



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Public Works and Government Services Canada

See herein for bid submission

instructions/

Voir la présente pour les

instructions sur la présentation

d'une soumission

NA

Alberta

NA

Bid Fax: (418) 566-6167

**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
Northern Contaminated Site Program
Canada Place/Place du Canada
10th Floor/10e étage
9700 Jasper Ave/9700 ave Jasper
Edmonton
Alberta
T5J 4C3

Title - Sujet Expansion of ISSF Electrical Supply Expansion of ISSF Electrical Supply	
Solicitation No. - N° de l'invitation 23240-220405/A	Amendment No. - N° modif. 003
Client Reference No. - N° de référence du client 23240-220405	Date 2022-08-25
GETS Reference No. - N° de référence de SEAG PW-\$NCS-101-12261	
File No. - N° de dossier NCS-2-45011 (101)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Mountain Daylight Saving Time MDT on - le 2022-08-30 Heure Avancée des Rocheuses HAR	
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: Tegart, Ashley	Buyer Id - Id de l'acheteur ncs101
Telephone No. - N° de téléphone (587) 38-5610 ()	FAX No. - N° de FAX (418) 566-6167
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

Solicitation No. - N° de l'invitation
232340-220405/B
Client Ref. No. - N° de réf. du client
23139-230031

Amd. No. - N° de la modif.
File No. - N° du dossier
NCS-101-12261

Buyer ID - Id de l'acheteur
NCS101
CCC No./N° CCC - FMS No./N° VME

This solicitation amendment 003 is raised to modify solicitation 23240-220405 dated 7 July 2022 as follows:

1) Refer to the front page of the solicitation at "Solicitation Closes"

DELETE: 2022-08-30 14:00 MDT

INSERT: 2022-09-13 14:00 MDT

2) On page 6 of 53 under section 2.7: **Optional Bidders' Conference:**

DELETE: Bidder's conference in its entirety.

INSERT: N/A

3) On page 10 of 53 under section 6.3.1; **General Conditions:**

INSERT: Commercial General Liability Clause G2001C as follows:

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence and in the annual aggregate.

2. The Commercial General Liability policy must include the following:

- a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.
- b. Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.
- c. Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contractor.
- d. Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
- e. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
- f. Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
- g. Employees and, if applicable, Volunteers must be included as Additional Insured.
- h. Employers' Liability (or confirmation that all employees are covered by Worker's compensation (WSIB) or similar program)
- i. Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.
- j. Notice of Cancellation: The Contractor will provide the Contracting Authority thirty (30) days prior written notice of policy cancellation or any changes to the insurance policy.
- k. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
- l. Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.
- m. Non-Owned Automobile Liability - Coverage for suits against the Contractor resulting from the use of hired or non-owned vehicles.
- n. Litigation Rights: Pursuant to subsection 5(d) of the [Department of Justice Act](#), S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:

*Director Business Law Directorate,
Quebec Regional Office (Ottawa),
Department of Justice,*

284 Wellington Street, Room SAT-6042,
Ottawa, Ontario, K1A 0H8

For other provinces and territories, send to:

Senior General Counsel,
Civil Litigation Section,
Department of Justice
234 Wellington Street, East Tower
Ottawa, Ontario K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

4) On page 11 of 53 under section 6.4.1: Period of the Contract

DELETE: The period of the Contract is from date of Contract to 30 September 2023 inclusive

INSERT: The period of the Contract is from date of Contract to 30 June 2023 inclusive

5) On page 13 of 53 under section 6.7.1: Update Basis of Payment

DELETE: 6.7.1 Basis of Payment in its entirety

INSERT: 6.7.1 Basis of Payment to Milestone Payments – Not Subject to Holdback H3010C (2016-01-28)

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:

- a. an accurate and complete claim for payment using [PWGSC-TPSGC1111](#), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all the certificates appearing on form [PWGSC-TPSGC1111](#) have been signed by the respective authorized representatives;
- c. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

