



National Defence

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Ottawa, Ontario
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Défense nationale

Quartier général de la Défense nationale
Ottawa (Ontario)
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**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

**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À :**

By e-mail to: - Par courriel au :
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Attention: - Attention :
Antony Laakso

Solicitation Closes - L'invitation prend fin
At - à :
2:00 PM - 14:00

On - le :
April 12, 2022 – le 12 avril 2022

Time Zone - Fuseau Horaire :
Eastern Daylight Time (EDT)
Heure avancée de l'Est (HAE)

Title - Sujet Municipal Sidewalk Tractor - Tracteur pour trottoirs municipaux	Amendment No. - N° modif. 002
Solicitation No. N° de l'invitation W8476-226507/A	Date of Amendment Date de modification April 7, 2022 – le 7 avril 2022
Address enquiries to: - Adresser toute demande de renseignements à : Antony Laakso E-Mail Address - Courriel antony.laakso@forces.gc.ca	
Destination See herein - Voir aux présentes	

Instructions: Municipal taxes are not applicable. Unless otherwise specified herein all prices quoted must include all applicable Canadian customs duties, GST/HST, excise taxes and are to be delivered Delivery Duty Paid including all delivery charges to destination(s) as indicated. The amount of the Goods and Services Tax/Harmonized Sales Tax is to be shown as a separate item.

Instructions : Les taxes municipales ne s'appliquent pas. Sauf indication contraire, les prix indiqués doivent comprendre les droits de douane canadiens, la TPS/TVH et la taxe d'accise. Les biens doivent être livrés « rendu droits acquittés », tous frais de livraison compris, à la ou aux destinations indiquées. Le montant de la taxe sur les produits et services/taxe de vente harmonisée doit être indiqué séparément.

Delivery required Livraison exigée See herein - Voir aux présentes	Delivery offered Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Person authorized to sign on behalf of Vendor/Firm (type or print): La personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie) :	
Name - Nom	Title - Titre
Signature	Date

THIS SOLICITATION AMENDMENT IS RAISED TO:

1. To respond to questions received during the RFP; and
2. Modify ANNEX A – REQUIREMENT PURCHASE DESCRIPTION FOR Municipal Sidewalk Tractor with Attachments date 2021-07-21, **s. 3.4.3 Cab: e), f) and o)** in response to these questions.

THIS SOLICITATION IS HEREBY AMENDED AS FOLLOWS:

- 1.1 DELETE: ANNEX A – REQUIREMENT PURCHASE DESCRIPTION FOR Municipal Sidewalk Tractor with Attachments dated 2021-07-21, in its entirety and REPLACE with the attached.

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

QUESTIONS AND ANSWERS:

<p>Question 1</p>	<p>Will the Department of National Defence accept these?</p> <p>Section 3.4.3, Item F <i>The seat must be equipped with an operator presence switch which will automatically shut-down the engine if the operator leaves the seat and the transmission is not in the neutral position.</i></p> <p>For Tractors that do not utilize a mechanical neutral in the transmission this is not possible, will the following be acceptable; <i>The seat must be equipped with an operator presence switch which will automatically shut-down the PTO and High Flow Hydraulic Circuits whenever the operator leaves the seat.</i></p>
<p>Answer 1</p>	<p>Yes, this is acceptable. The Purchase Description will be modified.</p> <p>Section 3.4.3 e) will be changed to: The seat must be equipped with an operator presence switch which will automatically disengage the PTO and prevent the vehicle from moving.</p> <p>Section 3.4.3 f) will be removed.</p> <p>Please refer to the Purchase Description document dated 2022-04-05</p>

<p>Question 2</p>	<p>Section 3.4.3, Item O <i>The vehicle must be equipped with a power operated windshield washer system and variable speed, intermittent windshield wipers at the front and wipers at the rear (if a rear window is provided).</i></p> <p>Our rear window section is configured to maximize rear visibility however a rear wiper is not possible due to the configuration. Will this be acceptable?</p>
<p>Answer 2</p>	<p>A rear window is a firm requirement and must be provided with rear wipers.</p> <p>Section 3.4.3 o) will be changed to: The vehicle must be equipped with a power operated windshield washer system and variable speed, intermittent windshield wipers at the front and wipers at the rear.</p> <p>Please refer to the Purchase Description document dated 2022-04-05</p>

Question 3	Section 3.5.3, Item C <i>A thermostatically controlled water separator/fuel filter must be provided to preheat diesel fuel prior to starting.</i> Will a Glow plug system to pre-heat fuel be acceptable to fulfil this requirement?
Answer 3	No, a glow plug system to pre-heat fuel is not acceptable. However, a glow plug(s) or an intake air system is needed to preheat the engine as per Para 3.5.3 b)

Question 4	Section 3.5.6 Transmission, item B <i>The transmission must include a positive detent/lock in the neutral position to preclude inadvertent shifting from forward to reverse speeds through the neutral position in one continuous action.</i> The transmission in our tractor is controlled by a single foot pedal and not a shifter with a neutral position. The pedal comes to rest in the middle (neutral) position. Is this acceptable?
Answer 4	No, this is a firm requirement.

