
Recommendation: If carefully planned, full street closures are recommended for use in existing City of Seaside residential neighborhoods.

¹⁰ Burden, Dan. Streets and Sidewalks, People and Cars, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

15. Partial Street Closure

Description

Barriers that block travel in one direction for a short distance on otherwise two-way streets. Usually located at intersections of an arterial street onto a residential street where access to the residential street must be deterred.



Best Application

Most effectively installed in staggered sets to make travel through neighborhoods with gridded streets circuitous rather than direct. Design should include measures that make violations of partial closure difficult and awkward (i.e., extended barriers, angled exits to deter turns into partially closed street, signage and physical deterrents). Should not be used on emergency routes. Recommended for use on local streets.

Costs

- ❑ Installation: \$12,000 to \$20,000, depending on landscaping and size¹¹
- ❑ Maintenance: Depends on extent of landscaping and type of closure design

Pros

- ❑ Allows limited egress for local residents compared to full closure
- ❑ Reduces the use of a street as a cut-through street, when undesirable
- ❑ Restricts access to a street without making it a one-way street
- ❑ Can create pocket parks and street landscaping

Cons

- ❑ May increase distance that residents must travel to reach destination
- ❑ Reduces street network connectivity and capacity
- ❑ May increase traffic on parallel streets that carry diverted traffic
- ❑ Local residents are often resistant to change
- ❑ Allows occasional access to emergency responders or school buses when adequately designed

***Note:** A Partial Street Closure may cause through traffic to use parallel streets, thus creating a traffic volume problems on different streets. They should be used only where traffic is to be directed away from a residential neighborhood towards a collector or arterial in a commercial area.*

Recommendation: If carefully planned, partial street closures are recommended for use in existing City of Seaside residential neighborhoods

¹¹ Burden, Dan. *Streets and Sidewalks, People and Cars*, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

16. Restricted Movement Signage

Description

Signs that limit or prohibit certain movements at an intersection

Best Application

Streets where reducing cut-through traffic or cross-traffic turns is desired. Recommended for use on arterial and high volume collectors.



Costs

- ❑ Installation: Approximately \$350 per sign
- ❑ Maintenance: Very low if signs are durable and vandalism is not present

Pros

- ❑ Can be very effective
- ❑ Redirects traffic to main thoroughfares and restricts turning patterns across high volume streets
- ❑ Reduces cut-through traffic in neighborhoods
- ❑ Addresses peak traffic problems
- ❑ No loss of on-street parking or bikeway capacity

Cons

- ❑ Not self-enforcing (low voluntary compliance)
- ❑ May increase trip lengths for some drivers
- ❑ May increase number of downstream turning movements
- ❑ May increase “visual pollution” from signs

Recommendation: Restricted movement signage is recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

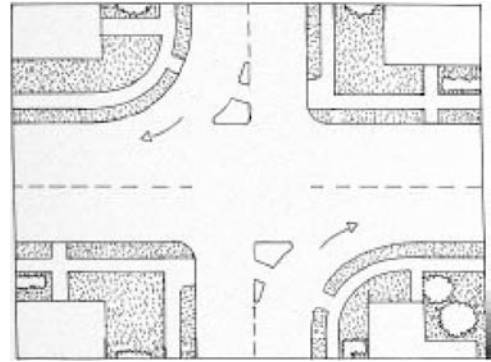
17. Traffic Diverter/Forced Turn Islands

Description

Raised islands that block certain movements.

Best Application

Intersections where traffic is strongly encouraged one direction and not the other, example: traffic leaving a complex to be directed towards city thoroughfare and away from side residential street. Also intersection median barrier placed through an intersection preventing cross-street through movements and left-turning movements. Recommended for use on collector and residential streets.



Costs

- ❑ Installation: ~ \$10,000 - \$20,000 per island¹²
- ❑ Maintenance: Varies with landscape vs. sculpture vs. mountable

Pros

- ❑ Easily direct traffic to desired streets/locations
- ❑ Design can reduce wait times by forcing a turning movement and not allowing straight through
- ❑ No effect on bicycles other than controlling their direction similar to autos

Cons

- ❑ Traffic can easily disobey signs and drive around diverter
- ❑ Landscaping or signs must be placed in them for increased visibility
- ❑ Potential loss of on-street parking depending on intersection configuration

Note: A traffic diverter or forced turn island may cause through traffic to use parallel streets, thus creating a traffic volume problems on different streets. They should be used only where traffic is to be directed away from a residential neighborhood towards a collector or arterial in a commercial area.

Recommendation: Traffic diverters / forced turn islands are recommended for use in existing City of Seaside residential neighborhoods and commercial areas as well as for new development.

¹² Burden, Dan. Streets and Sidewalks, People and Cars, The Citizens' Guide to Traffic Calming. Ed. Dave Davis. Vol. April 2000.