6) On page 15 of 53 Update Annex A (Statement of Work)

DELETE: Annex A (Statement of Work) In its entirety

INSERT: Updated Annex A (Statement of Work) as inserted below:

ANNEX "A" STATEMENT OF WORK

**Expansion of Inuvik Satellite Station Facility ISSF Electrical Supply & Communications Ducts
From Inuvik Canada (ICAN) to Phase 3 Rev. 2**

SW 1 OBJECTIVE

The objective of this requirement is to support the expansion of the electrical and communications capacity from the ICAN Operations Building to a location on the Phase 3 land parcel at its Canada Centre for Mapping and Earth Observation's (CCMEO) Inuvik Satellite Station Facility (ISSF) in Inuvik, Northwest Territories (NT).

SW 2 BACKGROUND

Canada Centre for Mapping and Earth Observation (CCMEO) owns and operates a remote sensing satellite station near Inuvik, NT.

- The station is referred to as the Inuvik Satellite Station Facility (ISSF), and is comprised of 3 Parcels of land, some of which are not adjacent to another, totaling over 600 hectares.
- Phases 1 & 2 were the first to be built upon, with future focus on extending operational capacity to the Phase 3 parcel to the north.
- The station is host to multiple satellite receiving antennas and their supporting infrastructure. This site is protected for security and only escorted visits are allowed.
- At this site, there is an operations building on the Phase 2 land parcel, designated as 'ICAN', which houses electronic equipment used in satellite reception operations.
- The operations at ISSF require the extension of additional electrical and communications capacity from ICAN to a designated location on the Phase 3 parcel. More specifically:
 - Extending two 100kVA electrical connections from its existing redundant power circuit within the ICAN building - which is a circuit that utilizes an Eaton 9390 Uninterruptible Power Supply (UPS) and 500kVA diesel generator as backup power in an event where utility power is lost - to a location approximately 950m to the north on the Phase 3 parcel. This will be accomplished through herein specified cabling. Step-up and step-down transformers will be the responsibility of the client post project completion.
 - Installation of one 4" communications duct between the ICAN building, the Distribution Shelter and a location approximately 950m to the North on the Phase 3 parcel.
 - Installation of another 4" communications duct between the ICAN building and the Distribution Shelter, approximately 700m to the North, to support redundant capacity requirements.
 - Installation of ducts are to support extension of fibre cabling to enable future communications between remote assets.
 - Installation of electrical cabling between the utility's transformer serving the ICAN building and the Distribution Shelter location approximately 700m to the North on the Phase 3 land parcel to accommodate Northwest Territories Power Corporation (NTPC) transformers that will provide service to future assets across the Phase 3 land parcel.
- Burial of electrical cables and communications ducts continues to be the preferred method of extending power and communications to remote areas around the site to minimize disturbance to wildlife and maintain safety and security of personnel and assets.

Permafrost is present in all areas!

- Trenching in the Inuvik region occurs in cooler months before winter, or in early spring before the thaw to avoid wet weather, disturbance to the underlying permafrost and critical habitat for migratory birds and birds that may be nesting.
- For efficiency and to limit disturbance to habitat, Canada Centre for Mapping and Earth Observation (CCMEO) requires that the extension of the electrical utility Northwest Territories Power Corporation (NTPC) from ICAN to the location on the Phase 3 land parcel be installed in the same trench that will house one 4" communications duct and in parallel and close proximity to the trench that will house two electrical cables extending ICAN emergency power circuit and the additional 4" communications duct.