Question 5	Section 3.5.6 Transmission, Item E <i>A safety device to ensure that the engine can only be started in the neutral position must be provided.</i> For improved safety, our tractor does not include a mechanical neutral. The purpose of a mechanical neutral is to prevent inadvertent movement of the tractor upon start up. Will a "Engine start safety system" incorporating numerous redundant safety features designed to prevent inadvertent movement of the tractor upon startup be acceptable?
Answer 5	No, this is a firm requirement.

Question 6	Section 3.9.1 Sidewalk Spreader, Item G <i>The safety screen over the hopper must be galvanized steel.</i> Our paint process incorporates media blast, zinc rich primer and high solids paint in an effort to minimize corrosion, is this acceptable?
Answer 6	No, this is a firm requirement.

Question 7	Section 3.9.6 Item H <i>A deep reduction transfer case must be provided with the cold planer.</i> Our tractor has a low range for operating attachments requiring very low operating speeds as well as a mid-range and high range for transport. Is this acceptable?
Answer 7	No, this is a firm requirement.

Question 8	Section 3.12 Item D <i>Main hydraulic control must be a joystick and include lighting and safety lockout.</i> Our tractor utilizes a 4 spool valve with proportional control and 4 levers. Is this acceptable?
Answer 8	No, this is a firm requirement.



PURCHASE DESCRIPTION FOR

Municipal Sidewalk Tractor with Attachments ECC 167102

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.

OPI DSVPM 5 – DAVPS 5

Issued on Authority of the Chief of the Defence Staff
Publiée avec l'autorisation du chef d'état-major de la Défense
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Table of contents

1.1	Summary	4
1.2	Instructions	4
1.3	Definitions	4
2.	APPLICABLE DOCUMENTS	4
2.1	Other Publications	4
3.	REQUIREMENTS	5
3.1	Standard Design	5
3.2	Operating Conditions	5
3.2.1	Weather	5
3.2.2	Terrain	5
3.3	Human Factors Engineering	5
3.4	Performance, Ratings and Dimensions	5
3.4.1	Performance	5
3.4.2	Dimensions	6
3.4.3	Cab	6
3.5	Engine	7
3.5.1	Engine Component	7
3.5.2	Automatic Shut-down	7
3.5.3	Cold Weather Starting Aids	7
3.5.4	Drive Train	8
3.5.5	Power Take-Off (PTO)	8
3.5.6	Transmission	8
3.5.7	Hydraulic System	8
3.6	Braking System	9
3.7	Steering System	9
3.8	Wheels, Rims and Tires	9
3.9	Application Equipment	9
3.9.1	Sidewalk Spreader	9
3.9.2	Power Angle Sweeper	10
3.9.3	Dust Spraying System	10
3.9.4	Snow Blower	10
3.9.5	Folding V-Plow	10
3.9.6	Cold Planer	11
3.9.7	Rotary Mower Deck	11
3.10	Accessories	11
3.11	Lighting	12
3.12	Controls	12
3.13	Instruments	12
3.14	Electrical System	13
3.15	Paint	13
3.16	Warning, Markings and Instruction Plates	13
3.16.1	Vehicle identification	13
4.	INTEGRATED LOGISTIC SUPPORT	14
4.1	ILS Deliverables	14
4.2	Vehicle Manuals	14
4.2.1	Operator's Manuals	14
4.2.2	Parts Manual(s)	14
4.2.3	Maintenance Manuals	15
4.2.4	Manual Delivery to Technical Authority	15
4.2.5	Manual Delivery with Vehicle	15
4.2.6	Electronic Format	15

4.2.7	Provisional Manuals	15
4.2.8	Manual Supplements	16
4.2.9	Changes to Manuals	16
4.3	Warranty Letter	16
4.3.1	Warranty Delivery	16
4.4	Other ILS Deliverables to Technical Authority	16
4.4.1	Data Summary	16
4.4.2	Photographs	16
4.4.3	Dimensioned Drawing	17
4.4.4	Special Tools List	17
4.4.5	Preventive Maintenance Replacement Parts Kit List (PMRPKL)	17
4.4.6	Recommended Spare Parts List	17
4.5	Safety Recalls and Servicing Data	18
4.6	Initial Parts Kit	18
4.7	Training	18
4.7.1	Training Deliverables	18
4.7.2	Maintenance Personnel Training	18
4.7.3	Operator Training	19
4.7.4	Training Materials	19

1. SCOPE

1.1 Summary

This document describes a diesel powered, 4-wheel drive, articulated, multi-purpose sidewalk and maintenance tractor. This municipal type tractor includes various attachments as specified in this Purchase Description.

