



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des soumissions  
- TPSGC**  
11 Laurier St. / 11, rue Laurier  
Place du Portage, Phase III  
Core 0B2 / Noyau 0B2  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT  
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**  
Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**  
Vehicles & Industrial Products Division  
11 Laurier St./11, rue Laurier  
7A2, Place du Portage, Phase III  
Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> DIVING SUPPORT VEHICLES	
<b>Solicitation No. - N° de l'invitation</b> W8476-175501/A	<b>Amendment No. - N° modif.</b> 003
<b>Client Reference No. - N° de référence du client</b> W8476-175501	<b>Date</b> 2016-09-07
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$HP-371-71346	
<b>File No. - N° de dossier</b> hp926.W8476-175501	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2016-09-27</b>	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Modérie, Christine	<b>Buyer Id - Id de l'acheteur</b> hp926
<b>Telephone No. - N° de téléphone</b> (873) 469-3327 ( )	<b>FAX No. - N° de FAX</b> (819) 953-2953
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> Raison sociale et adresse du fournisseur/de l'entrepreneur	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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### AMENDMENT 003

**The purpose of this amendment is to:**

- A. Respond to bidder's questions;**
- B. Post illustrations;**
- C. Update Purchase Description (ANNEX B).**

#### **Question 2:** 3.7 ENGINE

##### 3.7.1 Engine Components

Engine Air Filter, in particular item i) states "The engine air filter shall be a replaceable dry-type with at least two stages;

Our air intake system utilizes an opening in the side of the hood which combined with the actual air path within the duct, removes particles and moisture from the air as it flows, providing cleaner air to the air cleaner in addition to a Donaldson Powercore air filter element and a reusable Service Protection Element metal screen to prevent coarse objects from falling into the engine air intake piping. Is this considered acceptable?

**Answer 2:** Yes, it is acceptable

#### **Question 3:** 3.13 INSTRUMENTS

All dash board gauges and readouts shall indicate metric units. Would dash board gauges and readouts in metric/English units be considered acceptable?

**Answer 3:** Yes, metric/English is acceptable.

#### **Question 4:** 3.17 PAINT

Item c) states "The vehicle shall be pre-marked with the Government of Canada identifier markings, etc." Is the Government of Canada supplying the identifier markings to the successful Bidder?

**Answer 4:** The contractor shall supply the markings as detailed in the attached figure 18. Drawings are attached.

#### **Question 5:** 3.20 EQUIPMENT, FEATURES AND ACCESSORIES

3.20.1 V) Hitch Receiver, in particular vi) states "For an indication of the general layout of the hitch receiver assembly see the following figure.

Please clarify if the protected 7-pin trailer connected with abs is for an air brake equipped trailer or an electric brake trailer.

**Answer 5:** It is for an electric brake trailer.

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**Question 6:** Can we get the reference figures on the desired lay out of the body?  
I believe in section 3.2.1 G there are a few references to Fig 2 through 7 and they do not seem to be included in the published document.

**Answer 6:** All the reference figures/ illustrations regarding Diving Support Vehicle Project are attached.

**Question 7:** We would appreciate further clarification on the item below:

ANNEX “B” SPECIFICATION

### 3. REQUIREMENTS

3.14 ELECTRICAL SYSTEM in particular item (i) states “The crew cab shall be provided with an AC inverter to convert power from the truck’s batteries to 110 V AC with a minimum of 15 amp capacity located in cab w/an inside outside connection on the passenger side of the vehicle.

Please clarify the minimum wattage capacity acceptable for the AC inverter.

**Answer 7:** The wattage capacity for the AC inverter shall be at least 1400 watts.

**Question 8:** Do you require hydraulic brakes or air brake system?

**Answer 8:** Hydraulic brakes.

**Question 9:** Page 5 item iii: it states seating for 6 (1) driver and 5 passengers  
Section C item I: you are now asking for seating for 5. What is it that you really want?

**Answer 9:** The requirement is for seating for six (6) (one for driver and five passengers) as detailed in Purchase Description;

**Question 10:** Is the trailer to be towed equipped with electric or air brakes?

**Answer 10:** The trailer is equipped with electric brakes.

**Question 11:** There is a reference to compartment walls and bottoms to be sprayed with “ X-Box liner” We are not familiar with this material. However, we are familiar with a product called Line-X which is often used in this type of application. Could this be a typo?

**Answer 11:** No, there is no typo. Rubberized or plasticized spray on liner such as: X-Box, Line-X or Equivalent.

**Question 12:** The desired body width dimension is called up as 2.6 M wide which is 102 inches but the dimension in Imperial units as called up in the document is 8 ft. ( 96 inches) Can the desired width be confirmed ?

**Answer 12:** The body width dimension shall be 2, 6 m (8, 5 foot).

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Public Services and Procurement Canada (PSPC) is to amend paragraph 3.20.1 (g) ii to read: The van body shall have a nominal width of 2, 6 m (8, 5 foot);

**Question 13:** The front exterior face of the van body SHALL include large, aerodynamic radius corners” If this is desired on the roof edge, this may affect the positioning of the ThermoKing unit and subsequently affect the headroom in the van body. Can the “large radius “feature be limited to the vertical edges only?

**Answer 13:** No, the van body shall include large, aerodynamic radius corners on the roof edge as well.

**Question 14:** The word SHALL are used to request an aluminum three tread slide out step. But you also include a URL to Jackson Coach Works. Is this to illustrate the requirement or do you want exactly this device?

**Answer 14:** This is only to illustrate the requirement.

**Question 15:** We would need some clarification on the electrical system desired

What are the expected loads?

How will the breathing air compressor be powered?

Is this in addition to the system described in section 3.14?

**Answer 15:** We need more clarification on this question. This potential bidder should also identify paragraph number related.

The breathing air compressor is using an incorporate gas tank, so is self-powered.