**SPEED AND VOLUME CONTROL MEASURES
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Maine Department of Transportation: Traffic Issues: Speed Humps vs. Speed Bumps, <http://maine.gov/mdot/mlrc/traffic-issues/speedhumpsvsbumps.php>

Road Tech. Speed Bumps, http://www.roadtech.com/speedbumps_parkingblocks.html

APPENDIX 4. ROADWAY FUNCTIONAL CLASSIFICATIONS

Different streets serve different transportation functions. Streets within the City of Seaside receive classifications based upon the transportation function that they serve. Following are descriptions of the general street classifications:

- **Local Streets** provide direct access to abutting properties and have the function of serving local traffic movements within residential and commercial areas. All streets that are not designated as major streets are local streets.
- **Collectors** provide traffic circulation between arterials and local streets. They connect neighborhoods with neighborhood-related activity centers and provide limited direct access to abutting properties.
- **Arterials** provide the principal network for cross-town traffic. They also connect the City to external highway and freeway systems. Arterials generally have moderate traffic speeds and carry significant amounts of traffic. Primary traffic generators are and/or should be located on arterials.
- **Minor Arterials** carry lower traffic volumes and support a mix of local and through traffic.

When developing traffic calming approaches, the various functions that a street serves must be taken into consideration. Neighborhood livability must be balanced with safety concerns with transportation, transit and emergency service needs. Certain traffic calming techniques, if not implemented properly, can be counterproductive to competing needs, such as emergency services or bus routes. The figure below is a listing of City of Seaside streets and their functional classifications (from the Circulation Element of the Seaside General Plan, dated August 5, 2004):

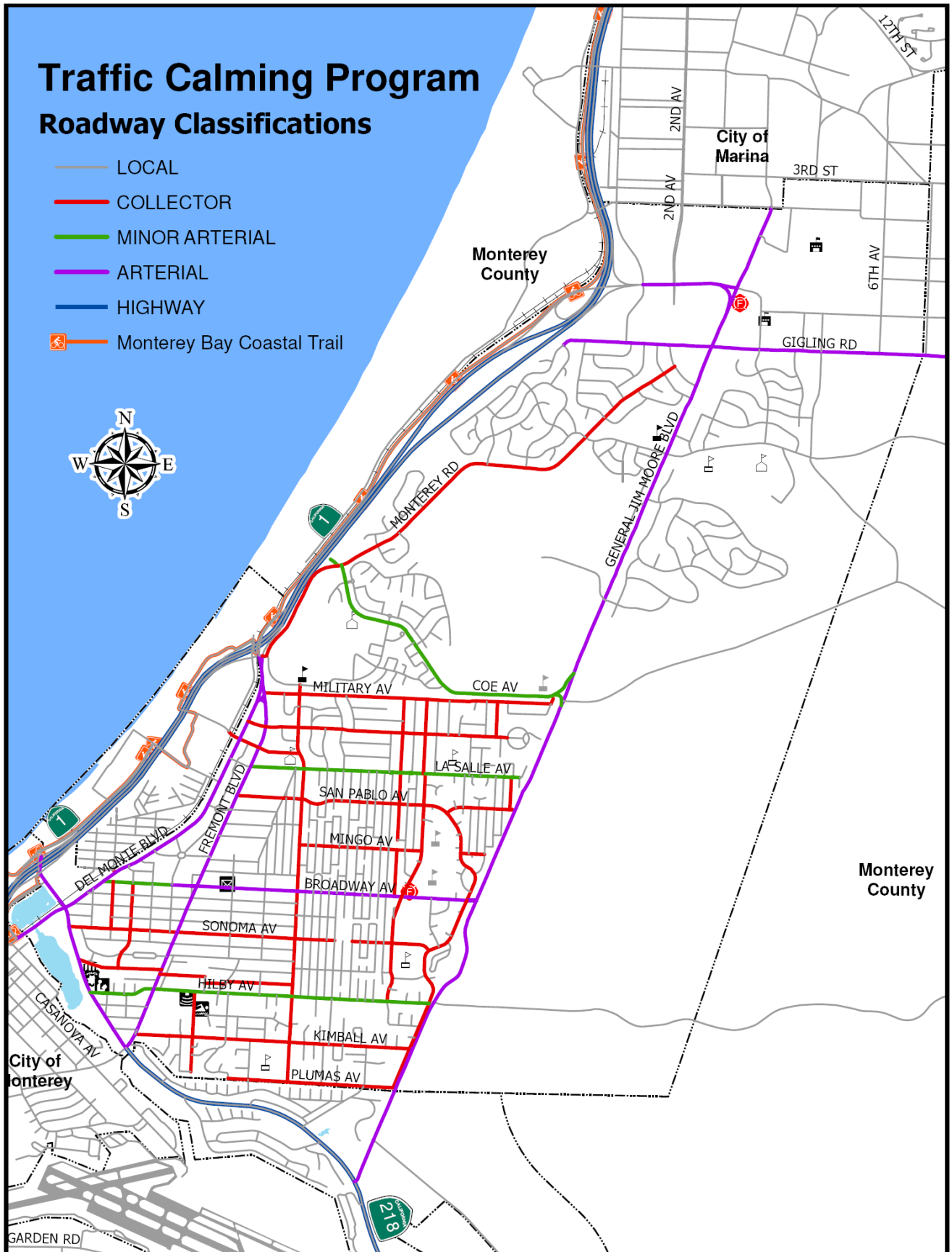
City of Seaside Street Functional Classifications

