



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

Industrial Vehicles & Machinery Products Division

LEFTD - HS Division

140, O'Connor Street/

140, rue O'Connor,

East Tower, 4th Floor/

Tour Est, 4e étage

Ottawa

Ontario

K1A 0S5

Title - Sujet Runway Snow Blower	
Solicitation No. - N° de l'invitation W8476-196057/A	Amendment No. - N° modif. 005
Client Reference No. - N° de référence du client W8476-196057	Date 2019-06-21
GETS Reference No. - N° de référence de SEAG PW-\$\$HS-653-77033	
File No. - N° de dossier hs653.W8476-196057	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2019-07-12	
Time Zone Fuseau horaire Eastern Daylight Saving Time EDT	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Martial, Daniel	Buyer Id - Id de l'acheteur hs653
Telephone No. - N° de téléphone (613) 296-7559 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

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

Modification 005

Cette modification est effectuée afin de fournir les questions et les réponses aux soumissionnaires potentiels, prolonger la date de clôture de l'invitation et effectuer des modifications comme suit:

1. Questions et réponses

Question 23

Si les soumissions pour les souffleuses à un seul moteur et les souffleuses à deux moteurs seront permises, nous demandons que Travaux publics spécifie la puissance (HP) requise pour respecter la spécification de rendement exigée. Les calculs théoriques fournis à Travaux publics par l'industrie ne sont pas fiables. Par exemple, un fabricant en particulier sur le marché distribue une brochure selon laquelle une souffleuse à un seul moteur a la capacité de dégager 5000 tonnes de neige par heure, à l'aide d'un seul moteur de 581 HP. C'est simplement impossible. Si la puissance (HP) requise n'est pas précisée pour la souffleuse et chaque moteur individuel, l'utilisateur recevra des souffleuses qui ne surpasseront pas le rendement des machines qu'il tente de remplacer. De plus, cela crée un avantage injuste sur le plan des coûts pour les fabricants qui font des affirmations non fondées, et qui surestiment leur équipement.

Réponse 23

Les soumissionnaires doivent proposer un équipement qui répondra aux exigences de la description d'achat section 3.14.1, et ce, conformément aux directives énoncées dans la norme SAE ARP5539 *Rotary Plow with Carrier Vehicle*. Par conséquent, la méthode d'essai utilisée pour mesurer la performance de la souffleuse à la section 3.14.1 doit consister à essayer la souffleuse de la manière décrite dans la norme ARP5539.

Question 24

3.6.2 Dispositifs d'aide au démarrage par temps froid

b) Un filtre à carburant/séparateur d'eau à commande thermostatique doit être fourni afin de préchauffer le carburant diesel avant le démarrage.

Le fabricant de moteur Caterpillar ne fournit pas de filtre à carburant thermostatique avec moteur T4F. Donc enlever : à commande thermostatique doit être fourni afin de préchauffer le carburant diesel avant le démarrage.

Réponse 24

Un filtre à carburant/séparateur d'eau à commande thermostatique doit être fourni. La description d'achat ne sera pas modifiée

Question 25

3.10 Système de suspension

b) Le système de suspension doit être muni d'amortisseurs à double effet sur chaque essieu.

Dans ce type d'équipement, les amortisseurs ne sont pas requis. Donc enlever complètement l'item b)

Réponse 25

La description d'achat est modifiée afin de supprimer cette exigence.

Question 26

Spécification : Page 10 3.6.3.c - *Si un système de réduction sélective catalytique (RSC) est utilisé, celui-ci doit être muni de commandes manuelles de désactivation et d'activation permettant de régénérer automatiquement le filtre à particules diesel (FPD).*

Commentaire : Les moteurs de notre souffleuse à neige n'ont pas besoin de régénération, et ils sont certifiés niveau 4. Veuillez dire si cela est acceptable?

Réponse 26

Oui, une régénération automatique du FPD commandé est nécessaire seulement si une réduction sélective catalytique (RSC) est utilisée.

Question 27

Spécification : 3.16 Page 15 – a) *Le véhicule doit être équipé d'un système de lubrification automatique Groenveld ou équivalent.*

Commentaire : Veuillez dire si un système de marque Lube Core est acceptable?

Réponse 27

Oui, un système de lubrification automatique Lube Core est acceptable.

Question 28

Spécification : 3.19 Commandes, *La fonction de chaque commande doit être indiquée de façon permanente sur celles-ci en anglais et en français ou au moyen de symboles internationaux définis dans la norme SAE J1362.*

Commentaire : Les étiquettes actuelles ne comprennent pas de français; elles comprennent seulement de l'anglais. Les étiquettes fournies utilisent des symboles reconnus internationalement. Veuillez dire si cela est acceptable?

Réponse 28

Oui, les étiquettes comportant des symboles reconnus internationalement comme défini par la norme SAE J1362 sont acceptables.

Question 29

Spécification : « *DANGER TENEZ-VOUS À DISTANCE* » *doit être peint ou marqué au pochoir des deux côtés de l'accessoire du chasse-neige en rouge éclat nature.*

Commentaire : Veuillez dire si du vinyle réfléchissant rouge serait acceptable?

Réponse 29

Non, il s'agit d'une exigence obligatoire.

Question 30

Spécification : Page 18 c) *Un revêtement commercial de protection anticorrosion, comme le Krown Rust Control ou le Rust Check, ou équivalent, doit être appliqué sur le véhicule.*

Commentaire : Une couche intermédiaire Ziebart appliquée sous les ailes et sur la moitié inférieure du réservoir à carburant serait-elle acceptable?

Spécification Page 11, 3.6.4 b) *Si plus d'un réservoir d'essence est utilisé, des jauges à carburant distinctes doivent être fournies.*

Commentaire : Deux réservoirs à essence de 125 gallons seront fournis et reliés à l'aide d'une jauge à essence surveillant le niveau égalisé dans les deux réservoirs. Veuillez dire si cela est acceptable?

Réponse 30

Spécification : Page 18 c)

Un produit équivalent peut être offert. Veuillez fournir des détails dans le dossier d'appel d'offres. Le responsable technique effectuera l'évaluation de la soumission et décidera de l'accepter ou non.