1.2 Instructions - The following instructions apply to this Purchase Description:

- a) Requirements, which are identified by the word “**must**”, 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 “**must**” or “will” are not used, the information supplied is for guidance only.
- d) In this document “provided” **must** mean “provided and installed”.
- e) Where a technical certification is referred to in this specification, a copy of the certification or an acceptable Proof of Compliance **must** be supplied for the vehicle when requested by the Technical Authority.
- f) Metric measurements are used to define the requirement. Other measurements are for reference only and may not be exact conversions.
- g) Nominal dimensions reflect a method by which materials or products are generally identified, but which differ from the actual measured dimensions.

1.3 Definitions – The following definitions apply to the interpretation of this Purchase Description:

- a) “**Technical Authority**” - The government official responsible for technical content of this requirement.
- b) “**Equivalent**” - Substitutes and alternatives that are equivalent in product, performance or a standard will be considered for acceptance by the Technical Authority where Proof of Compliance for the requirement is provided.
- c) “**Vehicle**” – The entire tractor including all systems and sub-systems, in a complete manufactured state in accordance with the requirements in this Purchase Description.

2. APPLICABLE DOCUMENTS

2.1 Other Publications

The following documents form part of this purchase description. Web sites for the organization are given when available. Effective documents are those in effect on date of manufacture. Sources are as shown:

SAE Handbook - Society of Automotive Engineers Inc.

Yearbook - Tire and Rim Association Inc.

ISO Standard 3471

3. REQUIREMENTS

3.1 Standard Design

- a) **Latest Model** - The vehicle design **must** be the manufacturer's latest model.
- b) **Industry Acceptability** - The vehicle design **must** have demonstrated industry acceptability by having been manufactured and sold commercially for at least 2 years, or be manufactured by a company that has at least 5 years' experience in design and manufacturing of a comparable type of equipment of equivalent or greater complexity.
- c) **Engineering Certification** - Original manufacturers engineering certification **must** be provided upon request for major drive train components, and major equipment systems and assemblies, to demonstrate that assemblies are used within their design limitations.
- d) **Regulations** – The vehicle **must** conform to all applicable laws, regulations and industrial standards governing manufacture, safety, noise levels and pollution in effect in Canada at the time of manufacture. International equivalent laws, regulations, and industrial standards will be accepted only if certified for equivalency by a professional engineer.
- e) **Published Ratings** - The vehicle **must** have system and component capacities equivalent to published ratings (i.e. product or component brochures).
- f) **Standard Components** - The vehicle **must** include all standard components, equipment and accessories for the model offered, although they may not be specifically described in this Purchase Description.
- g) **Spare Parts** - The manufacturer **must** select components readily available for a minimum period of ten years from the date of manufacture.
- h) **Maintainability** - The vehicle **must** be designed to permit access to all items required for servicing and maintenance.

3.2 Operating Conditions

3.2.1 Weather

- a) The vehicle **must** operate under the extremes of weather conditions found in Canada in temperatures ranging from -40° to +37° C (-40° to +99° F).

3.2.2 Terrain

- a) The vehicle **must** operate off-road (e.g. sidewalks, along ditches, lawns, and around obstructions) including year round operations on grass, snow, mud, sand, and ice.

3.3 Human Factors Engineering

- a) The vehicle **must** be equipped, with warning and instruction plates, non-slip walking surfaces and heat shields, for operator safety.

3.4 Performance, Ratings and Dimensions

3.4.1 Performance

- a) The vehicle, at GVWR, **must** have a maximum forward speed of at least 30 km/h (19 mph) and a maximum reverse speed of at least 5 km/h (3 mph).

- b) The vehicle, at GVWR, **must** operate continuously at a speed of at least 8 km/h (5 mph) while operating any of the attachments under conditions described in Section 3.2.

3.4.2 **Dimensions**

- a) The vehicle body excluding mirrors, accessories, and tires **must** have a maximum width of 1,300 mm.

