



Shop Order

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

Custom Pumper for Georgina Fire Department

Exp. Date: 10/14/2020
Quote No: 10071-0021
Job/Order No: 21767
BODY: 00-10-15 Metalfab Pumper - ULC 05/13

05/24/2022

Page 1

PART NO	S	DESCRIPTION	QTY	ID
		== Metalfab Pumper - ULC 05/13 - 0.000 ==	1	MTL
	S	Change Order G	1	MTL
00-05-0020	S	Dealer - Carrier Centers Emergency Vehicles - Rod	1	MTL
00-10-1520	U	Metalfab Pumper	1	
00-20-1000		Company Profile	1	MTL
00-20-1500	S	Standard Body Warranty	1	MTL
00-20-1550		Metalfab Limited Ten (10) Year Paint and Corrosion Warranty	1	MTL
00-20-1600		Waterous Pump Warranty - 5 years	1	MTL
00-20-1800		Polypropylene Tank Lifetime Warranty	1	MTL
00-20-2100	S	Plant Inspection Visits - expense covered by CCEV	1	MTL
00-20-3500		Certification for Fusion Welding of Aluminum	1	MTL
00-20-4000	S	Quality System registered to ISO 9001:2015	1	MTL
00-20-4500		Fire Apparatus Manufacturers' Association Membership	1	MTL
		GENERAL INFORMATION	1	MTL
10-11-0000		Intent E	1	MTL
10-11-0110		Vehicle data recorder included with chassis	1	MTL
10-11-1103	U	ULC S515-13 and NFPA 1901-2016 Compliance	1	
10-11-1700		> ULC Testing - Pumper - Metric units of measure	1	MTL
		ENG. NOTE: Note in the shop note if the Fire Department wishes to witness the test		
		Tested to 6000 Litres per minute		
10-11-2100		Maximum length not specified E	1	MTL
10-11-2200		Maximum height not specified E	1	MTL
10-11-2400		Overall length is 30' or more	1	MTL
10-11-2500		General Construction	1	MTL
10-11-2600	S	Preconstruction Meeting - By CCEV	1	MTL
		Deadline for chassis changes is December 3rd, 2020		
		Deadline for body changes is January 14th, 2021		
10-11-3000		Manuals - two copies ***Two copies of manuals on USB are required and a complete parts list as per section 12 of the tender.	1	MTL
10-11-3600	S	> Delivery - FOB Fire Department - by CCEV	1	MTL
		ENG. NOTE: Note in the shop note if more than 4 hours of training is required		
10-11-4000		Payment Terms - Chassis Net 10 days, Balance COD	1	MTL
10-20-1400	S	> Hose capacity exceeding ULC/NFPA requirements	1	MTL
		ENG. NOTE: Specify the type of hose and quantity of hose to be carried on the vehicle		
		Hose bed to be able to hold the following: 800' of 4" hose 300' of 2-1/2" hose 300 of 1-3/4" hose		

PART NO	S	DESCRIPTION	QTY	ID
		***An additional weight allowance of 400 lbs		
10-20-2000		Equipment carrying capacity - standard ULC Pumper	1	MTL
		CHASSIS INFORMATION	1	MTL
20-11-1000	S	Chassis Spartan Metro Star LFD with 10" raised roof	1	MTL
		47,000 lb GVWR 20,000 lb front axle 27,000 lb rear axle		
		224" wheelbase 156.5" cab to axle 74" rear overhang		
		Cummins L9 380 hp @ 2200 rpm 2200 governed rpm		
		1150 ft-lb torque @ 1200 rpm (changed from 400 hp engine as per the Purchase Order)		
		Allison 3000 EVS automatic transmission		
		68 MPH top road speed		
		320 amp alternator		
		1710 series driveline		
		Jackshaft for Waterous pump - 116" as determined by engineering		
		68 US gallon fuel tank		
		SKF auxiliary lube system - LH frame mounted		
		Zip clean type seats complete with additional seat covers		
		Cab interior color is Multi-tone dark red		
		Cab exterior color is single color red - PPG FBCH 71528 - paint sprayout required and approved 01.12.2021 by e-mail		
		Chassis Includes 120 Volt auto eject in the "LH Cab Side Mid" 5209-021		
		5728-009 rear view camera.		