No, it's not related to paragraph 3.14

**Question 16:** Can you indicate if you need the flood lights to be 12 VDC or 120 VAC?

**Answer 16:** The requirement is for 12 VDC flood light.

**Question 17:** Can you indicate if you need the interior lights and / or fluorescent fixture to be 12 VDC or 120 VAC?

**Answer 17:** The interior lights and fluorescent fixture shall be 120 VAC.

**Question 18:** Is it possible to obtain figure 13, 14, 15,16a, 16b, 16c?

**Answer 18:** Yes, see attachment. All these illustrations will be included in the PD amendment on Buyandsell.gc.ca.

**ALL OTHER TERMS AND CONDITIONS OF THE REQUEST FOR PROPOSAL (RFP) REMAIN UNCHANGED.**

Figure 1 a

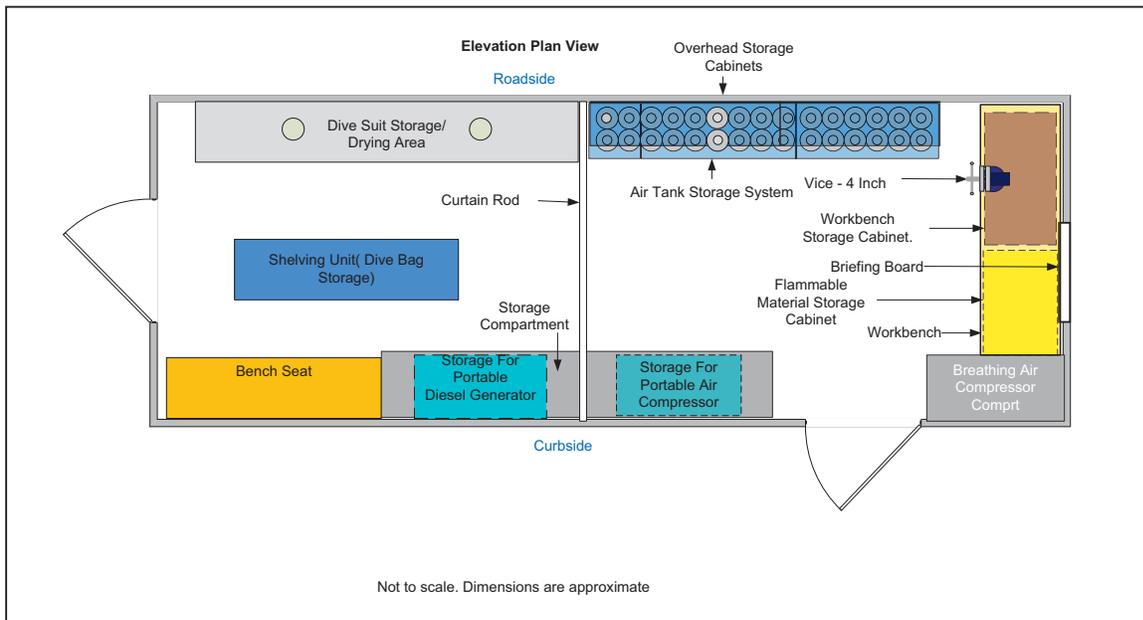


Figure 1 b

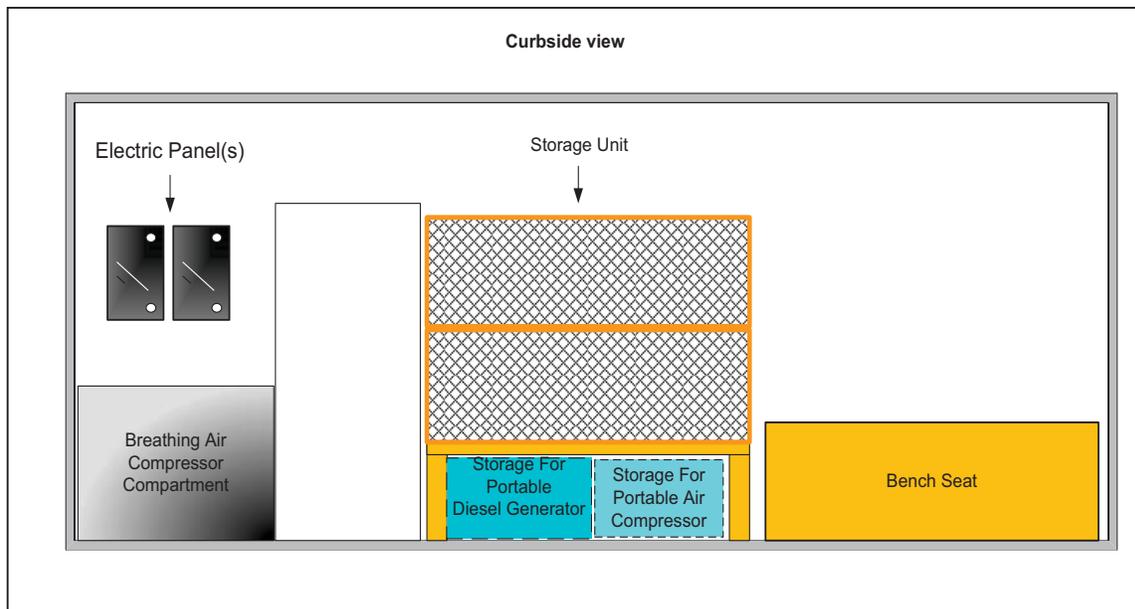
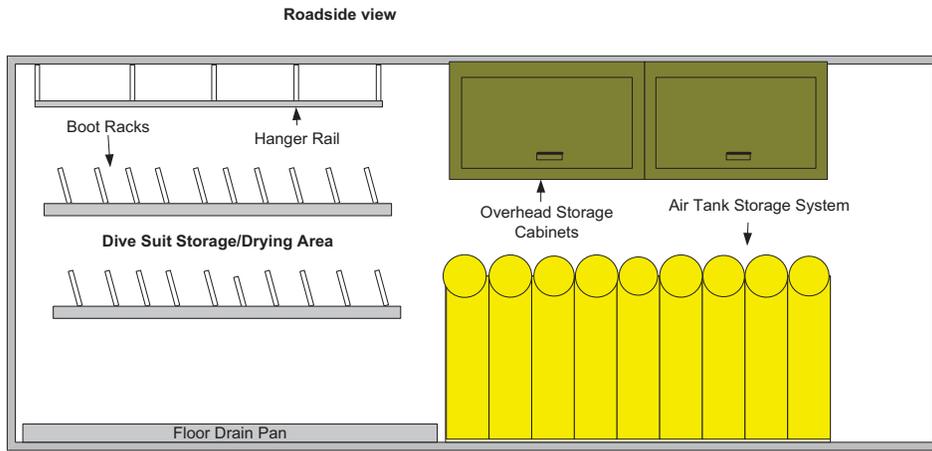
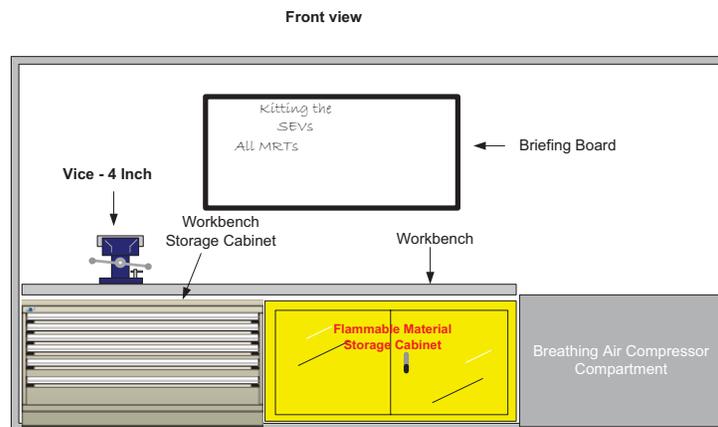


Figure 1 c



Not to scale. Dimensions are approximate

Figure 1 d



Not to scale. Dimensions are approximate

Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14



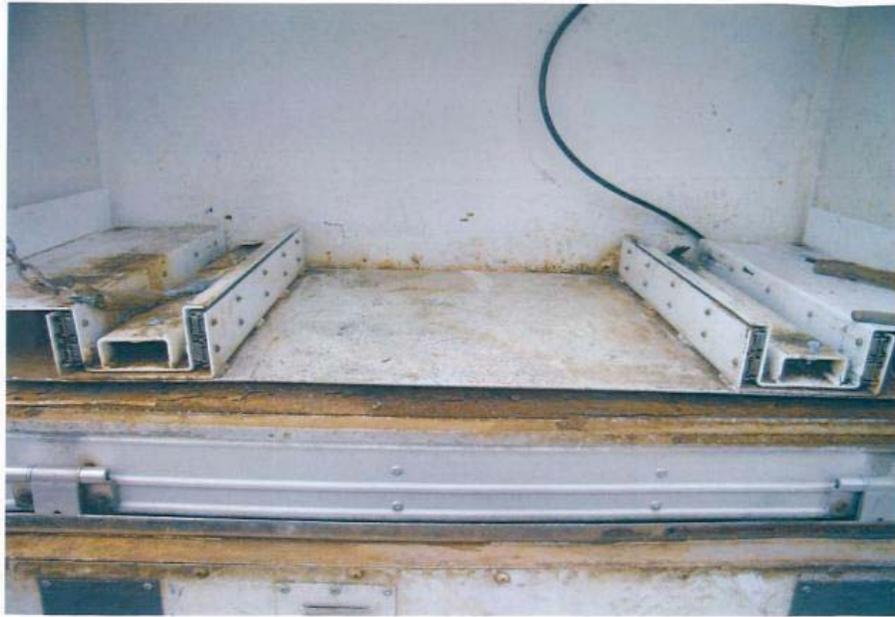
Figure 15



Figure 16 a



Figure 16 b



o



**NOTICE**

This documentation has been reviewed by the Technical Authority and does not contain controlled goods.