Spécification Page 11, 3.6.4 b)

Oui, si les réservoirs sont reliés l'un à l'autre (c.-à-d. tuyauterie à coude de croisement), les réservoirs à essence ne sont pas entièrement séparés. Les réservoirs à essence reliés l'un à l'autre nécessitent une jauge.

Question 31

6.12 Inspection et acceptation: Veuillez décrire les critères d'inspection et d'acceptation ainsi que le processus qui sera utilisé par le Canada afin d'accepter les véhicules.

Réponse 31

L'autorité technique, ou un représentant, inspectera les rapports, les biens livrables, les documents, les biens et services conformément aux exigences comprises dans le contrat, y compris la description d'achat. Les documents et les rapports peuvent être envoyés à l'autorité technique avant leurs inspections pour approbation. Lors de la livraison des véhicules, l'autorité technique ou un représentant sera présent pour inspecter les véhicules. L'autorité technique ou un représentant devra inspecter, en personne, chacun des véhicules afin de s'assurer que toutes les exigences contenues dans le contrat sont rencontrées. L'inspection devra, au moins, inclure la conduite et la manipulation du véhicule. Si des véhicules ou des documents ne sont pas satisfaisants, alors l'autorité technique aura le droit de les rejeter ou d'en demander la correction, aux frais de l'entrepreneur.

Question 32

5.1.1 Dispositions relatives à l'intégrité - déclaration de condamnation à une infraction. Les formulaires pour le Régime d'intégrité sur le web sont en format PDF et ce qu'ils attendent des soumissionnaires n'est pas clair. Je peux imprimer ce que nous avons sur le site web de SAM et vous l'envoyer ?

Réponse 32

Le formulaire de déclaration doit être remis **uniquement** dans les cas suivants :

1. le fournisseur, une de ses affiliées ou un premier sous-traitant proposé a été accusé ou reconnu coupable d'une infraction criminelle au cours des trois dernières années dans un pays autre que le Canada, et cette infraction peut, à la connaissance du fournisseur, s'apparenter à l'une des infractions énumérées dans la Politique d'inadmissibilité et de suspension (la «politique»);
2. le fournisseur n'est pas en mesure de fournir les attestations exigées dans les [Dispositions relatives à l'intégrité](#).

Pour de l'information supplémentaire concernant les attestations exigées dans les [Dispositions relatives à l'intégrité](#), veuillez consulter la section 01 des Instructions uniformisées 2003

Question 33

5.2.1 Dispositions relatives à l'intégrité – documentation exigée : J'ai revu le lien web et il semble que la section « 16 – Sous-traitants » et section « 17 information » semble être quelque chose que nous pourrions envoyer par contre, ce n'est clair qu'est-ce qui est à certifier. Toutefois, il semble que c'est à la section 17 que nous devons aviser ARC de nos sous-traitants au Canada ?

Réponse 33

La section 17 renseigne sur l'information requise lors d'une soumission, de la passation d'un contrat ou de la conclusion d'un accord immobilier. Fournir une liste de sous-contractant n'est pas une exigence de la section 17.

Pour de l'information supplémentaire concernant les attestations exigées dans les [Dispositions relatives à l'intégrité](#), veuillez consulter la section 01 des Instructions uniformisées 2003.

Question 34

5.2.2 - Programme de contrats fédéraux pour l'équité en matière d'emploi - Attestation de soumission : EDSC - Est-ce que la page 35 complète cette exigence ? Autrement, nous pouvons vous offrir l'information sur SAM étant donné que c'est la même que nos provisions de l'EEOC .

Réponse 34

Le paragraphe 5.2.2 - Programme de contrats fédéraux pour l'équité en matière d'emploi - Attestation de soumission est deux parties.

- 1- En présentant une soumission, le soumissionnaire atteste que le soumissionnaire, et tout membre de la coentreprise si le soumissionnaire est une coentreprise, n'est pas nommé dans la liste des « soumissionnaires à admissibilité limitée du PCF » du Programme de contrats fédéraux (PCF) pour l'équité en matière d'emploi disponible au bas de la page du site Web d'Emploi et Développement social Canada (EDSC) – Travail (<https://www.canada.ca/fr/emploi-developpement-social/programmes/equiteemploi/programme-contrats-federaux.html#s4>).
- 2- Le soumissionnaire doit fournir à l'autorité contractante l'annexe C intitulée Programme de contrats fédéraux pour l'équité en matière d'emploi - Attestation remplie avant l'attribution du contrat.

Question 35

PCF – ceci ressemble à « Parti refusé », que désire-t-il des soumissionnaires sur ce sujet. Que voulez-vous que nous « Certifions » concernant votre Programme de contrats fédéraux ?

Réponse 35

Voir question et réponse #15 à l'amendement 003.

Question 36

5.2.3.1 - Conformité du produit

Semble qu'un certificat de conformité suffira ?

Réponse 36

Un certificat de conformité n'est pas suffisant. Le représentant autorisé du soumissionnaire doit signer la certification.

Question 37

5.2.3.3 - Attestation des caractéristiques environnementales générales

Nous ne sommes pas enregistrés et nous ne rencontrons pas les standard ISO 14001. Nous devrions alors indiquer N/A

Réponse 37

D'après le paragraphe 5.2.3.3, le soumissionnaire doit certifier qu'il est enregistré ou qu'il rencontre ISO 14001 ou que le soumissionnaire rencontre et continuera de rencontrer durant le contrat, 4 critères sur 6 identifiés dans le tableau du paragraphe 5.2.3.3

Question 38

6.3 - Dans les Instructions, clauses et conditions uniformisées, prévoyez-vous inclure Dommages-intérêts fixés à l'avance ? Si tel est le cas, pouvez-vous nous fournir l'information.

Réponse 38

Non, nous ne prévoyons pas inclure la clause des Dommages-intérêts fixés à l'avance.

Question 39

Comment les tarifs imprévus seront-ils gérés avant la livraison pendant la période de 24 mois? Est-ce que la garantie prolongée est une option et va-t-elle inclure le véhicule en entier?

Réponse 39

Les soumissionnaires peuvent offrir une garantie prolongée pour un véhicule/équipement ou à des composantes/sous-ensembles spécifiques. Canada peut acheter une garantie prolongée offerte à sa discrétion lors de l'attribution de contrat.

