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British Columbia
V6Z 0B9
Bid Fax: (604) 775-9381

**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
Public Works and Government Services Canada - Pacific
Region
800 Burrard Street, Room 219
800, rue Burrard, pièce 219
Vancouver
British C
V6Z 0B9

Title - Sujet Access Road and Culvert Upgrades	
Solicitation No. - N° de l'invitation EZ899-211984/A	Amendment No. - N° modif. 003
Client Reference No. - N° de référence du client	Date 2021-02-09
GETS Reference No. - N° de référence de SEAG PW-SPWY-041-8908	
File No. - N° de dossier PWY-0-43177 (041)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Pacific Standard Time PST on - le 2021-02-16 Heure Normale du Pacifique HNP	
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: Sezginalp (PWY), Kipp	Buyer Id - Id de l'acheteur pwy041
Telephone No. - N° de téléphone (604) 367-5341 ()	FAX No. - N° de FAX (604) 775-6633
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: CSC - Kwikwexwelhp Healing Village - Harrison Mills, BC	

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

Solicitation No. - N° de l'invitation
EZ899-211984

Amd. No. - N° de la modif.
003

Buyer ID - Id de l'acheteur
pwy041

Client Ref. No. - N° de réf. du client

File No. - N° du dossier

CCC No./N° CCC - FMS No./N° VME

Les documents français seront disponibles sur demande.

Solicitation Amendment 003 is raised to answer bidder questions and issue Addendum 002.

1. Please find bidder question and answers below.
2. Please find Addendum 002 to Specs document below.
3. Please find Addendum 002 Drawings under "Attachments".

All other terms and conditions remain unchanged.

GENERAL

The following changes / clarifications in the tender documents are effective immediately. This Addendum will form part of the Contract Documents.

The tender closing date has been extended to February 16th 2021.

QUESTIONS

Question - Some culvert failures were noted at the federal facility parking lot, however; these do not appear in the current set of drawings. These would be located at roughly 0+750. Is this included in the scope?

Answer – No, these culverts are not included in the scope.

Question – Discussion was held regarding reducing the grade and increasing the vertical curve between 3+140 and 3+320. Will this be added to the scope?

Answer – No, this work will not be included in this tender.

Question – Is the excavated material suitable for re-use as retaining wall backfill?

Answer – No.

Question – Is the excavated material suitable for re-use as roadway subgrade fill?

Answer – No.

Question – If there is a surplus of excavated material, can it be stockpiled onsite? If so, where would the stockpile location be?

Answer – Small stockpiles may be developed at the existing roadside pullouts at Stations 1+310, 3+230, 3+290. The stockpiles cannot impact drainage or existing vegetation. The stockpile must not restrict two-way traffic. Suitable signage must be used to ensure the safety of drivers.

Question – If there is a shortfall of fill material, is there a borrow area onsite? If so, where would the borrow area be?

Answer – No, there is no borrow area and import material should be assumed.

Question – What is the owner's expectation for hammering/blasting bedrock coming up through the road surface?

Answer – Please include a unit rate for rock removal based. To assist in determining the order of magnitude and depth required you can refer to the following documents:

- The Test-Pit Location Plan in the Ryzuk Geotechnical report provides a depth to bedrock where it was encountered during the test pit program.
- Included in this Addendum is an overall plan showing the difference between the bottom of the road structure and the existing ground. A negative value means a cut into the existing ground, a positive value is a fill. Note that this plan is in relation to the existing ground and is not directly identifying the depth of rock to be removed. This drawing is provided for information only.

Question – For the stone strong retaining wall, are end/corner blocks required at each end of the wall?

Answer – End/corner blocks are not required.

Question – Can you confirm that Culverts 1 and 2 are not part of this contract.

Answer – Culverts 1 and 2 are not included in this contract.

Question – Can any excess spoils from excavations be disposed onsite?

Answer – No, excess spoils are to be disposed offsite.

Question – Half CSP Culvert trench section detail?

Answer – Detail has been added and included in revised drawing.

Question – Will you please specify the spec of geotextile material?

Answer – The geotextile at the rear extent of the retaining wall excavation is to consist of Nilex 4551 or approved equivalent. The geotextile material surrounding the retaining wall perforated pipe drain can be any lightweight non-woven geotextile filter fabric.

Question – Will you please specify the spec of HDPE Culvert pipe material?

Answer – HDPE Culvert specification added to Storm Culvert Specification (33 42 13)

Question – Will you please specify the location requiring Geogrid?

Answer – Regarding the mention of Geogrid in the Ryzuk Geotechnical Report dated February 7, 2018, Geogrid is no longer used in the retaining wall design.

Question – Will the guard rails be replaced with new ones or relocate?

Answer – All existing guard rails are to be relocated to suit the new construction. New guard rail is required where identified on the plans.