**AVIS**

Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées.

1. **SCOPE**

1.1 **Scope** - This specification details the requirements for a truck cab and chassis, diesel powered 4x2, complete with a 6 m (20 Foot) aluminium van body. The vehicle will be used for carrying diving equipment.

1.2 **Instructions** - The following instructions apply to this specification.

- (a) Requirements, which are identified by the word "**shall**", are mandatory. Deviations will not be permitted;
- (b) Requirements identified with a "will" define actions to be performed by Canada and require no action/obligation on the Contractor's part;
- (c) Where "**shall**" or "will" are not used, the information supplied is for guidance only;
- (d) In this document "provided" **shall** mean "provided and installed";
- (e) Where a standard is specified and the Contractor has offered an Equivalent, that Equivalent standard **shall** be supplied by the Contractor;
- (f) Where a technical certification is referred to in this specification, a copy of the certification or an acceptable Proof of Compliance **shall** be supplied for the vehicle when requested by the Technical Authority;
- (g) Dimensions stated as nominal are treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but which differ from the actual dimensions; and
- (h) While the SI system **shall** be used as the primary system of measurement to define requirements of this specification, both the SI system and the standard system for this product may be indicated. Conversion from one system of measurement to the other may not be exact.

### 1.3 Definitions

- (a) "Technical Authority" means the official responsible for the technical content of this requirement;
- (b) "Equivalent" means a standard, means, or component type, which the Technical Authority has approved for this requirement as meeting the specified requirements for fit, form, function and performance;
- (c) "Road Legal" means the vehicle can be legally operate on all Canadian highways and secondary roads, without restrictions or special permits;
- (d) "Curb Weight" (CW) means the weight of the fully equipped vehicle. The curb weight includes the cab and chassis, all attached accessories, equipment, fuel, lubricant and coolants. The Curb Weight does not include the Payload, the weight of the passengers or their personal kit and equipment;
- (e) "Payload" means the maximum cargo load carrying capacity of the vehicle;
- (f) "Gross Vehicle Weight" (GVW) means the sum of the Curb Weight, the weight of a driver and passenger (80 kg per person) and the weight of their personal kit and equipment and the Payload. The GVW cannot exceed the Gross Vehicle Weight Rating (GVWR);
- (g) "Gross Vehicle Weight Rating" (GVWR) means the maximum operating weight of the vehicle as stated by the manufacturer;
- (h) "Gross Combined Weight Rating" (GCWR) means the maximum allowable combined weight of the vehicle, with passengers and equipment in the vehicle and the Payload plus the weight rating of the trailer and the payload in the trailer; and
- (i) "Cab and Chassis" means the vehicle configuration before the addition of any features and accessories.

2. **APPLICABLE DOCUMENTS** - The following documents are referenced in this specification. Canada will not be supplying any reference documents. Available information on the organization is supplied.

SAE Standards

SAE World Headquarters  
400 Commonwealth Dr,  
Warrendale, PA, 15096-0001  
<http://www.sae.org>

Motor Vehicle Safety Act (MVSA)

Government of Canada / Transport Canada,  
<http://www.tc.gc.ca/eng/act-regulations/regulations-crc-c1038htm>

Hazardous Products Act

Government of Canada / Department of Justice  
<http://laws-lois.justice.gc.ca/eng/acts/H-3/>

Federal Standard 595C

COLOURS USED IN GOVERNMENT PROCUREMENT  
U.S. General Services Administration  
<http://www.fed-std-595.com/FS-595-paint-spec.html>

3. **REQUIREMENTS**

3.1 **Standard Design**

- (a) The vehicle **shall** be the latest model from a manufacturer who has demonstrated acceptability by selling this type and size class of vehicle for at least three (3) years;
- (b) The vehicle **shall** have engineering certification available for this application from the original manufacturers of major equipment, systems and assemblies;
- (c) The vehicle **shall** conform to all applicable laws, regulations and industrial standards governing manufacture, safety, noise levels and emissions in effect in Canada at the time of manufacture; and
- (d) The vehicle and accessories **shall** operate in accordance with all OEM (original equipment manufacturers) rated capacities and performance specifications.

3.2 **Operating Conditions**

3.2.1 **Weather** - The vehicle **shall** start and operate under the extremes of weather conditions found in Canada in temperatures ranging from -40 to 40°C.

3.2.2 **Terrain** - The vehicle **shall** operate in all season, all-weather operations on highways and secondary roads.

3.3 **Vehicle Safety Regulations**

- (a) The vehicle **shall** meet the provisions of the Canada Motor Vehicle Safety Act;
- (b) The completed vehicle **shall** be provided with a Safety Compliance Certification Label with a National Safety Mark (NSM); and
- (c) All systems and components **shall** be safe and easy to use by a 5-95<sup>th</sup> percentile male or female under all operating conditions.

3.4 **Performance**

- (a) The vehicle **shall** have a road speed of at least 105 km/h operating at the GVWR on a flat, level road;
- (b) The vehicle **shall** have a gradability, at a speed of at least 90 km/h, of at least 1.20 %, when operating at the GVWR;
- (c) The vehicle **shall** have a gross engine horsepower of at least 300 HP in order to achieve the specified performance (paragraphs 3.4 (a) and 3.4 (b));
- (d) The vehicle **shall** have a GVWR of at least 13,600 kg;
- (e) The vehicle **shall** have a payload capacity of at least 5,000 kg; and
- (f) When operating at the GVWR, the vehicle **shall** tow a 4,536 kg (10,000 lbs) trailer.

3.5 **Vehicle Cab - Crew Cab**

- (a) **Cab** - The vehicle **shall** be provided with an air suspended crew cab;
- (b) **Cab Features**
  - i The crew cab **shall** be provided with 4 doors;

- ii The crew cab **shall** be provided with at least two (2) steps per door;
- iii The crew cab **shall** be provided with seating for six (6) (driver and five passengers);
- iv The crew cab **shall** be provided with 40/60 split front seat;
- v All seating position **shall** be provided with retractable shoulder/lap belt assemblies. A lap belt assembly will be acceptable for the centre passenger in the rear bench;
- vi The crew cab **shall** be provided with tinted side windows;
- vii The crew cab **shall** be provided with windshield wipers with at least two (2) continuous speeds and one (1) intermittent speed;
- viii The windshield wipers **shall** be provided with arctic wiper blades;
- ix The crew cab **shall** be provided with two (2) rotating and pivoting interior sun visors mounted above the front windshield and usable on the side windows;
- x The crew cab **shall** be provided with a padded armrest on both front doors;
- xi The crew cab **shall** be provided with coat hooks;
- xii The crew cab **shall** be provided with black rubber floor covering;
- xiii The crew cab **shall** be provided with powered windows;
- xiv The crew cab **shall** be provided with a visibility window in the front lower portion of the right hand door or a look-down mirror mounted at the top of the right hand front door;
- xv The crew cab **shall** be provided with an exterior sun visor mounted above the windshield; and
- xvi The crew cab **shall** be provided with powered door locks on all doors.