Question 40

Demande de propositions 5.2.3.2 – Le véhicule devra-t-il répondre à toutes les normes pendant toute la durée du contrat? Qu'advient-il si le produit change entre les premières commandes où l'on lève l'option parce que cette période est supérieure à 3 ans (par exemple, le fabricant pourrait modifier certaines composantes).

Réponse 40

Oui, le véhicule doit rencontrer les standards pendant la durée du contrat. Par contre, le contracteur peut proposer des substituts et des alternatives à faire approuver par l'autorité technique, selon le paragraphe 6.2.1 - Changements techniques, produits de remplacement et solutions de rechange.

Question 41

Demande de propositions 6.7.1, no 2 – Veuillez expliquer cette clause. À quoi la retenue s'applique-t-elle?

Réponse 41

Les factures peuvent seulement être soumises suivant la livraison, l'inspection et l'acceptation de tous véhicule/équipement/service. Le Canada retiendra dix (10) pour cent sur tout paiement final dudit véhicule/équipement/service jusqu'à la livraison, l'inspection et l'acceptation de tous les articles auxiliaires excepté la formation et les items auxiliaires identifiés à l'appendice A1 Calendrier et lieux de livraison reliés au dis véhicule/équipement/service.

Question 42

Est-ce que la formation est requise après chaque livraison ?

Réponse 42

Non, la formation est nécessaire après la livraison du premier véhicule pour chaque lieu, en accord avec l'Annexe A – Prix

Question 43

L'annexe A, appendice A1 – Calendrier et lieux de livraison est-elle évaluée?

Réponse 43

Annexe A Appendice_ A1 – Calendrier et lieux de livraison est pour les prévisions financières et n'est pas évaluée.

Question 44

Annexe A, appendice A1 – Faut-il livrer les produits équipement dans l'ordre indiqué dans le tableau des priorités?

Réponse 44

À des fins d'évaluation et de définir la quantité ferme, les soumissionnaires doivent offrir le nombre maximum de véhicules, en conformité avec l'ordre spécifié dans le tableau Séquence de priorité à l'intérieur du budget maximum disponible.

Le calendrier de livraison offert à l'intérieur du budget maximum disponible (Quantité ferme), n'est pas requis d'être en conformité avec l'ordre spécifié dans le tableau de la séquence de priorité

Question 45

Annexe A, appendice A2 – Le montant du financement maximal est-il sujet à changement?

Réponse 45

Non, le financement maximal disponible n'est pas sujet à changer. Par contre, si des fonds deviendraient disponibles après l'attribution du contrat, Canada pourrait utiliser ces fonds afin d'exercer des options, si applicable.

Question 46

À l'appendice A, les coûts de formation en français et en anglais seront-ils compris dans le prix total?

Réponse 46

Oui, la formation en anglais et en français seront évaluées financièrement, tel qu'indiqué au paragraphe 4.1.4 - Prix global évalué. Le contrat sera amendé afin d'inclure le prix actuel de la formation lorsque le langage requis sera déterminé tel qu'indiqué au paragraphe 6.23 - Langue pour la formation

Question 47

3.4.1 – Peut-on faire des exceptions lorsqu'il est possible d'utiliser l'équipement de manière technique pour obtenir le résultat souhaité?

Réponse 47

Tel qu'indiqué paragraphe 4.2 - Méthode de sélection, afin d'être déclarée recevable, une soumission doit :

- a. être conforme aux exigences de la sollicitation; et
- b. rencontrer tous les critères d'évaluation technique obligatoires; et
- c. rencontrer tous les critères d'évaluation financière obligatoires.

Les soumissionnaires peuvent soumettre leur demande de renseignement tel qu'indiqué au paragraphe 2.3 - Demandes de renseignements - en période de soumission et d'amélioration tel qu'indiqué au paragraphe 2.5 - Améliorations apportées au besoin pendant la demande de soumissions.

Question 48

Communiquerez-vous avec nous si nous vous prouvons que nous avons fourni suffisamment d'information mais que celle-ci ne correspond pas à ce que vous cherchez?

Réponse 48

Canada suivra les provisions du Processus de conformité des soumissions en phases tel que détaillé au paragraphe 4.1.1. - Processus de conformité des soumissions en phases durant l'évaluation des soumissions.

Question 49

Est-ce que la date de clôture des soumissions doit être avant l'élection? Les délais seront-ils reportés?

Réponse 49

La date de fermeture des soumissions est en conformité avec les accords commerciaux.

La validité des soumissions a été établie à 270 jours afin de prévenir que les soumissions expirent dans l'éventualité que l'attribution du contrat soit repoussée.

La date de fermeture de la sollicitation a été prolongée jusqu'au 12 juillet 2019.

Question 50

Jusqu'à quand pouvons-nous envoyer nos questions?

Réponse 50

Toutes les demandes de renseignements doivent être présentées par écrit à l'autorité contractante au moins sept (7) jours civils avant la date de clôture des soumissions.

Question 51

Section 2.1 – Validité de 60 jours remplacée par validité de 270 jours. S'il vous plait fournir de l'information additionnelle.

Réponse 51

La soumission doit être valable pour 270 jours à partir de la date de clôture de la sollicitation.

Question 52

L'intention de ma question est de clarifier ce que vous considérez comme étant la quantité optionnelle. Par exemple, si 10 unités sur les 22 souffleuses demandées sont initialement achetées, est-ce que les 12 unités restantes sont le prix des quantités optionnelles ou le prix pour les quantités optionnelles se rapporte aux unités au-dessus de la quantité de 22.

Réponse 52

Si les soumissionnaires ne peuvent offrir 22 souffleuses à l'intérieur du budget maximum disponible, la quantité restante (22 moins le nombre de véhicules offert à l'intérieur du budget maximum disponible) sera considérée la quantité optionnelle.

Voici l'exemple fourni avec la question.

Besoin :	22
Quantité offerte dans le budget maximum disponible :	10
Quantité optionnelle :	12

Question 53

S'il vous plait confirmer s'il serait acceptable de soumissionner plus d'un produit par DDP. (ex : soumettre une soumission pour un produit et inclure une soumission/option d'un autre produit dans notre proposition). Si soumissionner un produit alternatif pour chaque DDP est acceptable, s'il vous plait aviser de la procédure.

Réponse 53

Les soumissionnaires doivent offrir seulement un produit par soumission. Si un soumissionnaire souhaite offrir un autre produit, il doit le faire en soumettant une autre soumission.