3.4.3 **Cab**

- a) The vehicle cab **must** be weatherproof.
- b) The vehicle cab **must** be equipped with a Roll-Over Protective Structure (ROPS) which conforms to the requirements of International Organization for Standardization ISO 3471.
- c) The vehicle **must** have an AM/FM radio with speakers.
- d) The vehicle **must** have suspension seating, and adjustable/moveable armrests.
- e) The seat **must** be equipped with an operator presence switch which will automatically disengage the PTO and high flow hydraulic and prevent the vehicle from moving if the operator leaves the seat.
- f) N/A
- g) The vehicle **must** have retractable three point seat belts.
- h) The vehicle **must** have a minimum of one door for entry and egress.
- i) The vehicle doors **must** be lockable, keyed alike.
- j) The vehicle **must** have an emergency exit which differs from the primary vehicle door.
- k) The vehicle **must** have gas strut door cylinders and safety straps.
- l) The vehicle **must** have two (left and right) adjustable, electrically heated, breakaway, external rear view mirrors.
- m) The vehicle **must** have one interior mounted rear view mirror.
- n) The vehicle **must** have lining or insulation and sound barrier floor matting.
- o) The vehicle **must** be equipped with a power operated windshield washer system and variable speed, intermittent windshield wipers at the front and wipers at the rear.
- p) The vehicle windshield wipers **must** clear the windshield and rear windows during driving operations.
- q) A full colour, back-up camera system **must** be installed in the cab.
- r) The vehicle **must** have a driver operated warning horn on the steering column.
- s) The vehicle **must** be equipped with MSVR approved tinted tempered safety glass in windows providing all around visibility, with at least one window capable of opening.

- t) The vehicle **must** have suitable easily accessible stowage for the operator's manual and a hand-held radio.
- u) The vehicle **must** be equipped with Heating, Ventilation and Air-Conditioning (HVAC) and all components and controls required for regulation of the cab interior temperature and pressure.

3.5 **Engine**

- a) The engine **must** operate on diesel fuel to the CAN/CGSB Standard 3.517.

3.5.1 **Engine Component**

- a) The engine **must** include a severe service type air cleaner protected from the ingress of snow and rain, and an air cleaner restriction indicator.
- b) Weather guards or an effective device to prevent entry of rain into intake and exhaust stacks **must** be provided.
- c) A governor to limit engine speed to the operating range recommended by engine manufacturer **must** be installed.
- d) The engine **must** be equipped with a replaceable oil filtering system.
- e) The engine **must** be equipped with a cooling system, which will control engine temperature within manufacturer's recommended operating range when subject to specified operating conditions of paragraph 3.2.
- f) An automatic reversing engine fan **must** be provided to prevent build-up of debris on the radiator.

3.5.2 **Automatic Shut-down**

- a) The engine **must** integrate an automatic shutdown or de-rate protection system for low oil pressure and high coolant temperature.
- b) The automatic shutdown or de-rate protection system **must** come with an indicator light and audible alarm.
- c) If an automatic shut-down system is used it **must** include a driver-controlled override.

3.5.3 **Cold Weather Starting Aids**

- a) The engine **must** be equipped with cold weather aids applicable to the operating conditions in section 3.2.
- b) A low temperature engine starting aid **must** be provided, including glow plug(s) or an intake air preheating system.
- c) A thermostatically controlled water separator/fuel filter **must** be provided to preheat diesel fuel prior to starting.
- d) A thermostatically controlled in-line fuel heater **must** be provided.
- e) A 110-volt engine heater(s) **must** be provided.
- f) A 110-volt battery heater(s) **must** be provided.

- g) The battery **must** be housed in an insulated battery box, blanket or heated cab.
- h) All cold weather aids **must** be connected together with a single, cover-protected, external electrical power plug, without lifting the cab.
- i) All cold weather aids **must** be powered through dedicated shoreline receptacle(s).
- j) If multiple shoreline receptacles are provided, they **must** be grouped together.

3.5.4 **Drive Train**

- a) The vehicle **must** be 4x4 drive
- b) The drivetrain **must** include a “Park” or “Neutral” starting interlock.
- c) The drivetrain **must** include at least one limited slip locking differential.

3.5.5 **Power Take-Off (PTO)**

- a) The PTO **must** be a hot-shift PTO system.
- b) The shifting mechanism **must** be controllable by the operator from the cab.
- c) An indicator light within the cab **must** be provided to indicate when the PTO is engaged.
- d) A safety guard **must** cover the PTO shaft.
- e) A safety mechanism **must** be installed to prevent damaging the PTO/gear box shifting mechanism and transmission during engagement/disengagement.

3.5.6 **Transmission**

- a) The vehicle **must** be equipped with a hydrostatic transmission.
- b) The transmission **must** include a positive detent/lock in the neutral position to preclude inadvertent shifting from forward to reverse speeds through the neutral position in one continuous action.
- c) A transmission oil cooler **must** be provided.
- d) A spin-on oil filter **must** be provided.
- e) A safety device to ensure that the engine can only be started in the neutral position **must** be provided.

3.5.7 **Hydraulic System**

- a) The vehicle **must** be equipped with a hydraulic system.
- b) A hydraulic oil cooler **must** be provided.
- c) Hydraulic filter change indicators **must** be provided.
- d) Hydraulic hoses **must** be grouped together and clearly identified.
- e) Clearly marked test ports **must** be provided.

- f) An indicator light **must** be provided for the engagement of the hydraulic system if the attachments are hydraulically operated.

