

## Jill Murray

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**From:** Jim Fatland  
**Sent:** Saturday, May 13, 2017 1:02 PM  
**To:** 'David McNeill (david.mcneill@transylvaniacounty.org)';  
'gerald.grose@transylvaniacounty.org'  
**Cc:** Craig Budzinski; Bradley Elmore  
**Subject:** FW: BFD Rescue Truck SCBA Replacement  
**Attachments:** Rescue 21 Replacement Justification.doc; Copy of Rescue Equipment.xlsx; SCBA Request Justification 2017.docx

David/Gerald:

Attached is information requested for the FY18 Proposed Brevard Fire/Sylvan District #2.

If you need additional information, please let me know.

Jim

Jim Fatland, CPFO  
City Manager  
City of Brevard  
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**From:** Craig Budzinski  
**Sent:** Friday, May 12, 2017 3:10 PM  
**To:** Jim Fatland  
**Cc:** Bradley Elmore ; Mark Norton  
**Subject:** BFD Rescue Truck SCBA Replacement

Jim,

Please find attached the justifications for the rescue truck and SCBA requested.

Thank you  
Craig

Craig F. Budzinski  
Fire Chief  
City of Brevard F.D.  
Cell 828-329-1349

## **City of Brevard Fire Department**

### **Rescue 21 Replacement**

Rescue 21 is a 1996, 21,185 miles (21 years old and 22 when new apparatus arrives), International with a Hackney body that currently carries all our NCRRS required equipment for a service truck and heavy rescue standard equipment. This particular truck has served its purpose within the fire department and it is time for replacement. It is used for our NCRRS in Sylvan Valley 2 district and residential calls in both districts as a service truck. It responds on all rescue calls in the city and MVC's in Sylvan Valley 2.

### **Issues**

Rescue 21 is 21 years old and is obsolete in terms of firefighter/public safety, functionality and performance standards. It has no ABS brakes, stability control or air bags, the truck does not meet the current NFPA standards for first line fire apparatus. The truck burned (see pictures) in 2003 and against International's recommendations the League of Municipalities Insurance had the truck repaired. It has caused us many problems since that time, all the wiring was burned and the truck has lower engine power and many truck mechanical failures. An example is the light tower is non-repairable because of too many wiring issues to fix it. It is utilized in our fire district as a first-line service/rescue truck and can be called to our mutual aid departments for a heavy rescue. Rescue 21 is currently the only heavy rescue rated truck in Transylvania County. It does respond on residential fires in Sylvan Valley 2.

### **Replacement Apparatus**

The fire department has spec'd a new apparatus that would meet all current and applicable NFPA 1901 standards. The new apparatus would have capacity to hold all our needed equipment, now and into the future. It will be a Spartan custom cab with all the current safety features, roll stability, ABS brakes, knee and head air bags, seat belt warning alarm and LED display and all safety lighting. It will have a 22' Emergency Vehicles, INC (EVI) body. The body will have stairs to the top coffin boxes for firefighter safety, and roll up doors to access the side compartments. To reduce noise on the scene the apparatus will have a stand-alone diesel 10KW generator on top that will let the truck engine be off but still run all lights and needed equipment. The current cost of this truck is estimated at \$588,900. The replacement of this truck is beneficial to the fire department because it will allow for safer driving for fire department members. This truck is instrumental in the department maintaining the Sylvan Valley 2 rating of 5 and the Rescue Association Heavy Rescue Standard.

## **NFPA 1911/NCRRS**

NFPA 1911 is the national fire protection standard on Fire Department Automotive Apparatus Inspection, Maintenance and Retirement. This standard outlines areas such as firefighter safety, maintenance, design, required equipment, and replacement schedules. NFPA states that the replacement schedule for fire department apparatus is 15 years for first-line apparatus. At 15 years, it can be moved to reserve status and replaced at 25 years. The 1901 standard requires ABS brakes, automatic transmission, secondary braking, shorter braking distances, a load management system, better FF seating/seat belts, air bags, a lower center of gravity, rear reflective stripping and governed to 60 miles per hour. Fire department apparatus is just like any other piece of equipment that is in the fire service in that it must be phased out when it has served its purpose.

Our North Carolina Fire Suppression Rating Schedule of a 5 in Sylvan Valley 2 requires us to have and respond an equipped service truck on every structure response.