		Changed Do not Move Apparatus light to 5406-124 to have multiple lights		
		Tow eyes 2204-002 to match tender		
		5013-012 - Electric over air pump shift control as confirmed by Rod Harris by e-mail on 12.01.2020		
		Chassis lightbar 5450N-003 has blue pods in position #6 and #13 as requested by Rod Harris by e-mail on 12.04.2020		
		Front bumper hosewell will be done by Metalfab as discussed with Rod Harris by e-mail on 01.21.2020		
20-11-1500		2013 Emission chassis modifications	1	MTL
20-11-1700	S	Chassis Motor Vehicle Inspection required - by CCEV	1	MTL
20-21-0500		Fluid capacity plate	1	MTL
20-21-0600		Pumping test plate	1	MTL
20-21-1030	S	Maximum riders sign - 5 persons - Included with Spartan Chassis	1	MTL
20-21-1510	S	Seat belt warning labels - 4 door chassis - Included with Spartan chassis	1	MTL
20-21-1520	S	Helmet warning label - do not wear helmet - Included with Spartan chassis	4	MTL
20-21-1560	S	LED Tire Pressure Indicators - Single Axle - included with Spartan chassis	1	MTL
		Shipped loose for end user install		
20-21-1600		Apparatus Information Label	1	MTL
		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		Shifter lock not required E	1	MTL
20-21-3500		Rear step warning label	1	MTL
20-21-3810		Front mudflaps provided with chassis E	1	MTL
20-21-4000		Rear mudflaps - Metalfab Logo	1	MTL
20-21-45AA	U	Transportation Safety Kit - Included with chassis	1	
		Includes basic First Aid Kit, Safety Triangle and 2-1/2 lb Fire Extinguisher		
20-31-0100		Fuel tank or step covers not required	1	MTL
20-31-0200	S	Fuel fill label - "Ultra Low Sulfur Diesel Only"	1	MTL
20-31-1900	S	Chassis cab painted single tone by chassis OEM	1	MTL
20-31-4700	S	> Extend front bumper, gravshld by Spartan / hosewell by Metalfab	1	MTL
		ENG. NOTE:		
		Note location of preconnect elbow		
		Note special capacity requirements _____		

PART NO	S	DESCRIPTION	QTY	ID
		<p>24" bumper extension and gravel shield by Spartan Hosewell to be done by Metalfab to carry 150' of 1.75" hose. Current hosewell measures 33.5" long x 16" wide x 11" deep (can be deeper as long as it does go below the bumper). There will be a raised lip around the compartment to prevent water intrusion. The cover will be slightly raised and will have a D-handle (the latch to lock into a slot in the front of the compartment so the hose does not get caught on a latch block). See pictures in F:/Data/Jacques/Current Projects/Georgina/Pictures As requested by Rod Harris by e-mail on 01.21.2020 The connection of the front trashline 30-44-1020 will be at the bottom of the hose well. Chevrans to match M18-20000 (60-33-33AA) were added as requested by Rod Harris by e-mail on 12.02.2020</p>		
20-31-7505	S	<p>Stainless glove box holder/dispenser There will be two (2) glove box holders installed on the side of EMS cabinet 20-99-10AA to match M18-20000. As requested by Rod Harris by e-mail on 01.08.2021</p>	2	MTL
20-31-8808	U	<p>Tablet mounting bracket in cab - Havis Shield APP 112 A tablet mounting bracket will be supplied and installed on the dash in front of the Officer's seating position. Havis Shield APP112 was approved by Rod Harris by e-mail on 12.15.2021</p>	1	
20-41-0900		Auxiliary braking system disabled when pumping	1	MTL
20-41-1100		Transmission programming - Allison WT	1	MTL
20-41-1500		<p>Extend exhaust pipe - RS front of rear wheels E 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. Exhaust will be outboard of the frame rail to allow space for the Waterous Pump</p>	1	MTL
20-41-1900		Battery boost terminals with chassis E	1	MTL
20-41-2000		Chassis batteries remain in OEM location	1	MTL
20-41-2561	U	Fuel Fill at LS rear fender well with SCBA style door	1	
20-41-2600		Chassis fuel tank remains in OEM location	1	MTL
20-41-5000		<p>Rear Tow Hooks - under body *** Flat bar tow hooks under rear step (2)</p>	1	MTL
20-51-0700		Master Battery Disconnect included with chassis	1	MTL
20-51-2500		Back up alarm included with chassis	1	MTL
20-51-3100	S	<p>Air inlet not required The air inlet was removed where it was not required as advised by Rod Harris by e-mail 12.01.2020</p>	1	MTL
20-51-3400		Protection valve installed for air operated accessories	1	MTL
20-51-6200	S	<p>> 120 volt 20 A shore line connection in chassis cab/body ENG. NOTE: Requires 20-51-75 120 volt auto eject or 20-51-80 120 volt inlet Standard 5-20R duplex receptacle in chassis cab/body, not fused To be located minimum 12" from the floor to meet ULC Mounting locations: Receptacle #1: EMS cabinet 20-90-1825 in right rear corner Receptacle #2: EMS cabinet 20-99-10AA Receptacle #3: R1 compartment 36" from the floor compartment, on back wall, towards right hand side of compartment As advised by Rod Harris by e-mail on 02.05.2021</p>	3	MTL
20-51-6501	S	Kussmaul Battery Conditioner LPC 40 w/auto eject included w/chassis	1	MTL
20-51-7102	S	Electric System Manager - VMUX	1	MTL
