



## Shop Order

Carrier Truck Center Inc.  
 O/A Carrier Centers  
 645 Athlone Place  
 Woodstock, ON N4S 7V8

The City of North Bay Fire Department

<b>Sales Rep:</b> Gordon Green Metalfab Ltd.	<b>Terms:</b> Chassis, body and equipment Net 30 day upon pick up at Metalfab
<b>Drawing #:</b> FT-11116-C <b>Est. Delivery Date:</b> / / <b>Customer PO #:</b> 19971 <b>Customer #:</b> 1560 <b>QPF #:</b>	<b>Penalty:</b> \$150.00 per day after 365 days upon approval of the Shop Drawings by the Customer

**Quote No:** North Bay, ON-0033  
**Job/Order No:** 20701  
 02/28/2020

PART NO	QTY	DESCRIPTION
	1	== <i>Metalfab Pumper - ULC 05/13 - 0.000</i> ==
	1	<b>CHANGE ORDER I</b>
<b>00-10-1520</b>	1	<b>Metalfab Pumper</b>
00-20-1000	1	Company Profile E
00-20-1500	1	Standard Body Warranty
00-20-1550	1	Metalfab Limited Ten (10) Year Paint and Corrosion Warranty
<b>00-20-1600</b>	1	<b>Waterous Pump Warranty - 5 years</b>
00-20-1800	1	Polypropylene Tank Lifetime Warranty
<b>00-20-2100</b>	1	<b>Plant Inspection Visits - Final inspection at Spartan &amp; Metalfab - costs by CCEV</b>
<b>00-20-3000</b>	1	<b>No Bonding Requested</b>
00-20-3500	1	Certification for Fusion Welding of Aluminum
<b>00-20-4000</b>	1	<b>Quality System registered to ISO 9001:2015</b>
00-20-4500	1	Fire Apparatus Manufacturers' Association Membership
	1	<b>GENERAL INFORMATION</b>
10-11-0000	1	Intent E
<b>10-11-0110</b>	1	<b>Vehicle data recorder included with chassis</b>
<b>10-11-1101</b>	1	<b>ULC S515-13 and NFPA 1901-2016 Compliance</b>
<b>10-11-1500</b>	1	<b>ULC Testing - Pumper</b> Customer confirmed that the test is to be conducted in Imperial units. The pump will be tested as 1250 IGPM.
<b>10-11-2100</b>	1	<b>Maximum length - 36' (432")</b>
<b>10-11-2200</b>	1	<b>Maximum height - 10' 06" (126")</b>
<b>10-11-2400</b>	1	<b>Overall length is 30' or more</b>
10-11-2500	1	General Construction
<b>10-11-2600</b>	1	<b>Preconstruction Meeting - by CCEV</b>
<b>10-11-3000</b>	1	<b>Manuals - three (3) copies - 2 hard copies, 1 electronic</b> At the time of delivery, three (3) copies of complete operation and service manuals will be provided covering the completed apparatus (body and equipment) as delivered and accepted, including the pump, wiring diagrams, lubrication charts, and fire fighting equipment delivered with the apparatus. Chassis manuals are those supplied by the chassis manufacturer.
<b>10-11-3600</b>	1	<b>Delivery - FOB Fire Department - by CCEV</b>

<b>PART NO</b>	<b>QTY</b>	<b>DESCRIPTION</b>
10-11-4300	1	<b>Payment Terms - Chassis and Body NET 30</b>
10-20-1400	1	<b>Hose capacity exceeding ULC/NFPA requirements</b> The hose load expected on this vehicle is: 600' of 2-1/2" double jacket hose 1000' of 4" x 100 mm hose  Preconnect capacity 400' of 1-3/4" hose in two transverse hose lays 100' of 1-3/4" hose in front bumper hosewell Department also carries Hurst E-Draulics tools and two (2) PPV fans that weight a total of 300lbs as advised by Rod Harris on 04.06.2019 by e-mail  ***Extra weight allowance of 1135 pounds for hose and tools***
10-20-2000	1	<b>Equipment carrying capacity - standard ULC Pumper</b> This vehicle is designed to carry the standard ULC miscellaneous equipment load of 2000 pounds.
	1	<b>CHASSIS INFORMATION</b>
20-11-1000	1	<b>Chassis supplied by Metalfab - Spartan MetroStar EMFD with 20" raised roof</b> 47,000 lb GVW 20,000 lb front axle 27,000 lb rear axle 221.5" wheelbase 161.5" cab to axle Cummins L9 380 HP @ 2000 RPM 2200 governed RPM 1150 ft-lb torque at 1400 rpm Allison 3000 EVS automatic transmission 68 US gallon fuel tank 1710 drivelines LED headlights PPG White FBCH 925849 over PPG Red FBCH 71663 LH & RH EMS cabinets, 43" high, rear access with cargo netting. LED lighting and adjustable shelf in each. Finish is mulitone silver gray - exterior and interior supplied and installed by Metalfab. Lightbar is Whelen Freedom with 8R,2C,2B and 795H Opticom to be supplied and installed by Metalfab Bumper is SS - 24" extension with a hose well and cover and gravel shield. Trash line pre-piped Windows between the front chassis door and rear chassis door were added 05.22.2019
20-11-11AA	1	<b>Chassis console modification</b> The center chasis console face plate will be modified to include the following: * Install a customer supplied Motorola XPR 5550 DIN mount that is now at Metalfab - opening measures 182mm x 53mm. To be in the middle upper portion of the face plate * Leave a provision for an ICOM IC A110 aircraft radio - no DIN mount available. The hole will measure 150mm x 50mm x 180mm deep. Install below Motorola DIN mount * Relocate the siren control provided by Spartan toward the lower middle portion of the center console. Under the ICOM radio provision if possible * Relocate the air brake control from the top of the dash to the lower left portion of the center console * Install traffic bar controller 50-11-6616 where space permits Layout of the re-designed centre console face plate will be approved by fire department
20-11-1500	1	2013 Emission chassis modifications
20-11-1700	1	<b>Chassis Motor Vehicle Inspection required - by CCEV</b>
20-21-0500	1	<b>Fluid capacity plate</b>
20-21-0600	1	<b>Pumping test plate</b>
20-21-1030	1	<b>Maximum riders sign - 5 persons</b> With chassis
20-21-1510	1	<b>Seat belt warning labels - 4 door chassis</b> With chassis