- Figure 1, provides the basic layout of the Inuvik Satellite Station Facility Phases 1 & 2
- Figure 2 depict the trench path and estimated endpoints
- Figure 3 depicts the existing gate shed
- Figure 4 provides a view of typical pull box, trenching and naturalization
- Figure 5 provides a view of the estimated location of the endpoint
- Figure 6 Location of existing pull box to accommodate 4-way connection

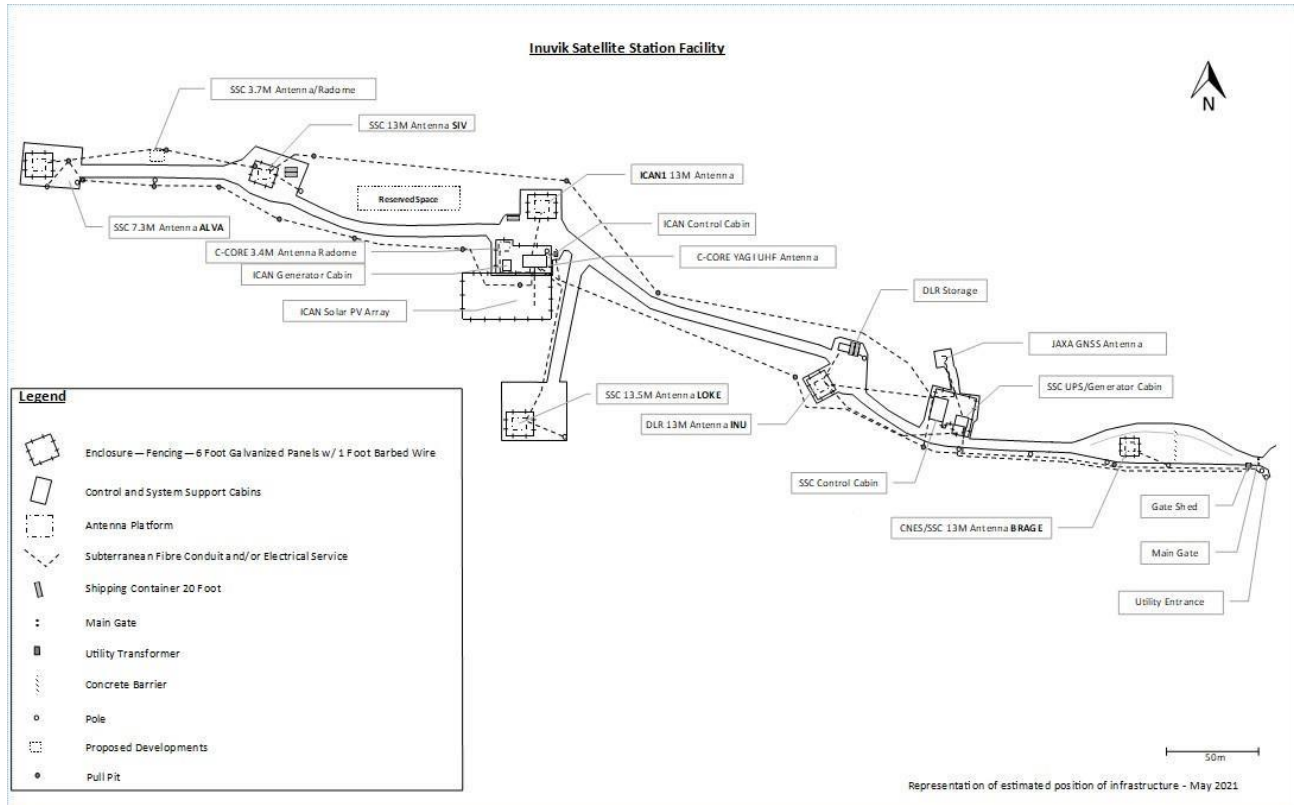


Figure 1: Inuvik Satellite Station Facility Phase 1 & 2 Layout

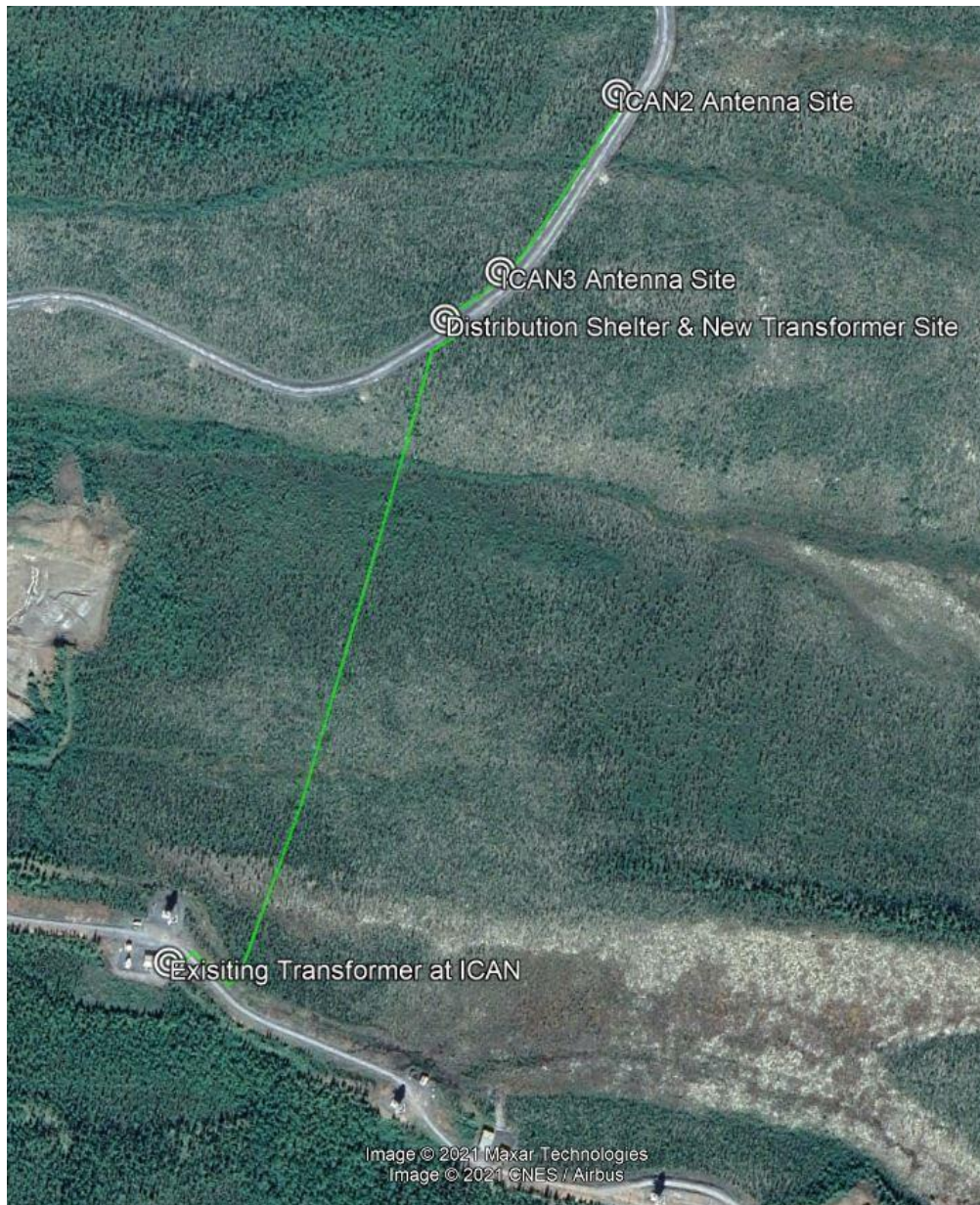


Figure 2: Trench Path and Estimated Endpoints



Figure 3: Existing Gate Shed