20-51-8505	S	<p>Engine compartment light LED - included with chassis One required to light up the complete engine compartment. Switched when cab is raised.</p>	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
20-51-9001	S	Air horns included w/chassis	1	MTL
20-52-3500		> Chassis steering wheel lined up by Metalfab E ENG. NOTE: Freightliner, Sterling, and Spartan only	1	MTL
20-52-4003	U	Installation of rearview camera when supplied w/Spartan chassis	1	
20-60-0400		Chassis wheelbase does not change	1	MTL
20-90-1810	U	Extend air tank/moisture ejectors to rubrail and tag SOPT#507	1	
20-90-1825	U	EMS cabinet with cargo netting over opening - Spartan chassis A sanded aluminum EMS cabinet approximately 39 inches wide by 17.5 inches tall by 17 inches deep is installed in the chassis cab complete with a top surface used for storage will be installed behind the chassis dog house like a unit from a competitor. M18-20000 was a MFD cab and only had a small shelf due to the lack of room. Will have a mesh cover on the compartment opening The cabinet must have a one (1) inch rim around the top circumference The cabinet top and floor must be fitted with interlocking tile matting Finish will be buffed aluminum Ref SOPT #1040 Approval drawing to be sent to customer for sign off before construction - approval received by e-mail from Rod Harris on 01.07.2022 See picture and drawing of current truck from a competitor in F:/Data/Jacques/Current Project/Georgina/Pictures	1	
20-99-10AA	U	EMS cabinet behind officer seat The medical box will have minimum dimensions of 17" wide x 15" deep (can be bigger to use the space available) and 47" high to match an existing unit. There will be mesh restrain installed to protect the loose equipment stored inside. There will be two adjustable shelves (60-31-9600), interior lights and have buffed finish. To match M18-20000 and a drawing will be submitted for department approval before the build. Approval drawing to be sent to customer for sign off before construction - approval received by e-mail from Rod Harris on 01.07.2022 As requested by Rod Harris by e-mail on 01.07.2021.	1	
PUMP AND PLUMBING			1	MTL
30-12-4000		Mechanical seals for Waterous pumps	1	MTL
30-12-6500		Waterous CSU single stage 1500 IGPM Pump will be rated and tested to 6000 LPM Short steamers required - see 30-31-4010	1	MTL
30-15-0204		Plumbing - Waterous manifold pump SM SS E	1	MTL
30-20-0500		Valves and controls - side mount panel All drain valves to be 1/4 turn controls as listed in the tender. Note: Swing style bleeder controls to match M18-20000 are available at extra cost	1	MTL
30-20-1002		Akron valves specified	1	MTL
30-20-1600		Piping stainless steel - general	1	MTL
30-20-1700	S	1-1/2" thread specifications - NPSH	1	MTL
30-20-1800	S	2-1/2" thread specifications - CSA	1	MTL
30-20-2000		Piping hydrostatic test	1	MTL
30-20-2500		Anodes in suction and discharge piping 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.	1	MTL
30-21-5560		Tank to Pump SS 3" w/ check valve manifold pump	1	MTL
30-22-1520		Tank Fill valve 2-1/2" SS	1	MTL
30-31-4010	S	Suction - 6" not gated each side manifold pump To have the shorter style inlets that protrude less than two (2) inches (50mm) away from the side panels, allowing an external valve to be connected and not protrude past the apparatus body sides. Customer advised make and model of external valves that will be installed and	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
		the pump panel rollup doors must be able to close when installed: Left side Make: Task Force Tip Model: AP8NX-NX-PS Right side Make: Task Force Tip Model: AXD1SP-NX-T As advised by Rod Harris by e-mail on 01.08.2021 and pictures saved at F:/Data/Jacques/Current Projects/Georgina/Pictures.		
30-32-7535		Suction - 2-1/2" left side SS, bleeder, Waterous manifold pump	1	MTL
30-32-8035		Suction - 2-1/2" right side SS, bleeder, Waterous manifold pump	1	MTL
30-40-2025	S	4" right discharge SS, plumbed 3", Waterous manifold pump, bleeder, slo-close	1	MTL
30-40-25AA	U	4" Rear discharge, 3" valve, 4" SS piping, 4" Storz connection,bleeder,slo-close Connection at rear located right side under ladder tube SOPT#305 The piping will run through the water tank and will require a blister in the rear compartment to create space for the fitting(s).	1	
30-41-2025		2-1/2" RS discharge SS, bleeder, Waterous manifold pump	1	MTL
30-41-2525		2-1/2" LS discharge SS, bleeder, Waterous manifold pump	2	MTL
30-43-1520	S	2-1/2" rear discharge SS, plumbed 2-1/2", bleeder *** Right side near the hi-vol discharge 30-40-25AA as requested by Rod Harris by e-mail on 01.08.2021	1	MTL
30-44-0720	S	1-1/2" speedlay (each) front of pumphouse SS, plumbed 2" Capacity in each lay to be minimum 200' x 1-3/4" hose and nozzle Customer advised that single stack design above the 2.5" speedlay to match M18-20000 is preferred. As confirmed by Rod Harris by e-mail on 01.08.2021	2	MTL