Street	Functional Classification	Emergency Route (Y/N)
Broadway Avenue (Calaveras – Gen Jim Moore Boulevard)	Arterial	Y
Canyon Del Rey Boulevard (west of Fremont Boulevard)	Arterial	Y
Coe Avenue	Minor Arterial	Y
Contra Costa Street	Collector	N
Del Monte Boulevard	Arterial	Y
Eastside Roa	Arterial	N
Fremont Boulevard	Arterial	Y
General Jim Moore Boulevard	Arterial	Y
Gigling Road	Arterial	Y
Hacienda Street	Collector	N

Street	Functional Classification	Emergency Route (Y/N)
Harcourt Avenue	Collector	Y
Highland Street	Collector	N
Hilby Avenue	Minor Arterial	Y
Hillsdale Street	Collector	N
Kimball Avenue	Collector	Y
La Salle Avenue	Minor Arterial	Y
Light Fighter Drive	Arterial	Y
Mescal Street	Collector	Y
Military Avenue	Collector	Y
Mingo Avenue	Collector	N
Monterey Road	Collector	N
Nadina Street	Collector	N
Noche Buena Street	Collector	Y
Ord Grove Avenue	Collector	Y
Playa Avenue	Collector	N
Plumas Avenue	Collector	N
San Pablo Avenue	Collector	Y
Sonoma Avenue	Collector	Y
West Broadway Avenue (Del Monte Blvd - Calaveras St)	Minor Arterial	Y
Tioga Avenue	Collector	N
Wheeler Street	Collector	N
Yosemite Street	Collector	Y

Traffic Calming Program Roadway Classifications

- LOCAL
- COLLECTOR
- MINOR ARTERIAL
- ARTERIAL
- HIGHWAY
- Monterey Bay Coastal Trail



Source: City of Seaside GIS, 2008

November 9, 2011

APPENDIX 5. EMERGENCY RESPONSE ISSUES

When new traffic calming measures are considered, provisions for emergency response must be clearly addressed. Certain measures (particularly vertical devices such as speed humps, speed tables and raised intersections) are not recommended for use on emergency response routes because of their impact on emergency response times. Also, there is concern that changes in the road surface could cause damage to emergency vehicles.

Emergency vehicle access and timely response times shall be maintained in the City of Seaside. To these ends, the following policies have been developed to guide the traffic calming program in the City of Seaside:

1. Police and Fire Department personnel will be involved in the planning process for all proposed traffic calming measures, in order to minimize impacts to emergency response. During this review, several items will be considered, including the following: critical response routes (Refer to Figures 2A and 2B, Emergency Response Routes); special need facilities; access issues and necessary clearances (taking into consideration emergency response vehicle required turning radius, wheelbase and track width, and ground clearance).
2. The use of vertical devices such as raised intersections, speed humps and speed tables will be avoided on established emergency response routes or any street with critical speeds over 30 miles per hour or higher volume collectors (over 750 vehicles per hour).
3. Vertical devices shall not be installed in the direct vicinity of emergency response facilities.
4. The locations of features such as on-street parking and bus stops in the vicinity of proposed traffic-calming devices shall be taken into consideration and modifications shall be made as appropriate.
5. Any new traffic calming innovations will be evaluated on the basis of their affect on emergency response times, before they are approved for use.
6. Residents requesting traffic calming measures will be notified of the potential for slower response times after the devices are installed.

