



APPEL D'OFFRES (ADO)

Modification #1

RETOURNER LES SOUMISSIONS À:

**Agence Parcs Canada - Registre central
Opérations des approvisionnements
111, rue Water Est
Cornwall, Ontario, K6H 6S2
No. de l'invitation 5P201-19-0028/A**

Soumission aux: l'Agence Parcs Canada

Nous offrons par la présente de vendre à Sa Majesté la Reine du Chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux Appendices ci-jointes, les biens, services et construction énumérés ici et sur toute feuille ci-jointe, au(x) prix indiqué(s).

Commentaries :

Raison sociale et adresse du fournisseur/de l'entrepreneur :

Bureau de distribution

**Agence Parcs Canada - Registre central
Opérations des approvisionnements
111, rue Water Est
Cornwall, Ontario, K6H 6S2**

Title-Sujet Remplacement du pont du ruisseau McKenzies route 431, parc national du Gros-Morne		
Solicitation No. - No. de l'invitation 5P201-19-0028/A	Date: 22 mai 2019	
GETS Reference No. / No de reference de SEAG PW-19-00874279	Client Ref. No. / No. de réf du client. 1268	
Solicitation Closes (YY-MM-DD):		
at / à 2:00 PM	on / le 2019-05-30	Time Zone - Fuseau horaire: EDT - HAE
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>		
Address Inquiries to: Adresser toute demande de renseignements à : Sheldon Lalonde (sheldon.lalonde@canada.ca)		
Telephone No. - No de téléphone (613) 938-5948	Fax No. / No de FAX: (877) 558-2349	
Destination of Goods, Services, and Construction: Destinations des biens, services et construction: See Herein / Voir aux présentes		
TO BE COMPLETED BY THE BIDDER (type or print) À ÊTRE COMPLÉTER PAR LE SOUMISSIONNAIRE (taper ou écrire en caractères d'imprimerie)		
Vendor/Firm Name / Nom du fournisseur/de l'entrepreneur		
Address - Adresse		
Name of person authorized to sign on behalf of the Vendor/Firm Nom de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur		
Titale - Titre		
Telephone No. - N° de téléphone: _____		
Facsimile No. - N° de télécopieur: _____		
Signature	Date	

Modification #1
22 mai 2019

L'OBJET DE LA PRÉSENTE MODIFICATION EST DE METTRE EN ŒUVRE LES DISPOSITIONS SUIVANTES:

1. Supprimer l'entête de la section **01 29 00** des devis et remplacer par la section réviser « **01 29 00 Payment Procedures - May 2019** » ci-jointe.
2. « **APPENDICE 1 - FORMULAIRE DE PRIX COMBINÉS** » doit être supprimée dans son intégralité et remplacée par: « **APPENDICE 1 - FORMULAIRE DE PRIX COMBINÉS (mod 0517)** » (ci-joint)
3. Révision des spécifications comme suit :

1. **AJOUTER par le nouvel:** Section 31 23 33.01 Œ Excavating, Trenching and Backfilling
1.1.4. Section 31 24 13 Œ Roadway Embankments
2. **SUPPRIMER l'article:** Section 31 23 33.01 Œ Excavating, Trenching and Backfilling
1.3.4: Borrow Material: material obtained from locations outside area to be graded and required for construction and fill areas or for other portions of work.
REEMPLACER par le nouvel: Section 31 23 33.01 Œ Excavating, Trenching and Backfilling
1.3.4: Borrow Material (Rock): Rock shall be hard, durable, evenly graded blasted stone with a maximum particle size no greater than 150mm and will contain no more than six percent (6%) by weight passing the 25.4mm sieve and be free of cobbles and boulders. Rock borrow to be evenly graded within the limits specified.
3. **AJOUTER par le nouvel:** Section 31 23 33.01 Œ Excavating, Trenching and Backfilling
3.8.10 Rock borrow shall be placed in compacted lifts not exceeding 450mm and compacted to 100 percent of the material's Standard Proctor Maximum Dry Density (SPMDD).
4. **Dans la section 31 62 18 des devis, supprimer l'article 3.1.2 et remplacer par le nouvel article 3.1.2 comme suit:**
3.1.2 Limit of two (2) full strength welded splices per pile will be permitted for the required pile length. No splices will be permitted within the top six meters (6.0m) of the pile.
.1 Use complete joint penetration groove welds. Test weld soundness to W59 Section 11, Statically Loaded Structures.
5. **Modification au dessin:**
S9 Supprimer toutes les références à « GFRP ». Toutes les armatures pour le béton doivent être en acier galvanisé.