30-44-1020	S	> 1-1/2" front trash line SS, plumbed 2", hosewell ENG. NOTE: Requires extended front bumper, gravelshield Capacity in hose lay to be minimum 150' x 1-3/4" hose and nozzle as advised by Rod Harris by e-mail on 01.08.2021. Metalfab will build the hose well as requested by Rod Harris by e-mail on 01.21.2021 The swivel connection will terminate inside the front bumper compartment hose well.	1	MTL
30-44-3520	S	2-1/2" speedlay SS, plumbed 2-1/2", bleeder Capacity in hose lay to be minimum 200' x 2-1/2" hose and nozzle	1	MTL
30-44-6520	S	Piping for monitor SS, plumbed 3", bleeder Monitor piping will be terminate with 3" male NPT and will have a Metalfab supplied TFT Hurricane RC Monitor installed (80-99-25AA) Customer advised that the preferred location of the monitor pipe will be towards the right side. As advised by Rod Harris by e-mail on 01.08.2021	1	MTL
30-51-0500	S	Pump shift-Midship air Electric over air pump shift in cab included with the Spartan chassis (Code 5013-012) ***Includes "Pump Engaged" and "OK to Pump" indicator lights in cab ***Includes "Throttle Ready" indicator light on Pump operating panel Customer advised that the electric pump shift listed in item #88 of the chassis spec (which matches what was supplied on M18-20000) is the preferred model. As advised by Rod Harris by e-mail on 12.01.2020	1	MTL
30-51-0600	S	Manual over ride for pump shift on LS pump panel by Metalfab Manual override on the pump panel as requested in item #76 of the body tender and approved by Rod Harris on 01.21.2021 by e-mail.	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
30-51-6640		Class One "TPG Plus" Governor/Throttle To be programmed in PSI unless otherwise specified	1	MTL
30-51-7000		Suction side relief V/V, manifold pump	1	MTL
30-51-7711		Trident Air Primer 3 barrel 1 location	1	MTL
30-51-7720	S	Additional air tank for air primer system - with chassis An additional air tank is provided to improve air primer capacity and is included with the chassis.	1	MTL
30-51-8100		Heat exchanger included with chassis	1	MTL
30-51-8500		Pump cooler with control valve, check valve	1	MTL
30-51-90AA	U	Waterous Thermal Relief Valve - Overheat Protection Manager Indicator light/test button located on left side pump operators panel SOPT#844 Will be ordered with the pump and will discharge below the pump when activated	1	MTL
30-52-1000		Master drain V/V, 12 port	1	MTL
30-52-2000		Drain valve for foam system header	1	MTL
30-52-5510		Foam system-Hypro FoamPro 2001 Single Tank Foam system is plumbed to both 1-1/2" speedlays, the 2-1/2" speedlay and the front bumper 1-1/2" discharge.	1	MTL
30-52-8100		Electric foam fill pump with panel pickup Pump will be used to refill the foam cell 40-12-5000. The suction hose will be stored inside the pump house and will be accessible through the right side pump access door 70-11-5500	1	MTL
30-52-9100		Foam concentrate label at foam tank fill	1	MTL
30-52-9200		Foam System Instruction Plates	1	MTL
30-52-9400		NFPA Foam System certification test	1	MTL
		WATER AND FOAM TANKS	1	MTL
40-11-2100		Polypropylene water tank (Imperial gallons)	1	MTL
40-11-2200		Water tank capacity certification (tank manufacturer)	1	MTL
40-11-4500	S	Tank capacity 800 Imperial Gallons There may be blisters in the L2/R2 compartments to compensate for the ladder storage inside the tank. As approved by Rod Harris by e-mail on 01.08.2021	1	MTL
40-12-5000		Foam cell - 30 Imperial gallon	1	MTL
40-13-0100	S	> Through the tank tunnel - for ladder storage 60-40-9000 ENG. NOTE: Charge 60 per cubic foot of tunnel volume The ladder tube 60-40-9000 will be stored in the water tank as requested by Rod Harris by e-mail on 01.08.2021	1	MTL
40-21-0500		3" tank to pump connection	1	MTL
40-22-1000	S	2-1/2" tank fill connection	1	MTL
40-23-0500	S	3/4" water level gauge connection	1	MTL
40-23-1000	S	3/4" foam level gauge connection	1	MTL
40-30-0400		3" plug in sump box The drain will be a plug as requested in item #262 of the body tender Note: A 3" valve to match M18-20000 is available at extra cost	1	MTL
40-30-1000		Water Fill Box front left corner	1	MTL
40-31-0400		Rear dump valve not requested E	1	MTL
40-31-6050		Rear fill not requested E	1	MTL
		ELECTRICAL	1	MTL
50-11-0400		Base electrical system - Spartan multiplex Electrical components on the body will have extra wiring behind to allow space when removing an accessory. As requested in item #291 of the body tender.	1	MTL
50-11-0600		Warning Light Certification	1	MTL
50-11-0700		Low Voltage Electrical system test	1	MTL
50-11-0800		Low Voltage Electrical System Documents As required by ULC and NFPA standards	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
50-11-1400	S	Siren and speaker included w/Spartan chassis	1	MTL
50-11-2600		Siren to be accessible to driver and officer	1	MTL
50-11-5990	U	Whelen light bar included with chassis	1	
		Whelen F4N72 light bar - includes 6 red lights, 2 white lights, 2 blue lights (position 6 and 13) and an Opticom (795H) Customer approved WECAD on Change Order A.		