PART NO	QTY	DESCRIPTION
20-21-1520	1	<b>Helmet warning label - do not wear helmet</b> With chassis
20-21-1530	1	<b>Tire Pressure Indicators - Single Axle</b> With chassis
20-21-1600	1	<b>Apparatus Information Label</b> An information label is provided in the chassis cab, visible to the driver, stating: "When manufactured, this vehicle was: ** m high ** m long ** kg GVW Changes in height since the apparatus was manufactured shall be noted on this plate by the Fire Department"
20-21-2500	1	Shifter lock not required E
20-21-3500	1	Rear step warning label
20-21-3810	1	<b>Front mudflaps provided with chassis E</b>
20-21-4000	1	Rear mudflaps - Metalfab Logo
20-31-0100	1	Fuel tank or step covers not required
20-31-0200	1	Fuel fill label -Ultra Low Sulfur Diesel only
20-31-1900	1	<b>Chassis cab painted by chassis OEM - two tone white over red</b>
20-41-0900	1	<b>Auxiliary braking system disabled when pumping</b>
20-41-1100	1	Transmission programming - Allison WT
20-41-1500	1	<b>Extend exhaust pipe - RS front of rear wheels</b> Engineering to specify exhaust pipe material as required by the chassis manufacturer. Engineering to sign off on the exhaust configuration to make sure it meets the chassis manufacturer's emission specifications. Department has a standard Plymovent connection and has indicated that special clearances are not required as per e-mail from Rod Harris 04.06.2019.
20-41-1900	1	Battery boost terminals with chassis E
20-41-2000	1	Chassis batteries remain in OEM location
20-41-25AA	1	<b>Signature4 fuel fill assembly with brushed stainless steel door left rear fender</b> Signature4 part number 101426-11 SOPT in file
20-41-2600	1	<b>Chassis fuel tank remains in OEM location</b> The fuel tank will protrude in the lower portion of the back compartment as approved by Rod Harris by e-mail on 11.04.2019
20-41-5000	1	Rear Tow Hooks - under body *** Flat bar tow hooks under rear step (2)
20-51-0700	1	<b>Master Battery Disconnect included with chassis</b>
20-51-2500	1	<b>Back up alarm included with chassis</b>
20-51-3100	1	<b>Air inlet not required - Auto eject with Spartan chassis</b>
20-51-3400	1	Protection valve installed for air operated accessories
20-51-6200	2	<b>120 volt 20 A shore line connection</b> Standard 5-20R duplex receptacle, not fused Locations to be determined at the Pre-construction meeting; Receptacle #1 - to be located in R4 compartment on lower rear backwall for E-Draulics battery chargers. Receptacle #2 - to be located on the outside of the 20-90-1825 storage compartment towards the driver side of the unit. As noted in e-mail from Rod Harris on 04.06.2019.
20-51-6501	1	<b>Kussmaul Auto Charge as supplied by Spartan code 5202-075</b> There will be a Kussmaul Auto Charge supplied by Spartan code 5202-075.