FIGURE 2A -EMERGENCY RESPONSE ROUTES – SEASIDE PROPER

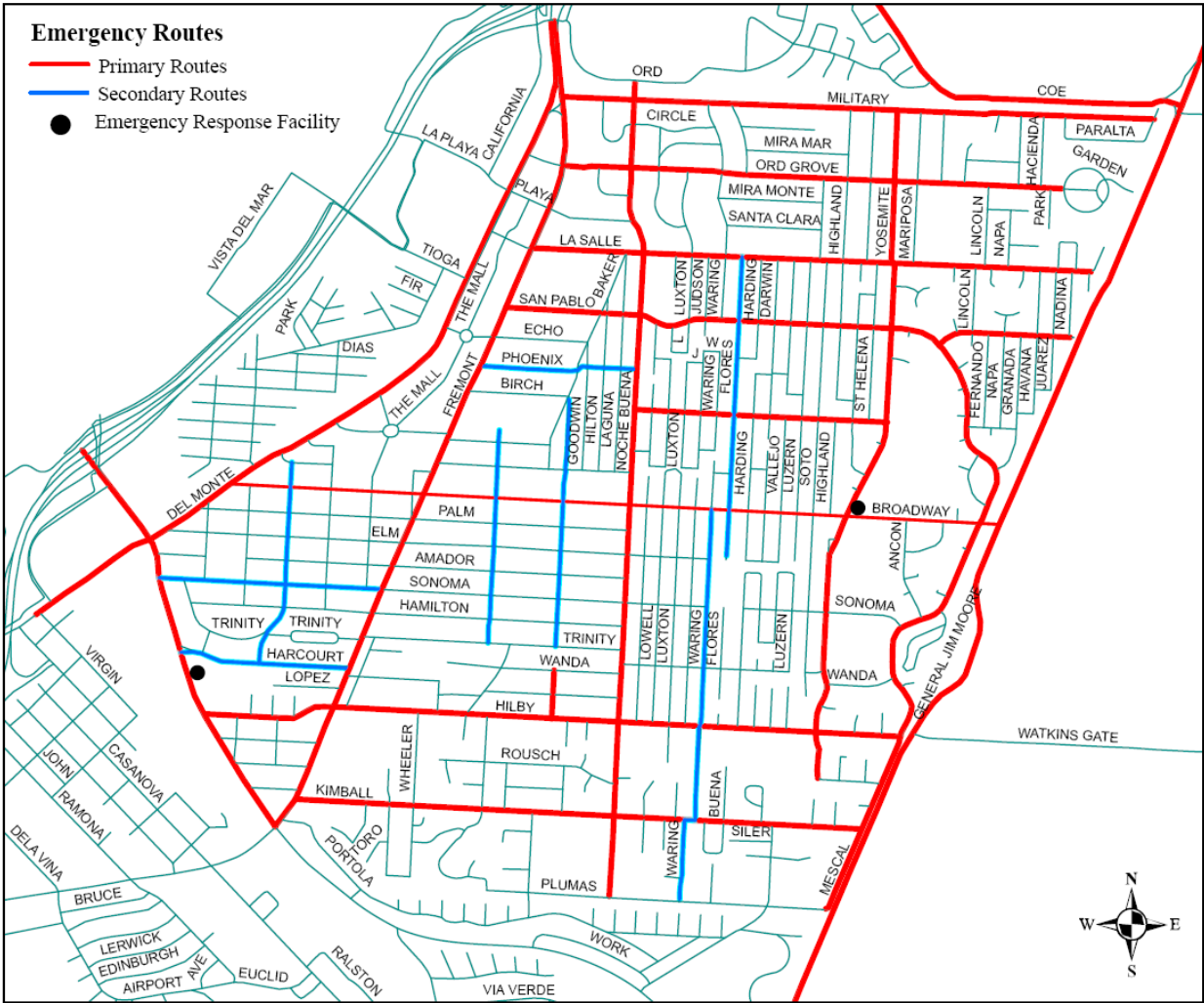
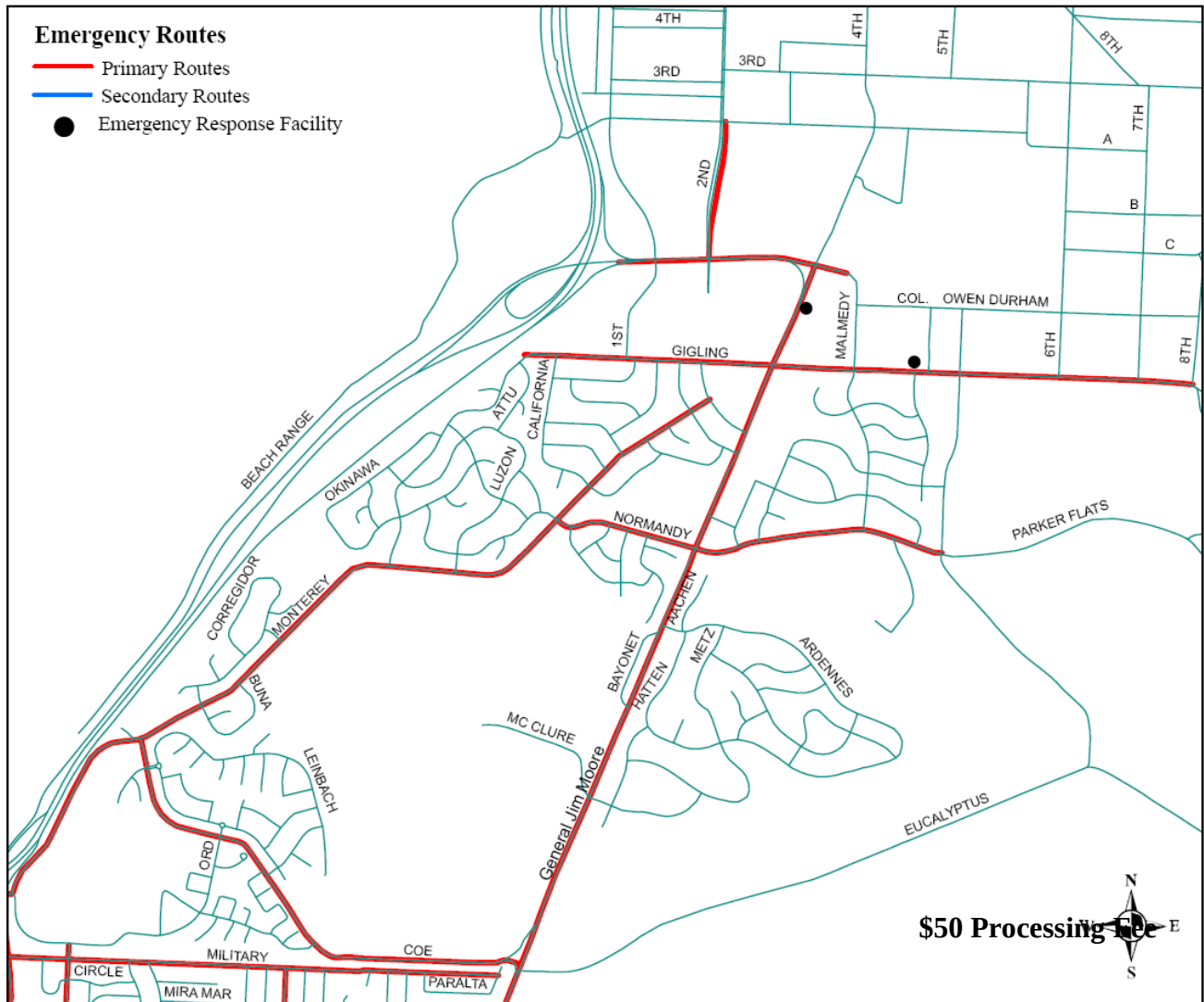