Question 54

DDP – W8476-106059, 4.1.3.1, Est-ce que le contrat aura la clause Hors Taxes 9982?

Réponse 54

Oui, voir amendement 004.

Question 55

Annexe A, Si le contracteur peut fournir la quantité requise de (22 souffleuses) à l'intérieur du budget de \$8,1M, est-ce que le Canada désire quand même des prix optionnels pour les périodes de 12 et 24 mois pour les unités additionnelles.

Réponse 55

Non, si la quantité complète de 22 souffleuses peut être achetée à l'intérieur du budget maximum disponible, il n'y aura pas de quantité optionnelle dans le contrat.

Question 56

J'essaie de travailler sur la section de sécurité et sur le Formulaire de demande d'enquête de sécurité sur une organisation du secteur privé, à la section G, qui dois-je indiquer.

Réponse 56

Pour toutes questions concernant les exigences de sécurité, s'il vous plait vous référer au site web du Programme de sécurité des contrats de Travaux publics mentionné au paragraphe 1.2 - Exigences relatives à la sécurité.

Question 57

Pourriez-vous m'aviser comment puis-je envoyer deux propositions ?

Réponse 57

Les soumissionnaires doivent offrir seulement un produit par soumission. Si un soumissionnaire souhaite offrir un autre produit, il doit le faire en soumettant une autre soumission.

Question 58

L'annexe A est barré et on ne peut rien y inscrire. Pourriez-vous la débarrer? Elle est protégée et en lecture seulement.

Réponse 58

L'information requise pour la soumission doit être entrée seulement dans les cases bleues de l'appendice A1 – Calendrier et lieu de livraison et A2 - Données.

2. Page couverture – L'invitation prend fin

Supprimer : 2019-06-28

Insérer : 2019-07-12

3. Description d'achat

Supprimer: Dans son entièreté.

Insérer : Description d'achat datée du 2019-06-18

4. Tableau de conformité technique

Supprimer: Dans son entièreté.

Insérer : Tableau de conformité technique daté du 2019-06-18

TOUS LES AUTRES TERMES ET CONDITIONS DEMEURENT INCHANGÉS.



PURCHASE DESCRIPTION FOR

Runway Snow Blower ECC 167130



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

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Canada

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Runway Snow Blower

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1 SCOPE

1.1 Scope

- a) This purchase description covers the requirements of a self-propelled, two-stage runway snow blower with a minimum snow blowing capacity of 4082.3 metric tons (4500 short tons) per hour. The runway snow blower will be used to clear runways at Royal Canadian Air Force Wings across Canada.

1.2 Instructions

- 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

- 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 equivalency for the respective requirement is provided for evaluation.
- c) “**Vehicle**” – The entire vehicle including all systems and sub-systems, in a complete manufactured state in accordance with the requirements in this Purchase Description.
- d) “**5th percentile adult female**” – As defined in the *Motor Vehicle Safety Regulations* (C.R.C., c. 1038) a person having as physical characteristics a mass of 46.3 kg, height of 1499 mm, erect sitting height of 785 mm, normal sitting height of 752 mm, hip sitting breadth of 325 mm, hip sitting circumference of 925 mm, waist sitting circumference of 599 mm, chest depth of 191 mm, bust circumference of 775 mm, chest upper circumference of 757 mm, chest lower circumference of 676 mm, knee height of 455 mm, popliteal height of 356 mm, elbow rest height of 180 mm, thigh clearance height of 104 mm, buttock-to-knee length of 518 mm, buttock-to-poples length of 432 mm, elbow-to-elbow breadth of 312 mm and seat breadth of 312 mm.

- e) **“95th percentile adult male”** – As defined in the *Motor Vehicle Safety Regulations* (C.R.C., c. 1038) a person having as physical characteristics a mass of 97.5 kg, height of 1849 mm, erect sitting height of 965 mm, normal sitting height of 930 mm, hip sitting breadth of 419 mm, hip sitting circumference of 1199 mm, waist sitting circumference of 1080 mm, chest depth of 267 mm, chest circumference of 1130 mm, knee height of 594 mm, popliteal height of 490 mm, elbow rest height of 295 mm, thigh clearance height of 175 mm, buttock-to-knee length of 640 mm, buttock-to-poples length of 549 mm, elbow-to-elbow breadth of 506 mm and seat breadth of 404 mm.
- f) **“Gross Axle Weight Rating (GAWR)”** - The value specified by the vehicle manufacturer as the load-carrying capacity of a single axle system, as measured at the tire-ground interfaces.
- g) **“Gross Vehicle Weight Rating (GVWR)”** - The value specified by the vehicle manufacturer as the loaded weight of a single vehicle.

2 APPLICABLE DOCUMENTS

2.1 Applicable Documents

- a) The following documents form part of this Purchase Description. The dates of issue are those in effect on the date of release of the Request for Proposals (RFP). Canada will not be supplying these documents. Sources are as shown:

Canadian Occupational Health and Safety Regulations (COHSR), 2015

<http://laws.justice.gc.ca/eng/regulations/sor-86-304/index.html>

Advisory Circulars 300 Series – Aerodromes and Airports

Transport Canada
Government of Canada
330 Sparks Street
Ottawa, ON, K1A 0N5
<https://www.tc.gc.ca/>

Automotive (On-road) Diesel Fuel

CAN/CGSB Standard 3.517-2007
Standards Council of Canada
270 Albert Street, suite 200
Ottawa, ON K1P 6N7
Canada
<https://www.scc.ca/en>

SAE Handbook

SAE ARP5539 Rotary Plow with Carrier Vehicle

Society of Automotive Engineers Inc.
400 Commonwealth Dr.
Warrendale, PA, 15096
<http://www.sae.org>

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 year, 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** ensure that components and parts used are readily available for a minimum period of ten (10) years from the date of manufacture.

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 -46 to 39° C (-50.8 F to 102° F) and cold starting from -40° C (-40 F) with external aids as specified in Paragraph 3.6.2.

3.2.2 Terrain

- a) The vehicle **must** be operable on concrete and asphalt surfaces that include year round operations on rain, snow, hard packed snow and ice with up to 2.0% (percent) slope in all weather conditions.

3.3 Safety Standards

3.3.1 Noise Level

- a) The vehicle noise level must meet the requirements of legislation relative to Canadian Occupational Health and Safety Regulations (COHSR).