Question – The retaining wall detail on drawing C13 states that the concrete for the ‘tail infill’ on the upslope walls is to be 20 MPa concrete. However the general specification says 30 MPa concrete is required. Please confirm that 20 MPa concrete is sufficient in this application?

Answer – In this specific application 20 MPa concrete is sufficient.

Question – Please confirm the desired thickness of the high fines surfacing aggregate on the completed roadway?

Answer – 50 mm

Question – Where the existing road surface falls within the proposed subbase layer, can it be left in place and form part of the proposed subbase layer? Or are we required to excavate this out and import the full thickness of subbase in all areas?

Answer – The full subbase thickness must be installed in all areas.

Question - Will the native excavated material be considered suitable for re-use as subbase?

Answer – No.

Question – Is it possible to obtain a tender form or quantities so we assure that our price captures all the required scope of work?

Answer – A CAD file has been included to assist in calculating quantities.

DRAWINGS

1. Sheet CV05
 - a. Detail added to for CSP Half-Culvert.

SPECIFICATIONS

1. 33 42 13 – Storm Culverts
 - a. HDPE pipe specification added.

END OF ADDENDUM #2

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 31 00 99 – Earthworks for Minor Works.
- .2 Section 31 23 33.01 – Excavating, Trenching and Backfilling.

1.2 REFERENCE STANDARDS

- .1 ASTM International
 - .1 ASTM C 14M-07, Standard Specification for Nonreinforced Concrete Sewer, Storm Drain and Culvert Pipe (Metric).
 - .2 ASTM C 76M-10a, Standard Specification for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe (Metric).
 - .3 ASTM C 117-04, Standard Test Method for Material Finer Than 0.075 mm (No. 200) Sieve in Mineral Aggregates by Washing.
 - .4 ASTM C 136-06, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
 - .5 ASTM C 144-04, Standard Specification for Aggregate for Masonry Mortar.
 - .6 ASTM C 443M-10, Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets (Metric).
 - .7 ASTM D 698-07e], Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft² (600 kN-m/m²)).
 - .8 ASTM D 1248-05, Standard Specification for Polyethylene Plastics Extrusion Materials For Wire and Cable.
 - .9 ASTM F 667-06, Standard Specification for Large Diameter Corrugated Polyethylene Pipe and Fittings.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-8.1-88, Sieves, Testing, Woven Wire, Inch Series.
 - .2 CAN/CGSB-8.2-M88, Sieves, Testing, Woven Wire, Metric.
- .3 CSA International
 - .1 CSA A3000-08, Cementitious Materials Compendium.
 - .2 CSA A257 Series-09, Standards for Concrete Pipe and Manhole Sections.
 - .3 CAN/CSA G401-07, Corrugated Steel Pipe Products.
- .4 U.S. Environmental Protection Agency (EPA) / Office of Water
 - .1 EPA 832/R-92-005, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for pipes and backfill and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Samples:
 - .1 Inform Departmental Representative at least 4 weeks before beginning Work, of proposed source of bedding materials and provide access for sampling.
- .4 Certification: to be marked on pipe.
- .5 Test and Evaluation Reports:
 - .1 Submit manufacturer's test data and certification at least 4 weeks prior to beginning Work.
 - .2 Erosion and Sedimentation Control: submit copy of erosion and sedimentation control plan in accordance with authorities having jurisdiction.
 - .3 Construction Waste Management:
 - .1 Submit project Waste Management Plan highlighting recycling and salvage requirements.
 - .2 Submit calculations on end-of-project recycling rates, salvage rates, and landfill rates demonstrating the percentage of construction wastes were recycled or salvaged.
 - .4 Recycled Content:
 - .1 Submit listing of recycled content products used, including details of required percentages or recycled content materials and products, showing their costs and percentages of post-consumer and post-industrial content, and total cost of materials for project.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations.
 - .2 Store and protect pipes from damage.
 - .3 Replace defective or damaged materials with new.

Part 2 Products

2.1 CORRUGATED STEEL PIPE

- .1 Corrugated steel pipe: to CAN/CSA-G401.
- .2 Water-tight cut-off collars: as indicated.
- .3 Prefabricated end sections: as indicated.
- .4 Corrugated fluming: to CAN/CSA-G401.
 - .1 Shop drawing submittal required to Section 01 33 00 – Submittal Procedures.

2.2 HDPE PLASTIC PIPE, OPEN PROFILE

- .1 HDPE Open Profile Pipe (Corrugated Exterior, Smooth Inner Wall) and Fittings certified to CSA B182.8, 100mm to 900mm diameter.
- .2 Pipe to have minimum pipe stiffness of 320 kPa at 5.0% deflection, when tested in accordance with ASTM D2412. Exterior pipe corrugation to be embossed with stiffness rating as required by CSA B182.8.
- .3 Pipe to have factory assembled spigot gaskets and integral bell joint features certified to CSA B182.8.
- .4 Gaskets to meet requirements of ASTM F477.
- .5 Maximum short term installed deflection not to exceed 5.0% of base inside diameter.