50-11-6610	S	Rear LED Traffic Advisor warning lights - flush mount The traffic advisor will be a TAM83 in order to be recessed into the body as approved by Rod Harris by e-mail on 06.28.2021	1	MTL
50-12-8521	S	Front flashers, intersection lights included with chassis, Tecniq K60	1	MTL
50-12-8686	U	Rear LED flashers (pr) - Tecniq red K90 - Upper	1	
50-12-8821	U	Body side inter lts (pr) - Tecniq red K90 - Upper	2	
50-12-8896	U	Body side inter lts (pr) - Tecniq red K60 - Lower	1	
50-21-5100		> Compartment lighting - LED tube lights in each compartment (rollup doors) ENG. NOTE: Rollup doors only	1	MTL
50-21-5500	S	Door Ajar warning light - with chassis With chassis Bilingual warning label in cab to read: "Do Not Move Apparatus when Light is on" Includes hose bed covers (60-33-5000) and coffin compartment doors (60-91-0900)	1	MTL
50-21-5550	S	Equipment not stowed warning light - with chassis To be wired to warn when the light tower and/or the rear access ladder is not stowed. With chassis Bilingual warning label in cab to read: "Do Not Move Apparatus when Light is on" For Zico Access ladder (60-31-5000) and Light tower (50-31-60AA)	1	MTL
50-21-82AA	U	Step lights for chassis steps - LED - w/chassis Switched with park brake	1	
50-21-83AA	U	20" LED lumabar for rear access ladder Switched with park brake.	1	
50-21-83BB	U	12" LED lumabar for rear intermediate step Switched with park brake.	1	
50-21-8600		LED clearance lts and reflectors	1	MTL
50-21-8605	U	Polished aluminum license plated holder w/LED lighting	1	
50-21-8800		LED intermediate turn signal/clearance/reflector length >30'	1	MTL
50-22-0760	U	Tecniq K60 LED tail light assembly (pr) Includes flasher in the quad design Requires additional Tecniq turn and brake module for Zico Access ladder Metalfab part # 1571121 and # 1571122	1	
50-31-6049	U	Tecniq K90-SW00-1 LED Scene Lights (pr) - Right side Located in upper front and rear corners of body sides. One (1) additional light mounted on chassis cab is ordered with the chassis Switched in cab These lights can be managed to shed	1	
50-31-6050	U	Tecniq K90-SW00-1 LED Scene Lights (pr) - Left side Located in upper front and rear corners of body sides. One (1) additional light mounted on the chassis cab is ordered with the chassis Switched in cab These lights can be managed to shed	1	
50-31-6051	U	Tecniq K90-SW00-1 LED Scene Lights (pr) - Rear facing Located in the upper corners rear of body below the flashing lights. Switched in cab	1	

PART NO	S	DESCRIPTION	QTY	ID
		These lights cannot be managed to shed		
50-31-60AA	U	Command Light KL415D-FX - 4 Spectra MAX LED heads, 12 Volt DC Located in open area top of pump house. Control will be umbilical type and located on the left side wall of the L1 compartment. As approved by Rod Harris by e-mail on 01.06.2022 Light tower does not include back lighting SOPT#1223 - truck specific	1	
50-31-6505	S	Ground lighting included with chassis Switched with park brake, respective cab door and Vista (5386-004) to match M18-20000	1	MTL
50-31-658A	U	Ground lighting (20" LED Lumabar) - side mount body Switched with park brake.	1	
50-99-10AA	U	Hose bed cover lights - 40" lumabars Switched with park brake.	1	
50-99-25AA	U	LED lights in walkway There will be LED lights installed in the walkway (60-32-3580) which will be activated with the park brake. As requested by Rod Harris by e-mail on 01.08.2021	1	
51-31-4500		Dielectric strength test for line voltage system BODY	1	MTL
60-10-1400	S	Single axle extruded aluminum body - full width hose bed The body will have a full width hose bed as requested by Rod Harris by e-mail on 01.08.2021	1	MTL
60-10-15SS	U	1" drop on lower edge of compartment floor - sweep out type There will be 1" drop at the compartment floor edge to create a sweep out style compartment and as requested in item #363 of the body tender. SOPT 1236	1	
60-10-4100		No "beavertail" rear step supports	1	MTL
60-10-4600		Painted fender surround E	1	MTL
60-10-4770	S	Removable stainless steel fender trim - single axle The rear fender trim will be stainless steel to match the chassis as approved by Rod Harris by e-mail on 06.28.2021	1	MTL
60-10-5400		> Diamondback pumphouse steps ENG. NOTE: Maximum height of step is 24" from ground	1	MTL
60-10-5430	S	> Diamondback 16" rear step ENG. NOTE: Maximum height of rear step is 24" from ground	1	MTL
60-10-6500	S	Bolt on extruded aluminum rub rail w/red and white reflective	1	MTL
60-11-0300		> Front left side compartments full height E ENG. NOTE: Specify critical dimensions in shop note	1	MTL
60-11-0700		> Front right side compartments full height E ENG. NOTE: Specify critical dimensions in shop note	1	MTL
60-11-1000		> Rear left side compartments full height E ENG. NOTE: Specify critical dimensions in shop note	1	MTL
60-11-1400		> Rear right side compartments full height E ENG. NOTE: Specify critical dimensions in shop note	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
60-11-2000		> High side compartment (over 18") each ENG. NOTE: Specify critical dimensions in shop note Specify type of door Specify flip up or drop down Specify which side of body	2	MTL
60-11-3200	S	> Full Height Rear compartment ENG. NOTE: Specify critical dimensions in shop note The compartment will be shorter than the original proposal where the ladder tube 60-40-9000 will be above as requested by Rod Harris by e-mail on 01.08.2021	1	MTL