3.6 **Braking System**

- a) The vehicle **must** have a service brake and parking brake system.
- b) The parking brake system **must** incorporate a warning system to notify the operator that the system is activated.

3.7 **Steering System**

- a) The steering system **must** be powered.
- b) The vehicle steering system **must** operate using the same controls while driving in forward and reverse modes.

3.8 **Wheels, Rims and Tires**

- a) Valve extensions for inner tires if required, to allow for easy access **must** be included.
- b) Standard tires **must** be tubeless, steel belted, radial ply construction, of the “winter” type tread design.
- c) All tires **must** be of the same size, ply rating and tread design on all wheels.
- d) Wheel assemblies and rims **must** be interchangeable front and rear.
- e) A spare wheel and tire **must** be provided with each vehicle.

3.9 **Application Equipment**

- a) The equipment **must** be provided with the appropriate front three point hitch or quick hitch type mechanism.
- b) All of the hydraulic components, drive, and support equipment required for the operation of the equipment **must** be provided.
- c) All equipment **must** be operated from the cab within reach of the operator.

3.9.1 **Sidewalk Spreader**

- a) A rear mounted sand/salt spreader **must** be provided.
- b) The spreader **must** have a minimum delivery width of 1.01 metres (40”).
- c) The spreader **must** have the capability to adjust the quantity of material being spread.
- d) The spreader **must** have a hopper with a minimum capacity large enough to spread material over at least 4 km (2.5 miles), at the most dense adjustment setting.
- e) The spreader **must** have a hopper lid to prevent water ingress and material loss.
- f) The spreader **must** have at least one agitator within the hopper.
- g) The safety screen over the hopper **must** be galvanized steel.

h) Foldable storage legs **must** be provided.

3.9.2 **Power Angle Sweeper**

a) A front mounted power angle sweeper **must** be provided.

b) The sweeper **must** have a minimum nominal sweeping width of 1.52 m (60 in).

c) The sweeper **must** have angle 30° to the left and to the right of the centreline.

3.9.3 **Dust Spraying System**

a) A dust control spraying system **must** be provided, for use with the sweeper.

b) A rear mounted corrosion resistant tank, with a minimum capacity of 302.8 litres (80 US gallons) **must** be provided.

c) The system **must** have a 12 volt electrical pump compatible with water.

d) The vehicle **must** be provided with tires, weights, and/or axle extensions required in order to safely operate this attachment.

e) A spray bar for uniform spraying, compatible with the required sweeper **must** be provided.

3.9.4 **Snow Blower**

a) A front mounted snow blower **must** be provided.

b) The snow blower **must** have a minimum clearing width of 1524 mm (60 in).

c) The blower **must** be designed to have twin augers or a single ribbon.

d) The augers and ribbon **must** be equipped with ice picks.

e) The blower **must** be provided with dual tires, weights, and/or axle extensions required in order to safely operate this attachment.

f) The blower **must** have a sidewalk chute, equipped with a hydraulically operated rotator and deflector.

3.9.5 **Folding V-Plow**

a) The vehicle **must** be provided with a folding V-plow attachment

b) The V-plow **must** have a minimum straight width of 1447 mm (57 in).

c) The V-plow **must** be easily mounted without special tools.

d) The V-plow **must** angle at least 30° left or right by hydraulics.

e) The V-plow **must** be equipped with skid shoes.

f) The V-plow **must** be equipped with replaceable cutting blades.

3.9.6 Cold Planer

- a) The vehicle **must** be provided with a folding cold planer attachment.
- b) The cold planer **must** have a minimum planing width of 406 mm (16 in).
- c) The cold planer **must** have a minimum adjustable planing depth of 0 to 152mm (0 to 6 in).
- d) The cold planer **must** have a minimum oscillation of 15°.
- e) The cold planer **must** have a minimum sideshift of 0 to 558mm (0 to 22 in).
- f) The cold planer **must** be easily mounted without special tools.
- g) The cold planer **must** be provided with spray nozzles.
- h) A deep reduction transfer case **must** be provided with the cold planer.
- i) The cold planer **must** be supplied with tires, weights, and/or axle extensions required in order to safely operate this attachment.
- j) A spare wheel and tire **must** be provided with each vehicle.

3.9.7 Rotary Mower Deck

- a) A front mounted rotary finishing mower **must** be provided.
- b) The mower **must** have a minimum nominal cutting width of 3.05 m (120 in).
- c) The mower **must** fold to reduce the overall width for transport.
- d) Bearings which can be greased **must** be provided where applicable.
- e) Safety switches that automatically shut off the wings when raised **must** be provided.
- f) The mower **must** have an adjustable cutting height with a minimum range from 3.81 cm to 10.16 cm (1.5 in to 4 in).
- g) Casters and rollers suitable for a mower of the requested size **must** be provided.
- h) The rotary mower deck **must** be supplied with tires, weights, and/or axle extensions required in order to safely operate this attachment.
- i) A spare wheel and tire **must** be provided with each vehicle.