<b>PART NO</b>	<b>QTY</b>	<b>DESCRIPTION</b>
20-51-7102	1	<b>Electric System Management included with chassis</b>
20-51-9001	1	<b>Air horns in front bumper by Spartan</b>
20-52-3500	1	<b>Chassis steering wheel lined up by Metalfab E</b>
20-60-0400	1	Chassis wheelbase does not change
20-90-1520	1	<b>12 Volt power source (covered bus bar) near top of Officers side EMS Cabinet</b> A 12 volt power source shall be provided near the top of the storage cabinet on the officer side of the chassis cab. Customer supplied TIC charger(s) shall be mounted and connected at this location. SOPT #1030 - truck specific in file
20-90-1600	1	<b>Dual USB connection - right side dash panel</b> There will be a dual USB 2.1 amp each charging socket supplied and installed on the right side officer dash panel. It will be powered battery direct to match the unit on the driver side panel. SOPT 467a
20-90-1825	1	<b>Storage compartment behind doghouse in cab - between EMS cabinets</b> A storage compartment fabricated between the two EMS cabinets behind the doghouse as per the photo in the RFP on page 27. It shall have cargo netting on the rear opening. LED strip lighting will be installed for this compartment and shall be switchable from the cabinet and provide for red or white LED lighting (ref 20-99-11AA). Finish to match the Spartan interior - multi-tone silver gray - exterior and interior of the compartment SOPT #1040 - truck specific There will be a shoreline outlet 20-51-6200 installed on the outside of the cabinet towards the driver side of the unit as indicated by an e-mail from Rod Harris on 04.06.2019.
20-99-05AA	2	<b>EMS cabinets inside Spartan cab</b> LH & RH EMS cabinets, 36" high, rear access with cargo netting. LED lighting and adjustable shelf in each. Finish is mulitone silver gray - exterior and interior. Layout approved by Rod Harris Feb 20-20
20-99-11AA	1	<b>Lighting for storage compartment behind doghouse - red/white</b> Estimated 28" long red/white LED Lumabar. Engineering will determine and confirm. SOPT #1219 - truck specific
	1	<b>PUMP AND PLUMBING</b>
30-12-3900	1	<b>Packing for Waterous pumps</b> There will be packing on this unit instead of a mechanical seal.
30-12-6000	1	<b>Waterous CSU single stage 1250 IGPM</b>
30-15-0202	1	<b>Plumbing - Waterous manifold pump TM SS E</b>
30-20-1000	1	<b>Valves and controls - top mount panel</b>
30-20-1002	1	<b>Akron valves specified</b>
30-20-1600	1	<b>Piping stainless steel - general</b>
30-20-1700	1	<b>1-1/2" (38 mm) thread specifications - NPSH</b>
30-20-1800	1	<b>2-1/2" (65 mm) thread specifications - CSA</b>
30-20-2000	1	<b>Piping hydrostatic test</b>
30-20-2500	1	<b>Anodes in suction and discharge piping</b> Install one anode on discharge side of pump, one anode on suction side of pump - do not use teflon tape or thread sealant. Paint flange silver and mask brass anode before painting for visibility.
30-21-5590	1	<b>Tank to Pump TM SS 3" w/ check valve manifold pump</b>
30-22-0530	1	<b>Tank Fill valve 2" TM SS</b>
30-31-4010	1	<b>Suction - 6" not gated each side manifold pump</b>
30-31-602A	1	<b>4" Rear suction, 4" Storz connection, SS and Waterous Electric MIV</b> There will be a 4" Rear suction with 4" Storz connection and cap, SS pipe and controlled by a Waterous Electric MIV (30-31-7210). The fitting is to come out on the back right hand side of the body which will require notching in some side compartments to allow room for the piping.

<b>PART NO</b>	<b>QTY</b>	<b>DESCRIPTION</b>
30-31-7210	1	<b>Waterous master intake suction valve - electric control</b> *** Suction to be gated is rear (30-31-602A)
30-32-8535	1	<b>Suction - 2-1/2" left side SS, TM control, Waterous manifold pump</b> Bleeder required
30-32-9035	1	<b>Suction - 2-1/2" right side SS, TM control, Waterous manifold pump</b> Bleeder required
30-40-2035	1	<b>4" right discharge TM SS, plumbed 3", Waterous manifold pump</b> Slow close and bleeder required
30-41-2035	1	<b>2-1/2" RS discharge TM SS, bleeder, Waterous manifold pump</b>
30-41-2535	2	<b>2-1/2" LS discharge TM SS, bleeder, Waterous manifold pump</b>
30-43-1530	1	<b>2-1/2" rear discharge TM SS, plumbed 2-1/2", bleeder</b> *** Right side
30-44-0730	2	<b>1-1/2" speedlay (each) front of pumphouse TM SS, plumbed 2"</b> Dual direction sliding hose trays (Aluminum trays sliding on UHMW) with stainless steel rollers at the bottom portion on each end will be provided. There will be protective plates installed on the sides to protect the body when the hoses are deployed. Minimum capacity of 200' x 1-3/4" hose and nozzle for each tray. Bleeder valve provided on side pump panel. The speedlay plumbing connections are on the inside portion of the speedlay tray accessible from outside of the pump house. The color codes for these discharges will be green and yellow to match department supplied hoses. As requested from Rod Harris by e-mail on 11.17.2020
30-44-1030	1	<b>1-1/2" front trash line TM SS, plumbed 2", hosewell</b> Minimum capacity for 100' of 1-3/4" hose and nozzle. The fitting will be above the bumper on the right hand side of the compartment.
30-44-6530	1	<b>Piping for monitor TM SS, plumbed 3", bleeder</b> Centered transversely behind area back of operators panel plumbed for the 80-99-35AA TFT Extend-a-Gun riser and 80-99-30AA TFT Crossfire Monitor. Not to exceed the maximum height when in the stowed position.
30-51-0500	1	<b>Pump shift-Midship air</b> ***Includes "Pump Engaged" and "OK to Pump" indicator lights on chassis instrument panel ***Includes "Throttle Ready" indicator light on Pump operating panel Located in cab near to the transmission shift selector where room permits.
30-51-0700	1	Pump Gearbox mounted manual over ride for pump shift E
30-51-6640	1	<b>Class One "TPG Plus" Governor/Throttle</b>
30-51-7000	1	<b>Suction side relief V/V, manifold pump</b>
30-51-7000	1	<b>Suction side relief V/V, manifold pump</b> There will be an additional suction side relief valve installed for the rear suction
30-51-7500	1	<b>Primer electric vane type 12V with lubrication reservoir Waterous</b> Indicator light on panel to show when primer is operating. There will be a lubrication reservoir supplied and installed.
30-51-8100	1	<b>Heat exchanger included with chassis</b>
30-52-1000	1	Master drain V/V, 12 port
30-52-2000	1	<b>Drain valve for foam system header</b>
30-52-5610	1	<b>Foam system-Hypro FoamPro 2001 Dual Tank</b> The FoamPro 2001 foam system shall be plumbed for pickup of foam from the 20 Imperial Gallon foam cell and for pickup from an external foam pail using the B-side of the foam selector valve. Foam system is plumbed to both speedlays 30-44-0730 and the monitor 30-44-6530 discharges