## **Fire Department Apparatus/Equipment Committee**

The Brevard Fire Department currently utilizes an apparatus committee that is charged with the task of looking at the current needs of the fire department in regards to apparatus and equipment. This committee was formed in 2003 when the fire department was looking to add a new engine to the apparatus fleet. These committee members have worked tirelessly over those years to ensure that the fire department is progressing in a positive manner in regards to firefighter safety and apparatus operations. Engine 21, 22, 24, Tanker 21, 22 and Truck 21 are examples of the hard work that the apparatus committee has accomplished. We feel that these six pieces of apparatus are something that the fire department, city government, county government, as well as the tax payers can be proud of. A few members of this committee have also served on similar committees with larger fire departments such as Asheville, West Buncombe, Charlotte and Hickory. The experience and knowledge that the fire department has at its discretion in regards to apparatus committee's is unparalleled throughout Western North Carolina. The fire department feels that by replacing this apparatus, we are ensuring that the tax payers are getting a long term investment in the way the fire department operates. The addition of a service/rescue apparatus will allow the fire department to continue to progress in helping to protect the citizens and visitors that enjoy our area. Protecting the Sylvan Valley 2 fire district's people and assets are the most important responsibility that the fire department takes charge of. The fire department's goal is to continue to provide a higher level of service that the city, county and the citizens have grown accustomed too.

## **Equipment**

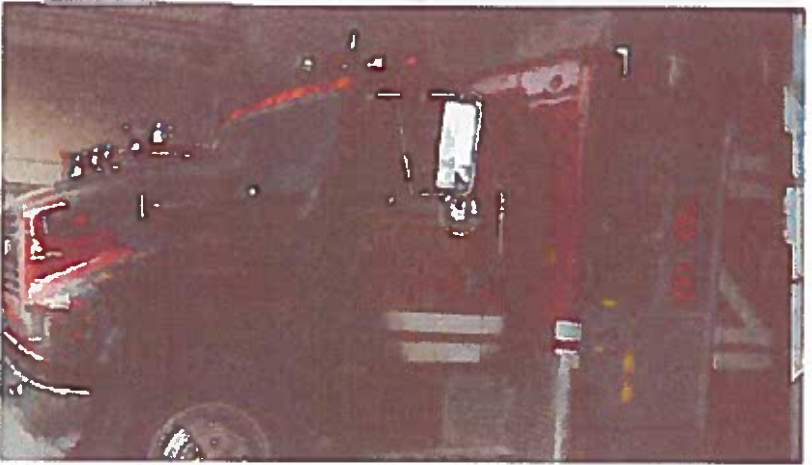
We are looking at new equipment to replace some of our aging equipment that we now carry. Equipment, like apparatus, is governed by NFPA standards. Examples of equipment with expiration dates that our current equipment is close to reaching are rope, air bags, dry suits and PFD's.

We are looking to transfer some of our usable equipment over to the new apparatus like some of the new extrication equipment and purchase some new equipment we currently do not have, example thermal imager camera.

See attached list we will use for pricing.

## **Financing**

The department would like to finance the replacement apparatus over a ten year period and take advantage of low interest bank financing. The apparatus payment will take the place of the current aerial truck payment and start in FY 2019 budget. The total maybe less, but not more than \$850,000, after approval and pricing out of needed equipment