4. Questions et Réponses :

Q1 - Y va-t-il deux types différents d'acier galvanisé requis pour ce projet?

R1 - Toutes les armatures pour le béton doivent être en acier galvanisé.

Q2 - La fourniture et l'installation de l'armature galvanisée sont incluses dans les prix dans la rubrique n° 1 - Béton armé coulé en place. Toutefois, aucun tonnage approximatif de barres d'armature n'a été fourni. Pourriez-vous fournir une estimation de la quantité de barres à utiliser dans le projet?

R2 - La quantité d'armature galvanisée a été séparée de l'article n° 1 - Béton armé coulé sur place du tableau des prix unitaires. Voir la section révisée 01 29 00 - Procédures de paiement.

Q3 - La table des matières de la spécification de ce projet répertorie 32 91 19.13 - Placement et nivellement de la terre végétale, mais cette section n'est pas incluse dans le devis. Pourriez-vous s'il vous plaît transmettre cette section?

R3 - Reportez-vous à la Section 32 91 19.13 - Placement et nivellement de la terre végétale (ci-joint).

TOUTES LES AUTRES CONDITIONS GÉNÉRALES DE CETTE DEMANDE RESTENT LES MÊMES

APPENDICE 1 - FORMULAIRE DE PRIX COMBINÉS (mod.0517)

- 1) Les prix unitaires seront retenus pour établir le montant total des prix calculés. Toute erreur arithmétique à cet appendice sera corrigée par le Canada.
- 2) Le Canada peut rejeter la soumission si quelconque des prix soumis ne tient pas fidèlement compte du coût de l'exécution de la partie des travaux à laquelle ce prix s'applique.

On rappelle aux soumissionnaires qu'ils sont responsables de s'assurer d'inclure dans leurs prix tous les travaux décrits dans les dessins et devis. Les prix pour les travaux qui sont pas pris en compte dans le tableau des prix unitaires, y compris, sans s'y limiter, la mobilisation, la démobilisation, etc. doivent être inclus dans le tableau des prix forfaitaires.

TABLEAU DES PRIX FORFAITAIRES

Le total des montants forfaitaires fait référence aux travaux qui font l'objet d'une entente de montant forfaitaire :

- a) Les soumissionnaires ne doivent pas oublier qu'il est de leur responsabilité de tenir compte dans leur offre de tous les travaux décrits sur les dessins et dans les spécifications.
- b) Les prix de travaux qui ne sont pas comptabilisés dans le tableau des prix unitaires doivent être ajoutés au total des montants forfaitaires.
- c) Les travaux inclus dans le montant forfaitaire représentent tous les travaux (y compris, mais sans s'y limiter l'installation et la désinstallation, analyse, inspection, voyage, etc).

Article	Référence de spécification	Catégorie de main-d'œuvre, d'installation ou de matériau	Unité de mesure	Prix total estimé <i>Excluant TVH</i>
1	01 25 20	Mobilisation/Démobilisation	Montant forfaitaire	
2	01 35 43	Procédures environnementales	Montant forfaitaire	
3	01 52 00	Installations de construction	Montant forfaitaire	
4	02 41 16	Démolition de la structure	Montant forfaitaire	
5	31 23 33.01	Excavation du roc pour les fondations	Montant forfaitaire	
6	32 17 23	Lignes de circulation et marquages peints	Montant forfaitaire	
7	03 20 00	Acier galvanise	Montant forfaitaire	
8	01 29 00	Autres éléments ne faisant pas partie du tableau des prix unitaires	Montant forfaitaire	
TOTAL DES MONTANTS FORFAITAIRES				
				<i>Excluant TVH</i>

TABLEAU DES PRIX UNITAIRES

Le tableau des prix unitaires indique les travaux correspondant à un prix unitaire.