3.10 Accessories

- a) The vehicle **must** be supplied with licence plate holders on the front and rear of the vehicle.
- b) The vehicle **must** be equipped with at least one (1) tow hook on the rear of the vehicle and be securely anchored.
- c) A minimum 2.27 kg (5 lb) interior fire extinguisher, suitable for low temperature use **must** be provided in the vehicle cab, readily accessible, mounted in an appropriate bracket.
- d) A secured first aid kit **must** be provided in the vehicle cab.

3.11 Lighting

- a) Lighting **must** be installed on the vehicle, including turn signals, stoplights, headlights, and marker lights.
- b) The vehicle **must** be equipped with a rear-facing floodlight.
- c) The cab **must** include a switch controlled interior mounted LED dome light.
- d) All lights **must** be recessed or otherwise protected from damage.
- e) The vehicle **must** be equipped with a 360 degree visibility amber LED light(s). If a beacon light is provided it **must** be a breakaway design or protected from damage.
- f) The vehicle **must** be equipped with a 360 degree visibility blue LED light(s). If a beacon light is provided it **must** be a breakaway design or protected from damage.

3.12 Controls

- a) Controls **must** be permanently marked to identify and show the function of each control lever or switch.
- b) Controls **must** have markings/instructions in English and French or international symbols as defined by SAE J1362.
- c) All hydraulic controls **must** be in the operator's cab and grouped for quick and convenient operation.
- d) Main hydraulic control **must** be a joystick and include lighting and safety lockout.
- e) Controls **must** not restrict the operator's field of view.

3.13 Instruments

- a) Instruments **must** be readily visible while seated in the driver's seat and be equipped with instrument lamps.
- b) An engine coolant temperature indicator **must** be provided.
- c) An engine oil pressure indicator **must** be provided.
- d) Instruments **must** include an hour-meter with numeric display, which accurately records accumulated engine running time up to at least 9,999 hours.
- e) A fuel level gauge **must** be provided.
- f) Instruments **must** include a metric speedometer.
- g) Instruments **must** include a PTO warning light.
- h) Instruments **must** include an engine tachometer.
- i) Instruments **must** include a hydraulic oil temperature indicator.

3.14 Electrical System

- a) The vehicle **must** be equipped with an electrical system.
- b) A master disconnect switch, accessible from the ground, **must** be provided.
- c) An audible back-up alarm to alert personnel that the vehicle is in reverse **must** be equipped.
- d) Wiring **must** be arranged in an orderly manner and properly secured and supported.
- e) Wires and connectors **must** be properly marked for identification and protected from damage by salt, sand, and weather.

3.15 Paint

- a) As a minimum, the coating process **must** yield a durable finish with a smooth appearance free of runs, sags, and orange peel.

3.16 Warning, Markings and Instruction Plates

- b) All identification, instructional, and warning labels **must** be bilingual or International symbols defined in SAE J1362.
- c) All identification, instructional, and warning labels **must** within view of the operator.
- d) All gauges and controls and **must** be permanently labelled.

3.16.1 Vehicle identification

- a) The vehicle identification information **must** be permanently affixed in a conspicuous and protected location.
- b) Identification information **must** include the cab and chassis manufacturer's name, model number, serial number, and model year.
- c) Identification information **must** include the body manufacturer's model and serial number.
- d) Identification information **must** include the equipment manufacturer's model and serial number.
- e) Identification information **must** include the GVWR and GAWR ratings.

4. INTEGRATED LOGISTIC SUPPORT

- 4.1 **ILS Deliverables** - The following table indicates the ILS elements that the Contractor **must** deliver, including the medium (paper or digital), the expected means of delivery and the reference paragraph.

Element	Format/Medium	Delivered to TA	Supplied with each vehicle/equipment	Reference Paragraph
Set of Manuals	Digital	X	X	4.2
	Paper		X	
Warranty Letter	Digital	X	X	4.3
Data Summary	Digital	X		4.4.1
Photographs	Digital	X		4.4.2
Dimensioned Drawing	Digital	X	X	4.4.3
Special Tool List	Digital	X		4.4.4
Preventive Maintenance Replacement Parts Kit List (PMRPKL)	Digital	X		4.4.5
Recommended Spare parts List (RSPL)	Digital	X		4.4.6
Initial Parts Kit List	Digital	X		

4.2 **Vehicle Manuals**

- a) All manuals required for the description, operation, maintenance and repair of the complete equipment, including sub-systems, **must** be provided.

4.2.1 **Operator's Manuals**

- a) The operator's manuals **must** be bilingual (English/French).
- b) The operator's manuals **must** include instructions for the safe operation of the vehicle.
- c) The operator's manuals **must** include daily operator maintenance instructions/checks (including lubrication).
- d) The operator's manuals **must** include safety warnings.
- e) The operator's manuals **must** include hand signals (as necessary).

