

**TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT**

NOTICE OF BID

**Self Contained Breathing Apparatus
Watertown Fire Department**

Sealed bids are invited and will be received by the Purchasing Agent of the Town of Watertown at the office of the Purchasing Agent, Town Hall, 61 Echo lake Road, Watertown, Connecticut, until **11:00 a.m., Tuesday, February 22, 2022**, at which time and place they will be publicly opened and read aloud for furnishing Self Contained Breathing Apparatus to the Town of Watertown Fire Department.

The Information for Bidders, Form of Bid, Specifications and other contract documents may be obtained or examined at the office of the Purchasing Agent, Watertown Town Hall, 61 Echo Lake Road, Watertown, Connecticut 06795 or by accessing the Town of Watertown's website at <http://www.watertownct.org>. Proposals must be submitted on the forms provided and in a sealed envelope plainly marked "**Bid – SCBA**".

To receive consideration bids must be in the hands of the Purchasing Agent or his authorized representative no later than the day and hour mentioned above.

The Purchasing Agent reserves the right to accept or reject any or all bids; to waive any informality; or to accept any bid deemed in the best interests of the Town of Watertown.

The Town of Watertown reserves the right to take into account the residency of bidders within the Town of Watertown and/or the location of the bidder's business within the Town of Watertown in awarding this bid.

All bids will be considered valid for a period of sixty (60) days.

Donna Ford
Purchasing Agent
Town of Watertown

INFORMATION FOR BIDDERS

**TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT 06795**

**Self Contained Breathing Apparatus - Fire Department
Watertown Public Works Department**

BID OPENING:

PROPOSALS RECEIVED

All bids must be in a sealed envelope and received prior to **11:00 a.m., Tuesday, February 22, 2022**, at the office of the Purchasing Agent, 61 Echo Lake Road, Watertown, Connecticut 06795.

PREPARATION OF PROPOSALS

Proposals must be made upon forms contained herein. The blank spaces in the Proposal must be filled in correctly where indicated. The Bidder must state the prices for which he proposes to do each item of the work contemplated. In case of discrepancy where both words and the numerals are requested, the words shall govern. Ditto marks are not considered writing or printing and shall not be used. The Bidder shall sign his Proposal correctly. If the Proposal is made by an individual, his name, post office address and telephone number must be shown. If made by a firm, partnership, or corporation, the Proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and must show the post office address and telephone number of the firm, partnership, or corporation. Failure to do so may disqualify the bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, post office address, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to: The Purchasing Agent, Watertown Town Hall, 61 Echo Lake Road, Watertown, CT 06795.

All information shall be entered in ink or by typewriter. Mistakes may be crossed out and corrections inserted before submission of your bid. The person signing the bid shall initial corrections in ink.

Corrections and/or modifications received after the closing time specified will not be accepted.

SUBMISSION OF PROPOSALS

All proposals and literature shall be submitted **IN DUPLICATE** on the proposal form, which is a part of these specifications.

Descriptive literature containing complete specifications must accompany each bid. If a bidder wishes to furnish additional information, more sheets may be added.

Adobe Acrobat® Reader is required to view electronic documents on-line. If you do not have Adobe Acrobat® Reader, you may download it for free from Adobe at <http://www.adobe.com/products/acrobat/readstep.html>.

Response summaries will be available online at <http://www.watertownct.org> on the day of the bid opening.

Responses delivered via fax are received subject to the following qualifications and limitations:

- The Town is not responsible for the confidentiality of the information transmitted.
- The Town cannot guarantee that its fax equipment will be operational and able to receive transmittals by a particular time and date. It is the Bidder's responsibility to ensure that quotations are received in their entirety and on time at the required location. It is recommended that vendors be advised to call immediately after transmitting a document electronically to confirm complete and accurate receipt by the Town. The Town assumes no liability in the event that a bidder's electronic transmission is not received by the Town in a timely fashion, or is not received either in its entirety or error-free.
- Bids transmitted electronically which have a bond requirement are subject to the same submittal requirements as those responses delivered via traditional means, such as mail or hand delivery, or as otherwise stipulated by appropriate authority.

INCURRING COSTS

The Town of Watertown is not liable for any cost incurred for the preparation of proposals or submission of samples by the firms submitting proposals for the work requested in this bid document or request for proposals.

FAMILIARITY WITH THE WORK

Each bidder is considered to have examined the work to fully acquaint himself with the exact existing conditions relating to the work and has fully informed himself as to the work involved and the difficulties and restrictions attending the performance of this bid. Failure to do so will not relieve a bidder of his obligation to furnish all centerline striping and related pavement markings as specified for the consideration set forth in this bid. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination.