- a) Le prix unitaire et le prix doivent être indiqués pour chacun des éléments de la liste.
- b) Les travaux correspondant à chaque élément sont tels que décrits dans la section des spécifications fournies en référence.

Article	Référence de spécification	Catégorie de main-d'œuvre, d'installation ou de matériau	Unité de mesure	Quantité estimée	Prix unitaire <i>Excluant TVH</i>	Prix total estimé <i>Excluant TVH</i>
1	03 30 00	Béton coulé sur place	m ³	353		
2	05 50 00	Angles de protection galvanisés	Unité	2		
3	07 15 00	Imperméabilisation de la passerelle	m ²	120		
4	31 11 00	Déblaiement	ha	.45		
5	31 11 00	Essouchement	ha	.45		
6	31 23 33.01	Travaux non classés d'excavation pour la route et le drainage	m ³	2900		
7	31 23 33.01	Matériau d'emprunt (commun)	m³	24500		
8	31 24 14	Remplissage à proximité de la structure	t	1950		
9	32 92 19.16	Ensemencement hydraulique	m ²	10700		
10	32 92 19.16	Paillis sec	m ²	10700		
11	32 92 19.16	Couche arable	m ²	10700		
12	34 71 13.25	Glissière en acier en W	m	790		
13	34 71 15	Barrière en acier galvanisé et rampes métalliques pour structures	m	77		
14	03 41 00	Poutres en béton préfabriqué	Unité	5		
15	31 62 18	Achat Pieux en H en acier	m	666		
16	31 62 18	Installation Pieux en H en acier	m	666		
17	32 12 16	Type de mélange d'asphalte : Couche de surface	t	645		
18	31 12 16	Type de mélange d'asphalte : Couche de base	t	1370		
19	32 11 23	Couche de base granulaire (granulaire A)	t	2500		
20	32 11 16.01	Fondation granulaire (granulaire B)	t	4000		
21	32 11 23	Pose de la chaussée granulaire B pour accotements	t	600		
22	33 41 00	Ponceaux 1800mm de diamètre - Tuyau de métal ondulé, en aluminium à fournir	m	29		
23	33 41 00	Ponceaux 1800mm de diamètre - Tôle d'acier ondulée à installer	m	29		
24	31 37 00	Enrochement R-50	t	450		
25	31 37 00	Enrochement R-100	t	1100		
TOTAL DES ÉLÉMENTS A PRIX UNITAIRES (ÉPU)						
					<i>Excluant TVH</i>	

MONTANT TOTAL DE L'OFFRE

MONTANT TOTAL DE L'OFFRE (MF + EPU) <i>Excluant TVH</i>	\$
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END

Part 1 General

1.1 GENERAL REQUIREMENTS OF THE BID AND ACCEPTANCE FORM

- .1 Unit prices and Lump Sum prices bid are full compensation for the work necessary to complete each item in the Contract and in combination for all work necessary to complete the Work as a whole.
- .2 All measurement shall be along a horizontal plane unless otherwise indicated.
- .3 Overhaul will not be paid for on this project.
- .4 The quantities listed in the Bid and Acceptance Form are approximate only and are for the purpose of tendering. Payment to the Contractor will be based on actual quantities of work completed in accordance with the Drawings and Specifications.
- .5 The numbers of the items described below correspond to the numbers of the items in the Bid and Acceptance Form.
- .6 Should the Contractor need to remove any existing regulatory/warning/information signs or posts in order to complete their Work, the removal and reinstatement of the signs and posts shall be considered incidental.
- .7 There will be no measurement or payment for Work carried out beyond the limits defined on the Drawings.