<b>PART NO</b>	<b>QTY</b>	<b>DESCRIPTION</b>
<b>30-52-6500</b>	<b>1</b>	<b>FoamPro dual tank selector valve (manual)</b> There will be a selector valve to choose the source of the foam supply - The "A" position will be plumbed to the foam cell 40-12-4500 and the "B" position will be plumbed to the external pickup on the right side pump panel used to get foam from a foam pail.
<b>30-52-9100</b>	<b>1</b>	<b>Foam concentrate label at foam tank fill</b>
<b>30-52-9200</b>	<b>1</b>	<b>Foam System Instruction Plates</b>
<b>30-52-9400</b>	<b>1</b>	<b>NFPA Foam System certification test</b>
		<b>WATER AND FOAM TANKS</b>
40-11-2100	1	Polypropylene water tank (Imperial gallons)
40-11-2200	1	Water tank capacity certification (tank manufacturer)
<b>40-11-4500</b>	<b>1</b>	<b>Tank capacity 800 Imperial Gallons</b>
<b>40-12-4500</b>	<b>1</b>	<b>Foam cell - 20 Imperial gallon</b> There will be a foam cell plumbed to the "A" position of the selector valve 30-52-6500.
<b>40-21-0500</b>	<b>1</b>	<b>3" tank to pump connection</b>
<b>40-22-0500</b>	<b>1</b>	<b>2" tank fill connection</b>
40-23-0500	1	1" water level gauge connection
<b>40-23-1000</b>	<b>1</b>	<b>1" foam level gauge connection</b>
40-30-0400	1	3" plug in sump box
40-30-1000	1	Water Fill Box front left corner
40-31-0400	1	Rear dump valve not requested E
40-31-6050	1	Rear fill not requested E
		<b>ELECTRICAL</b>
<b>50-11-0400</b>	<b>1</b>	<b>Base electrical system - Spartan multiplex</b> Vista display on left side by driver by Spartan
<b>50-11-0600</b>	<b>1</b>	<b>Warning Light Certification</b>
<b>50-11-0700</b>	<b>1</b>	<b>Low Voltage Electrical system test</b>
<b>50-11-0800</b>	<b>1</b>	<b>Low Voltage Electrical System Documents</b> As required by ULC and NFPA standards
<b>50-11-2500</b>	<b>1</b>	<b>Siren and speaker supplied by Spartan</b> Whelen 295HFS2 siren and 100 Watt speaker
<b>50-11-6100</b>	<b>1</b>	<b>Whelen Freedom IV LED light bar NFPA and 791H opticom</b> The light bar will be a Whelen Freedom IV series with 8R,2C,2B flashers and a 791H Opticom. Truck specific SOPT 891.
<b>50-11-6110</b>	<b>1</b>	<b>Price Adjustment</b>
<b>50-11-6616</b>	<b>1</b>	<b>Rear LED Traffic Advisor warning lights - surface mount</b> TAM83 Controller will be mounted in cab center dash. The Traffic advisor will be surface mounted to allow the step 60-31-5800 to be lowered as much as possible as requested by Rod Harris by e-mail on 11.16.2020
<b>50-12-8000</b>	<b>1</b>	<b>Additional body side intersection light not required</b> Distance between front and rear side intersection light does not exceed 25'
<b>50-12-8521</b>	<b>1</b>	<b>Front flashers, intersection lights included with chassis, Whelen 600</b> Red with clear lenses.
<b>50-12-8621</b>	<b>1</b>	<b>Rear LED flashers (pr)-Whelen red/blue LED C9 with integral flasher</b> Red lenses on the left side and blue lense on the right side as indicated by Rod Harris by e-mail on 04.06.2019.
<b>50-12-8820</b>	<b>2</b>	<b>Body side inter lts (pr)-Whelen red LED C9 with integral flasher</b> Red lenses
<b>50-12-88BB</b>	<b>1</b>	<b>Body side inter lts (pr) - Whelen red LED 600 with integral flasher</b> This unit shall be equipped with flashing red LED lights in the side of the rear fender wells

PART NO	QTY	DESCRIPTION
		(intersection lights). Red with clear lenses.
50-21-5100	1	Compartment lighting - LED tube lights in each compartment (rollup doors)
50-21-5500	1	<b>Door Ajar warning light</b> Bilingual warning label in cab to read: "Do Not Move Apparatus when Light is on"
		***Spartan chassis is equipped with a Whelen Ion LED door ajar warning light Customer confirmed that this is acceptable on 01.18.2019
50-21-5550	1	<b>Equipment rack not stowed warning light</b> Bilingual warning label in cab to read: "Do Not Move Apparatus when Light is on"
		***Spartan chassis is equipped with a Whelen Ion LED warning light and a visual signal on the Vista display. Customer confirmed that this is acceptable 01.18.2019
50-21-8001	1	<b>Step lights for body steps - 4" LED</b> Switched with park brake
50-21-8110	1	<b>Step lights for walkway - 4" LED</b> Switched with park brake
50-21-8510	1	<b>Rear clearance lights on rubber arms (pr)</b> LED, mounted on rear step - one each side ahead of reflector
50-21-8600	1	LED clearance lts and reflectors
50-21-8800	1	<b>LED intermediate turn signal/clearance/reflector length &gt;30'</b>
50-22-0750	1	<b>Whelen 64 LED CAST 4V tail/brake-turn-backup-warning module (pr)</b> The warning light in the module will be red on the right side and blue on the left side as indicated by Rod Harris by e-mail on 04.06.2019.
50-31-6022	1	<b>Scene lights (pr), Whelen C9SL - Rear facing</b> Located in the upper rear body corners, one each side below the red flashing lights. Switched in cab and when the transmission is placed in reverse. These lights cannot be managed as they are required for ULC. SOPT #39c
50-31-60CC	2	<b>Scene Lights (pr), Whelen PSL2R5 - mounted each side</b> Mounted on each side inboard of the C9 flashers Switched in cab These lights can be managed to shed SOPT #691 - truck specific
50-31-6505	1	<b>Ground lighting included with chassis E</b>
50-31-65AA	1	<b>Ground lighting (LED Lumabar) - top mount body</b> Switched with park brake
50-99-10AA	1	<b>Hose bed cover lights - LED - 40" Lumabars x 4</b> Switched with park brake SOPT #209
50-99-25AA	1	<b>Lighting for walkway in center of hose bed - 3 x 20" LED Lumabars</b> Switched with park brake SOPT #560
	1	<b>BODY</b>
60-10-1400	1	Single axle extruded aluminum body
60-10-4100	1	No "beavertail" rear step supports