60-11-5500		Rollup door - standard height Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point	2	MTL
60-11-5520		Rollup door - full height Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point	5	MTL
60-11-5530		Rollup door - to enclose pump panel Natural aluminum finish Includes magnetic door switch, LED tube lights, rubber bumpers to prevent pinch point	2	MTL
60-11-5645	U	Amdor drip tray - all compartments Order with doors Drain to be clear plastic tubing routed to the outside of the apparatus SOPT#1185 This feature will reduce the useable space in the compartment by 2".	1	
60-11-5655	U	Amdor pull straps - Flex HD - High side compartments These will be for the L2 and R2 compartments. The locations of the straps will be: L2 compartment - left side wall as shown on approval drawing R2 compartment - right side wall as shown on approval drawing As approved by Rod Harris by e-mail on 01.06.2022	1	
60-11-5660	U	Amdor pull straps - Flex HD - Full height compartments These will be for the rollup doors for both pump panels, L1, L3, R1, R3 and B1 The locations of the straps will be: Pump panel - opposite of the speedlays L1 - L3 compartment - left side wall as shown on approval drawing R1 - R3 compartment - right side wall as shown on approval drawing As approved by Rod Harris by e-mail on 01.06.2022	1	
60-31-4100		Extruded aluminum handrails Minimum 2" clearance from handrail to any surface	1	MTL
60-31-5000		Zico access Ladder at rear of unit Minimum 7" clearance between rung and any obstruction. Switch required for the Not Stowed warning light in cab	1	MTL
60-31-5800	S	Intermediate step over rear compartment The bolt on step will be located a maximum of 18" below the hose bed to meet ULC. There will be delineation markings to meet NFPA	1	MTL
60-31-6500	S	Compartment matting - black plastic Interlocking tile No yellow edge trim included as per tender response	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
60-31-7900	U	Vertical unistrut tracking for all compts - dual tracks on front and rear wall All compartments to include dual tracks on the front and rear walls (standard unistrut tracking) for the mounting of shelving, trays, tool boards or other equipment, as required. Tracking will be left off walls that include vertical pull-out tool boards (60-31-8200) The tracking will be shorter than standard to allow space for the Amdor Drip Trays (60-11-5645)	7	
60-31-8004	U	Price Adjustment	2	
60-31-80AA	U	Price Adjustment	1	
60-31-8200	S	> Sliding vertical tool board - Open/Close latch ENG. NOTE: Specify location Locations: Tool board #1 - L1 compartment, 36" tall, tight to right hand door rail to hold a customer supplied and mounted SCBA bracket Tool board #2 - L3 compartment, full height, adjustable from side to side, mount 8" from right hand door rail White reflective stripe is applied on the exposed edge for visibility when the tool board is deployed. One (1) side of the #1 tool board and both sides of the #2 tool board will be covered with PAC-Track (60-31-821A). The #2 tool board will be shorter than standard to allow space for the Amdor Drip Trays (60-11-5645). As advised by Rod Harris by e-mail on 02.05.2021 and final locations approved by e-mail on 01.06.2022	2	MTL
60-31-821A	U	Pac-Track on the tool boards and compartment Pac Trac is installed horizontally on the left side only of the #1 tool board and both side of the #2 tool board (60-31-8200). There will a 24" piece high installed the full width of the L1 compartment - upper portion of the compartment. As requested by Rod Harris by e-mail on 02.05.2021 SOPT#1136	4	
60-31-8400	S	Fixed vertical partition There will be vertical partitions in the following locations: 1. 36" tall - Left of Tool board #1 in the L1 compartment - 14" from right hand tool board (60-31-8200) 2. Full height - Left of Tool board #2 in the L3 compartment - Approximately 16" from right hand door rail (so there is 8" each side of tool board 60-31-8200) As requested by Rod Harris by e-mail on 02.05.2021 and approved on 01.06.2022	2	MTL
60-31-84AA	U	Rolled hose and extinguisher storage in L1 compartment The 600lb 100% extension Slidemaster tray in the L1 compartment will have four rolled hose slots 4" wide each and a plate in the center of the remaining area where the customer will mount extinguishers on either side after the delivery. As requested by Rod Harris by e-mail on 02.05.2021	1	
60-31-8800	U	Price Adjustment	5	
60-31-8800	S	> Sliding tray (ea) - 600 pound capacity AM2 70% extension ENG. NOTE: Specify location ***Hardware requires 3-1/2" of compartment height Reflective stripe is applied on the exposed edge for visibility when the compartment door is open Location: Tray #1 - R3 compartment Tray #2 - B1 compartment Model AM2 requested in item #400 of the body tender will only extend 70% As requested by Rod Harris by e-mail on 02.05.2021	2	MTL

PART NO	S	DESCRIPTION	QTY	ID
60-31-88AA	U	Sliding tray (ea) - 600 pound capacity AM3 - 100% extension White reflective stripe is applied on the exposed edge for visibility when the compartment door is open. Tray #1 - R1 compartment Tray #2 - L1 compartment in the remaining area beside the vertical partition (60-31-8400) and tool board (60-31-8200) As requested by Rod Harris by e-mail on 02.05.2021	2	