1.2 MEASUREMENT AND PAYMENT

- .1 Mobilization / Demobilization
 - .1 Unit of Measurement is Lump Sum
 - .2 50% of Lump Sum Contract Price for Mobilization and Demobilization to be paid when mobilization to site is complete. The remainder of the Lump Sum Price for Mobilization and Demobilization to be paid when work is complete and all materials, equipment, buildings, shops, offices, and other facilities have been removed from site and site cleaned and left in condition to the satisfaction of the Departmental Representative and all other Agencies having jurisdiction.
- .2 Environmental Procedures
 - .1 Unit of Measurement is Lump Sum
 - .2 This item includes all environmental protection, sedimentation and erosion control measures required to complete the project, such as (but not limited to) diversion ditching, silt fences, temporary ground covers and rock flow checks in accordance with Parks Canada National Best Management Practices – Roadway, Highway, Parkway and Related Infrastructure. Also included is the periodic and general maintenance of all erosion control measures or as directed by the Departmental Representative.
- .3 Construction Facilities
 - .1 Unit of Measurement is Lump Sum
 - .2 This item includes the provision of construction facilities required to complete the project. This item includes:

- Provide and maintain adequate access to project site.
 - Build and maintain temporary roads during period of Work.
 - Upon completion of work, rehabilitate any temporary roads to the satisfaction of the Departmental Representative.
 - Clean roads and parking areas where used by the Contractor or employees.
 - Provide, erect and maintain project identification site signs, safety and instruction signs and notices.
 - Provide sanitary facilities.
 - Construction site trailer(s).
 - Removal of temporary facilities from site as directed by the Departmental Representative.
- .4 Structure Demolition
- .1 Unit of Measurement is Lump Sum
 - .2 This item includes demolition of the existing bridge superstructure (deck, curbs, railings, asphalt and girders) and the demolition of the existing foundations to 1 meter below the finished grade lines. This item also includes excavation of all material of whatever nature encountered to access existing foundations for the purpose of demolition, excavation and preparation of slopes for the placement of Armour Rip Rap and water control. This item also includes all permits required for demolition and disposal of material.
- .5 Foundation Excavation Bridge
- .1 Unit of Measurement is Lump Sum
 - .2 This item includes all excavation regardless of type (unclassified) for the construction of the abutments and placement of Fill Against Structure and Armour Rip Rap as shown on the drawings, including the disposal of all material resulting from this operation.
- .6 Painted Traffic Lines and Markings
- .1 Unit of Measurement is Lump Sum
 - .2 This item includes supply of all materials and application of all traffic lines and markings on the pavement for the approaches and bridge deck as indicated.
- .7 Concrete Reinforcing Galvanized
- .1 Unit of Measurement is Lump Sum
 - .2 This item includes supply and installation of galvanized reinforcing steel for Cast-In-Place Concrete as indicated and necessary for this work. Approximate galvanized steel reinforcing quantities are provided solely for information purposes and PCA makes no claims with respect to their accuracy. The Contractor shall review the drawings and is responsible to prepare their own quantities. The approximate reinforcing quantity is 42,000 kg (based on ungalvanized).
- .8 Other Items Not Included in the Unit Price Table
- .1 Unit of Measurement is Lump Sum
 - .2 This item includes all other work considered incidental to the work and which are not specifically mentioned or accounted for in the Unit Price Table or other items

in the Lump Sum Table, but are necessary to complete the work in accordance with the Contract, the Drawings and Specifications. This item shall include, but are not limited to, the following: Project Layout and Surveying, Weigh Scales, Traffic Control, Permits, Temporary Structures, Sign and Sign Post Installation, Cold Weather Protection and Curing of Materials and Water Control.