(c) **Seats**

- i The crew cab **shall** be provided with a rear bench; and
- ii Medium to dark coloured cloth upholstered seats **shall** be provided.

(d) **Mirrors**

- i A rear view mirror system **shall** be provided on the exterior of each side of the vehicle cab providing the operator with clear visibility to the sides and rear of the vehicle;
- ii Each mirror system **shall** be provided with a tall and narrow "West Coast" style flat section having a surface area of at least 40,000 mm<sup>2</sup>;

- iii The flat mirror glass **shall** be separately replaceable;
  - iv Each mirror **shall** be provided with a convex mirror section located below the flat section, that has an area of at least 20,000 mm<sup>2</sup>;
  - v The convex mirror glass **shall** be separately replaceable;
  - vi The flat section of the mirrors on both sides of the vehicle **shall** be power adjustable from an in-cab control accessible to the operator;
  - vii The flat and convex mirrors **shall** be provided with heating defrost elements;
  - viii Mirror heating **shall** be activated by an in-cab control accessible to the operator; and
  - ix Heating elements **shall** be replaceable.
- (e) **Tripod Mirror** - Tripod or fender integrated mirrors **shall** be provided on the right and left hand front fenders;
- (f) **Air Conditioning** - The vehicle **shall** be provided with an air conditioning system;
- (g) **Radio**
- i The vehicle **shall** be provided with an AM/FM radio with a CD player; and
  - ii The radio **shall** turn off automatically when the vehicle ignition is turned off.

3.6 **Chassis** - The vehicle **shall** be provided with a high strength steel vehicle frame having a resisting bending moment ("**FRAME RBM**") of at least 20,193 kg-m (1752675 lbs-in).

3.6.1 **Suspension**

- (a) The vehicle **shall** be provided with a front spring suspension and a rear heavy-duty on/off highway air suspension;
- (b) The suspension system **shall** be provided with shock absorbers at each wheel station;
- (c) The rear suspension system **shall** be provided with immediate response, automatic height control valves;
- (d) The rear suspension system **shall** be provided with a manual control dump valve to evacuate air from the suspension system;
- (e) The control for the dump valve **shall** be mounted in the cab within easy reach of the driver; and
- (f) The rear suspension system **shall** be provided with suspension stabilizers or Equivalent.

3.7 **Engine** - The vehicle **shall** be provided with a turbo-diesel engine.

3.7.1 **Engine Components**

(a) **Engine Air Filter**

- i The engine air filter **shall** be a replaceable dry-type or Equivalent; and
  - ii The vehicle air intake system **shall** be provided with a filter restriction gauge, mounted inside the vehicle cab, which is visible from the driver's position.
- (b) The engine **shall** be provided with an engine coolant suitable for temperatures down to -40° C;
- (c) The engine **shall** be provided with an exhaust system;
- (d) The exhaust system **shall** have a vertical stack that clears the van body roofline; and
- (e) The exhaust system **shall** be provided with an exhaust elbow at the exhaust exit.

3.7.2 **Fuel Reservoirs**

- (a) The vehicle **shall** have a total fuel capacity of at least 300 litres;
- (b) The fuel tank filler areas **shall** be marked to identify the required vehicle fuel; and
- (c) The caps for fuel tanks **shall** be lockable.

3.7.3 **Engine Cold Weather Aids**

- (a) The engine **shall** be provided with cold weather starting aids to enable the engine (operating with winter grade fuels/oils) to be started at temperatures down to -40° C. The engine starting aids may include but are not limited to: glow plug(s) and intake air grid heater;
- (b) The engine **shall** be provided with 110-Volt AC powered engine cold start heaters (oil/coolant) with the capacity as recommended by the engine manufacturer or conforming to SAE J1310;
- (c) The battery **shall** be provided with a 110-volt AC powered battery blanket; and
- (d) The engine **shall** be provided with a heated, fuel filter/water separator to preheat diesel fuel prior to starting.

3.8 **Vehicle Driveline**

3.8.1 **Automatic Transmission**

- (a) The vehicle **shall** be provided with an automatic transmission;
- (b) The transmission **shall** have at least six (6) forward speeds and one reverse speed;
- (c) The transmission **shall** be provided with a neutral start safety switch; and
- (d) The vehicle **shall** have an external transmission oil cooler.

3.8.2 **Axles**

- (a) The vehicle **shall** be provided with a solid, non-driven front axle;
- (b) The vehicle **shall** be provided with a single reduction, rear drive axle; and
- (c) The rear axle **shall** be provided with a driver controlled differential lock.

3.9 **Brake System**

- (a) The brake system **shall** be provided in a 4-channel anti-lock (ABS) brake system configuration;
- (b) The brake system **shall** be provided with dust shields at each wheel station; and
- (c) The vehicle **shall** be provided with a trailer brake control mounted on or near the steering column.

3.10 **Steering**

- (a) The vehicle **shall** be provided with a power assisted steering system; and
- (b) The steering system **shall** be provided with a telescopic/tilt steering column.

3.11 **Wheels and Tires**

- (a) The front axle **shall** be provided with single wheels;
- (b) The rear axle **shall** be provided with dual wheels;
- (c) The front axle **shall** be provided with tires with mud and snow treads;
- (d) The rear axle **shall** be provided with tires with mud and snow treads;
- (e) All tires provided **shall** be steel-belted, tubeless and radial;
- (f) All wheels provided **shall** be hub piloted, disc wheels;
- (g) All wheel stations **shall** be provided with loose wheel nut indicators;
- (h) The wheel assemblies **shall** have a capacity equal to or greater than the load applied, at the top vehicle speed (paragraph 3.4 (a));
- (i) The wheel assemblies **shall** be assembled in accordance with the tire and rim manufacturer's specifications;
- (j) The vehicle **shall** be provided with a spare tire assembly with the same rim and tire as those mounted on the front axle;
- (k) A dedicated and secure storage location for the spare tire assembly **shall** be provided on the vehicle; and
- (l) The vehicle **shall** be provided with rear mud flaps mounted on angle type spring-loaded hangers or Equivalent.

3.12 **Controls** - The vehicle **shall** be provided with a cruise control system with a fast idle feature.

3.13 **Instruments** - All dash board gauges and readouts **shall** indicate metric units.

3.14 **Electrical System**

- (a) The electrical system **shall** be provided with an alternator with an output of at least 320 amperes;
- (b) The electrical system **shall** be provided with maintenance-free batteries with a combined rating at least 2,500 cold cranking amperes (CCA);
- (c) The electrical system **shall** be provided with a master disconnect switch to isolate the vehicle batteries from the system;
- (d) The vehicle **shall** be provided with a tailgate master disconnect switch inside the cab;
- (e) The wiring **shall** be protected by insulating grommets where passing through metal;
- (f) The vehicle **shall** be provided with a minimum of four (4) knockouts for extra switches on the dashboard;
- (g) The electrical system **shall** include a backup alarm to alert personnel when the vehicle transmission is placed in reverse;
- (h) The vehicle **shall** have an external battery two pin slave start receptacle;
- (i) The crew cab **shall** be provided with an AC Inverter to convert power from the truck's batteries to 110 V AC with a minimum of 15 Amp capacity located in cab w/an inside outside connection on the passenger side of vehicle; and
- (j) The crew cab **shall** be provided with a minimum of four 12V plugs with two located in front and two located in the back of the crew cab.