FIGURE 2B -EMERGENCY RESPONSE ROUTES – NORTH SEASIDE





APPENDIX 6
TRAFFIC ADVISORY COMMITTEE
TRAFFIC CALMING PROJECT APPLICATION

The Institute of Transportation Engineers (ITE) defines traffic calming as: “changes in street alignment, installation of barriers, and other physical measure to reduce traffic speeds and/or cut-through volumes in the interest of street safety, livability, and other public purposes.”

The following information will be used to identify the nature and extent of traffic-related concerns on a given street or a given area.

1. Contact Information

Name: _____ Date: _____

Address: _____ Phone #: _____

Email: _____

2. Please describe the location of the traffic concern. Attach a map or picture if necessary:

3. Please describe the nature of the neighborhood problem you are concerned with (attach additional sheets if necessary):

4. Please list possible solutions to the problem that you would like the City of Seaside to consider:

Date: _____ Signed: _____

CITY OF SEASIDE – PETITION FOR NEIGHBORHOOD TRAFFIC CALMING MEASURES

The undersigned agree to the following:

1. All person signing this petition do hereby certify that they reside within the impacted area, which is hereby defined as the street segment of :

2. All persons signing this petition do hereby agree of the following problem in the defined impacted area:

3. All persons signing this petition do hereby agree that the following contact person(s) represent the neighborhood as facilitator(s) between the neighborhood residents and the City of Seaside staff in matters pertaining to items 1 and 2 above:

Only one signature per address

Circle One	Name/Signature	Address	Contact Number
Owner/ Resident	Name		
	Signature		
Owner/ Resident	Name		
	Signature		
Owner/ Resident	Name		
	Signature		
Owner/ Resident	Name		
	Signature		

Owner/ Resident	Name		
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Owner/ Resident	Name		
	Signature		



CITY OF SEASIDE STAFF REPORT

Item No.: 9.C.

TO: City Council

FROM: Jaime M. Fontes, City Manager

BY: Nisha Patel, Public Works Director/City Engineer
Leslie Llantero, Assistant Engineer
Melissa Savage, Assistant Engineer
Patrick Grogan, Associate Engineer

DATE: October 20, 2022

**SUBJECT: REVIEW AND TAKE ACTION ON TRAFFIC ADVISORY
COMMITTEE RECOMMENDATIONS FOR RED CURB ON CITY
STREETS AND A NEW BUS STOP ON NOCHE BUENA STREET**

RECOMMENDATION

1) Approve a new bus stop on the northwest corner of Noche Buena Street and San Pablo Avenue, 2) Approve installation of red curb east and west of the driveway at 1210 San Pablo Avenue, and 3) Approve installation of a red curb east of 1538 Hilby Avenue.

BACKGROUND

The Traffic Advisory Committee reviewed and provided recommendations regarding several applications at the September 27, 2022 special meeting. A brief summary of the items is presented below.

Item 1

Monterey Salinas Transit (MST) is requesting to move the Jazz A bus stop from the entrance of Cutino Park on San Pablo Avenue to the northwest corner of Noche Buena Street, north of San Pablo Avenue, to be consistent with the new bus route in the recently approved transit network (attachment 1).

MST is the provider of public transit services throughout Monterey County and operates an extensive network of bus routes through Seaside. In 2021, MST underwent a major planning effort for the Comprehensive Operational Analysis (COA). The COA was adopted by the MST board on February 14, 2022. The network changes include new

and inactive bus stops and are planned to take effect at the end of 2022. The purpose of the route change is to provide a more direct service and make travel times quicker for riders. The Jazz A route will no longer operate on La Salle Avenue, Flores Street, or San Pablo Avenue. This will result in several current bus stops becoming inactive, presenting an opportunity for street parking to be restored.

The current route for Jazz A stops on San Pablo Avenue at the entrance to Cutino Park and street width allows vehicles to pass while loading and unloading. The proposed bus stop will extend the current bulb-outs on Noche Buena Street, and the bus will stop in the travel lane, preventing vehicles from passing.

The new Jazz A route will travel along Noche Buena Street and eliminate the turning movement from westbound San Pablo Avenue to southbound Noche Buena Street, making it safer for pedestrians to cross Noche Buena Street on the north side of the Noche Buena Street and San Pablo Avenue intersection. Regardless of the approval of the new bus stop location, Monterey Salinas Transit will be removing four bus stops and changing the Jazz A Route later this year. If the proposed bus stop is not installed, the next closest stop would be located at the intersection of Mingo Avenue and Noche Buena Street, approximately 1,000 feet away. Residents in the vicinity of Cutino Park would have to walk farther to get to a bus stop.