1.3 ITEMS – UNIT PRICE TABLE

- .1 Cast-in-Place Reinforced Concrete
 - .1 Unit of Measurement is Cubic Meter (m³)
 - .2 This item includes supply, formwork, placing, compacting and finishing of all concrete for the bridge abutments, wingwalls, pilasters, crash blocks, bridge deck (including curbs), approach slab, and approach baffle drains. Measurement shall be based on Contract Drawings with no deduction for displacement by reinforcement. Concrete joint sealant will not be measured separately and will be considered incidental to this pay item.
- .2 Galvanized Armour Angles
 - .1 Unit of Measurement is Each
 - .2 This item includes shop drawings, supply and installation of the armour angle assembly at approach ends of approach slabs.
- .3 Bridge Deck Waterproofing
 - .1 Unit of Measurement is Square Meter (m²)
 - .2 This item includes preparation of surfaces, supply and installation of waterproofing system on bridge deck and approach slabs as applied to the bridge deck and approach slabs and extending 80 millimeters vertically on each curb. Measurement shall be based on contract drawings.
- .4 Clearing
 - .1 Unit of Measurement is Hectare (ha)
 - .2 This item includes cutting and disposal of all trees, brush, and vegetative growth from areas identified.
- .5 Grubbing
 - .1 Unit of Measurement is Hectare (ha)
 - .2 This item includes the removal and off-site disposal of all stumps, roots, visible rock fragments greater than 0.25 m³, downed timber, embedded logs, humus, root mat and topsoil from areas identified.
- .6 Unclassified Excavation Roadway and Drainage
 - .1 Unit of Measurement is Cubic Meter (m³)
 - .2 This item includes excavation of unclassified material after removal of grubbing and topsoil and for placement and compacting of approved fill (common and rock) from on-site sources to lines and elevations indicated. This item shall also include excavation for the removal of culverts which will not be replaced.

- .7 Rock Fill
 - .1 Unit of Measurement is Tonne (t)
 - .2 This item includes loading, transportation, placement and compacting of approved rock backfill material from areas off site, required for construction of embankments or for other portions of work, to lines and elevations indicated. Measurement shall be based on cross sections taken at the source of the material.
- .8 Fill Against Structure
 - .1 Unit of Measurement is Tonne (t)
 - .2 This item includes supply, placement and compaction of fill against abutments to lines and elevations identified. Supply and installation of perforated pipe drain system as shown on the Contract Drawings are included under this item.
- .9 Hydraulic Seeding
 - .1 Unit of Measurement is Square Meter (m²)
 - .2 This item includes supply of all materials, preparation of surface, application and maintenance to areas identified.
- .10 Dry Mulch
 - .1 Unit of Measurement is Square Meter (m²)
 - .2 This item includes supply of all materials, preparation of surface, application and maintenance to areas identified.
- .11 Top Soil
 - .1 Unit of Measurement is Square Meter (m²)
 - .2 This item includes salvage work of existing topsoil, preparation of surface, supply of imported topsoil if applicable, as per Departmental Representative directives, application and maintenance to areas identified. All imported topsoil must come from a location near the Park boundary and is required to be approved by GMNP's Resource Conservation Division.
- .12 Steel W-Beam Guiderail
 - .1 Unit of Measurement is Meter (m)
 - .2 This item includes supply of all materials including Michigan Shoes, channel, reflectors, installation, backfilling, compaction, disposal of excess material and reinstatement of disturbed surfaces. Measurement shall be based on linear measure of the completed sections, end to end (including buried sections), regardless of the number of rails between individual posts. Removal of existing guiderail will not be measured and will be considered incidental to this pay item.
- .13 Galvanized Steel Barrier and Metal Railings for Structures
 - .1 Unit of Measurement is Meter (m)
 - .2 This item includes supply and installation including galvanizing, nuts, bolts, washers, anchors, anchor plates, grouting, railing, posts, base plates, epoxy grout, and all other items necessary to complete the work and as detailed on the drawings.