CONSIDERATION OF PRIOR SERVICE

Previous performance, quality of service and merchandise will be considered.

ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS

Addenda information will be available online at <http://www.watertownct.org>. Adobe Acrobat® Reader may be required to view this document. It is strongly suggested that Bidders check for any addenda a minimum of forty eight hours in advance of the bid deadline.

At the time of the opening of bids each Bidder will be presumed to have inspected the work and to have read and to be thoroughly familiar with all of the Contract Documents (including all addenda). The failure or omission of any Bidder to receive or examine any form, instruction or document shall in no way relieve any bidder from any obligation in respect to his bid.

If any person contemplating submitting a proposal is in doubt as to the true meaning of any part of these specifications, he may submit a written request for an interpretation to the Purchasing Agent. No interpretations as to the meaning of the plans, specifications or other Contract Documents will be made to any Bidder orally.

Every request for such interpretation should be in writing addressed (duplicate copy) to the Town of Watertown, Purchasing Agent, 61 Echo Lake Road, Watertown, Connecticut 06795, and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of Bids. Any and all such interpretations and any supplementary instructions will be in the form of written Addenda to the Specifications which, if issued, will be mailed by Registered Mail with Return Receipt Requested to all prospective Bidders at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any Bidder to receive any such Addendum or interpretations shall not relieve any Bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. Oral explanations will not be binding on the Town.

The specifications listed are to be interpreted as meaning the minimum acceptable by the Town of Watertown. Bidders are requested to submit quotations on the basis of these specifications. Alternative bids providing a broader scope and/or services than requested in these specifications may receive consideration providing such equipment and/or service is clearly explained. Any exceptions to the specifications requested herein must be clearly noted in writing and are to be included as a part of the bid proposal. If none are included it will be assumed that there are none.

Definition of the word "complete" means that each unit of the equipment proposed shall include all appurtenances, fasteners, parts, accessories, and services ordinarily catalogued.

An item equal to that named or described in the specifications may be furnished by the Bidder, except where expressly noted as "no substitutions." The naming of any commercial name, trademark, or other identification shall not be construed to exclude any item of any manufacturer not mentioned by name, nor limit competition, but shall establish a standard of equality only. An item shall be considered equal to the item so named or described if:

- It is at least equal in quality, durability, appearance, strength and design.
- It will perform at least equally the function imposed by the design for the work being contracted for or the material being purchased.
- It conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.

The Bidder shall hold the Town of Watertown, its officers, agents, servants, and employees, harmless from liability of any nature or kind because of use of any copyrighted or uncopyrighted compositions, secret process, patented or unpatented inventions, articles or appliances furnished or used under this bid, and agrees to defend, at his own expense, any and all actions brought against the Town of Watertown or himself because of the unauthorized use of such articles.

QUOTATION LIMITATION

Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. If an or equal item is to be bid, the bidder is to select the brand and model that meets or exceeds the specified item, and submit his bid for that item.

ESTIMATE OF WORK

For bidding purposes, the work has been subdivided into unit price items. The quantities shown are to be considered as approximate only. The Purchasing Agent does not expressly or by implication agree that the actual quantity will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work as deemed necessary.

SAMPLES

Samples of articles, when required shall be furnished free of cost of any sort to the Town of Watertown. Samples received may be retained by the Town for future comparison. Samples which are not destroyed by testing, or which are not retained for future comparison will be returned upon request at the bidder's expense.

WITHDRAWAL OF BID

Bidders may withdraw their proposals at any time prior to the bid date. No agent/broker shall withdraw or cancel their proposal for a period of sixty (60) days after the bid closing date of **11:00 a.m., Tuesday, February 22, 2022**. The successful agent/broker shall not withdraw, cancel or modify their proposal.

POWER OF ATTORNEY

Attorneys-in-fact who sign contract bonds must file, with each bond, a certified and effectively dated copy of their power of attorney.

SUBCONTRACTORS

- Each bidder contemplating the use of any subcontractor shall submit a list of subcontractors as listed on the Bid Form.
- The apparent low bidder shall file with the Town of Watertown, within five (5) days after the date of bid opening, a complete list of the names and addresses of competent, responsible and qualified subcontractors who are actually to perform major portions of the work. This in no way restricts or limits the requirement that all subcontractors must be approved by the Town.
- Subcontractors listed on the Bid Form or those previously approved may not be changed without the approval of the Town of Watertown.

Local subcontractors, material suppliers, and labor in the Town of Watertown should be considered and sought insofar, as is practical in the performance of this project.