Equipment Classification Area	Quantity Required	Heavy Rescue Equipment
Generator	1	3kw Generator (Portable)
Lighting Equipment	8	Handlights (Portable) 6V Rechargeable Box Light Style
	6	Headlamp Light
	2	Battery Powered Portable Tripod Light
	4	Lights (portable/tripod) Combined 4000Watts
	4	12/3 Extension cord 100'
	2	Power Distribution Box
	2	12/3 GFCI
Fire Protection	1	10 lb Dry Chem Extenguisher
	1	10 lb CO2 Extenguisher
	2	Water Can
	1	Purple K Extenguisher
	1	Class D Extenguisher
Cribbing & Stabilization	60	4"x4"x24" Minimum Block Cribbing
	30	4"x4"x48" Block Cribbing
	20	2"x4"x24" Minimum Block Cribbing
	12	6"x6"x24" Minimum Block Cribbing
	12	6"x6"x36" Block Cribbing
	12	6"x6"x48" Block Cribbing
	4	4"x4"x12' Cribbing
	24	6"x6"x24" Minimum Wedges
	40	4"x4"x18" Minimum Wedges
	5	Wheel Chocks
	8	Step Cribbing
	16	1"x48" Minimum Pickets Rolled Steel
	16	Picket Caps/Covers
	1	Rescue 42 Rescue Kit W/ Tripod
4	Rescue 42 Manual Lift Jack	
High Level Equipment		1200 total feet 1/2" low stretch rope
		300 total feet 5/8" low stretch rope
	4	Class II Harnesses- Will have exceed requirement and utilize Class III
	4	Class III Harnesses
	4	Conterra Rigging Bags
	6	Rescue Helmets (Orange)
	3	Conterra Magnum Rope Bag
		Rope bags for remainder of rescue ropes
	36	Carabiners
	3	SMC NFPA G 6 Bar Rack
	3	SMC NFPA G Compact U Rack
	3	Rigging Plate
	24	8mm Prussik Slings
	8	25'X 1/2" Body Chords
	8	25'X 2" Tubular Webbing
	6	5' X 1" Tubular Webbing Green
	6	12' X 1" Tubular Webbing Yellow
	6	15' X 1" Tubular Webbing Blue
	6	20' X 1" Tubular Webbing Red
	6	25' X 1" Tubular Webbing Black
	6	Double Sheave Pulleys
	4	Single Sheave Pulleys
	4	CMC Aztek Pro Series System
	6	Edge Rollers/ Pads
	1	Line Gun
	2	Kootenay Pulley
		Yosemite Pre Rig
		Line Deployment Sling Shot
	1	Super Clip Rescue Clip for Pike Pole
		Harken RopeWinch
		Harken LokHead Winch
2	CMC MPD	
4	Petzl Ascension Handled Ascenders	
2	22oz Claw Hammers w/ 15" Handles	
2	Military Type Folding Shovel	
1	24" Bolt Cutter	

Quantity	Item Description	Category
1	36" Bolt Cutter	Handled Tools
1	Large Cable Cutter	
2	Flat Pry Bar	
2	Pry Bar 15"	
3	Pry Bar 51"	
1	Crow Bar 36"	
2	Halligan Bar 30"	
1 each	Pick (Point & Chisel) 36" & 51" Handle	
1	Scoop Shovel	
1	Flat Head Axe 8 lb w/ slot	
1	Pick Head Axe 8lb	
1	Flat Head Axe 8lb fiberglass Handle w/ slot	
1	Pick Head Axe 6lb fiberglass Handle	
1	54" Jumbo Pro Bar	
2	"PIG" Striking Tool	
2	Sledge Hammers 8 lb	
2	Round Point Shovel (Long Handle)	
2	Square Point Shovel (Long Handle)	
2	6' NY Roof Hook	
1	6' Talon Hook	
2	8' NY Roof Hook	
2	12' NY Roof Hook	
1	10lb sledge Hammer	
1	16lb sledge Hammer	
1	Set of Elevator Keys	
1	Colorado Hook	
2	Rigid frame Hacksaws	
12	Hacksaw Blades	
1	Handsaw, Carpenter Type	
1	Bow Saw 24"	
1	Chain Saw	
1	Spare Chain	
1	Roof Saw w/ carbide tip chain	
1	Electric Chain Saw	
2	Chain Saw Files	
1	Flat Chain Saw File	
1	Chainsaw Chaps	
4	Reciprocating Saws (2 Electric AC) (2 Electric Battery)	
24	Reciprocating Sawblades	
2	Rotary Saw 14"	
4	Spare Rotary Saw Blades for metal and masonry	
2	12 Chopper Carbide Blade	
1	Circular Saw 7 1/4"	
6	Spare Circular Saw Blades for wood	
2	Spray Bottles with non-flammable lubricant	
1	Air Chisel Kit	
1	Impact Hammer (Ajax x11)	
1	Bullpohrt bit for impact hammer	
1	Chisel bit for impact hammer	
1	Spade bit for impact hammer	
1	Exo Themic Torch	
1	Extra Rods	
1	Torch	
1	Oxygen Tank size 80	
1	Propylene Tank size 30	
1	Torch Rose Bud Head	
1	Petrogen Cutting Torch	
1	Metal Circular Saw	
1	Spare Metal Circular Saw Blades	
1	Metal Cutting Deep Cut Band Saw	
12	Traffic Cones	
1	Barrier Tape 2000ft	
8	Traffic Vests DOT Compliant	
1	Incident Command Vest Kit	
2	Flashlights w/ Traffic Wand	
1	Road Triangles required by DMV	
1	Box of Road Flares	
1	Binoculars 7 X 50 mm power minimum	
1	Radiation Meter	
1	44444	Traffic Control