PART NO	QTY	DESCRIPTION
60-10-4600	1	Painted fender surround E
60-10-4700	1	Integral aluminum fender trim
60-10-5400	1	Diamondback pumphouse steps
<b>60-10-5440</b>	<b>1</b>	<b>Diamondback 14" rear step</b>
60-10-6000	1	Extruded rub rail
<b>60-11-0300</b>	<b>1</b>	<b>Front left side compartments full height E</b>
<b>60-11-0700</b>	<b>1</b>	<b>Front right side compartments full height E</b>
<b>60-11-1000</b>	<b>1</b>	<b>Rear left side compartments full height E</b>
<b>60-11-1400</b>	<b>1</b>	<b>Rear right side compartments full height E</b>
<b>60-11-2000</b>	<b>2</b>	<b>High side compartment (over 18") each</b> There will be a compartment over the rear wheels on the left and right side. The right side compartment will be narrower to allow for the HLAS arm 60-41-9500.
<b>60-11-3200</b>	<b>1</b>	<b>Full Height Rear compartment</b> The bottom portion of the compartment will have a notch for the fuel tank. There will be enough room for the sliding tray (60-31-8700) to be 24" deep to allow the transport of a customer supplied PPV fan as approved by Rod Harris by e-mail on 11.04.2019
<b>60-11-5500</b>	<b>2</b>	<b>Rollup door - standard height</b> Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point
<b>60-11-5520</b>	<b>5</b>	<b>Rollup door - full height</b> Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point
<b>60-11-5655</b>	<b>3</b>	<b>Amdor pull straps - Flex HD for L2, R2 and back roll up doors</b> There will be Amdor pull straps installed on the high side compartment doors and the back compartment door.
<b>60-11-5660</b>	<b>4</b>	<b>Amdor pull straps - Flex HD for L1, L3, R1 and R3 roll up doors</b> There will be Amdor pull straps installed on the compartment doors ahead and behind the rear chassis wheels.
<b>60-31-4100</b>	<b>1</b>	<b>Extruded aluminum handrails</b> Minimum 2" clearance from handrail to any surface The handrail under the hose bed will be to either side of the rear step 60-31-5800 so it will not be a trip hazard for the firefighter getting into the hose bed.
<b>60-31-5000</b>	<b>1</b>	<b>Zico access Ladder at rear of unit</b> There will be a Zico Access ladder installed on the rear left side of the body in place of the folding steps 60-31-55AA and it will extend to below the suction hose storage to allow the deployment of the suction hose. Minimum 7" clearance between rung and any obstruction
<b>60-31-55AA</b>	<b>1</b>	<b>Trident lighted folding steps - front and rear</b> Three (3) total - one (1) each side on the body face at the front pump panel and one (1) at the rear right side lower to help accessing the suction hose storage 60-40-5500. Trident # 24.005.3 SOPT #521 - truck specific
<b>60-31-5600</b>	<b>1</b>	<b>Grab handles at front of body next to pump panel as required</b> Maximum height between steps is 18"
<b>60-31-5800</b>	<b>1</b>	<b>Special step over rear compartment</b> There will be a step installed over the back of the body to assist in transitioning from the Zico Access ladder 60-31-5000 to the hose bed. It will be above the Traffic Advisor 50-11-6616 and be as low as possible as requested from Rod Harris by e-mail on 01.16.2020