3.3.2 Human Factors Engineering

- a) The vehicle, all systems, and components **must** comply with the relevant sections of the COHSR.

- b) The vehicle **must** be manufactured/assembled for safety and ease of use by CAF users with anthropometric characteristic measurements ranging from 95th percentile male to 5th percentile female.
- c) The vehicle **must** have entry and exit points equipped with handles and steps sized and positioned to accommodate CAF users with anthropometric characteristic measurements ranging from 95th percentile male to 5th percentile female.
- d) The vehicle **must** be equipped, with warning and instruction plates, non-slip walking surfaces and heat shields, for operator safety.

3.3.3 Design Standards

- a) The vehicle **must** be designed in accordance with the guidelines set out in SAE ARP5539 unless otherwise specified in this Purchase Description.

3.4 Vehicle Performance, Ratings and Dimensions

3.4.1 Performance

- a) The vehicle, at GVWR, **must** reach a minimum transport speed of 50 km/h, required for moving the vehicle between work locations.
- b) The vehicle **must** maintain a minimum working speed of 40 km/h while maintaining maximum blower head capacity.
- c) The vehicle **must** have a minimum snow blowing capacity of 4082.3 metric tons/hour (4500 short tons/hour).

3.4.2 Weight Ratings

- a) The GVWR of the vehicle **must** not be less than the sum of the unloaded vehicle mass, the cargo carrying capacity, and the product obtained by multiplying the designated seating capacity by 68kg as defined in the *Motor Vehicle Safety Regulations (C.R.C., c. 1038)*.
- b) Each GAWR **must** be equal to or less than the load rating of the weakest component in the axle system, i.e., axle housing, suspension, wheels, or tires.
- c) The total load on each axle of the vehicle **must** not exceed the GAWR for that axle.

3.4.3 Dimensions

- a) The maximum overall **height** of the vehicle **must** be 4.2 m (13.7 ft).
- b) The maximum overall **length** of the vehicle **must** be 12.8 m (42 ft).
- c) The maximum overall **width** of the vehicle **must** be 4.5 m (14.7 ft).
- d) The vehicle minimum ground clearance during transport **must** be 200 mm (7.8 in).

3.5 Frame

- a) The frame **must** be a purpose-built chassis manufactured for use in all conditions specified in Paragraph 3.2, 3.3 and 3.4.

- b) Recovery tow points or hooks rated for the maximum weight of the vehicle **must** be provided and located on the front and rear of the vehicle.
- c) The vehicle **must** be equipped with a licence plate holder with an LED light at the rear.

3.6 Vehicle Engine

- a) The vehicle engine **must** operate on ultra-low sulphur diesel fuel to the CAN/CGSB Standard 3.517 and meet the latest emission standards.
- b) If the vehicle engine powers both the vehicle and the snow blower functions, then it **must** meet performance requirements in Paragraph 3.4.1 b) and c) simultaneously.

3.6.1 Engine Components

- a) A replaceable air filter(s) **must** be provided.
- b) A cooling system **must** be provided.
- c) A combustion air cleaning system **must** be provided, with an air cleaner restriction indicator visible to the operator.
- d) A full flow replaceable oil filter **must** be provided.
- e) An engine shutdown or de-rate system **must** be provided, including a visual warning indicator visible from the operator position.

3.6.2 Cold Weather Starting Aids

- a) Low temperature engine starting aids **must** be provided to meet the operating conditions in Paragraph 3.2.1.
- b) A thermostatically controlled water separator/fuel filter **must** be provided to preheat diesel fuel prior to starting.
- c) A 110-volt battery heater(s) blanket or pad **must** be provided.
- d) All cold weather aids **must** be powered through dedicated shoreline receptacle(s).
- e) If multiple shoreline receptacles are provided, they **must** be grouped together.

3.6.3 Exhaust System

- a) The vehicle **must** be equipped with an exhaust system shielded to prevent personnel contacting a heated surface.
- b) The exhaust system **must** prevent entry of rain.
- c) If a Selective Catalytic Reduction (SCR) System is used, there **must** be manual deactivation and activation controls for the automatic regeneration of the Diesel Particulate Filter (DPF).

3.6.4 **Fuel Tank(s)**

- a) The fuel tank(s) **must** have a fuel capacity that will provide a minimum of six (6) continuous hours of operation.
- b) If more than one fuel tank is used, separate fuel gauges **must** be provided.

3.7 **Drivetrain**

- a) The vehicle **must** be all-wheel drive.
- b) The drivetrain **must** include a "Park" or "Neutral" starting interlock.
- c) The drivetrain **must** include limited slip, automatic or operator controlled locking differential(s) on the drive axle(s) with an engagement indicator.

3.8 **Transmission**

- a) The vehicle **must** be equipped with fully automatic or hydrostatic drive transmission.
- b) The transmission **must** have an oil heater, if required to meet the operating conditions specified in Paragraph 3.2.1.
- c) The transmission **must** have an oil cooler, if required.
- d) The transmission **must** have a replaceable oil filter.
- e) The transmission shift control **must** clearly indicate the position of the shift column under all lighting conditions.
- f) A means to determine oil level **must** be provided.
- g) An audible back-up alarm **must** be installed to alert personnel that the vehicle transmission is in reverse.

3.9 **Braking System**

- a) The vehicle **must** be equipped with a power assisted braking system.

3.9.1 **Parking Brake**

- a) The vehicle **must** be equipped with a parking brake.
- b) The parking brake control **must** be positioned so it will not interfere with the operator or snag their clothing when entering or exiting the vehicle.

3.10 **Suspension System**

- a) The vehicle **must** be equipped with a suspension system.
- b) If an air system is provided, it **must** include immediate response automatic ride height control.
- c) If an air system is provided, a heated automatic air tank drain valve **must** be provided.

3.11 Steering

- a) The vehicle **must** be provided with a front-wheel power or articulated steering system.

3.12 Wheels, Rims and Tires

- a) Tires and rims **must** be selected in accordance with the Tire and Rim Association Handbook.
- b) Tires **must** have a tread pattern for use in the operating conditions described in Paragraph 3.2.
- c) The wheels, tires and rims **must** include valve extensions for inner tires, if used, to allow for easy access.
- d) For each tire size provided, one full size spare tire assembly **must** be delivered with each vehicle.