3.15 **Lighting**

- (a) The vehicle **shall** be provided with halogen headlights;
- (b) The vehicle **shall** be provided with clearance lights, stop lights, turn signal lights, tail-lights and reverse lights; and
- (c) The vehicle van body **shall** be provided with LED body lighting;

3.16 **Lubricants and Hydraulic Fluids**

- (a) The vehicle **shall** operate using synthetic non-proprietary lubricants and hydraulic fluids; and
- (b) Grease fittings **shall** conform to SAE J534.

3.17 **Paint**

- (a) The vehicle **shall** be painted using the manufacturer's commercial painting system;
- (b) The vehicle **shall** be painted gloss white; and
- (c) The vehicle **shall** be pre-marked with the Government of Canada identifier markings See section 3.1 Motor Vehicles from the following link: ([http://www.tbs-sct.gc.ca/fip-pcim/man\\_3\\_1-eng.asp](http://www.tbs-sct.gc.ca/fip-pcim/man_3_1-eng.asp)).

3.17.1 **Conspicuity** - Conspicuity tape **shall** be provided in accordance with MVSA regulations.

3.17.2 **Corrosion Protection** - The vehicle **shall** be provided with a rust protection treatment such as Krown Rust Control, Rust Check or an Equivalent.

3.18 **Identification** - The vehicle information (manufacturer's name, model, Vehicle Identification Number (VIN) and the GAWR, GVWR and GCWR ratings) **shall** be permanently marked in conspicuous and protected locations.

3.19 **Warning and Instruction Plates**

- (a) The vehicle **shall** be provided with warning and operation instruction plates in accordance with SAE J115; and
- (b) The plates **shall** use graphic symbols, as defined in SAE J1362 or be written in the two (2) official languages (English and French).

3.20 **Equipment, Features and Accessories**

3.20.1 **Equipment**

(a) **Tow Hooks**

- i The vehicle **shall** be provided with tow hooks mounted at the front and at the rear; and
- ii Tow hooks and mountings of sufficient strength to permit the recovery of the vehicle **shall** be provided.

(b) **License Plate Holders**

- i The vehicle **shall** be provided with front and rear license plate holders; and
- ii The rear license plate **shall** be illuminated.

(c) **Filler Caps** - The vehicle **shall** be provided with permanently marked filler caps, which identify the contents using international symbols or in writing using both French and English; and

(d) **Mud flaps** - The vehicle **shall** be provided with front and rear mud flaps;

(e) **Frame Mounted Storage**

- i The vehicle **shall** be provided with three (3) frame mounted aluminum storage compartments (Fig. 2);
- ii One (1) compartment, located on the roadside forward of the rear axle, **shall** have nominal dimensions of 1,219 mm x 610 mm x 610 mm ;
- iii One (1) compartment, located on the curbside forward of the rear axle, **shall** have nominal dimensions of 1,219 mm x 610 mm x 610 mm ;
- iv One (1) compartment, located on the roadside aft of the rear axle, **shall** have nominal dimensions of 914 mm x 610 mm x 610 mm ;
- v Each compartment **shall** have two (2) vertically hinged doors;

- vi Each compartment **shall** be equipped with flush-mounted slam action latches that can be locked with a padlock (s);
- vii Each compartment **shall** have a load capacity of at least 136 kg;
- viii The compartments **shall** be of weatherproof construction with anti-return type drainage;
- ix The compartments **shall** have the interior walls and floor sprayed with X-Box Liner or Equivalent;
- x A removable, perforated vinyl matting **shall** be provided on the floor of each compartment;
- xi The compartments **shall** have interior LED lighting mounted in a protected location; and
- xii Frame mounted storage provisions **shall** be provided to securely store two standard Jerry Cans.

(f) **Dangerous Goods Placard Holders**

- i The vehicle **shall** be provided with four (4) aluminum dangerous goods placards holders;
- ii One holder **shall** be mounted at the centre of each side of the van body, near the bottom;
- iii One holder **shall** be mounted at the rear of the van body, at the lower curb side corner; and
- iv One holder **shall** be mounted on the front of the vehicle on the left side.

(g) **Van Body - 6,1 m (20 Foot)**

- i The vehicle **shall** be provided with an aluminum construction van body having a nominal length of 6,1 m (20 foot) (Fig. 1 a, b c and d);
- ii The van body **shall** have a nominal width of 2,6 m (8 foot);
- iii The van body **shall** have a nominal height of 2,6 m (8 foot);
- iv The walls ceiling and floor **shall** be provided with a chemical and flame resistant insulation;
- v The front exterior face of the van body **shall** include large, aerodynamic radius corners;
- vi The van body **shall** be provided with heavy-duty rubber bumpers, minimum 102 mm thick, at each rear exterior lower corner;
- vii All panel joints **shall** be sealed to prevent the ingress of moisture;
- viii The interior walls and ceiling **shall** be lined with a Kemplite liner or Equivalent bonded to the insulation without fasteners and without air pockets between the liner and the insulation;

- ix The interior floor of the van body **shall** be provided with marine grade slip resistant flooring;
- x Finish moldings **shall** be provided at the interior wall/floor interfaces;
- xi The floor **shall** have two rows of Allsafe heavy-duty recessed airline tracks or Equivalent provided for stowage of mobile shelving unit (Fig.3 & 4);
- xii The length of the airline tracks **shall** be 2,000 mm;
- xiii The airline tracks **shall** be installed on the floor 150 mm (6 inch) from the rear door;
- xiv **Dive Suit Storage/Drying Area**
  1. A dive suit storage/drying area **shall** be provided on the interior road side of the van body (Fig. 5);
  2. A ceiling mounted hanger rail **shall** be provided to air dry Diving Wet Suits on hangers;
  3. The rail **shall** support a weight of ten (10) diving wet suits;
  4. Two (2) rail mounted boot racks **shall** be mounted on the wall, above the drain pan ;
  5. A floor drain pan **shall** be provided with dimensions of at least 2,400 mm long by 700 mm wide with an edge height of at least 75 mm ;
  6. The floor drain pan **shall** be provided with a piano hinge on the edge height of the pan along the roadside;
  7. The floor drain pan **shall** hinge upward and be positively secured on the wall when in the vertical position;
  8. The floor drain pan **shall** have two (2) floor drains, one located at each end of the pan;
  9. The drains **shall** be at least 32 mm in diameter;
  10. Drain stoppers with securing chains **shall** be provided with the drains;
- xv The van body **shall** be provided with two rows of six evenly spaced, 2,275 kg capacity, recessed (flush mounted), tie-down rings; and
- xvi The tie-down rings **shall** be "D" shaped with drain holes, bolted to the floor.

(h) **Rear Door**

- i A single panel, swing-out door **shall** be provided at the rear of the van body (Fig.6);
- ii The door **shall** be installed in the centre of the rear wall;

- iii The door threshold **shall** be level with the interior floor;
- iv The door **shall** have a nominal dimension of 1,829 mm high by 1,143 mm wide;
- v At least three bolted stainless steel hinges with non-removable pins **shall** be mounted on the curbside of the door frame;
- vi A cast aluminum rotating lever handle assembly with three-point latch, accessible from the ground **shall** be provided;
- vii The handle **shall** be lockable with a padlock having a 9.5 mm shackle;
- viii A rain gutter over the door exterior **shall** be provided;
- ix Water proof door seals **shall** be provided around the door perimeter;
- x The door **shall** be constructed of aluminum and insulated;
- xi A horizontal sliding window with tinted glass and an interior pull down shade **shall** be provided in the upper-half of the door (Fig.7);
- xii The window **shall** be at least 450 mm high by 600 mm wide; and
- xiii A securing device **shall** be provided to hold the door in the open position.
- xiv An aluminum, three (3) tread slide out step which slides underneath the van body when not in use **shall** be provided to access the rear door;  
<http://www.jacksoncoachworks.co.uk/exterior-options.html>
- xv The step **shall** be at least 600 mm (2 foot) wide; and
- xvi A vertical, heavy duty 610 mm aluminum grab handle **shall** be provided to the left hand side of the rear door frame.