The Traffic Advisory Committee, with a majority vote, approved the bus stop at the northwest corner of Noche Buena Street and San Pablo Avenue.

Item 2

The Traffic Advisory Committee reviewed an application for a red curb immediately east and west of the driveway approach for the multi-family residential units located at 1210 - 1212 San Pablo Avenue. The application stated visibility concerns when vehicles park near the driveway, making it difficult to see oncoming traffic when exiting the property (attachment 2).

The 1200 block of San Pablo Avenue is classified as a collector street approximately 40 feet wide, measured from face of curb to face of curb with one travel lane in each direction and parallel parking on both sides of the street. The posted speed limit on San Pablo is 30 miles per hour (mph). Single-family residences, multi-family residences, and several commercial businesses are located along this block of San Pablo Avenue. Site visits were conducted at 1210-1212 San Pablo Avenue, during which adequate sight distance was noted for oncoming traffic travelling east and west bound along San Pablo Avenue. Due to multiple residences along this corridor, on street parking is limited by several driveway approaches and several red zones which already exist on the 1200 block of San Pablo Avenue. Collision data was collected in the area of the request over the last 5 years. During that time, no police reports for traffic collisions were filed for the 1200 block of San Pablo Avenue. The closest collision within the last 5 years was at the intersection of San Pablo Avenue and Baker Street in which driver impairment was

listed as the primary collision factor.

Staff recommended denying this application due to the already limited parking on the 1200 block of San Pablo Avenue. The Traffic Advisory Committee, by majority vote, approved the red curb west and east of 1210-1212 San Pablo Avenue due to safety concerns.

Item 3

The Traffic Advisory Committee reviewed an application for a red curb east of the driveway to 1538 Hilby Ave for the placement of trash receptacles. The application indicated the need for a red curb on the south side of Hilby Avenue, immediately to the east of the joint driveway to 1538, 1538A, and 1540 Hilby Avenue (attachment 3). As indicated by the applicant, there is no place for trash cans at the curb when vehicles are parked adjacent to the driveway. This results in the trash service company leaving the trash cans on the sidewalk or in the driveway.

The 1500 block of Hilby Avenue is classified as a minor arterial street, with multiple residences fronting the street, resulting in a high volume of on-street parking. Sidewalks measuring approximately 4 feet wide are present on this side of the street. There are several driveways and a fire hydrant red curb zone on the south side of the 1500 block of Hilby, limiting parking in the area. The fire hydrant red zone begins approximately 80 feet to the west of the applicant's driveway. The driveway, classified as a private road, provides access to three residences, resulting in 9 trash cans which can block pedestrian access to the sidewalk or vehicle access to the driveway. A site visit was conducted at 1538 Hilby Avenue. During the site visit, it was noted that curb space was limited on the 1500 block of Hilby Avenue due to multiple vehicles parked on the street.

After the item was first discussed at the August 2, 2022 TAC meeting, the City of Seaside Fire Department staff performed a site visit, and Public Works Engineering staff had an additional discussion with GreenWaste about services offered to single-family residential customers in the City of Seaside, and the details of the City's franchise agreement with GreenWaste. GreenWaste confirmed that they do not provide a refuse collection service on private roads, and that residents must place their trash receptacles at curbside for refuse collection service. Single-family residential parcels are not offered cart (dumpster) service, difficult pick-up services, or side/back yard pickup in the City of Seaside. During negotiations for the franchise agreement with GreenWaste, a rate schedule for difficult pick-up and side yard pick-up was not established. As no rate schedule was established, GreenWaste is not able to charge single-family residents of the City of Seaside for difficult pickup or side yard pickup. Multi-family residential and business parcels are offered a dumpster (bin) service, while single-family residential parcels are not. Greenwaste will travel down private roads to collect dumpsters, but not standard-sized residential cans.

The item was revisited at the September 27, 2022 TAC. Staff recommended denying this red curb application, due to the already limited parking availability in the area, and difficult pick-up is not an allowable service for single-family residential properties under the current City franchise agreement with GreenWaste. With a majority vote, the Traffic Advisory Committee approved the red curb request for 1538 Hilby Ave.

FISCAL IMPACT

The fiscal impact of the following items are as follows:

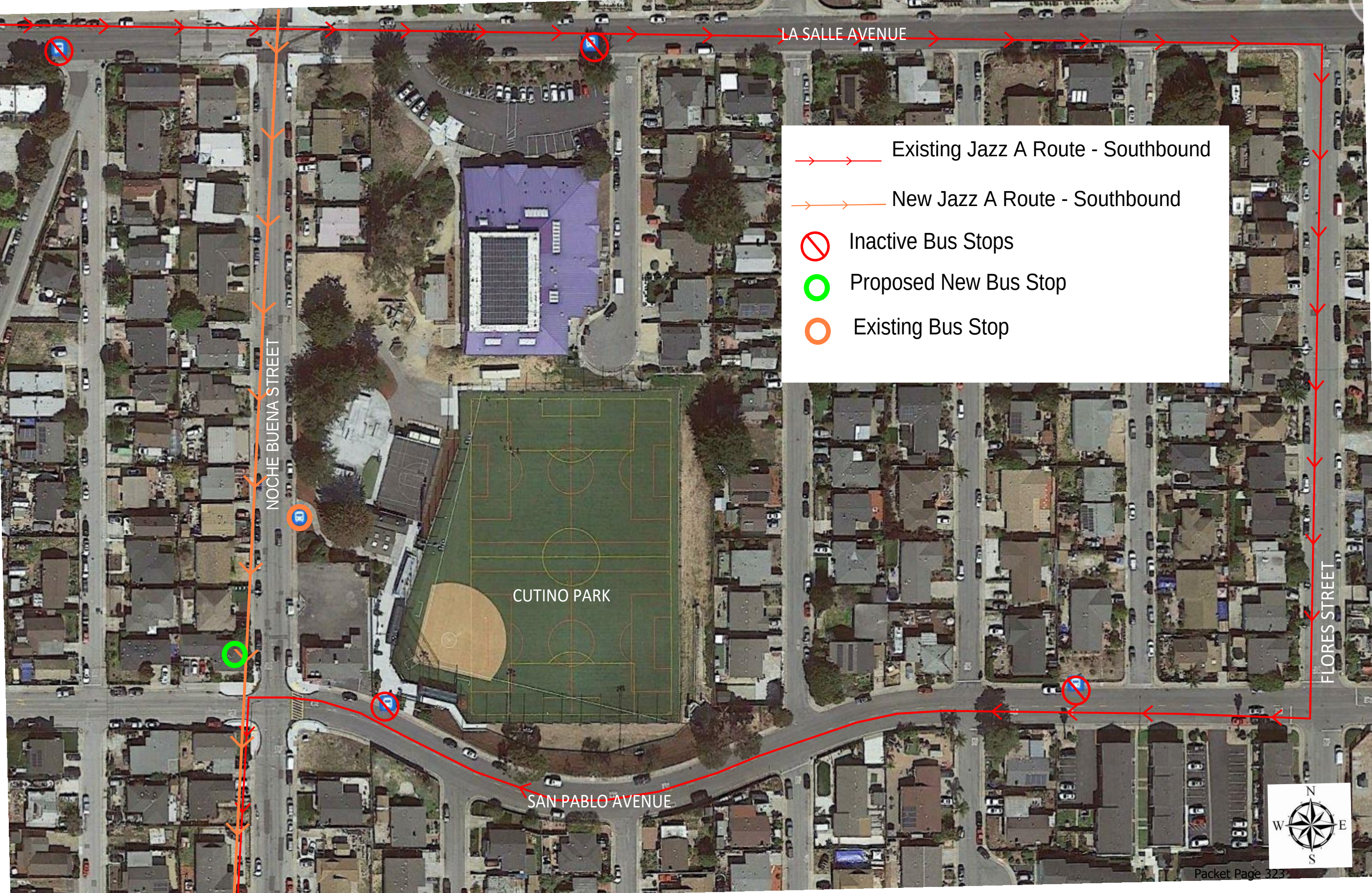
1. There is no fiscal impact associated with Item 1 - Approval of a new bus stop on Noche Buena Street at San Pablo Avenue. Monterey Salinas Transit will reimburse the city for design and installation costs.
2. There is no fiscal impact associated with Item 2 - Approve installation of red curb at 1210 San Pablo Avenue. The cost of the installation will be paid by the applicant.
3. There is no fiscal impact associated with Item 3 - Approve installation of red curb east of 1538 Hilby Avenue. The cost of the installation will be paid by the applicant.

ATTACHMENTS

1. Item 1 - MST Bus Stop
2. Item 2 - Red Curb for 1210 & 1212 San Pablo Ave
3. Item 3 - Red Curb for 1538 Hilby Ave

Reviewed for Submission to the City Council by:


Jaime M. Fontes, City Manager



LA SALLE AVENUE

NOCHE BUENA STREET

CUTINO PARK

SAN PABLO AVENUE

FLORES STREET

- Existing Jazz A Route - Southbound
- New Jazz A Route - Southbound
- Inactive Bus Stops
- Proposed New Bus Stop
- Existing Bus Stop





Traffic Advisory Committee Request Application

The following information is required to process all Traffic Advisory Committee requests. This information will be used to contact the applicant should staff have questions or needs clarification on the request. This information will also appear in the staff report presented to the Traffic Advisory Committee and/or City Council.

The Traffic Advisory Committee meets the 3rd Tuesday of every month at 5:00 PM in the City of Seaside's City Hall Conference room. This meeting is open to the public and applicants are encouraged to attend.

Name: Olin Jordan Date: 8-10-22

Address: [REDACTED] Phone: [REDACTED]

Type of Request (check all that apply):

- ☐ Parking Designations ☐ Crosswalk ☒ Curb Markings (White, Yellow, etc.)
☐ Warning Sign ☐ Traffic Signal/Stop Sign ☐ Signing/Striping
☐ Other _____

FEES WILL APPLY FOR PARKING AND CURB MARKING REQUESTS

Request: I am requesting red curbs on both sides
of the driveway into a complex of 7 condos.
There has been an accident already. It's
very hard to see oncoming traffic in both
directions. Thank You

Request Procedures are outlined on the back of this form. For any questions regarding the Traffic Advisory Committee (TAC) please contact 899-6825.