60-31-90AA	U	Tip down tray - 30 degree, 200 pound capacity - aluminum hardware The tray will be 200 lb capacity with aluminum hardware as approved at the virtual inspection of 04.05.2022	1	
60-31-9600	S	> Adjustable shelf (ea) ENG. NOTE: Specify location Reflective stripe is applied on the exposed edge for visibility when the compartment door is open Locations: Shelf #1 - EMS cabinet 20-99-10AA Depth - Full Shelf #2 - EMS cabinet 20-99-10AA Depth - Full Shelf #3 - Fixed in L1 compartment to support vertical divider (60-31-8400) Shelf #4 - Left of vertical divider in L3 compartment - full depth Shelf #5 - Left of vertical divider in L3 compartment - full depth Shelf #6 - Under the Blister in R3 compartment Shelf #7 - Upper portion of the R3 compartment As requested by Rod Harris by e-mail on 02.05.2021	7	MTL
60-32-3550	S	Two adjustable and two fixed hose divider (each) Hand hold required in end Two adjustable and two fixed in center to create the walkway 60-32-3580. As requested by Rod Harris by e-mail on 01.08.2021. See also 60-32-75AA for mounting and location requirements	1	MTL
60-32-3580	U	Hose bed walkway The hosebed shall incorporate a center walkway for safety. The walkway shall be minimum of 18" wide and sided by two fixed dividers that will also act as hosebed cover supports. Non slip overlays shall be provided in the walkway part of hosebed. As requested by Rod Harris by e-mail on 01.08.2021	1	
60-32-75AA	U	Full width Hose bed - aluminum The rear of the hose bed to be held back from the rear of the apparatus by a minimum of eight (8) inches to provide for a landing area when accessing the hose bed after stepping off the access ladder. There will be Delineation markings to meet NFPA Hose bed to be able to hold the following: 800' of 4" hose 300' of 2-1/2" hose 300 of 1-3/4" hose There will be a partition at the front of the hose bed to protect the water and foam fill along with a walkway (60-32-3580) - these areas will not be covered by the hose bed covers (60-33-5000) As requested by Rod Harris by e-mail on 01.08.2021	1	
60-33-0100		Paint exterior - Imron Elite and clearcoat E *** Paint code and colour red to match cab	1	MTL
60-33-0200		Undercoat vehicle with KROWN rust protection	1	MTL
60-33-0600	S	Chassis wheels not painted - wheels are polished aluminum	1	MTL
60-33-1000		Paint pump and plumbing job colour	1	MTL
60-33-1500		Buffed finish compartment interior	1	MTL
60-33-2300	S	Lettering - special graphics *** Vinyl letters, Fire Department to provide details on location and text. Door crests will be provided by the customer as listed in item # 480 of the body tender Lettering includes:	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
		"E141" on front bumper Door cres on front chassis door "E141" on rear chassis door Canadian Flag on rear side compartment door "Georgina Fire Rescue" on upper side of body "Engine 141" on rear compartment door As per approved print received by e-mail from Rod Harris by e-mail on 01.06.2022		
60-33-3200	S	Reflective stripe - 1" - 4" -1" white on painted surface, red on rollup doors One (1) inch white/red stripe, one (1) inch space, four (4) inch white/red stripe, one (1) inch space and one (1) inch white/red stripe angled up ("hockey stick pattern") up the L1/R1 compartment doors. The white stripe will be installed on the red painted surfaces and the red stripe will be installed on the rollup doors Final design was approved by e-mail by Rod Harris on 01.06.2021 3M Scotchlite material.	1	MTL
60-33-3310	S	Reflective stripe - red and yellow chevron at rear only - Diamond grade material Minimum 50% of rear vertical surface	1	MTL
60-33-33AA	U	Diamond Grade Chevrons - front bumper There will be Diamond Grade Chevrons supplied and installed on the front bumper to match M18-20000 and requested by Rod Harris by e-mail on 12.02.2020	1	
60-33-4700		No crosslay preconnects on vehicle E	1	MTL
60-33-5000	S	Aluminum cover over hose bed with end tarps - black Manual hose bed covers with gas struts and safety chains. The end tarps will have to be velcro straps and footman loops due to layout Switches for door ajar required Will stop 8" short at the rear of the hose bed for the landing step surface, be full width of the hose bed, will not cover the water fill / foam fill area or the walkway (60-32-3580).	1	MTL
60-40-5500	S	Suction hose tube (each) with door Located under the hose bed as requested by Rod Harris by e-mail on 01.08.2021. To store the 6" x 10 long suction hoses 80-11-5000. Tubes will be fully enclosed with a single rear access door. Door ajar switch required.	2	MTL
60-40-9000	S	> Tube mount for ladders through water tank, with rear door ENG. NOTE: Specify location, ladders to be installed in this tube, complete dimensions of ladders if user supplied The ladder tube will be through the water tank - above the rear compartment (60-11-3200) and under the hose bed (60-32-7500) as requested by Rod Harris by e-mail on 01.08.2021. To store the 24' Duo Safety two section extension ladder 80-14-0505, 14' Duo Safety roof ladder 80-14-5510, 10' Duo Safety folding attic 80-14-8510, 10' pike pole 80-13-2500 and the 12' pike pole 80-13-25AA. Tubes will be fully enclosed with a single rear access door. Door ajar switch required. Ladders to be seperated so they can be deployed individually	1	MTL