4.2.2 **Parts Manual(s)**

- a) The parts manual(s) **must** be in English (bilingual is desirable).
- b) The parts manual **must** have illustrations showing all components of the vehicle including equipment and accessories from other manufacturers that are supplied to meet the requirements of the contract, with numbers for the itemization of the parts.

- c) The parts manual **must** have a listing for all itemized parts showing the Original Equipment Manufacturers (OEM) part number, the part name and a brief description of the item.
- d) The parts manual **must** cross reference the OEM part number to the correct illustration and item number.
- e) The parts manual **must** have a representation of bilingual warning signs and identification labels delivered on the equipment.

4.2.3 **Maintenance Manuals**

- a) The maintenance manual **must** be bilingual (English/French).
- b) The maintenance manual **must** include a trouble shooting guide showing the steps and tests required to determine the exact cause of a problem and an explanation of the steps required to correct a problem.
- c) The maintenance manual **must** include a listing of the necessary tolerances, torque levels, fluid volume, and special tools (including item part numbers).
- d) The maintenance manual **must** include information on the order of disassembly and assembly of the systems and components of the vehicle.
- e) The maintenance manual **must** include special tools list as per 4.4.4

4.2.4 **Manual Delivery to Technical Authority**

- a) Sample manuals **must** be submitted to the Technical Authority (TA) prior to the delivery of the vehicle/trailer for each model and or sub-system for approval. Sample manuals will not be returned. TA will provide approval or comments on the manuals within 30 days.
- b) One (1) complete set of approved manuals (Operator's, Maintenance, and Parts) in electronic format **must** be delivered to the Technical Authority.

4.2.5 **Manual Delivery with Vehicle**

- a) One (1) complete set of manuals (Operator's, Maintenance, and Parts) **must** accompany each vehicle, shipped to each location.
- b) The manuals **must** be in paper and electronic format.

4.2.6 **Electronic Format**

- a) Approved copies of the electronic format manuals **must** be delivered on CD/DVD-ROM.
- b) CD/DVD-ROM **must not** require installation, password and/or Internet connection to be accessed and be an unlocked PDF in a searchable format.

4.2.7 **Provisional Manuals**

- a) In the event that approved manuals are not available at the time of delivery of the equipment, manuals marked "Provisional" **must** be supplied with the equipment.
- b) The contractor **must** deliver replacement approved manuals to all destinations where Provisional manuals were delivered.

4.2.8 **Manual Supplements**

- a) The contractor **must** supply manual supplements (Operator's, Maintenance and Parts) to support dealer-installed equipment not covered in the Vehicle Manuals.
- b) Manual supplements **must** be delivered in accordance with 4.2.4 and 4.2.5.

4.2.9 **Changes to Manuals**

- a) During the period of the contract, changes to equipment, which affect the contents of manuals, **must** be reflected in the revision of the electronic and paper version of the manuals.
- b) Changes to the manuals **must** conform to the same format and presentation requirements as the original manuals.
- c) The revised electronic version of the manual **must** be sent to the Technical Authority by the Contractor.

4.3 **Warranty Letter**

- a) The warranty letter **must** include a list of all Canadian designated warranty service providers that will honour the warranty for the equipment and attachments (if applicable) procured under this contract, including the contact person and phone number at each warranty service provider.
- b) The warranty letter **must** include additional warranty coverage of sub-systems and a copy of the warranty letter from each sub-system's Original Equipment Manufacturer (OEM).
- c) The warranty letter **must** include warranty period as negotiated in the contract.
- d) The warranty letter **must** include Contractor contact information, name and phone number, for warranty support.

4.3.1 **Warranty Delivery**

- a) The Contractor **must** provide a bilingual warranty letter to the Technical Authority and with each vehicle. If the Technical Authority requires the letter to be in DND format, then they will provide the Contractor a template for the DND acceptable format of the warranty letter.

4.4 **Other ILS Deliverables to Technical Authority**

- a) The following deliverables **must** be provided in electronic format prior to the delivery of the last vehicle.

4.4.1 **Data Summary**

- a) The Contractor **must** provide a bilingual Data Summary for the vehicle by completing Technical Authority's template with data and a vehicle picture.

4.4.2 **Photographs**

- a) The Contractor **must** provide photographs in color, taken against a plain background, and in digital JPEG format with a minimum 10 megapixel resolution and with the following views:
 - i. One left front three-quarter view of a completed unit; and
 - ii. One right rear three-quarter view of a completed unit.

4.4.3 **Dimensioned Drawing**

- a) One side and front view sketch showing the dimensions **must** be provided. Brochure sketches are acceptable.