QUALIFICATION OF BIDDER

In determining the qualifications of a bidder, the Town may consider his record in the performance of any contracts for similar work into which he may have previously entered; and the Town expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Town, has not properly performed such contracts or has habitually, and without just cause, neglected the payment of bills or has otherwise disregarded his obligations to subcontractors, suppliers, state or local codes, men or employees of subcontractors.

The Town may make such investigation as he deems necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by or the investigation of such bidder fails to satisfy the Town that such bidder is properly qualified, or that such bidder misrepresented material facts in the bid documents.

DISQUALIFICATION OF BIDDERS

More than one proposal from an individual, firm, partnership, corporation, or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Any or all proposals in which such Bidder is interested will be rejected if there is reason for believing that collusion exists among the Bidders and all participants in such collusion will not be considered in future proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected. No Contract will be awarded except to competent Bidders capable of performing the class of work contemplated.

DELIVERY

Inasmuch as this work concerns a needed public improvement, the provisions of this bid relating to the time of delivery, performance and completion of the work are of the essence of this bid. Accordingly, the successful bidder shall commence work **upon receipt of the signed Purchase Order** unless the Town shall authorize or direct a further delay.

Time of delivery shall be stated as the number of calendar days following receipt of the Purchase Order by the Bidder to receipt of the goods or services by the Town of Watertown.

Prices quoted must include delivery to the Town of Watertown as specified on the Purchase Order. No charges will be allowed for parking, crating, freight, express or cartage unless specifically stated and included in this bid.

Time of delivery may be considered in the award.

PAYMENT

The Town, after inspection and acceptance of workmanship, and in consideration of the faithful performance by the Bidder of all and singular his covenants, promises, and agreements contained herein, agrees to pay the Bidder for the full completion by him of the work embraced in this Contract, within (30) Thirty Days of the receipt of the final invoice. When subcontractors or suppliers are utilized, the successful Bidder for this project shall be required to submit a Mechanics Lien Waiver, acceptable to the Town, with each progress payment and/or at time of final payment prior to any payment being made.

Time, in connection with any discount offered, will be computed from the date of delivery to the Town or from the date a correct invoice is received by the Town's Finance Department, if the latter date is later than the date of delivery.

Prices will be considered as **NET**, if no cash or payment discount is shown.

The successful bidder shall submit invoices to the following address:

Town of Watertown
Watertown Public Works Department
61 Echo Lake Road
Watertown, CT 06795

IT IS UNDERSTOOD AND AGREED THAT SHOULD A BID BE ACCEPTED, IT WILL AUTOMATICALLY BECOME THE CONTRACT OR AN ADDENDUM TO ANY CONTRACT AGREED UPON.

Notification of the bid award will be made by issuance of a purchase order. Bidders are to list their bids on the appropriate attached sheets. Bidders may attach a letter of explanation. A clear notification should be made on the standard bid sheets at the appropriate point of explanation that there is a letter of explanation attached. All bids must be NET prices.

The successful bidder shall submit an itemized invoice to the Town of Watertown for the work as described herein.

The bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Watertown, with each progress payment and at time of final payment prior to any payment being made.

At the time of award, the successful bidder shall be required to supply the Town of Watertown a Certificate of Good Standing, certifying that the corporation is in fact a valid corporation and presently licensed to conduct business in the State of Connecticut.

SALES TAX

Certain materials and supplies incorporated in the work of this project are exempt from Connecticut

Sales Tax. The Bidder shall familiarize himself with current regulations of the State Tax Department. The tax on materials or supplies exempted by such regulations shall not be included as part of the bid. The Town will furnish the successful Bidder sales tax exemption authorization.

CARE AND PROTECTION OF PROPERTY

The Bidder shall take particular care to avoid damages to all private and public property and to private or public improvements within the Town's right of way. He shall make good any damages to the satisfaction of the Town. There shall be no additional compensation for the repair or restoration of private or public property improvements.

COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES

The Bidder shall be responsible for full compliance with any Federal, State and/or Local codes, laws, regulations and standards, as applicable-

AWARD

The Town of Watertown reserves the right to accept or reject any bid to best serve its interests, or to hold the bids for sixty (60) days before decision.

The Town reserves the right to reject any and all bids (or any part thereof), to waive defects in proposals, or to accept any proposal deemed to be in its best interest.

Exceptions will be considered to the specification provided, providing they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS"

Each exception will be considered as to its degree of impact and total effect on the bid. The purchaser shall determine which (if any taken) exceptions are acceptable, and this determination shall be final.

The Town of Watertown reserves the right:

- To award bids received on the basis of individual items, or groups of items, or on the entire list of items.
- To reject any or all bids, or any part thereof.
- To waive any informality in the bids.
- The Town of Watertown reserves the right to take into account the residency of bidders within the Town of Watertown and/or the location of the bidders business within the Town of Watertown in awarding this bid.
- To accept the bid that is in the best interest of the Town of Watertown. The Purchasing Agent's decision shall be final.