Cutting Tools

Handled Tools

Quantity	Description	Category
1	Multi-Gas Meter	Communications
Minimum of 5	Fuel Spill Booms	Communications
Minimum of 25	Fuel Spill Absorbent Pads	Communications
1	Gas Clamp Mustang Clamp	Communications
3	Pawler Pools various sizes, ability to contain gasoline	Communications
	HazMat Putty Kit	Communications
	Oil Dry	Communications
1	KNOX Key Secure	Communications
1	12,000lb Truck Mounted Electric Winch	Communications
1	Reese Hitch Mounted Winch 8,000lb electric	Communications
2	Single Sheave Snatch Blocks for Truch mounted Winch	Communications
1	Single Sheave Snatch Blocks for Reese hitch mounted Winch	Communications
2	Cable or Chain 2 Ton Come A Longs	Communications
2	8000lb come alongs	Communications
4	3/8" x 6' Grade 70 transport chain	Communications
4	3/8" x 12' Grade 70 transport chain	Communications
1	3/8" x 20' Grade 70 transport chain	Communications
8	3/8" Grade 70 transport chain shorteners	Communications
1	12' Grade 100 Chain rated for overhead lifting	Communications
1	8' Grade 100 Chain rated for overhead lifting	Communications
1	Grade 100 Chain shortner rated for overhead lifting	Communications
1	4 Ton port-a-power	Communications
2	48" High Lift Jacks	Communications
2	60" High Lift Jacks	Communications
4	Rescue 42 Jack Mate	Communications
2	10 ton Hydraulic Bottle Jacks	Communications
2	20 ton Air & Hydraulic Bottle Jacks	Communications
1	High Pressure Air Bag Set	Communications
3	Vetter Brand Connectable 30 Ton	Communications
2	Vetter Brand Connectable 75 Ton	Communications
1	Vetter Brand Emergency Rescue Set	Communications
3	Vetter Brand Hoses Shut Off Unit 32ft	Communications
4	Vetter Brand Shut off Unit	Communications
3	Vetter Brand VCB 25/30 Protection Cap	Communications
2	Vetter Brand VCB 62/75 Protection Cap	Communications
3	Vetter Brand Connection Plage	Communications
1	Vetter Brand Fitting Controller	Communications
	Vetter Brand Adapter	Communications
1	Grip Hoist Wire Rope Winch	Communications
1	Grip Hoist Wire Rope Winch	Communications
1	Hydraulic Spreader	Communications
2	Hydraulic Cutters	Communications
1	Hydraulic Rams	Communications
1	Back Up Power Unit	Communications
1	Edraulic Combi Tool	Communications
1	Edraulic 110 Battery Adaptor	Communications
1	Edraulic Cutter	Communications
1	Edraulic Spreader	Communications
1	Edraulic Ram	Communications
1	Hand Operated Combi Tool	Communications
1	Mini Lite Hand Held Pump	Communications
1	Mini Cutter	Communications
1	Mini Spreader	Communications
1	1LB Jack Rabbit Tool	Communications
1	Hydraulic Ram Attachment Set	Communications
	Hydraulic Maintenance Kit	Communications
1	Hydraulic Chord Manual Reel	Communications
1	Hurst Strong Arm (fire)	Communications
3	Spare Hydraulic Chords Streamline connections on both ends	Communications
10	Flat Head Screw Drivers Assorted Sizes (2 atleast 15")	Communications
10	Phillips Head Screw Drivers	Communications
4	Spring Loaded Center Punch	Communications
2	Glass Master	Communications
1	Pipewrench 18"	Communications
1	Utility Knife with Hooked Blade	Communications
1	2 lb machinist type hammer	Communications
2	6" vice grip plyer	Communications
2	10" vice grip plyer	Communications
1	9 1/2" slip joint plyer	Communications