60-41-1000	S	Pike Pole tube in ladder mount for ladders Refer to 60-40-9000	2	MTL
60-41-1500	S	Attic ladder tube in tube mount for ladders Refer to 60-40-9000	1	MTL
60-91-0500	S	> Compartment SCBA Storage rack (14 tubes) ENG. NOTE: Specify location and number of cylinders to be stored	1	MTL

PART NO	S	DESCRIPTION	QTY	ID
		There will be seven (7) tubes at the bottom of the L2 compartment and seven (7) tubes at the bottom of the R2 compartment with an aluminum sheet above the tubes to allow loose items to be stored above. There will be interlocking tile (60-31-6500) installed on the aluminum sheet. The tubes will be set up for the following bottles: MSA G1 4500 PSI H60 (7" diameter x 24" long) and H45 (6" diameter x 23.5" long) Photo of valve cap (to ensure retaining loop will fit) saved at F:/Data/Jacques/Current Project/Georgina/Pictures As requested by Rod Harris by e-mail on 02.05.2021		
60-99-15AA	U	Hose bed cover locks Must have the doors fitted with positive hold open (lock out) devices with latching design to prevent the door from being accidentally closed (wind or other) while in use. As built for the M18-20000 project. See drawings in F:/Data/Jacques/Current Projects/Georgina/Upper and lower locks	1	
		INSTRUMENTATION	1	MTL
70-11-0000		Warning Label on Pump Operator's Panel	1	MTL
70-11-0501	S	Side mount instrument panel with rollup door LS and RS 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	1	MTL
70-11-1500		Stainless steel instrument panels 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	1	MTL
70-11-3200	S	Colour coded tags - Vision Mark Tags Information to be in Imperial to match M18-20000 Tag colors were approved by e-mail from Rod Harris on 12.15.2021	1	MTL
70-11-5100		Open storage at rear top of pump house Drain holes required, plumbed to below frame rails. Black plastic interlocking tile install on floor Illuminated by Lumabar to be activated with park brake	1	MTL
70-11-5500	S	Right side brushed aluminum access door with thumb latches The door will be brushed aluminum finish with thumb latches to match M18-20000	1	MTL
70-11-7500	S	Heat pan-aluminum - extreme weather To be in 2-halves - removable from each side to meet the requirement in item #505 in the body tender	1	MTL
70-11-8000		Heater in pump compartment Switch for heater located on left side pump operators panel Label to indicate "Pump House Heater" to match M18-20000	1	MTL
70-11-8200	U	Rubber seal around suction and discharge openings on panel	1	
70-20-1120	U	4-1/2" compound gauge - dual face 0-400 To be within 8" of each other - edge to edge	2	
70-20-2130	U	2-1/2" pressure gauge - dual face 0-400 Gauge to be no more than 6" from edge of the gauge to the center of the control.	11	
70-20-2500	S	Primer control - Trident	1	MTL
70-20-3100		Class One Governor Control Throttle can be no lower than 42" and no higher than 72" from operator's standing position.	1	MTL
70-20-3615	U	Whelen PSTank2 bar at rear only Located on the LS rear as shown on the proposal drawing and wired in conjunction to the Spartan supplied one on side of cab.	1	

PART NO	S	DESCRIPTION	QTY	ID
		Interlock with park brake so powered only when the park brake is set. SOPT#263		
70-20-3670	U	FRC WLA300-A00 Water level gauge - Left side pump panel	1	
70-20-6500		Test gauge panel Mount below the compound gauges for proper draining	1	MTL
70-20-7500		Heat exchanger control valve	1	MTL
70-20-7600		Pump cooler control valve	1	MTL
70-21-1650	U	FRC WLA360-A00 Foam level gauge - Left side pump panel	1	
71-21-3500		Headset compartment The Headset compartment will be mounted on the left side pump panel unless otherwise specified	1	MTL
ACCESSORIES				
80-11-5000		6" x 10' lightweight suction hose (ea) Tube mounted	1 2	MTL MTL
80-12-2500		6" barrel strainer Shipped loose, not mounted.	1	MTL
80-13-0500		Rubber mallet Shipped loose, not mounted.	1	MTL
80-13-2500		Pike pole, fibreglass handle - 10' long Tube mounted	1	MTL
80-13-2516	U	Pike pole, fibreglass handle - 12' long Tube mounted	1	
80-14-0505	U	Duo Safety 24' two section ladder Tube mounted	1	
80-14-5510	U	Duo Safety 14' roof ladder Tube mounted	1	
80-14-8510	U	Duo Safety 10' attic ladder Tube mounted	1	
80-19-0550	U	Rubber wheel chock (ea) Mounted in a compartment to be determined at the pre-build meeting	2	
80-99-15AA	U	Streamlight 5 bank charger - charger only A flashlight charger (bank of five - 12 volt) will be installed to charge customer supplied "Streamlight" flashlights. Customer specified that the charger is 12-volts Customer specified preferred mounting location will be on EMS cabinet behind dog house (20-90-1825) and mounted towards officer seat. See picture in F:/Data/Jacques/Current Projects/Georgina/Pictures Customer specified the model of their Streamlight flashlights are "Survivor" SOPT#406 As advised by Rod Harris by e-mail on 01.08.2021	1	
80-99-25AA	U	TFT Hurricane RC Monitor, stacked tips w/XGA Extenda gun riser There will be Hurricane Remote Control monitor with stacked tips and XGA extenda gun supplied and installed on the monitor pipe 30-44-6520. Remote control monitor - TFT XF1H-E-PLNJ Stacked tips - TFT MST-4NJ Tethered monitor - Y4E-CT-30-D with 30' cord - to be installed on side wall of operator pump panel Extenda Gun riser - TFT XGA As requested by Rod Harris by e-mail on 04.13.2021	1	