INSURANCE

A. General:

The Bidder shall be responsible for maintaining insurance coverage in force for the life of the

contract of the kinds and adequate amounts to secure all of the Bidder's obligations under the contract with an insurance company with an AM Best Rating of A - VII or better licensed to write such insurance in Connecticut and acceptable to the Town of Watertown.

The insurer shall provide the Town of Watertown with Certificates of Insurance signed by an authorized representative of the insurance company(ies) prior to the performance of this contract describing the coverage and providing that the insurer shall give the Town of Watertown written notice at least thirty (30) days in advance of any termination, expiration, or any and all change in coverage.

Such insurance or renewals or replacements thereof shall remain in force during the Bidder's responsibility under this agreement.

The Bidder at his own cost and expense shall procure and maintain all insurance required and shall name the Town of Watertown, its employees, departments, boards, committees and commissions, as an additional insured on all contracts except Worker's Compensation and Professional Errors & Omissions coverage.

In order to facilitate this requirement for insurance, it is recommended that the bidder forward a copy of this exhibit to the bidder's insurance representative(s).

B. Specific Requirements:

(1) Workers' Compensation Insurance

The Bidder shall provide Workers' Compensation Insurance required by law and the Employer's Liability Insurance for at least the amounts of liability for Bodily Injury by accident of \$100,000 each accident; Bodily Injury by Disease each employee of \$100,000; Bodily Injury by Disease, policy limit of \$500,000.

(2) Commercial General Liability Insurance

The Bidder shall carry Commercial General Liability policy (Insurance Services Office Incorporated Form CG-0001 or equivalent). A per occurrence limit of \$1,000,000 is required. The Aggregate Limit will be not less than \$1,000,000.

(3) Business Automobile Liability Insurance

The Bidder shall carry Business Automobile Liability Insurance. (Insurance Services Office Incorporated Form CA-00001 or equivalent). A per occurrence limit of \$1,000,000 is required. "Any Auto" (symbol 1 or equivalent) is required.

C. Hold Harmless & Subcontractor's Requirements:

The Bidder shall require the same insurance that it is required to carry by the Town of Watertown to be carried by any subcontractors and independent contractors hired by the Bidder and to obtain Certificates of Insurance before subcontractors and independent contractors are permitted to begin work.

The Bidder shall require that the Town of Watertown, its employees, departments, boards, committees and commissions, be named as Additional Insured on all subcontractor's and independent contractor's policies before they are permitted to begin work.

The Bidder and all subcontractors and independent contractors and their insurers shall waive all rights of subrogation against the Town of Watertown, and its officers, agents, servants and employees for losses arising from the work performed by each on this contract.

The Bidder assumes and agrees to hold harmless, indemnify, protect and defend the Town of Watertown against any and all liability for injuries and damages to Bidder and to Bidder's employees, agents, subcontractors and guests, third parties or otherwise incident to or resulting from any and all operations performed by a contractor under any terms of this contract.

D. Other Data:

NOTE 1: If Bidder is only a vender shipping goods via Common Carrier only, General Liability is required.

NOTE 2: If Bidder is a Professional, Errors & Omission coverage will be required.

NOTE 3: The Town reserves the right to amend amounts of coverage required and the types of coverage provided based on work or service to be performed.

GUARANTEE

The bidder shall unconditionally guarantee for a period of one (1) year from the date of acceptance, all materials, supplies, equipment, and services; including but not limited to its workmanship, delivery and installation. If within the guarantee period there are any defects or signs of deterioration the bidder shall repair, adjust or replace the item(s) to the complete satisfaction of the Town. These repairs, adjustments, or replacements are at the sole expense of the bidder and shall be made at such times that are agreeable to the Purchasing Agent so that it is least detrimental to instructional programs.

PERMITS

When required all licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes, regulations in connection with the prosecution of the work shall be obtained by the Bidder, at no additional cost to the Town.

NONDISCRIMINATION IN EMPLOYMENT

The successful bidder shall agree and warrant that, in the performance of this contract, he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, sex, religion, or national origin in any manner prohibited by State, Federal, County, or Municipal law. A certification of Nonsegregated Facilities and a Certification Regarding Equal Employment Opportunity shall be considered a part of this contract.

MECHANICS LIEN WAIVERS

The successful Bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Watertown, with each progress payment, and/or at time of final payment, prior to any payment made.

For further technical or administrative information contact Donna Ford, Purchasing Agent at (860) 945-5260 or via email at ford@watertownct.org.

**TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT**

TECHNICAL SPECIFICATIONS

**Self Contained Breathing Apparatus
Watertown Fire Department**

SCBA Product Specification

4500 psig 30 minute

I. Approvals

1. Apparatus shall be approved by the National Institute for Occupational Safety and Health (NIOSH), under 42 CFR, Part 84 for chemical, biological, radiological, and nuclear protection (CBRN) with 30-, 45-, 60-minute-rated service life and compliant with all requirements of the National Fire Protection Association's 2018 Edition of NFPA-1981 Standard on Open-Circuit Self-Contained Breathing Apparatus.
2. Units equipped with integrated PASS device must meet requirements of NFPA 1982, 2018 edition.
3. Units equipped with emergency egress system shall also comply with NFPA 1983 Standard on Fire Service Life Safety Rope and System Components, 2017 Edition; Type: Escape.
4. Units equipped with accountability system must meet minimum requirements for FCC part 15 and part 90.

Comply _____ Exception _____

II. Specific Requirements

Facepiece

1. Facepiece shall have removable inhalation check valve to prevent exhaled air from entering and contaminating regulator (demand valve).
2. Facepiece shall have open port to provide minimal breathing resistance when regulator is not attached.
3. Facepiece shall not contain any electronic components.
4. Facepiece shall provide means to display to user with visual indicators for HUD.
5. Facepiece shall have icon for HUD system status indicators.
6. Facepiece shall have regulator attachment that does not bear any weight on lens.
7. Facepiece shall have effective field of view of 86% and overlapping field of view of 122% without attached component.
8. Facepiece shall be available in three sizes. (small, medium, large).
9. Facepiece shall have nose cup comprised of silicone rubber and available in three sizes (small, medium, large).
10. Facepiece shall have three head harness options constructed of flame/heat resistant assembly: Kevlar Head Harness 4-pt. adjustable, Kevlar 5-pt. adjustable and rubber 5-pt. adjustable.
11. Facepiece shall have universal lens that can be used with all three facepiece sizes, shall be comprised of non-shatter type material and shall be field-replaceable
12. Lens shall be hard-coated on outside and anti-fog coated on inside.
13. Facepiece shall have optional flame/heat-resistant fabric or rubber neck strap to carry facepiece in ready position for quick donning.
14. Facepiece shall have removable speaking diaphragm with aluminum-coated membrane, suitably protected and located centrally on facepiece for optimal voice projection.
15. Facepiece shall have exhalation valve that is to be serviceable without special tools.
16. Facepiece shall be capable of water submersion for cleaning and disinfection.

Comply_____ Exception_____

Mask-Mounted Regulator (Demand Valve): Push-to-Connect

1. When doffing regulator, regulator disengagement shall simultaneously stop air flow and release regulator.
2. Regulator shall house electronic module that functions as microphone and HUD system.
3. Regulator shall be equipped with variable flow bypass.
4. Regulator shall not have exposed wiring in order to prevent snags and increase product durability.
5. Regulator shall have two cover options: hard cover or purge cover.
- 6.. Regulator shall have two options for air-supply hose: 1) Continuous hose from pressure reducer to

- regulator. 2) Quick-connect hose that terminates on shoulder in front of user.
7. Regulator must be equipped with positive protection Tetraplex Shield membrane that covers diaphragm, preventing permeation of CBRN agents.
8. Regulator shall have RFID chip for optional asset & maintenance tracking.

Comply_____ Exception_____

Heads-Up Display (HUD)

1. Heads-Up Display (HUD) System shall be integrated within regulator, eliminating snag hazards and increasing product durability.
2. HUD shall be powered from central power system.
3. HUD System shall eliminate cross-talk among firefighters.
4. HUD System shall be immune to radio frequency interference (RFI) and must function properly in close proximity to fire service hand-held radios.
5. HUD System shall separate pressure indicators from status indicators: 1) Left: status indicators 2) Right: pressure indicators
6. **HUD system shall provide user with remaining cylinder air volume, available in four increments through series of four colored LEDs:**1) Four green lights 76-100% cylinder volume2) Three green lights 51-75% cylinder volume3) Two flashing amber lights 36-50% cylinder volume4) One flashing red light 0-35% cylinder volume
7. HUD status indicators shall be icon-based and display battery life warning, PASS alarms, EVACUATE indicator, and secondary alarm indicator.
8. HUD shall incorporate photoelectric sensor that senses ambient light conditions, automatically adjusting display to one of multiple pre-programmed light intensities.
9. Buddy lights shall be visible from outside of firefighter's facepiece.
10. HUD system shall allow user to select from four modes of operation:1) Continuous pressure mode that shall always have pressure LEDs on.2) Intermittent pressure mode that shall turn on first three increments when reached for 20 seconds.3) Oscillating pressure mode that shall brighten and dim LEDs every 20 seconds.4) Mixed pressure mode that shall turn on first two increments when reached for 20 seconds and last two increments are in continuous mode.
11. HUD shall be field-removable and replaceable without use of special tools.