3.13 Cab

- a) The vehicle **must** be equipped with a weatherproof cab.
- b) The cab **must** be forward mounted and provide the operator with 360° visibility including the snow blower attachments and the surrounding area.
- c) A fully adjustable operator's seat **must** be provided, with independent air suspension and arm rests.
- d) The operator's seat **must** be centre in the cab or on that same side as the flat casting.
- e) At a minimum, a foldable passenger seat with lap belt **must** be provided.
- f) The operator and passenger seats **must** have dark upholstery.
- g) The operator's seat **must** have include a retractable **(3-point)** seat belt.
- h) At a minimum, a main point of cab entry/exit and one alternate emergency escape **must** be provided.
- i) A ventilation/heater and defrosting system **must** be provided, with a multi-speed fan, applicable for the operating conditions as specified in Paragraph 3.2.1.
- j) All windows **must** have glass tinting to reduce solar heating effects.
- k) A powered windshield washer system **must** be provided with multi-speed wipers, where the wiper blades **do not** travel from a vertical center windshield position to a horizontal position near the roof line.
- l) The cab floor or floor mats **must** be weatherproof.
- m) Two rotating interior sun visors **must** be installed.
- n) Interior rear-view mirrors **must** be provided.

- o) A back-up camera system **must** be installed in the cab with a screen size of at least 17.7 cm (7 in) that displays in colour.
- p) The back-up camera system **must** automatically turn on when the vehicle is in reverse.
- q) The back-up camera system **must** have a selectable switch to turn on and off.
- r) An AM/FM stereo radio with an auxiliary port **must** be provided.
- s) Two heavy-duty, powered and heated exterior side mirrors, with convex section, **must** be provided with in-cab controls.
- t) The cab **must** be equipped with a 4.5 kg (10 lb) ULC approved and rechargeable dry chemical fire extinguisher, with a minimum rating of ABC10G, equipped with a pressure gauge, service inspection tag, and accessible to the operator.

3.14 **Snow Blower**

- a) The self-propelled snow blower **must** be hydrostatically or mechanically driven.
- b) The blower **must** be a two-stage, single ribbon auger type blower.
- c) The blower **must** be equipped with a truck loading, spot casting chute.
- d) The blower **must** be operated from the operator's station in the cab with all controls within the operator's reach.

3.14.1 **Snow Blower Performance**

- a) The snow blower **must** have a minimum capacity of 4082.3 metric tons (4500 short tons) per hour at a minimum casting distance of 30.5 m (100 ft.) through a snow density of 600 kg/m³.
- b) The blower **must** have a minimum cutting width of 2.49 m (98 in) and cutting height of 1.32 m (52 in).

3.14.2 **Snow Blower Engine**

- a) A separate snow blower engine **must** be provided if it is required for the snow blower to be powered from an engine separate from the vehicle engine.
- b) The snow blower engine **must** operate on ultra-low sulphur diesel fuel to the CAN/CGSB Standard 3.517 and meet the latest emission standards.
- c) Horse power supplied by the engine **must** allow for the full performance of the runway snow blower.
- d) The engine **must** be equipped with a heavy duty industrial air cleaner(s) with safety type elements, for combustion air, to protect the engine and its components.
- e) The air cleaner(s) **must** be equipped with restriction indicators, visible to the operator.
- f) A replaceable air filter(s) **must** be provided.
- g) The engine **must** be equipped with a cooling system.

- h) The engine **must** have a full flow oil filter with a spin-on or replaceable element.
- i) An engine shutdown or de-rate system **must** be provided, including a visual warning indicator visible from the operator position.
- j) The engine **must** be equipped with the same cold weather aids as specified in Paragraph 3.6.2.
- k) The engine **must** be equipped with an exhaust system shielded to prevent personnel contacting a heated surface.
- l) The exhaust system **must** prevent entry of rain or snow.

3.14.3 **Snow Blower Power Drive Train**

- a) The snow blower power train **must** be mechanical or hydrostatic drive.
- b) If the drive is mechanical it **must** have components with a rated torque capacity exceeding the maximum applied torque.
- c) If the drive is hydrostatic, the system **must** be of sufficient capacity to handle the maximum load imposed on the system.

3.14.4 **Snow Blower Head Auger**

- a) The auger ribbon **must** be constructed of abrasion resistant steel.

3.14.5 **Snow Blower Impellor and Chute**

- a) The impeller **must** have replaceable blades.
- b) The impeller housing **must** be constructed of abrasion resistant steel.
- c) The casting chute **must** be capable of truck loading and spot casting.
- d) The chute **must** be hydraulically controlled and rotate a minimum of 225 degrees.
- e) The chute **must** be hydraulically extendable to successfully load a dump truck with a minimum box height of 3.5 m (11.4 ft.) from the ground.
- f) The impeller **must** be capable of flat casting (from the horizontal) on one side to a minimum of 45 degrees on the other side.
- g) The operator **must** be able to instantly change the snow stream direction and elevation during casting.

3.14.6 **Snow Blower Application Equipment**

- a) Separate shear pin protection **must** be provided for the auger and impeller unless the auger is hydrostatic and does not require shear pins.
- b) Side cutter bars **must** be provided.
- c) Full length, multi-section scraper blade **must** be provided on the front bottom edge of the blower frame.

- d) Carbide skid shoes **must** be provided.
- e) Wheels **must** be provided to support the rear of the blower head, only if required, for axle loading conditions.
- f) If the blower is equipped with wheels, a spare wheel assembly **must** be delivered with each vehicle.

3.15 Hydraulic System

- a) The vehicle **must** be equipped with a hydraulic system.
- b) A hydraulic oil cooler **must** be provided, if required.
- 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) Hydraulic pressure test gauge with applicable fittings and hoses **must** be provided.

3.16 Automatic Lubrication System

- a) The vehicle **must** be equipped with a Groenveld auto-lubrication system or equivalent.
- b) The system **must** include a grease reservoir, accessible for level checking and refilling.
- c) The grease reservoir **must** be full on delivery.
- d) A grease level indicator **must** be provided.
- e) A grease distribution pump **must** be provided.
- f) An adjustable timer **must** be installed to control the greasing intervals.
- g) All grease point that are not serviced by the auto-lubrication system **must** be clearly identified.