<b>PART NO</b>	<b>QTY</b>	<b>DESCRIPTION</b>
<b>60-31-65AA</b>	<b>1</b>	<b>Turtle tile brand plastic matting for compartment floors - black</b> P/N 1100973 SOPT #1206 - truck specific
<b>60-31-8003</b>	<b>3</b>	<b>Signature 4 double holder (EA)</b> Two (2) in right side rear fender - forward and rearward One (1) in left side rear fender - forward part of fender only Door ajar switches required. SOPT 1023 The bottles measure 60cm high x 52cm circumference as advised by Rod Harris by e-mail on 01.17.2020. Picture of the valve located in F:/Data/Jacques/Current Projects/North Bay/Pictures
<b>60-31-8200</b>	<b>1</b>	<b>Sliding vertical tool board - lock in, lock out sliding hardware</b> The sliding vertical tool board will be installed in the L1 compartment - flat along the rearward wall and will be 48" tall. The tool board will have a fire department supplied and installed SCBA bracket installed on it after delivery. There will be reflective stripe installed on the edge to show when it is deployed. As requested by Rod Harris by e-mail on 05.22.2019
<b>60-31-8400</b>	<b>2</b>	<b>Fixed vertical partition</b> There will be two (2) vertical tool boards installed in the following locations: 1. The vertical partition will be installed in the L1 compartment towards the rear fender well and will leave enough room for a pull out tool board 60-31-8201. Department to specify spacing required: It will be installed 14" from the face of the toolboard to allow the installation of an SCBA bracket by the fire department after the delivery. 2. The vertical partition will be installed in the R1 compartment towards the pump house. It will be installed on the pull out tray 60-31-8700 and will leave enough room for a customer supplied 20lb ABC extinguisher mounted on the right hand side. The rear of the fixed partition will be supported to make the unit rigid. Department specified spacing required to be 12" from right side of tray - as indicated by e-mail by Rod Harris on 08.13.2019 As indicated by Rod Harris by e-mail on 05.22.2019
<b>60-31-8700</b>	<b>7</b>	<b>Sliding tray (ea) - 400 pound capacity with gas strut - 4 fixed, 3 adjustable</b> Gas struts required as per the tender (vs. lock-in, lock-out) Locations to be determined at the pre-construction meeting: Tray #1 - at bottom of L1 compartment ahead of the vertical partition 60-31-8400 Tray #2 - at bottom of L3 compartment Tray #3 - at bottom of the back compartment - needs to be 36" wide and 24" deep as approved by Rod Harris by e-mail on 11.04.2019 Tray #4 - at bottom of R1 compartment Tray #5 - in L3 compartment adjustable on height Tray #6 - in R3 compartment adjustable on height Tray #7 - in R3 compartment adjustable on height - higher portion of compartment Reflective stripe is applied on the exposed edge for visibility when the compartment door is open
<b>60-31-8800</b>	<b>1</b>	<b>Sliding tray (ea) - 600 pound capacity</b> The 600lb tray will be installed in the R3 compartment as indicated by Rod Harris by e-mail on 04.06.2019 ***Hardware requires 3-1/2" of compartment height Reflective stripe is applied on the exposed edge for visibility when the compartment door is open
<b>60-31-9600</b>	<b>8</b>	<b>Adjustable shelf (ea)</b> *** Vertical unistruts shall be installed in all compartments *** Locations as follows: Shelf #1 - L1 compartment ahead of the vertical partition 60-31-8400 Shelf #2 - L1 compartment ahead of the vertical partition 60-31-8400 Shelf #3 - L3 compartment

PART NO	QTY	DESCRIPTION
		Shelf #4 - R1 compartment
		Shelf #5 - R1 compartment
		Shelf #6 - Back compartment
		Shelf #7 - R2 compartment
		Shelf #8 - R3 compartment in upper portion
		Reflective stripe is applied on the exposed edge for visibility when the compartment door is open
60-31-96AA	1	<p><b>Notched shelf</b></p> <p>There will be a notched shelf installed beside the rear suction blister in the R3 compartment. Department to specify the measurement of the notch:  <b>Width to be the area between the rear suction blister and the right side wall</b>  <b>Height to be the same height as the rear suction blister</b>  <b>As confirmed by e-mail by Rod Harris on 08.13.2019</b>  <b>See pictures: F/Data/Jacques/Current Projects/ North Bay/Pictures</b></p>
60-32-3500	1	<p><b>One adjustable hose divider</b></p> <p>There will be a hose divider supplied and installed in the right side of the hose bed to separate customer supplied 4" hose and 2.5" hose as requested by Rod Harris by e-mail on 11.01.2019 and confirmed on 01.02.2020. Hand hold required in end</p>
60-32-3580	1	<p><b>Non-slip walkway centered in hosebed</b></p> <p>SOPT #629 - truck specific</p> <p>The walkway will be centered in the hose bed as approved by Rod Harris by e-mail on 11.01.2019</p>
60-32-7500	1	<p><b>Hose bed - aluminum with center walkway</b></p> <p>Center walkway with embossed tread plate is 18" wide and will be centered to allow the storage of as much 4" hose on the right side as possible. The remainder of 4" hose to get to 1000' and 600' of 2.5" hose will be on the left side. The walkway surface will be illuminated to meet ULC.</p> <p>The rear edge will have 16" uncovered by the hose bed cover 60-33-5000 to act as a landing to allow the firefighter to access the hose bed easier and safely. As requested by Rod Harris by e-mail on 04.06.2019 and 11.01.2019.</p>
60-33-0100	1	<p><b>Paint exterior - Imron Elite and clearcoat E</b></p> <p>*** Paint code and colour red to match red on cab</p>
60-33-0200	1	Undercoat vehicle with KROWN rust protection
60-33-0600	1	<b>Chassis wheels not painted</b>
60-33-1000	1	Paint pump and plumbing job colour
60-33-1600	1	<b>Special paint compartment interior - gray zolatone E</b>
60-33-32AA	1	<p><b>Reflective stripe - white with red checker board pattern</b></p> <p>The reflective stripe will be white with red checker board pattern as shown on drawing approved by Rod Harris Feb 27-20. Metalfab will provide 2 Canada flags and will install lettering provided by the Fire Department as shown on the drawing.</p>
60-33-3310	1	<p><b>Reflective stripe - White and red chevron at rear - Non NFPA compliant</b></p> <p>Minimum 50% of rear vertical surface</p> <p>3M Scotchlite material</p> <p>The fire department are aware that the White and Red chevrons are ULC approved only and they will provide a letter acknowledging that this will be non-NFPA.</p>
60-33-40BB	2	<p><b>End doors on speedlays (pr) each side</b></p> <p>There will be an upper door and lower door on each end of the speedlays to protect the hoses during transport. The upper door will flip up and be retained by a ball and socket. The lower door will flip down and rest against a rubber bumper. The doors will be made of deck plate as requested by Rod Harris by e-mail on 01.02.2020</p>
60-33-5000	1	<p><b>Aluminum cover over hose bed with end tarps - black</b></p> <p>Rear flaps with Velcro straps will be provided on the rear of the cover to tie around the rear handrail or footman's loops.</p>