- .14 Precast Concrete Girders
- .1 Unit of Measurement is Each (ea)
 - .2 This item includes the supply and installation as indicated and necessary for this work. Incidentals to this item includes bearing assemblies, joint reinforcing and grouting.
- .15 Steel H-Piles - Supply
- .1 This item is measured in Linear Meters (lm)
 - .2 This item includes the supply of steel H-piles, pile shoes, cap plates and other items required to complete the work.
 - .3 Measure installation of piles in meters of pile acceptably incorporated into work following trimming and cutting of the piles. Measurement will be taken from the final pile tip elevation to the top of pile elevation remaining in the work.
 - .4 Supply of pile shoes will be considered incidental to the work.
 - .5 Extra piling to replace damaged piles will be considered incidental to the work and will not be measured for payment.
- .16 Steel H-Piles - Install
- .1 This item is measured in Linear Meters (lm)
 - .2 This item includes the installation of steel H-piles, pile shoes, cap plates and other items required to complete the work.
 - .3 Measure installation of piles in meters of pile acceptably incorporated into work following trimming and cutting of the piles. Measurement will be taken from the final pile tip elevation to the top of pile elevation remaining in the work.
 - .4 Installation of pile shoes will be considered incidental to the work.
 - .5 The Contractor shall be responsible for hiring their own certified testing company for PDA and should be considered incidental to the work.
- .17 Asphalt Surface Course
- .1 Unit of Measurement is Tonne (t)
 - .2 This item includes supply, transportation of all materials include asphalt tack coat and asphalt binder; production, handling, preparation of surface, placing (including material transfer device), rolling and compaction of asphalt concrete. This item also includes keyed joints at each end of construction and isolated areas of patch paving throughout construction. This item also includes the paving of the bridge deck (thickness as per drawings).
 - .3 There will be no payment for extra thickness or extra width of asphalt placed outside of the theoretical lines and grades as indicated on the drawings. Whenever, in the opinion of the Departmental Representative, there is extra thickness or extra width, the appropriate weight will be deducted.
- .18 Asphalt Base Course
- .1 Unit of Measurement is Tonne (t)
 - .2 This item includes supply, transportation of all materials include asphalt binder; production, handling, preparation of surface, placing (including material transfer device), rolling and compaction of asphalt concrete. This item also includes

- keyed joints at each end of construction and isolated areas of patch paving throughout construction.
- .3 There will be no payment for extra thickness or extra width of asphalt placed outside of the theoretical lines and grades as indicated on the drawings. Whenever, in the opinion of the Departmental Representative, there is extra thickness or extra width, the appropriate weight will be deducted.
- .19 Granular A Base
- .1 Unit of Measurement is Tonne (t)
- .2 This item includes supply, haulage, placement and compaction of crushed rock base granular material to the limits and at the locations indicated on the drawings. There will be no payment for extra thickness of base material placed outside of the theoretical lines and grades as indicated on the drawings. Whenever, in the opinion of the Departmental Representative, there is extra thickness, the appropriate weight will be deducted.
- .20 Granular B Subbase
- .1 Unit of Measurement is Tonne (t)
- .2 This item includes supply, haulage, placement and compaction of crushed rock subbase granular material to the limits and at the locations indicated on the drawings. There will be no payment for extra thickness of subbase material placed outside of the theoretical lines and grades as indicated on the drawings. Whenever, in the opinion of the Departmental Representative, there is extra thickness, the appropriate weight will be deducted.
- .21 Shouldering – Granular B
- .1 Unit of Measurement is Tonne (t)
- .2 This item includes supply, haulage, placement and compaction of shouldering material to the limits and at the locations indicated on the drawings. There will be no payment for extra thickness of shoulder material placed outside of the theoretical lines and grades as indicated on the drawings. Whenever, in the opinion of the Departmental Representative, there is extra thickness, the appropriate weight will be deducted.
- .22 1800mm dia Culvert Pipe - Supply
- .1 Unit of Measurement is Meter (m)
- .2 This item includes the supply of culvert pipe, including all excavation, compaction, end treatments, grading, and all other items necessary to complete the work and as detailed on the drawings.
- .23 1800mm dia Culvert Pipe - Install
- .1 Unit of Measurement is Meter (m)
- .2 This item includes the installation of culvert pipe, including all excavation, compaction, end treatments, grading, and all other items necessary to complete the work and as detailed on the drawings.
- .24 Rip Rap R-50
- .1 Unit of Measurement is Cubic Meter (t)

- .2 This item includes supply and placement where indicated. This item also includes the supply and installation of geotextile material beneath the armour rip rap as required. Measurement shall be based on contract drawings.
- .25 Rock fill – Rip-Rap R-100
 - .1 Unit of Measurement is Cubic Meter (t)
 - .2 This item includes supply and placement where indicated. This item also includes the supply and installation of geotextile material beneath the rip-rap as required. Measurement shall be based on contract drawings.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 SCOPE OF WORK

- .1 This section specifies topsoil, topsoil amendments, the stripping of topsoil, the preparation of existing grades, the placement of topsoil, and finish grading.