Universal Air Connection (UAC)

1. System shall be capable of:
 - Refill within immediately dangerous to life or health (IDLH) atmospheres.
 - Transfilling between two SCBA wearers (connection allows for donation and receipt of air), providing emergency breathing system (EBS) while maintaining NIOSH approvals
 - Quickly refilling (approximately one-minute duration) SCBA cylinder from mobile compressor, cascade system or RIT pack.

- Extending wearer's air supply over longer duration when remote cascade system or other compressed gas source is located within remote area
2. Primary UAC shall be illuminated when supply pressure reaches Low Pressure Warning Alarm or can be configured to optional medium pressure warning alarm.

Comply_____ Exception_____

Pressure Reducer (First-Stage Regulator) with Primary Low-Pressure Warning Device

1. Pressure reducer shall incorporate downstream valve to ensure fail-safe design when in open position.
2. Pressure reducer shall incorporate bell alarm mechanism.
3. Bell alarm mechanism shall be an air-actuated, continuously ringing audible warning alarm, automatically operating when supply cylinder air pressure reaches approximately 35% of rated service life.
4. Bell alarm mechanism shall cover multiple levels of frequencies to cover all hearing levels.
5. Bell alarm mechanism shall be user-accessible while wearing SCBA.
6. Pressure reducer reduces cylinder pressure to outlet pressure not to exceed 115 psi; outlet pressure must be adjustable.
7. Pressure reducer shall have flow capacity of 700 liters per minute at full pressure.
8. Pressure reducer shall have two options for cylinder connection type: threaded or quick-connect.
9. Quick-connect connection shall not be removable from cylinder while under pressure.
10. Pressure reducer shall have one option for cylinder connection location: remote connection.
11. Pressure reducer shall be capable of converting from threaded to quick-connect or vice versa.
12. Pressure reducer body shall be constructed of high-strength aluminum alloy and anodized with Teflon hard coat to minimize corrosion and wear of internal and external components.
13. Pressure reducer shall be sealed system that does not allow moisture to enter valve components.
14. Pressure reducer shall have no more than 42 individual regulator replacement parts.
15. Pressure reducer shall not require special tools for disassembly.
16. Pressure reducer shall have two accessory ports, one medium pressure and one high pressure.

Comply_____ Exception_____

Cylinders

1. Cylinders with 4500 psig operating pressure must be available in 30-, 45- and 60-minute durations.
2. Cylinder shall be constructed of deep-drawn, seamless aluminum liner that is fully wound over entire surface (except for thick neck area) with high-strength carbon fiber filaments impregnated with epoxy resin.
3. Cylinder shall contain cylinder valve that shall incorporate pressure gauge to indicate cylinder pressure at all times. Pressure gauge face shall be luminescent. Hand wheel shall be placed at 90° angle from cylinder axis.
4. Remote connection shall be quick connect.
5. Cylinder valve shall incorporate flow control insert to limit air flow over hand wheel's first half-rotation, minimizing propulsion thrust in event that cylinder is mishandled.
6. Cylinder valve shall incorporate CGA thread that can be converted to quick-connect cylinder without special tools.
7. Cylinder shall have bracket and boot that can be user-installed and provide positioning and added security of cylinder to backplate.

Comply_____ **Exception**_____

PASS Device

1. PASS device shall contain power, control and battery modules.
2. Power module shall provide power to all electronic SCBA components from battery module and act as central power system.
3. Power module shall act as central command center, distributing all information and data among electronic components.
4. Battery module shall be powered by six C-cell batteries or one lithium-ion rechargeable battery.
5. PASS device shall design for battery level check and removal of batteries while SCBA remains in jump seat.
6. Power module shall be capable of illuminating UAC fitting when supply cylinder reaches 35% of rated service time.
7. Control module shall have analog and digital display for added redundancy. Analog gauge must be positioned above digital display as viewed by user.
8. Control module shall be equipped with full color graphical display. Display shall be reprogrammable and capable of future integrations. Display's background color coordinates with HUD pressure status.
9. Control module shall automatically provide information to user when placed in upright position. Device can be manually activated by pressuring reset button.
10. PASS device shall use single line to connect power and control module.
11. Control module shall have two reset buttons that perform same function no matter which button is pressed.