1	Little Giant Ladder	
2	Ground Ladder Wedge Kits	
8	Type III/IV PFD	
8	Water Rescue Helmets	
8	Water Rescue Throw Bags 3/8" X 70'	
8	Water Rescue Knife and sheath able to be attached to PFD	
8	Glow Sticks	
8	Flashlights	
8	Flashlights	
8	PFD Tether Chord	
8	Prusik Chord	
8	Whistle	
6	Water Rescue Boots	
6	Dry Suits	
2	300' 7/16" 5000lb water rescue rope w/ Storage Bag	
2	18" Type IV Throwable Device	
1	Inflatable Boat	
1	Storage Bag for Boat	
8	Boat Paddles	
2	Manual Boat Pump	
2	Electric Boat Pump	
1	K9 PFD	
2	RescueCinch Collar	
1	Hose Inflation System	
1	Cross Line Reach System	
6	SCBA	
12	Spare SCBA Cylinders	
1	RIT BAG	
4	RIT Cylinders	
1	Air Cart	
4	Air Cart Air Line 100ft sections	
4	Air Cart Air Line 50ft sections	
4	Supplied Air Respirators	
2	Spare SKA-PAK escape Cylinders	
2	Long Spine Board w/ Straps	
1	KED Device	
2	Adult "C" Collars	
1	Pediatric "C" Collar	
2	Oxygen Cylinders	
1	Oxygen Regulators 0-15 LPM	
1	Non Rebreather Mask (Infant, Child, & Adult)	
2	Nasal Cannulas (Infant, Child, & Adult)	
1	Bag Valve Mask w/ High Concentration Kit (Infant, Child, & Adult)	
1	Suction Device (Portable with rigid or soft tip suction catheter)	
2	Manual Suction Device	
2	Blanket	
1	Splint Kit (Includes Traction Splints)	
1	Trauma Kit	
1	Body Bag for transport of deceased	
1	Exposure Bag for transport of deceased	
2	Additional Body/Exposure Bags	
1	Stokes Basket Litter	
1	Stokes Basket Litter	
1	Stokes Flotation Kit	
2	SKED Stretcher Kit	
2	Clipboard	
100	Triage Tags	
4	Medical Gloves Boxes	
		SCBA
		Medical Care

Vendor Provided Price (Total)	Vendor Provided Price (Individually)	
		Honda 1000 Generator
		Streamlight Fire Vulcan LED
		Petzl Pixa 2
		Streamlight Portable Scene Light
		FRC LED Portable (SPAKR700-K20-ON
		Akron: live cord reels, 120V AC w/ LS15PR plugs
		X-Treme Box, Portable Power Distribution
		Hannay CR16-14-16
		Hogan Stakes.com
		CTC-6005
		CTC-503
		Sterling Rope
		Sterling Rope
		Petzl Ava0 BOD Fast
		Petzl Ava0 BOD Fast
		Petzl Vertex Best
		Omega OPG6LNFPA
		(1) Rock Exotica The Bolt, (1) Petzl NFA G Large Paw, (1) Petzl NFA Medium
		Petzl NFA-G Twin Prussik Minding
		Petzl NFA-G Minder Prussik Minding Pulley
		Petzl Kootenay Carriage
		Conterra "Fix" Litter Harness
		Riggers Winch INRW500
		Lookhead Winch kit INLH500KIT
		Stanley Brand
		Fire Hooks Unlimited Collapsible Shovel
		Fire Hooks Unlimited Bolt Cutter BC-24

Model

Fire Hooks Unlimited Bolt Cutter 3 CUT-3		
Fire Hooks Unlimited Non Conductive Cable Cutter NCCC-28		
Fire Hooks Unlimited Pro Bar		
CPinch Point Crowbar		
Fire Hooks Unlimited SHV-5		
Lock Slot 8		
Iron FOX		
Fire Axe Inc.		
Fire Axe Inc.		
Fire Hooks Unlimited		
Fire Hooks Unlimited SHV-P-55		
Fire Hooks Unlimited SHV-F-55		
Fire Hooks Unlimited		
Fire Hooks Unlimited		
Fire Hooks Unlimited		
Fire Hooks Unlimited		
Fire Hooks Unlimited		
Fire Hooks Unlimited		
Fire Hooks Unlimited		
Stihl MS 661 R C-M		
33 RS3		
Cutters Edge Multi Cut		
Stihl MSE 210 C-BQ		
Milwaukee 5538-21		
Starrett Rescue Blades		
Piraya 14" saw blade		
Part CBT 12X12		
Milwaukee		
Diablo		
ALAX		
Arcair Slice Complete Pack 63991002		
Victor (Propylene)		
Core System Package		
Milwaukee 8" metal cutting saw kit 6370-21		
Diablo Steel Demon		
Milwaukee 6232-21		
Streamlight Survivor Low Pro- Rechargeable, with vehicle charging base		