(i) **Side Door**

- i A single panel, swing-out door **shall** be provided on the curbside of the van body (Fig. 6);
- ii The door **shall** be installed 1,550 mm from the forward edge of the right hand side;
- iii The door **shall** be level with the floor;
- iv The door **shall** have nominal dimensions of 1,829 mm high by 914 mm wide;
- v At least three bolted stainless steel hinges with non-removable pins **shall** be mounted on the right hand side;
- vi A cast aluminum rotating lever handle assembly with three-point latch, accessible from the ground **shall** be provided;

- vii The handle **shall** be lockable with a padlock having a 9.5 mm shackle;
- viii A rain gutter over the door **shall** be provided;
- ix Water proof seals **shall** be provided around the door perimeter;
- x The door **shall** be constructed of aluminum and insulated
- xi A horizontal sliding window with tinted glass and interior pull down shade **shall** be provided in the upper-half of the door (Fig.7);
- xii The window **shall** be at least 450 by 600 mm;
- xiii A securing device **shall** be provided to hold the door in the open position;
- xiv An aluminum, recessed step assembly **shall** be provided to access the side door;
- xv The step assembly **shall** run the full width of the side door; and
- xvi A vertical, heavy duty 610 mm aluminum grab handle **shall** be provided adjacent to the curbside door frame.

(j) **Van Body Electrical System**

- i The van body **shall** be provided with an electrical system configured to be powered from the vehicle and from an external power source (from a generator, power grid, etc. ...);
- ii The electrical system main entry / breaker panel(s) **shall** be provided on the interior van body wall above the breathing air compressor compartment;
- iii **Flood Lights** - The vehicle **shall** have two (2), minimum 720 lumen, LED flood lights mounted on the upper rear exterior wall of the van body;
- iv **Interior Lighting**
  1. The van body **shall** be provided with a minimum of six (6) LED ceiling mounted, recessed or low profile downlights, 660 lumen minimum, glass lens with aluminum, round beveled edge trim;
  2. The van body **shall** be provided with a light switch positioned on the interior to the left of each door when entering the van body (side and rear door);
  3. A flush mounted fluorescent ceiling light **shall** be provided above the work bench; and
  4. The switch for the fluorescent ceiling light **shall** be provided on the interior wall above the workbench.
- v The electrical system **shall** be provided with two (2) 120V duplex GFCI electrical outlets mounted on the interior wall above the workbench;

- vi The electrical system **shall** have one (1) 120V duplex GFCI outlet, protected with cover, located on the exterior curbside of the van body (Fig.8);
- vii The electrical system **shall** have one (1) 120V shore-line power attachment receptacle, protected with cover, located on the exterior curbside of the van body (Fig.8); and
- viii The electrical system wiring **shall** be provided in enclosed, liquid tight enclosures and conduits with liquid tight connections.

(k) **Workbench**

- i A workbench **shall** be provided along the front wall of the van body (Fig.9);
- ii The workbench **shall** statically support at least 275 kg per 1000 mm of length (185 lbs per foot);
- iii The workbench **shall** have dimensions of at least 1,700 mm long and 610 mm wide;
- iv The workbench surface **shall** be constructed of laminated hardwood with a thickness of at least 25 mm and topped with a non-skid rubber pad;
- v The workbench **shall** be securely mounted with the top surface at 930 mm high;
- vi The workbench surface **shall** be seamless; and
- vii The workbench corner that protrudes into the traffic area **shall** be rounded.

viii **Briefing Board**

1. A magnetic dry eraser white briefing board **shall** be provided on the wall above the workbench; and
2. The briefing board dimensions **shall** be at least 610 mm x 610 mm.

ix **Vice - 4 inch(102 mm)**

1. A 4 inch mechanics vice **shall** be provided on the workbench;
2. The vice **shall** be mounted on the front edge of the bench toward roadside end in a location to be approved by the Technical Authority (Fig 11); and
3. The vice **shall** be Wilton WS4 stock number 63300 or Equivalent.

(l) **Workbench Storage Cabinet**

- i A workbench storage cabinet with drawers **shall** be provided under the workbench (Fig.9);
- ii The workbench storage cabinet **shall** be provided with drawers of various depths to store tools and equipment;
- iii The workbench storage cabinet dimensions **shall** be at least 850 mm wide x 533 mm deep x 860 mm high;

- iv A locking bar with padlock hasp **shall** be provided to secure the drawers;
- v The locking bar **shall** utilize a rubber strip or similar material to prevent rubbing and wear between cabinet drawers and locking bar;
- vi The drawers **shall** be individually securable in the open or closed position, with a positive release mechanism;
- vii A non-slip padding material **shall** be provided on the bottom interior of all drawers; and
- viii The workbench storage cabinet **shall** have the interior and exterior walls to at least 150 mm height and floor sprayed with X-Box Liner or Equivalent.

(m) **Flammable Material Storage Cabinet**

- i A flammable material storage cabinet **shall** be provided under the workbench(Fig.9);
- ii The flammable material storage cabinet **shall** be at least 800 mm wide x 560 mm deep x 860 mm high;
- iii The flammable material storage cabinet **shall** be provided with an adjustable and removable shelf that extends the complete width and depth of the cabinet;
- iv The flammable material storage cabinet **shall** have a leak-resistance sill;
- v The flammable material storage cabinet **shall** have the appropriate labels and colour to identify its function; and
- vi The flammable material storage cabinet **shall** have the interior and exterior walls to at least 150 mm height and floor sprayed with X-Box Liner or Equivalent.

(n) **Bench Seat**

- i A bench seat **shall** be provided along the rear curbside of the van body
- ii The bench seat **shall** have a hinged seating surface of at least 1,200 mm in length by 400 mm wide;
- iii The bench seat frame **shall** incorporate an enclosed storage capability divided into three compartments;
- iv The bench seat **shall** be provided with a padded seating material covered with a durable, rubberised/vinyl material; and
- v The bench seat **shall** have the interior and exterior walls to at least 150 mm height and floor sprayed with X-Box Liner or Equivalent.

(o) **Storage Unit**

- i A general purpose storage unit **shall** be provided along the curbside of the van body(Fig.10);
- ii The storage unit **shall** be provided with at least three (3), individually adjustable shelves;

- iii The lower shelf **shall** be installed with an under shelf clearance of at least 800 mm (32");
- iv The sides of the storage unit and each shelf **shall** be constructed from a wire mesh materiel or an expanded metal materiel or Equivalent;
- v The storage unit **shall** have a load capacity of at least 454 kg;
- vi The storage unit dimensions **shall** be at least 2,400 mm long x 600 mm deep x 1,800 mm high; and
- vii The front face of the storage unit **shall** incorporate netting for the restraint of cargo.

(p) **Shelving Unit (Dive Bag Storage)**

- i A mobile shelving unit capable of storing ten (10) individual dive bags **shall** be provided (Fig.8);
- ii The shelving unit **shall** be provided with at least four (4) individual shelves;
- iii The sides of the shelving unit and each shelf **shall** be constructed from a wire mesh materiel or an expanded metal materiel or Equivalent;
- iv The shelving unit **shall** have a storage capacity of at least 170 kg;
- v The dimensions of the shelving unit **shall** be at least 1,900 mm long x 800 mm deep x 2,000 mm high;
- vi The shelving unit **shall** be provided with two(2) fixed casters and two (2) rotating casters; and
- vii The shelving unit **shall** be provided with hardware to secure the assembly to the airline tracks (Fig. #).