1.2 RELATED SECTIONS

- .1 Section 32 92 19.16 – Hydraulic Seeding

1.3 REFERENCES

- .1 Specifications Book Highway Design Division - NL Department of Transportation and Works, Section 631.

1.4 QUALITY ASSURANCE

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .3 Pre-Installation Meetings: conduct pre-installation meeting to verify project requirements, installation instructions and warranty requirements.

1.5 TESTING

- .1 All soil and sand used in this project shall be tested for compliance with texture specification by a laboratory designated by the Owner. Soil sampling, testing and analysis to be in accordance with Provincial regulations and standards. Contractor will arrange and pay for cost of tests.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials.
- .2 Divert unused soil amendments from landfill to official hazardous material collections site approved by Departmental Representative.
- .3 Do not dispose of unused soil amendments into sewer systems, into lakes, streams, onto ground or in locations where it will pose health or environmental hazard.

Part 2 Products

2.1 TOPSOIL

- .1 Topsoil for this project to consist of topsoil stripped from site and imported topsoil to be supplied by the Contractor, if required. The Contractor shall obtain imported topsoil locally and obtain approval from the Departmental Representative prior to importing

topsoil. The Departmental Representative will verify the location and/or stockpile of imported topsoil for any invasive species of plant that could be present.

- .2 Topsoil composition shall consist of 20 to 70% sand and contain 2 to 10% organic matter by weight.
- .3 Topsoil shall be free of debris and stones larger than 75mm in greatest dimension and large clods, roots and any other coarse vegetative material, of a size equal to or greater than the thickness of the layer of topsoil to be placed.
 - .1 In areas of lawn restoration, topsoil shall be free of debris and stones larger than 25mm in greatest dimension.

2.2 SOURCE QUALITY CONTROL

- .1 The Contractor shall notify the Departmental Representative of the source(s) of topsoil to be obtained from outside the Work Site, at least 7 days prior to importing material from off site.

Part 3 Execution

3.1 STRIPPING OF TOPSOIL

- .1 Commence topsoil stripping of areas after all wood brush and grasses have been removed from site.
- .2 Strip and pulverize topsoil to depths as indicated. Avoid mixing topsoil with subsoil where textural quality will be moved outside acceptable range of intended application.
- .3 Stockpile in locations as directed by Departmental Representative. Stockpile height not to exceed 2 metres.
- .4 Unused topsoil is to remain on site.
- .5 Protect stockpiles from contamination and compaction.

3.2 PREPARATION OF EXISTING GRADE AND PLACEMENT OF TOPSOIL

- .1 The Contractor shall carry out the Work as indicated in the Contract Documents and/or as specifically directed by the Departmental Representative.
- .2 Areas to be topsoiled shall be scarified or otherwise loosened to a depth of at least 50mm within 1 day preceding the placement of topsoil.
- .3 Topsoil placement in the Work Area shall be completed prior to the placement of any Roadbed materials above Subgrade, unless otherwise approved by the Departmental Representative.
- .4 Topsoil shall be spread on the prepared area(s) to a depth of 100mm±25mm and shall be brought to a true and even surface meeting the required grade.
 - .1 Hand placement and raking shall be required in areas adjacent to finished lawns or in areas of restricted access.
 - .2 In areas of lawn restoration, topsoil shall be rolled using a lawn roller or approved equivalent.

- .3 Topsoil shall be placed on foreslopes from Subgrade shoulder down in cuts and fills, including the slopes of the Borrow "A" quality material as identified in the Contract Documents; and on backslopes or as directed by the Departmental Representative.
- .4 Placing of topsoil shall not be carried out on frozen materials or when materials are wetted to such a degree that balling and clumping results.
- .5 Topsoil shall not be placed after the end of the week in which September 30th occurs without approval of the Departmental Representative.
- .6 If excess topsoil material exists after completion of the Work, this material shall remain the property of the Owner.

3.3 ACCEPTANCE

- .1 Departmental Representative will inspect and test topsoil in place and determine acceptance of material, depth of topsoil and finish grading.

3.4 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.
- .2 Clean all exposed rock and boulder surfaces to approval of Departmental Representative.

END OF SECTION