PART NO	QTY	DESCRIPTION
		<p>Rear flaps for the hose storage area only - Center walkway section is left open. The covers will be the same sizes with the walkway centered as requested by Rod Harris by e-mail on 11.01.2019</p> <p>The covers will stop 16" from the rear of the truck to allow for a landing as described in 60-32-7500.</p>
60-40-5500	2	<p><b>Suction hose tube (each) mounted in rear of body</b></p> <p>For storage of the two 6" x 10' suction hoses 80-11-5000.</p> <p>The tubes shall be enclosed in the upper corners of the rear body between the tank and the side body compartments as indicated by Rod Harris by e-mail on 04.06.2019.</p>
60-41-1015	2	<p><b>Pike Pole tube in suction hose tube</b></p> <p>The pike poles 80-13-2500 will be stored beside the suction hoses - one in each tube as indicated by Rod Harris by e-mail on 04.06.2019.</p>
60-41-9500	1	<p><b>Zico Horizontal Ladder Access system</b></p> <p>Right side.</p> <p>Include HLAS-OS optional stop</p> <p>To be wired so only operable when park brake is engaged.</p> <p>Flashing lights and reflective tape required at front and rear to indicate any areas that protrude beyond the body.</p> <p>For storage of the 24' 2 section extension ladder 80-14-0500, the 14' roof ladder 80-14-5500 and the 10' attic ladder 80-14-8500 in the 80-14-9000 attic ladder brackets.</p> <p>The lower section of the HLAS arm will be covered with a brushed aluminum cover to match the appearance of the Amdor doors. The area above the fender tops will have a painted job color panel to match the upper portion of the body as indicated by Rod Harris by e-mail on 04.06.2019.</p>
60-41-9510	1	<p><b>ZICO HLAS switched at rear above tail light</b></p> <p>Switch is located on same side as electric rack - right side.</p>
60-41-9700	1	<p><b>Swing out tool board - open mesh type (ea)</b></p> <p>A swing out tool board shall be installed in the L2 compartment 10" above the floor and centered in the compartment front to back. This will allow an Haligan to be installed on the floor of the compartment.</p> <p>The board will be as high as possible and the back portion will have approximately 4" of space that won't be accessible due to a notch in the compartment. As discussed with Rod Harris during the 02.12.2020 sshop visit.</p> <p>Open mesh type to facilitate viewing all mounted equipment while open. Reflective stripe is applied on the exposed edge for visibility when the compartment door is open.</p> <p>3" Flashing amber light activated when tool board is swung open.</p> <p>SOPT #853 - truck specific</p> <p>Rod Harris confirmed location and layout by e-mail on 04.06.2019</p>
60-91-0500	2	<p><b>Compartment SCBA Storage rack</b></p> <p>There will be a row of five (5) SCBA tubes along the upper portion of the L1 and R1 compartment as indicated by Rod Harris by e-mail on 04.06.2019 and 01.31.2020.</p> <p>The bottles measure 60cm high x 52cm circumference as advised by Rod Harris by e-mail on 01.17.2020. Picture of the valve located in F:/Data/Jacques/Current Projects/North Bay/Pictures</p>
60-99-10AA	1	<p><b>PAC-Track on back wall of compartment with the slide out tool board</b></p> <p>PAC-Track (Metalfab P/N 1562630)</p> <p>The panel shall be secured to the upper 36" of the toolboard 60-31-8200 in the L1 compartment</p> <p>SOPT #1136 - truck specific</p> <p>Location confirmed by Rod Harris by e-mail on 04.06.2019.</p>

PART NO	QTY	DESCRIPTION
60-99-15AA	1	<b>Airbag storage 8"x27"</b> There will be an air bag storage compartment installed in the upper forward portion of the R3 compartment. It will measure 8" wide x 27" tall. SOPT 840 As requested by Rod Harris by e-mail on 04.06.2019
	1	<b>INSTRUMENTATION</b>
70-11-0000	1	<b>Warning Label on Pump Operator's Panel</b>
70-11-1500	1	<b>Stainless steel instrument panels</b> No gauge or visual display can be higher than 84" above the operator's standing position Midpoint of any control cannot be higher than 72" above the operator's standing position
70-11-2000	1	<b>Top mount instrument panel</b> No gauge or visual display can be higher than 84" above the operator's standing position Midpoint of any control cannot be higher than 72" above the operator's standing position
70-11-2500	1	<b>Transverse walkway</b>
70-11-2600	1	<b>Tread plate overlay on back of chassis cab</b> The deckplate will extend from the bottom of the cab to the top of the door window and below the top cab window to provide the maximum protection from a firefighter operating the panel as requested by Rod Harris during the shop visit of 02.12.2020
70-11-3100	1	<b>Mansaver bars not requested</b>
70-11-3200	1	<b>Colour coded tags - Imperial</b> There will color coded tags installed and they will be listed in Imperial measurements where applicable. The colors for the speedlays 30-44-0730 will be green and yellow to match customer supplied hoses and requested by Rod Harris by e-mail on 01.17.2020
70-11-3500	1	<b>Compartments in ends of walkway</b> Final dimensions will depend on space available when chassis is received and design is complete. The layout will be a flip up storage to match their existing unit. Pictures are available at F:/Data/Jacques/Current Projects/North Bay/Pictures
70-11-4000	1	<b>Stainless steel side panel hood right side</b>
70-11-4100	1	<b>Stainless steel side panel hood left side</b>
70-11-5200	1	<b>End doors (vertically hinged) and flip up cover for storage area top of P. house</b> Side end doors are treadplate Flip up cover on top is embossed aluminum treadplate Door ajar switches required Two 12" LED Lumabars installed for lighting SOPT #146
70-11-5500	1	<b>Right side tread plate pump access door</b> No opening dimension less than 18" Slot required for Primer level viewing
70-11-5600	1	<b>Left side tread plate pump access door</b> No opening dimension less than 18"
70-11-5700	1	<b>Transverse tread plate pump access door</b> No opening dimension less than 18"
70-11-75AA	1	<b>Heat pan - Extreme weather type</b> SOPT #575
70-11-8000	1	<b>Heater in pump compartment</b> Switch for heater is located at the pump operators panel