3.16.1 Lubricants and Fluids

- a) All lubricants and fluids provided **must** meet the operating conditions specified in Paragraph 3.2.1.

3.17 Electrical System

- a) The vehicle **must** be equipped with a 12-volt or 24-volt electrical system
- b) Wiring **must** be protected by insulating grommets, where passing through metal.
- c) Wire identification (colour coded by function), weatherproof connectors, protective loom and secure fastening **must** be provided.
- d) Heavy-duty, maintenance free batteries **must** be provided in an enclosure and secured in an accessible location.

- e) A master disconnect switch, accessible from the ground, **must** be provided.

3.18 Lighting

- a) The vehicle **must** be equipped with LED lights that include: type signal, marker, tail, stop, clearance, licence plate, and back-up lights.
- b) All exterior lights **must** be LED unless otherwise specified.
- c) Halogen or LED headlights **must** be provided.
- d) LED interior cab light **must** be provided.
- e) In-cab instrument panel lights **must** be dimmable.
- f) The snow blower head **must** be equipped with a minimum of two LED working lights located on the top portion of the blower head frame.
- g) The chute **must** be equipped with a minimum of one LED work light on the top.
- h) The vehicle **must** be equipped with minimum one roof mounted amber LED stroboscopic beacon light, mounted at the highest point, to allow for 360 degree visibility.
- i) The vehicle **must** be equipped with minimum one roof mounted blue LED stroboscopic beacon light, mounted at the highest point, to allow for 360 degree visibility.
- j) Lights **must** be recessed or otherwise protected from damage with all components accessible for servicing.
- k) All controls for the lights **must** be located in the cab.

3.19 Controls

- a) Each control **must** be permanently marked to identify the function, in both English and French or international symbols as defined by SAE J1362.
- b) Vehicle controls **must** be grouped together in the cab.
- c) Snow blower controls **must** be grouped together in the cab.
- d) Controls **must** not restrict the operator's field of view.
- e) Control panel lights **must** be provided for adequate lighting for nighttime operations.

3.20 Instruments

- a) Instruments **must** be metric and visible to the seated operator in the cab under all lighting conditions.

3.20.1 Vehicle Instruments

- a) An ammeter, voltmeter or charging indicator **must** be provided.
- b) An engine coolant temperature indicator **must** be provided.

- c) A hydraulic oil temperature and level indicator **must** be provided.
- d) An engine oil pressure indicator **must** be provided.
- e) An hour-meter with numeric display, which accurately records accumulated engine running time up to at least 9,999 hours **must** be provided.
- f) A fuel level indicator **must** be provided.
- g) A speedometer **must** be provided.
- h) An engine tachometer **must** be provided.
- i) Differential lock indicator **must** be provided.

3.20.2 **Snow Blower Instruments**

- a) If required, a snow blower engine voltmeter or charging indicator **must** be provided.
- b) If required, a snow blower engine coolant temperature indicator **must** be provided.
- c) If required, a snow blower engine oil pressure indicator **must** be provided.
- d) If required, a snow blower engine hour-meter with numeric display, which accurately records accumulated engine running time up to at least 9,999 hours **must** be provided.
- e) If required, a snow blower engine tachometer **must** be provided.
- f) Indicators for all snow blower functions **must** be provided.

3.21 **Paint**

- a) All metal surfaces **must** be protected.
- b) The prime coating **must** be a high durability, corrosion resistant type, such as an epoxy.
- c) The vehicle colour **must** be Dupont Axalta 750206 E B Penn Dot Yellow or equivalent.
- d) The casting chute colour **must** be non-glare black.
- e) The auger ribbon colour **must** be gloss red.
- f) "DANGER STAND CLEAR" **must** be painted or stencilled on both sides of the snow blower attachment in day-glow red.

3.22 **Retroreflective Tape**

- a) Retroreflective tape **must** be placed on the vehicle on all extremities of the vehicle cab and snow blower attachment and along the vehicle body.

3.23 **Corrosion Protection**

- a) The vehicle **must** be designed and manufactured to prevent galvanic corrosion.

- b) The materials used in the vehicle manufacturing **must** resist damage or deterioration as a result of cleaning with hot or cold water, steam, or detergents (such as automotive cleaning products).
- c) A commercial rust prevention coating **must** be applied to the vehicle, such as Krown Rust Control or Rust Check or equivalent.
- d) A decal and warranty papers for the rust prevention coating **must** accompany the vehicle.

3.24 Warning, Markings and Instruction Plates

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

3.24.1 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 Vehicle Manuals

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

4.1.1 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).

4.1.2 **Parts Manual(s)**

- a) The parts manual(s) **must** be in English (French translation 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.

4.1.3 **Maintenance Manuals**

- a) The maintenance manual **must** be in English (French translation is desirable).
- 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 as per 4.3.4 (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.

4.1.4 **Manual Delivery to Technical Authority**

- a) Sample manuals **must** be submitted to the Technical Authority (TA) prior to the delivery of the vehicle 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.

4.1.5 **Manual Delivery with Vehicle**

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

4.1.6 **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.

4.1.7 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.

4.1.8 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 4.1.4 and 4.1.5.

4.1.9 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.

4.2 Warranty Letter

- d) 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).
- e) The warranty letter **must** include warranty period as negotiated in the contract.
- f) The warranty letter **must** include Contractor contact information, name and phone number, for warranty support.

4.2.1 Warranty Letter 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.

4.3 Other ILS Deliverables to Technical Authority

- a) All ILS deliverables in Paragraph 4.3 **must** be delivered to the Technical Authority by the first vehicle delivery at the latest.

4.3.1 **Data Summary**

- a) The Contractor **must** provide a bilingual Data Summary for each make/model/configuration of vehicle by completing Technical Authority's template with data and a vehicle picture.

4.3.2 **Photographs**

- a) The Contractor **must** provide photographs in colour, taken against a plain background, and in digital JPEG format with a minimum 10 megapixel resolution.
- b) One left front three-quarter view of a completed unit **must** be provided.
- c) One right rear three-quarter view of a completed unit **must** be provided.

4.3.3 **Dimensioned Drawing**

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

4.3.4 **Special Tools List** - The Contractor **must** provide an itemized list of specific special tools required for the servicing and repair of the vehicle and include:

- a) Item name;
- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Quantity recommended per delivery location;
- e) Unit price; and
- f) Unit of issue.