(q) **Curtain Rod**

- i A curtain rod **shall** be provided along the width of the van body (Fig 13);
- ii The curtain rod **shall** support a weight of at least 90 kg; and
- iii A curtain constructed from a heavy duty black fabric materiel **shall** be provided.

(r) **Air Tank Storage System**

- i An air tank storage system for twenty (20) air bottles **shall** be provided along the road side of the van body: (Fig.14); and
- ii The air tank storage system **shall** ensure that the individual bottles are securely held in place in all operating conditions.

(s) **Overhead Storage Cabinets**

- i Three (3) overhead storage cabinets **shall** be provided above the air tank storage system;

- ii The overhead storage cabinets **shall** not interfere with the storage and removal of the individual air bottles;
- iii Each overhead storage cabinet **shall** be securely mounted to carry at least 80 kg;
- iv Each overhead storage cabinet **shall** have at least one (1) adjustable and removable shelf positioned at the centre of the cabinet;
- v Each overhead storage cabinet **shall** have six (6) removable and adjustable vertical dividers;
- vi The overhead storage cabinets door(s) **shall** have a keyless latching system to prevent accidental opening; and
- vii The overhead storage cabinet **shall** be Rousseau Metal model or Equivalent.

(t) **Refrigeration/Heating Unit**

- i A diesel and electric powered refrigeration/heating unit **shall** be provided on the front exterior wall of the van body;
- ii The refrigeration/heating unit **shall** be a Thermo-King T-680R model or Equivalent;
- iii A control panel for the refrigeration/heating unit **shall** be provided on the forward interior curbside wall of the van body;
- iv A control panel for the refrigeration/heating unit **shall** be provided in the vehicle cab interior accessible to the driver;
- v Diesel fuel to power the refrigeration/heating unit **shall** be supplied from vehicle fuel reservoir;
- vi The refrigeration/heating unit **shall** be provided with an electrical power plugin to power the unit from an external power source;
- vii All wiring harnesses and fuel lines for the refrigeration/heating unit **shall** be installed and secured in suitable, protected locations;
- viii A supply air duct system **shall** be provided on the ceiling down along each side of the van body;
- ix A series of vents **shall** be provided on the air duct system to distribute the air throughout the van body ;and
- x A vertical duct section, having at least two (2) vents, **shall** be provided and attached to the air duct system on the road side to provide additional airflow to the dive suit storage/drying area (Fig 15).

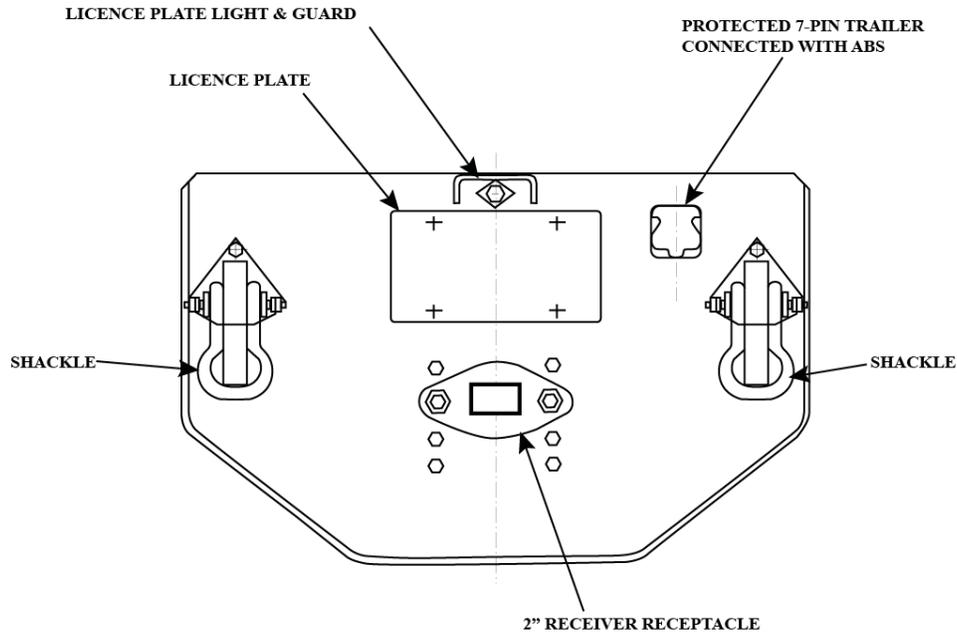
(u) **Rail-Type Electro-Hydraulic Tailgate**

- i A rail-type electro-hydraulic tailgate **shall** be provided at the rear of the vehicle;

- ii The tailgate **shall** have a load capacity of at least of 1,350 kg;
- iii The tailgate load capacity **shall** be conspicuously and permanently marked on the tailgate;
- iv Weatherproof tailgate controls **shall** be provided and located at the rear curb side corner of the van body and mounted at a height of no greater than 1,500 mm above the ground;
- v The tailgate **shall** be provided with a heavy-duty platform with a tapered outer edge and a non-skid surface;
- vi The platform including the tapered edge **shall** be at least 1,219 mm deep and at least 2,280 mm wide;
- vii The top of the platform **shall** be level with the interior van body floor when fully raised;
- viii The tailgate **shall** be provided with safety warning decals on the rear face of the platform, and full width conspicuity stripes on the inner and outer edges of the tailgate platform; and
- ix A tailgate master disconnect **shall** be provided inside the vehicle cab.

(v) **Hitch Receiver**

- i A two inch (2"), frame mounted hitch receiver **shall** be provided at the rear of the vehicle;
- ii The hitch receiver assembly **shall** have a towing capacity of at least 4,536 kg;
- iii The hitch receiver **shall** be mounted at a height of between 530 mm and 580 mm;
- iv Safety chains shackles **shall** be provided on each side of the hitch receiver;
- v The towing capacity **shall** be clearly marked on the rear face of the hitch receiver assembly; and
- vi For an indication of the general layout of the hitch receiver assembly see the following figure.



**General Arrangement - Hitch Receiver Assembly**

(w) **Breathing Air Compressor Compartment**

- i A separate, sealed breathing air compressor compartment **shall** be provided at the forward, external curbside of the van body (Fig 16 a, b & c);
- ii The compartment **shall** have interior dimensions of at least 860 mm high by 660 mm deep and 1,400 mm long;
- iii A full extension rollout shelf, for installation of the breathing air compressor, **shall** be provided in the compartment. The breathing air compressor weighs 173 kg (393 lbs);
- iv A mounting kit **shall** be provided to install the breathing air compressor on the rollout shelf;
- v The rollout shelf **shall** be provided with a positive lock mechanism to lock the shelf when extended and stored;
- vi The compartment door **shall** be hinged with a full stainless steel piano hinge along the bottom edge of the opening;
- vii The compartment door **shall** be provide with an air vent;
- viii A slam-action latch with a padlock hasp **shall** be provided on the compartment door;
- ix Perimeter door seals **shall** be provided; and

X The compartment **shall** have the interior walls and floor sprayed with X-Box Liner or Equivalent.

(x) **Awning**

i An awning, constructed of a lightweight materiel with a nominal length of 5,500 mm (18 foot), **shall** be provided on the upper curbside of the van body.

3.21 **Vehicle Delivery Condition**

- (a) The vehicle **shall** be delivered to destination in a fully operational condition (serviced and adjusted) with both the interior and exterior cleaned;
- (b) If the vehicle requires assembly at destination, the Contractor **shall** be responsible for all manpower and equipment to perform assembly;
- (c) The space for assembly at destination will be provided, if required;
- (d) Fuel tank(s) **shall** be at least half full on delivery; and
- (e) Lubricant in the vehicle at time of delivery **shall** be suitable for the destination and the season of delivery.