TAC REQUEST PROCEDURE

The Traffic Advisory Committee (TAC) acts as an advisory board to the City Council per Chapter 2.37 of the Municipal Code. Recommendations made by the TAC are to be ratified by the City Council prior to implementation. The TAC consists of five members: a Council Member; Director of Public Works; Chief of Police; Director of Community Development; and the Fire Chief. The TAC reviews all requests for traffic safety regulatory or control devices, signs and markings, and conducts studies as well as offers recommendations to the City Council, Planning Commission or appropriate City department.

Upon submittal of a request, staff will place the request on the next available TAC agenda for a future scheduled meeting. All TAC's action will be forwarded for City Council consideration at their next available scheduled meeting.

Fees

Fees will be collected prior to installation of any approved requests that directly benefits the applicant, such as limited timed parking, white zones, etc. Prior to any required maintenance of the improvement, the same fee will apply and be billed to the applicant. The following fees have been determined based upon the cost of staff time and material for installation:

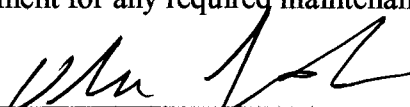
Description	Fee*
Marking curb – per curb (20' maximum length)	Per current adopted fee schedule
Installation of one sign	

* Fees subject to change per City Council approved fee schedule. Fee determined by date of application.

PLEASE COMPLETE FOR PARKING AND CURB MARKING REQUESTS

TAC REQUEST ACKNOWLEDGEMENT STATEMENT

I, Olin Jordan understand that should my request be approved by the Traffic Advisory Committee and City Council, I will be responsible for the fee prior to the installation of my request. I also understand that if approved by City Council the improvements will be reviewed annually or whenever deemed appropriate by the Public Works Department for any required maintenance and I will be charged the corresponding fee.


Applicant Signature

8/10/22
Date



Consider the installation of red curb at 1210 & 1212 San Pablo.



Traffic Advisory Committee Request Application

The following information is required to process all Traffic Advisory Committee requests. This information will be used to contact the applicant should staff have questions or needs clarification on the request. This information will also appear in the staff report presented to the Traffic Advisory Committee and/or City Council.

The Traffic Advisory Committee meets the 3rd Tuesday of every month at 5:00 PM in the City of Seaside's City Hall Conference room. This meeting is open to the public and applicants are encouraged to attend.

Name: Johan Iwaideh Date: 7-11-22

Address: [REDACTED] Phone: [REDACTED]

Type of Request (check all that apply):

- ☐ Parking Designations ☐ Crosswalk ☒ Curb Markings (White, Yellow, etc.)
☐ Warning Sign ☐ Traffic Signal/Stop Sign ☐ Signing/Striping
☐ Other Paint curb on Easterly side of Driveway 1538, 1540 Hilby Ave

FEES WILL APPLY FOR PARKING AND CURB MARKING REQUESTS

Request: Paint curb red on Hilby Ave on east side
of Driveway to allow for the safe placement
of 9 trash cans for the 3 houses on the lot
on Hilby

No room for Cans is resulting in a Safety
Issue for pedestrians, Several instances
of Greenwast either placing the 9 Cans
on the sidewalk or in the middle of the
Road causing E-Cross issues with 3
homes on the Shared Drive and causing
pedestrians to go off the sidewalk into
a blind driveway to walk down Hilby
before Greenwast the Garbage Co. came down to get the Cans

Request Procedures are outlined on the back of this form. For any questions regarding the Traffic Advisory Committee (TAC) please contact 899-6825.

Greenwast wont.

TAC REQUEST PROCEDURE

The Traffic Advisory Committee (TAC) acts as an advisory board to the City Council per Chapter 2.37 of the Municipal Code. Recommendations made by the TAC are to be ratified by the City Council prior to implementation. The TAC consists of five members: a Council Member; Director of Public Works; Chief of Police; Director of Community Development; and the Fire Chief. The TAC reviews all requests for traffic safety regulatory or control devices, signs and markings, and conducts studies as well as offers recommendations to the City Council, Planning Commission or appropriate City department.

Upon submittal of a request, staff will place the request on the next available TAC agenda for a future scheduled meeting. All TAC's action will be forwarded for City Council consideration at their next available scheduled meeting.

Fees

Fees will be collected prior to installation of any approved requests that directly benefits the applicant, such as limited timed parking, white zones, etc. Prior to any required maintenance of the improvement, the same fee will apply and be billed to the applicant. The following fees have been determined based upon the cost of staff time and material for installation:

Description	Fee*
Marking curb – per curb (20' maximum length)	Per current adopted fee schedule
Installation of one sign	

* Fees subject to change per City Council approved fee schedule. Fee determined by date of application.

PLEASE COMPLETE FOR PARKING AND CURB MARKING REQUESTS

TAC REQUEST ACKNOWLEDGEMENT STATEMENT

I, Johan Twaideh understand that should my request be approved by the Traffic Advisory Committee and City Council, I will be responsible for the fee prior to the installation of my request. I also understand that if approved by City Council the improvements will be reviewed annually or whenever deemed appropriate by the Public Works Department for any required maintenance and I will be charged the corresponding fee.

Applicant Signature

Date

7-11-22



Paint 20 feet of red curb to the east of the driveway for 1538, 1538A, and 1540 Hilby.