1AA Model 22		
(6) Force 6 RescueTec PFD (L/XL), (2) Force 6 RescueTec PFD (S/M) Or Mustang MRV 150 NRS Chaos w/ removable ear protection (yellow) NRS Pro Rescue Throw Bag Or Mustang MRD 175		
Princeton Tec Meridian Strobe Headlamp style, waterproof		
72" 7mm Fox 40 NRS work boot, various sizes, determined at purchase Mustang MSD576 Various sizes, determined at purchase		
Stearns 24" Ring Buoy NRS 13'6" Expedition Self Bailing NRS Boat Bag (Large) Carlisle Outfitter Paddle NRS 5" Barrel Pump Mastercraft Big Blower Pump NRS C.F.D. LSP Cinch Rescue Collar Mark V Deluxe Hose Inflation System HD26069 SCOTT X3 550psi 45min SCBA CGA fitting 5500psi 45min cylinders CGA fitting SCOTT RIT Pak III 5500psi 5500psi 75min cylinders CGA fitting SCOTT Mobile Air-Cart, 4 outlet, plus 2 outlets for air tools, 805827-01 Hansen Fitting Hansen Fitting SKA-PAK Plus 4500psi 10min cylinders, Kevlar Harness, Hansen Fitting 1 Piece Plastic w/ minimum of 500lbs capacity Orange in Color size D cylinder aluminum		
Laerdal LCSU 4 Compact Suction Unit Laerdal V-vac Manual Suction Unit WOOL		
Junkin Plastic Breakaway Junkin Stainless Steel Military Junkin Flotation Kit Sked Basic Rescue System International Orange upgraded with Cobra Buckles Pose Bottom Opening Box		

## City of Brevard Fire Department

### SCBA Replacement

Brevard Fire has applied for the FEMA Assistance to Firefighters Grant for the replacement of our SCBA's for the years 2014, 2015 and 2016. We have been turned down at the end of the grant process in 2014 and 2015 for SCBA's. The 2015 grant did allocate us money to replace our SCBA fill station compressor, which we did. The 2016 grants have now started to be released April 16, 2017. We have not received a turn down letter as of May 12, 2017. **The budgeted amount will not be used if the grant is approved.**

Our request is for SCBA that is in compliance with OSHA and NFPA 1981-13 revised edition standards that are directly tied to our daily operations and to enhance firefighter safety. The \$389,250 is the grant budgeted amount for 45 air packs and 5 tracking locators integrated PASS systems. Operationally we carry 8 SCBA on 3 engines, 5 on 1 engine (reserve engine), 6 each rescue and aerial and 2 on both tankers. We need to carry more SCBA because of volunteer members responding in POV's to scenes. We averaged on NCRRS for structure fires 21 BFD members.

### Issues

Our 2017 air pack inventory includes 7 air packs purchased in 1992, 14 in 1997 and 24 in 2002, a total of 45 air packs and 45 spare bottles. We are now borrowing spare bottles from a vendor (some yellow aluminum) with 48 of our bottles expiring at the end of this year. The most cost effective way to eliminate our most common risk is to replace these unpredictable and unsafe 2216 air packs that are now used when providing auto and mutual aid to the other 6 departments that are using high pressure SCBAs.

Due to the years of use at a 3 year average of 167 calls to IDLH atmospheres, and 50 auto aid calls, these SCBA have had issues with pressure transducers, gauges remaining open giving false readings, valves sticking, etc. Because of these problems it is unrealistic to continue committing our firefighters to life threatening situations using these unacceptable SCBA units. Our maintenance costs are @ \$4000 year. Our critical need is to replace the 2216 with the new 5500 psi or 5.5L ones with a spare 45 minute bottle (NFPA also requires that at 33% of air supply the FF must exit the building vs 25% with our older SCBA) and voice amplified face masks that have the auto PASS, are CBRNE compliant and meet NFPA 1981-13 revised edition standards. With replacement SCBA we will have a positive effect on the fireground, allowing our firefighters to perform our core mission of reducing the loss of life and property. In addition we have a critical need for a first time purchase of 5 tracking locators for our 3 engines, 1 rescue and 1 aerial, they will fill capability gaps to enhance our daily operations while improving firefighter health & safety.

### **Project Budget**

45 Air Packs w/ Locators, heads up display, spare bottle and voice amp. face mask, buddy breathing at \$8,450 ea.

5 Trackers with truck charger \$1,800 ea.

Total \$389,250

Again if we do not get the grant and the price comes in less per SCBA the borrowed amount will be less.

To be budgeted in 2019 FY budget for 10 years.