4.3.5 **Preventive Maintenance Replacement Parts Kit List (PMRPKL)** - 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:

- a) Item name;
- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Manufacturer's NATO Supply code (NCAGE) or name and address;
- e) NSN (NATO Stock Number) (if known);
- f) Quantity per equipment;
- g) Quantity recommended;
- h) Unit price; and

- i) Unit of issue.

4.3.6 **Recommended Spare Parts List (RSPL)** - The Contractor **must** provide a list detailing the spare parts deemed necessary to maintain the vehicle for a period of 24 months exclusive of any warranty period, and include:

- a) Item name;
- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Manufacturer's NATO Supply code (NCAGE) or name and address;
- e) NSN (NATO Stock Number) (if known);
- f) Quantity per equipment;
- g) Quantity recommended;
- h) Unit price; and
- i) Unit of issue.

4.3.7 **Supplementary Provisioning Technical Documentation (SPTD)**

- a) The Contractor **must** provide SPTD as per 2.1
- b) The SPDT **must** include each item appearing on the RSPL as defined in 4.3.6
- c) For item identification and cataloguing purposes, the technical data supplied **must** be sufficiently comprehensive to allow DND to classify and fully describe the items within the NATO codification system.

4.4 **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.

4.5 **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.

4.6 **Training**

4.6.1 **Operator Training**

- a) The Contractor **must** provide an operator training course.
- b) The course **must** be given at the delivery destinations.

- c) The course **must** be available in both official languages.
- d) 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.
- e) The course **must** have a syllabus or course outline and schedule available for review and approval by the Technical Authority seven (7) days prior to the course commencement date.
- f) 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.

4.6.2 **Operator Training Curriculum**

- a) Safety precautions to be observed while operating and servicing the vehicle **must** be included in the curriculum.
- b) Vehicle operating characteristics **must** be included in the curriculum.
- c) Vehicle operating procedures **must** be included in the curriculum.
- d) Pre-operating and pre-shutdown procedures **must** be included in the curriculum.
- e) Daily/weekly operator servicing procedures **must** be included in the curriculum.

4.6.3 **Maintenance Training**

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

4.6.4 **Maintenance Training Curriculum**

- a) Operator's training detailed in Paragraph 4.6.2 **must** be included in the curriculum.
- b) Operation and maintenance safety precautions **must** be included in the curriculum.
- c) Preventive maintenance including servicing schedules (10 % of classroom time) **must** be included in the curriculum.

- d) Trouble shooting, testing, and adjustments (70 % of classroom time) **must** be included in the curriculum.
- e) Utilization of special tools and test equipment **must** be included in the curriculum.

4.6.5 **Training Materials**

- a) Training materials **must** be provided to each attendee and be available in French for locations in Quebec.
- b) Training materials **must** include a list of topics to be covered;
- c) Training materials **must** include an approximate timetable showing when topics are scheduled to be covered and how much time is scheduled for each topic;
- d) Training materials **must** list any reference material; and
- e) Training materials **must** make available any reference material used.

Technical Evaluation Matrix

Title:

Runway Snow Blower

Date:

2019-06-18

**Technical Evaluation Matrix
Runway Snow Blower**

Bidder Information

Bidder Name: _____

Proposal Date: _____

Proposed Make and Model: _____

Technical Mandatory Criteria			
PD Reference	PD Requirement	Bid Evaluation Requirement	Location in Bid Proposal
3.4.1	<u>Performance</u> a) The vehicle, at GVWR, must reach a minimum transport speed of 50 km/h, required for moving the vehicle between work locations.	Substantive Information	
3.4.1	<u>Performance</u> b) The vehicle must maintain a minimum working speed of 40 km/h while maintaining maximum blower head capacity.	Substantive Information	
3.4.2 c)	<u>Weight Ratings</u> c) The total load on each axle of the vehicle must not exceed the GAWR for that axle.	Substantive information including load calculations to demonstrate that the load on each axle does not exceed the GAWR of each axle.	
3.4.3	<u>Dimensions</u> a) The maximum overall height of the vehicle must be 4.2 m (13.7 ft).	Substantive Information	
3.4.3	<u>Dimensions</u> b) The maximum overall length of the vehicle must be 12.8 metres (42 feet).	Substantive Information	
Technical Mandatory Criteria			

PD Reference	PD Requirement	Bid Evaluation Requirement	Location in Bid Proposal
3.4.3	<u>Dimensions</u> c) The maximum overall width of the vehicle must be 4.5 m (14.7 ft).	Substantive Information	
3.14	<u>Snow Blower</u> a) The self-propelled snow blower must be hydrostatically or mechanically driven.	Substantive Information	
3.14	<u>Snow Blower</u> b) The blower must be a two-stage, single ribbon auger type blower, equipped with a truck loading, spot casting chute.	Substantive Information	
3.14.1	<u>Snow Blower Performance</u> a) The snow blower must have a minimum capacity of 4082.3 metric tons (4500 short tons) per hour at a minimum casting distance of 30.5 metres (100 ft) through a snow density of 600 kg/m ³ .	Substantive information including information on: - Minimum capacity - Minimum casting distance - Snow density - Proof of testing to SAE ARP5539 or equivalent.	
3.14.1	<u>Snow Blower Performance</u> b) The blower must have a minimum cutting width of 2.5 m (98 in) and cutting height of 1.5 m (58 in).	Substantive information including information on: - Minimum cutting width - Minimum cutting height	
3.14.5	<u>Snow Blower Impellor and Chute</u> d) The chute must be hydraulically controlled and rotate a minimum of 225 degrees.	Substantive Information	
Technical Mandatory Criteria			

PD Reference	PD Requirement	Bid Evaluation Requirement	Location in Bid Proposal
3.14.5	<u>Snow Blower Impellor and Chute</u> e) The chute must be hydraulically extendable to successfully load a dump truck with a minimum box height of 3.5 m (11.4 ft.) from the ground.	Substantive Information	
3.14.5	<u>Snow Blower Impellor and Chute</u> f) The impeller must be capable of flat casting (from the horizontal) on one side to a minimum of 45 degrees on the other side.	Substantive Information	
Proposed Equivalents			
PD Reference	PD Requirement	Bid Evaluation Requirement	Location in Bid Proposal