12. Control module shall have alarm button to activate full alarm and is to be illuminated.
13. PASS device shall be capable of being reprogrammed to fire department standard operating procedures (SOP). Using PC software program, configuration tag can be created and tagged on each device needed. Reprogramming options are as follows:
 - 1) Medium pressure alarm.
 - 2) Pressure drop alarm.
 - 3) Primary temperature alarm.
 - 4) Secondary temperature alarm.
 - 5) Audible low-pressure alarm
14. PASS device shall be equipped with buddy lights on firefighter's front and back and viewable from 360° view; two buddy lights on front of user and four buddy lights in back of user.
15. PASS device shall have colored buddy lights: green (pressure above 50% and no alarms), yellow (pressure between 36 and 50%) or red (below 36% or alarms are active).
16. Power module shall be equipped with dual sound emitters; sound emitters shall perform at minimum 100 dBa in room temperature.
17. PASS device shall be capable of storing up to 36 hours of use information in event log form that are generated each time SCBA is pressurized. Event logs must indicate on/off cycles, alarms, alarm reset, and tagging events.
18. PASS device shall be capable of storing periodic logs. Periodic logs must indicate cylinder pressure for each SCBA pressurization stored at 30-second intervals.
19. PASS device's event and periodic logs shall provide ability to download to personal computer for maintenance records or for use in incident investigations.
20. PASS device shall be immune to radio frequency interference (RFI) and must function properly in close proximity of fire service hand-held radios.
21. PASS device shall have optional time-remaining display. Time remaining function must update calculations every 30 seconds based upon user's previous three minutes of air consumption. Initial calculation will appear after three minutes. Calculations can be made to zero pressure, low pressure alarm or medium pressure alarm.
22. PASS device shall employ gasket perimeter seal to provide highest protection level against water ingress, while providing ability to upgrade or repair electronics.
23. PASS device shall be capable of electronically storing user's name into memory via ID tag.
24. PASS device shall be removable with no more than two screws.
25. Control module shall have service mode that provides ability to see number of hours used, connect to PC and firmware versions.
26. Control module shall incorporate rubber boot for added protection and is to be replaceable.
27. Power and Control Modules shall have RFID chip for optional asset & maintenance tracking.

Comply _____ Exception _____

Speaker Module

1. Speaker module shall provide amplified speech that removes inhalation breath noise.
2. Speaker module shall provide at minimum, 70 dBa output.
3. Speaker module shall turn on and off with PASS device.
4. Speaker module shall be powered by central power system.
5. Speaker module shall be positioned on chest and attached to shoulder straps.
6. Speaker module shall be capable of being mounted on either left or right shoulder strap.
7. Speaker module shall easily be attached and removed without special tools.
8. Speaker module shall have light to indicate that device is powered on.
9. Speaker module shall have on/off button to allow user to manually power off as needed.

Comply_____ Exception_____

Emergency Escape Breathing Support System

1. As option, emergency escape breathing support system must be accommodated by SCBA.
2. System must be available with common SCBA quick-disconnect fitting.
3. System shall connect to intermediate pressure side of SCBA, downstream of pressure reducer.
4. System shall have both male and female connections.
5. System shall have universal (Rectus) fitting.

Carrier and Harness

1. Shoulder harness shall have separate left and right pads for easier and less costly replacement.
2. Shoulder harness shall have retro-reflective markings for better visibility within low light conditions.
3. Shoulder harness shall have localized friction pads on shoulders to prevent slippage.
4. Shoulder harness shall be serviceable tunnel type.
5. Shoulder harness shall have improved color stability up to 600°F.
6. Shoulder harness shall be capable of washing at least 40 times while maintaining color fastness.
7. Shoulder harness shall have optional chest strap.
8. Harness design shall have Kevlar webbing.
9. Shoulder harness shall have accessory attachment point available for facepiece or pouch and can be easily moved from one shoulder strap to the other.
10. Shoulder harness shall differentiate pad inside from pad outside by color; pad inside is grey and outside is black.
11. Waist pad shall be Adjustable swiveling – standard pad attached to metal bracket that has three positions and automatically centers
12. Adjustable swiveling waist pad shall be one-handed operation and can be performed while on user's back.

13. Backplate shall be capable of accepting all three waist pad designs.
14. Backplate shall have two side handles and one top handle that are accessible with gloved hand.
15. Backplate side handles shall be capable of 500 lbs. of static force.
16. Backplate top handle shall be capable of 1000 lbs. of static force.
17. Backplate cylinder band shall be available in metal.
18. Waist pad shall be of rigid construction to allow for easy donning and support.
19. Waist straps shall be double-pull forward design.
20. Harness design shall have regulator keeper for storage that can be attached to waist strap or chest strap.
21. Regulator keeper shall allow regulator to be connected at any angle.