<b>PART NO</b>	<b>QTY</b>	<b>DESCRIPTION</b>
70-11-8200	1	<b>Rubber seal around suction and discharge openings on panel</b> SOPT #483
70-20-0500	2	<b>4-1/2" compound gauge - dual face 0-400</b> To be within 8" of each other - edge to edge
70-20-1500	9	<b>2-1/2" pressure gauge - dual face 0-400</b> Gauge to be no more than 6" from edge of the gauge to the center of the control.
70-20-2500	1	<b>Primer control</b>
70-20-3100	1	<b>Class One Governor Control</b> Throttle can be no lower than 42" and no higher than 72" from operator's standing position.
70-20-3500	1	Electric water level gauge on pump panel, Class One
70-20-6500	1	Test gauge panel Mount below the compound gauges for proper draining
70-20-7500	1	<b>Heat exchanger control valve</b>
70-21-1500	1	<b>Electric Foam Level gauge</b> There will be a foam level gauge plumbed to the foam cell 40-12-4500 on the "A" position of the selector valve. Include access to and room for sender in front of body and back of pump house.
	1	<b>ACCESSORIES</b>
80-11-5000	2	<b>6" x 10' lightweight suction hose (ea)</b> Tube mounted in rear of body.
80-13-0500	1	<b>Rubber mallet</b> Shipped loose, not mounted. Customer will mount with Customers brackets.
80-13-12CC	3	<b>Akron Style 2448 spanner wrench holder with 2 wrenches</b> There will be a set of wrench supplied and installed on each side panel and one set above the rear 4" suction. P/N 1520128 SOPT # 816 - truck specific The final location will be confirmed at the final inspection as requested by Rod Harris by e-mail on 01.16.2020
80-13-12DD	3	<b>Kocheck KS34 wrench holder with 4 Storz spanner wrenches</b> There will be a set of wrench supplied and installed on each side panel and one set above the rear 4" suction. P/N 1500804 SOPT # 816 - truck specific The final location will be confirmed at the final inspection as requested by Rod Harris by e-mail on 01.16.2020
80-13-2500	2	<b>Pike pole, fibreglass handle - 10' long</b> Pike poles will be stored in tubes 60-41-1015 as requested by Rod Harris by e-mail on 04.06.2019.
80-13-3000	2	<b>Price Adjustment</b>
80-14-0500	1	<b>24' 2 section extension ladder PEL 24</b> Stored on HLAS
80-14-5500	1	<b>14' aluminum roof ladder PRL-14</b> Stored on HLAS
80-14-8500	1	<b>10' aluminum folding attic ladder FL-10</b> Stored on HLAS
80-14-9000	1	<b>Attic ladder bracket (Zico)</b> Mounted on HLAS

<b>PART NO</b>	<b>QTY</b>	<b>DESCRIPTION</b>
80-19-0500	2	<b>Large folding wheel chock - aluminum (ea)</b> The wheel chocks will be stored in the walkway compartments 70-11-3500.
80-99-30AA	1	<b>TFT XFC-32 Crossfire package w/portable base and Master Stream nozzle</b> XFC-32 package includes; Base, Crossfire storage bracket, Crossfire monitor and Master Stream nozzle (specify 1000 or 1250 S). Order with CSA swivels for the portable base. Order so compatible with the 80-99-35AA Extend-a-Gun riser SOPT #1230 - truck specific
80-99-35AA	1	<b>TFT Manual 18" Extend-a-Gun riser for the Crossfire Monitor</b> TFT XG18VL-XL Order so compatible with the Crossfire monitor 80-99-30AA. Wire the hazard light to the equipment not stowed warning light in cab (ref 50-21-5550). SOPT #1230 - Truck specific
80-99-40AA	1	<b>PAC tool bracket for NY Hook</b> There will be a pair of PAC tool brackets model # 1004 supplied and installed on the front bumper to hold a NY Hook 80-99-45AA. The final location will be confirmed at the final inspection as requested by Rod Harris by e-mail on 01.16.2020
80-99-45AA	1	<b>6' New York Hook with pry bar tip and steel shaft</b> There will be a 6' New York hook with pry bar tip and steel shaft mounted on the front bumper behind the trash line compartment. The unit will be secured with PAC tool brackets 80-99-40AA The final location will be confirmed at the final inspection as requested by Rod Harris by e-mail on 01.16.2020