4.4.4 **Special Tools List**

- a) The Contractor **must** provide an itemized list of specific special tools required for the servicing and repair of the vehicle and include:
- i. Item name;
 - ii. Manufacturer's part number (OEM);
 - iii. Quantity recommended per delivery location;
 - iv. Contractor's part number;
 - v. Unit price; and
 - vi. Unit of issue.

4.4.5 **Preventive Maintenance Replacement Parts Kit List (PMRPKL)**

- a) The Contractor **must** provide a list detailing the parts that are required to perform preventive maintenance to the system for a period of 12 months, and include:
- i. Item name;
 - ii. Contractor's part number
 - iii. Manufacturer's part number;
 - iv. Manufacturer's NATO Supply code (NCAGE) or name and address;
 - v. NSN (NATO Stock Number) (if known);
 - vi. Quantity per equipment;
 - vii. Quantity recommended;
 - viii. Unit price; and
 - ix. Unit of issue.

4.4.6 **Recommended Spare Parts List**

- a) The Contractor **must** provide a list detailing the spare parts deemed necessary to maintain the vehicle for a period of 12 months exclusive of any warranty period, and include:
- i. Part description;
 - ii. Original Equipment Manufacturer;
 - iii. Original Equipment Manufacturer Part Number;

- iv. Suggested quantity; and
- v. Unit cost.

4.5 **Safety Recalls and Servicing Data**

- a) Safety recalls, and manufacturer's technical service bulletins, or equivalent **must** be provided to the technical authority and the final delivery locations on a continuing basis, throughout the life expectancy of the vehicle or for no less than 10 years.

4.6 **Initial Parts Kit**

- a) One initial parts kit **must** be delivered with each vehicle.
- b) Each kit **must** include a complete set of filters and filter elements from the Original Equipment Manufacturer (OEM) required in the first 12 months of service.
- c) One kit per location **must** include the special tools listed in section 4.3.4.

4.7 **Training**

4.7.1 **Training Deliverables**

- a) The following table indicates the ILS Training elements that the Contractor **must** deliver, including the expected means of delivery and the reference paragraph.

Element	Format/ Medium	Delivered to TA by E-mail for approval	Remarks	Reference Paragraph
Course Curriculum	Digital	X	-	4.7.2.1
Maintenance Training	-	-	Delivery in person, at the location specified in the contract.	4.7.2
Operator Training	-	X	Delivery in person, at the location specified in the contract.	4.7.3
Proof of Training Certificate	Digital	X	TA will provide template	4.7.3e)

4.7.2 **Maintenance Personnel Training**

- a) The Contractor **must** provide a maintenance training course.
- b) The course **must** be given at the delivery destination and be available in both official languages.
- c) The course **must** have a minimum duration of **4 hours or one (1) day** to provide training of up to eight (8) maintenance personnel and have the final dates arranged with the Technical Authority.
- d) The course **must** have a syllabus or course outline and schedule available for review seven (7) days prior to the course commencement date.

- e) After completion of the course, the Contractor **must** have a “*PROOF OF MAINTENANCE TRAINING*” certificate signed by a Canada Representative for the destination. The Technical Authority will supply this document in an electronic format.

4.7.2.1. Maintenance Personnel Training Curriculum

- a) The following items **must** be included in the curriculum:
 - i. Operator’s training detailed in 4.7.3 below;
 - ii. Operation and maintenance safety precautions;
 - iii. Preventive maintenance including servicing schedules (10 % of classroom time);
 - iv. Trouble shooting, testing, and adjustments (70 % of classroom time); and
 - v. Special tools and test equipment.

4.7.3 Operator Training

- a) The Contractor **must** provide an operator training course.
- b) The course **must** be given at the delivery destination and be available in both official languages.
- c) The course **must** have minimum duration of one (1) day to provide training for up to eight (8) operators and have the final dates arranged with the Technical Authority.
- d) The course **must** have a syllabus or course outline and schedule available for review seven (7) days prior to the course commencement date.
- e) After completion of the course the Contractor **must** have a “*PROOF OF OPERATOR TRAINING*” certificate signed by a Crown Representative for the destination. The Technical Authority will supply this document in an electronic format.

4.7.3.1. Operator Training Curriculum

- a) The following items **must** be included in the curriculum:
 - i. Safety precautions to be observed while operating and servicing the vehicle;
 - ii. Vehicle operating characteristics;
 - iii. Vehicle operating procedures;
 - iv. Pre-operating and pre-shutdown procedures;
 - v. Daily/weekly operator servicing procedures; and
 - vi. A minimum of two hours practical operating experience, per operator.

4.7.4 Training Materials

- a) Training materials **must** be provided to each attendee, in French for locations in Quebec, and include:
 - i. A list of topics to be covered;

- ii. An approximate timetable showing when topics are scheduled to be covered and how much time is scheduled for each topic;
- iii. Lists any reference material; and
- iv. Make available any reference material used.