2.3 CONCRETE BOX CULVERT

- .1 Reinforced concrete box culvert: to ASTM C 1433-16b.
- .2 Rubber gaskets for joints: to ASTM C990M.
- .3 Cement mortar joint filler:
 - .1 Portland cement: to CSA A3000 type 10.
 - .2 Sand: to ASTM C 144.
 - .3 Mortar: one part by volume of cement to two parts of clean, sharp sand mixed dry. Add sufficient water after mixing to give optimum consistency for hand application.

2.4 CONCRETE BOX CULVERT HEADWALL

- .1 Concrete box culvert headwalls: to CSA A23.4.
- .2 Minimum 28 day strength: 27.5 MPa
- .3 Handrails:
 - .1 Material: aluminum
 - .2 Height: 1.065m

- .3 Shop drawing submittal required to Section 01 33 00 – Submittal Procedures.

2.5 GRANULAR BEDDING AND BACKFILL

- .1 Granular bedding and backfill material to Section 31 05 16 - Aggregate Materials and following requirements:
- .1 Crushed pit run or screened stone, gravel or sand.
- .2 Gradations to be within limits specified when tested to ASTM C 136 and ASTM C 117. Sieve sizes to CAN/CGSB-8.2.

- .2 Table:

Sieve Designation (mm)	% Passing
75	0 – 100
38	60 – 100
19	35 – 80
9.5	26 – 60
4.75	20 – 40
2.36	15 – 30
1.18	10 – 20
.600	5 – 15
.300	3 – 10
.075	0 – 5

- .3 Concrete mixes and materials for bedding, cradles, encasement, supports: to Section 03 30 00 - Cast-in-Place Concrete.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for pipe culvert installation in accordance with manufacturer's written instructions.
- .1 Visually inspect substrate in presence of Departmental Representative.

- .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
- .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 PREPARATION

- .1 Temporary Erosion and Sedimentation Control:
 - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction, contractor prepared sediment and erosion control drawings specific to site, and that that comply with EPA 832/R-92-005 or requirements of authorities having jurisdiction, whichever is more stringent.
 - .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
 - .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TRENCHING

- .1 Do trenching Work in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.
- .2 Obtain Departmental Representative's approval of trench line and depth prior to placing bedding material or pipe.

3.4 BEDDING

- .1 Dewater excavation, as necessary, to allow placement of culvert bedding in dry condition.
- .2 Place 200 mm minimum thickness of approved granular material on bottom of excavation and compact to 100% of corrected maximum dry density to ASTM D 1557.
- .3 Shape bedding to fit lower segment of pipe exterior so that width of at least 50% of pipe diameter is in close contact with bedding and to camber as indicated or as directed by Departmental Representative, free from sags or high points.
- .4 Place bedding in unfrozen condition.

3.5 LAYING CORRUGATED STEEL PIPE CULVERTS

- .1 Begin pipe placing at downstream end.
- .2 Ensure bottom of pipe is in contact with shaped bed or compacted fill throughout its length.
- .3 Lay pipe with outside circumferential laps facing upstream.

- .4 Do not allow water to flow through pipes during construction except as permitted by Departmental Representative.

3.6 JOINTS: CORRUGATED STEEL CULVERTS

- .1 Corrugated steel pipe:
 - .1 Match corrugations or indentations of coupler with pipe sections before tightening.
 - .2 Tap couplers firmly as they are being tightened, to take up slack and ensure snug fit.
 - .3 Insert and tighten bolts.
 - .4 Repair spots where damage has occurred to spelter coating by applying two coats of zinc rich epoxy paint.

3.7 LAYING CONCRETE BOX CULVERTS

- .1 Begin at downstream end of culvert with flanged end of first box section facing upstream.
- .2 Ensure bottom of each section is in contact with shaped bed throughout its length.
- .3 Allow water to flow through pipes during construction only as permitted by Departmental Representative.

3.8 JOINTS: CONCRETE BOX CULVERTS

- .1 Joints may be made with rubber gaskets, bituminous jointing compound or Portland cement mortar.
 - .1 Rubber gasket joints:
 - .1 Install in accordance with manufacturer's written recommendations.
 - .2 Ensure that tapered ends are fully entered into flanged ends.

3.9 JOINTS FOR POLYETHYLENE CULVERTS

- .1 Install couplings in accordance with manufacturer's instructions.

3.10 FLUMING

- .1 Assemble and install fluming as indicated.
- .2 Set top edges of fluming flush with side slope.

3.11 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

- .3 Waste Management: separate waste materials for recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

END OF SECTION