4. **Integrated Logistic Support**

4.1 **Contractor Documentation and Logistic Items**

4.1.1 **Items Supplied to Technical Authority**

(a) **Manuals for Approval**

- i The Contractor **shall** supply access to a set of manuals for vehicle, in digital format including the operator, parts and maintenance (shop repair) manuals;
- ii The set of manuals **shall** include manuals for all the specified accessories and features. Accessory manuals may be included as supplements to the vehicle/equipment manuals;
- iii Digital copies **shall** be functional without the requirement for a password or an auto-run installation procedure;
- iv Manuals will not be returned;
- v Manual approval or comments will be supplied within 15 working days of receipt; and
- vi The Contractor **shall** supply responses to the Technical Authority's comments.

(b) **Photographs and Line Drawings**

- i The Contractor **shall** supply two (2) digital colour photographs, one (1) left-front three-quarter view, and one (1) right-rear three-quarter view of each configuration/model;
- ii One (1) digital colour photograph of each attachment taken at the three-quarter view that best illustrates the attachment **shall** be supplied;
- iii One (1) front-view and one (1) side-view line drawing showing dimensions of the vehicle/equipment **shall** be supplied. Brochure line drawings are acceptable;
- iv Photographs **shall** have a plain background;
- v Photographs **shall** be in a JPEG (Joint Photographic Experts Group) format; and
- vi Photographs **shall** have a resolution of at least eight (8) Mega pixels.

(c) **Data Summary**

- i The Contractor **shall** supply a bilingual data summary for each configuration/model, with vehicle/equipment data (including accessories and features) and a vehicle/equipment picture;
- ii The Technical Authority will supply a bilingual template of a data summary to the Contractor;
- iii The Contractor **shall** supply a digital copy (MS Word) of the completed data summary for approval;

- iv Data summary approval or comments will be supplied within 15 working days of receipt; and
- v The Contractor **shall** supply responses to the Technical Authority's comments.

(d) **Safety Data Sheets**

- i The Contractor **shall** supply a listing, in digital format, of all hazardous materials used on the vehicle/equipment;
- ii If there are no hazardous materials used, this **shall** be stated on the listing; and
- iii The Contractor **shall** supply safety data sheets for all hazardous materials in the list.

(e) **Warranty Letter**

- i The Technical Authority will supply a bilingual warranty letter template to the Contractor;
- ii The Contractor **shall** supply a complete description of the warranty with the requested warranty terms and any system or sub system warranty that exceeds the minimum requested;
- iii The warranty letter **shall** include the name and contact information of the closest designated warranty provider and other designated warranty providers across Canada;
- iv Designated warranty providers **shall** honour the warranty letter; and
- v The contractor **shall** supply the original warranty letter in digital format, for each vehicle/equipment delivered, to the Technical Authority.

(f) **Rust Protection Warranty** - A copy of the warranty from the rust protection provider **shall** be supplied, in digital format, to the **Technical Authority**;

(g) **Training Plan(s)** - The Contractor **shall** supply a training plan for approval for each of the training courses listed in paragraph 4.2, to the **Technical Authority**; and

(h) **Line Setting Ticket** - A copy of the production line setting ticket with the supplemental listing, in digital format, **shall** be supplied to the **Technical Authority** for each vehicle delivered.

4.1.2 **Items Supplied with Each Vehicle/Equipment**

(a) **Operator's Manuals** - The Contractor **shall** supply an approved bilingual operator's manual in both paper and digital format with each vehicle/equipment delivered;

(b) **Warranty Letter** - The Contractor **shall** supply a copy of the warranty letter with each vehicle/equipment delivered;

(c) **Rust Protection Warranty** - A copy of the warranty from the rust protection provider **shall** accompany each vehicle/equipment;

(d) **Safety Data Sheets**

The Contractor **shall** supply a set of material safety data sheets;

The safety data sheets **shall** be the same as those provided to the **Technical Authority** as per paragraph 4.1.1 (d);

(e) **Line Setting Ticket** - A copy of the production line setting ticket with supplemental listing **shall** accompany each completed vehicle/equipment;

(f) **Digital Maintenance and Parts Manual - English**

i The Contractor **shall** supply the approved, searchable, digital, maintenance and parts manuals required for the vehicle/equipment, features and accessories on a searchable CD/DVD-ROM; and

ii The contractor may supply this deliverable as a bilingual package.

4.2 **Training**

(a) **Training - Familiarization - English**

i The Contractor **shall** supply a familiarization course in English, at the delivery destination, optimized for operators and technicians who are qualified on the vehicle/equipment type but require training on newer or unique features and sub-systems of the delivered model;

ii The instructor **shall** be an OEM Factory Certified Training Provider;

iii **Curriculum**

1. The familiarization course **shall** include operation and maintenance segments;
2. The operator's familiarization segment **shall** include safety precautions to be observed while operating and servicing the vehicle/equipment, vehicle/equipment operating characteristics, pre-operating and shutdown procedures and daily/weekly operator servicing procedures;
3. The operator's familiarization **shall** include sub-systems including automatic grease system and pre-heaters; and
4. The technician's familiarization **shall** include diagnostics, trouble shooting and operation of any special tools and test equipment (if any).

iv The familiarization course **shall** have a minimum duration of eight (8) hours, divided into four (4) hours for operators and four (4) hours for technicians;

v The familiarization course **shall** accommodate up to eight (8) personnel; four (4) operators and four (4) technicians;

vi For vehicles/equipment shipped to DND, the date for the familiarization course **shall** be arranged with the Technical Authority or the identified user or

- designated contact person for vehicles/equipment shipped for users other than DND;
- vii After completion of the familiarization course, the Contractor **shall** have the "PROOF OF FAMILIARIZATION" certificate signed by the senior course attendee; and
  - viii The Technical Authority will supply the "PROOF OF FAMILIARIZATION" document template in a digital format.
- (b) **Training Familiarization - French**
- i The Contractor **shall** supply a familiarization course in French, at the delivery destination, optimized for operators and technicians who are qualified on the vehicle/equipment type but require training on newer or unique features and sub-systems of the delivered model;
  - ii The instructor **shall** be an OEM Factory Certified Training Provider;
  - iii **Curriculum**
    1. The familiarization course **shall** include operation and maintenance segments;
    2. The operator's familiarization segment **shall** include safety precautions to be observed while operating and servicing the vehicle/equipment, vehicle/equipment operating characteristics, pre-operating and shutdown procedures and daily/weekly operator servicing procedures;
    3. The operator's familiarization **shall** include sub-systems including automatic grease system and pre-heaters; and
    4. The technician's familiarization **shall** include diagnostics, trouble shooting and operation of any special tools and test equipment (if any).
  - iv The familiarization course **shall** have a minimum duration of eight (8) hours, divided into four (4) hours for operators and four (4) hours for technicians.
  - v The familiarization course **shall** accommodate up to eight (8) personnel; four (4) operators and four (4) technicians;
  - vi For vehicles/equipment shipped to DND, the date for the familiarization course **shall** be arranged with the Technical Authority or the identified user or designated contact person for vehicles/equipment shipped for users other than DND;
  - vii After completion of the familiarization course, the Contractor **shall** have the "PROOF OF FAMILIARIZATION" certificate signed by the senior course attendee; and
  - viii The Technical Authority will supply the "PROOF OF FAMILIARIZATION" document template in a digital format.