Comply_____ Exception_____

Weight

1. Weight of SCBA shall not exceed 24 lbs.
2. Weight of facepiece (without regulator, with communications) shall not exceed 1.4 lbs.
3. Weight of cylinder and valve assemblies (empty) shall not exceed: 10.5 Lbs

Comply_____ Exception_____

Asset and Maintenance Tracking Software

1. Should work on both desktop as well as mobile device.
2. Must have the ability to track and report on assets including but not limited to SCBA, Facepieces, Cylinders, and Parts.
3. Must have the ability to track and report on Maintenance, including but not limited to Work Orders, cylinder fill, and which fill station was used, cylinder hydrostatic testing, SCBA flow tests.
4. Must also have the ability to track and report on Fit Tests.
5. Must also have the ability to track and report on Purchase Orders.
6. Must have the ability to alert the user on any upcoming fit tests, cylinder hydrostatic testing, and SCBA overhaul that may be needed.
7. Information must be stored in a manner that is updated seamlessly and instantly across all devices.

Comply_____ Exception_____

Power Source

1. All components of the SCBA must be powered from single power source.
2. Power source must have the ability to interchange between alkaline and rechargeable without making adaptations to the SCBA itself.
5. Rechargeable battery must weigh no more than 1lb.
6. Rechargeable battery must recharge from full discharge in less than 7 hours.
7. Rechargeable battery recharge temperature range must fall between 32°F and 104°F.
8. The cycle life of the rechargeable battery will have a minimum of 400 full charge/discharge cycles. After 400 cycles, the capacity of the rechargeable battery pack may slowly be reduced over time.
9. Rechargeable battery Charger must be a smart charger, which will rapid charge, analyze condition, and switch to trickle charge mode when charge is complete.
10. Rechargeable battery Charger must have charging indication lights.
11. There will be 3 battery chargers included in this bid

Comply_____ Exception_____ Upgradeability

1. Must be Bluetooth® enabled.
2. Must be able to receive updates to firmware via a Bluetooth® connection.
3. Control module must have Bluetooth® icon visible to display connection status.
4. Must have the ability to upgrade standard control module to integrated thermal imaging camera control module.

Comply_____ Exception_____

Fit Testing

1. Bidder shall provide (2) Two different dates to Fit test the department membership for correct mask size.
2. Bidder shall provide (3) years of yearly NFPA flow testing of the SCBA.

Comply_____ Exception_____

Option #1 Emergency Egress Rescue Belt

1. In addition to meeting NFPA 1983 standard, rescue belt must be NIOSH-certified and NFPA 1981-2018 edition-compliant as SCBA component.
2. Rescue system shall include Ara-shield pouch, carabiner or Crosby hook with sewn-in connection and F4 Sterling auto-locking descender.
3. Rope shall be available with 50-ft. FireTech 32 rope or aramid/nylon blend.
4. Rope shall be detachable under user load, with pull-to-release knot at end of rescue rope as safety feature.
5. Rope assembly shall have two end-of-rope flags, one at 15 feet and second at 10 feet.
6. Rescue system shall have double-action waist belt buckle as safety feature.
7. Rescue system shall have web management system for reduced snag hazards.
8. Rope assembly shall be available as replacement part.
9. Rescue system shall be capable of quickly detaching from SCBA as safety feature.

56 Emergency Egress Rescue Belt.....`Each \$ _____

Option #2 Firefighter Search and Accountability System

1. LUNAR standalone and wireless accountability system. Each LUNAR shall come equipped with 1 swivel quick disconnect for securing LUNAR to an SCBA or other gear ,Optional retractor for securing the LUNAR to an SCBA

LUNAR Accountability Device Each \$ _____

LUNAR Bank Battery Charger..... Each \$ _____

LUNAR Spare Battery..... Each \$ _____

50 Pieces of SCBA complete \$ _____
(Complete Unit shall consist of 1 backpack assembly, one facepiece, one 30 minute 4500 psi cylinder)

6 Pieces of SCBA complete \$ _____
(Complete Unit shall consist of 1 backpack assembly, one facepiece, one 30 minute 4500 psi cylinder, Breathing Air system (Buddy Breathing) to connect to supplied air on WFD Tower 1)

40 Pieces of Facepiece, (sizes to be determined) \$ _____

120 Spare Cylinders with quick connect fitting \$ _____

3 Battery Charging Stations \$ _____

18 Spare Rechargeable Batteries \$ _____

2 Complete RIT packs with 60 minute 4500 PSI air Cylinder..... \$ _____

Please list all exceptions to the specifications on next page.