Figure 4: View of Typical Pull Box, Trenching and Naturalization



Figure 5: Estimated Location of Distribution Shelter

Latitude 68.324378° Longitude -133.544809°

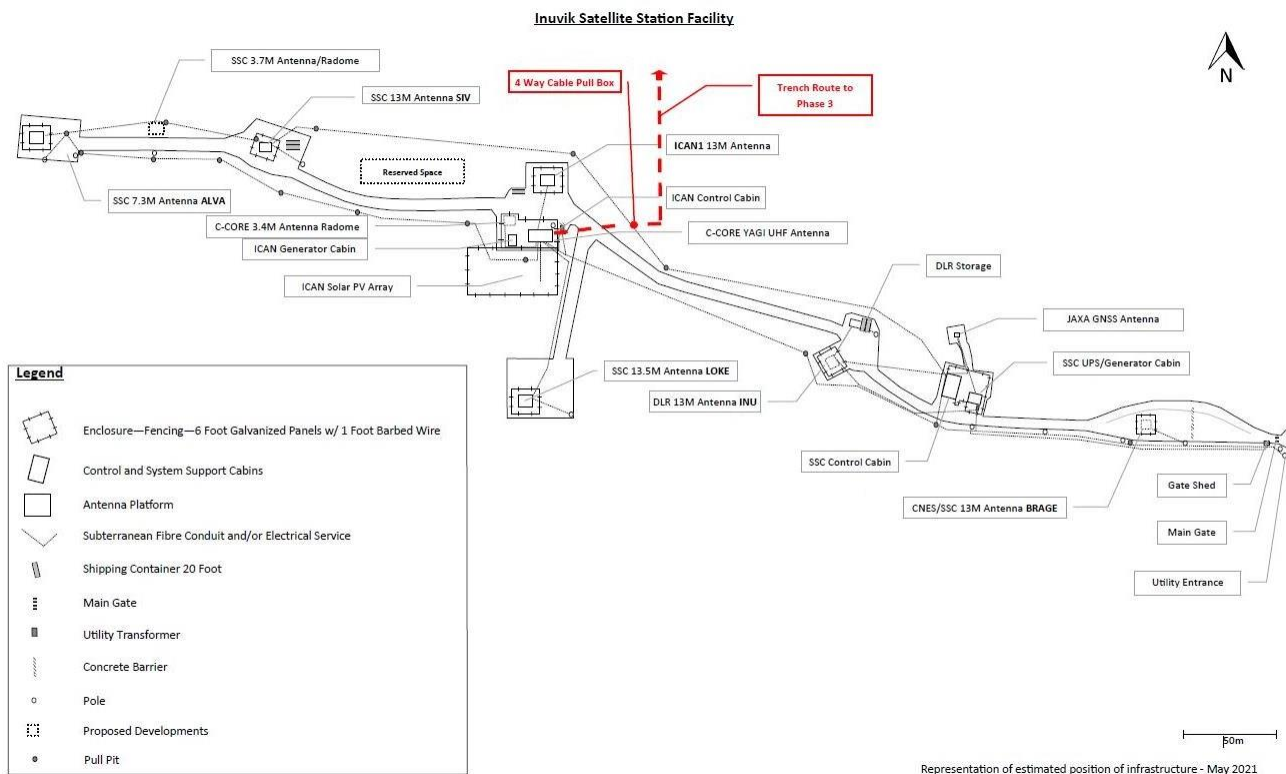


Figure 6: Location of Existing Pull Box to Accommodate 4-Way Connection

SW3 PROJECT REQUIREMENTS

The work required involves the extension of Uninterrupted power supply (UPS) capacity, communications, and electrical utility supply from the ICAN Operations Building to a location on the Phase 3 parcel approximately 1

kilometre away. The installation of electrical cables and communications duct will require trenching across tundra through permafrost conditions. Supply and installation of a shelter at the end-point location will be required to house the cables and ducts in addition to accommodating spaces for electrical service, fibre patch panels, workspaces and operational equipment.

The contractor will be responsible for the supply and installation of this capacity as specified in the Work Requirements (Section 4) and in liaising with the utility provider to ensure that approved cabling, installation methods, best practices and locations where cables will be accessed above grade are identified and carried out.

SW 3.1 Tasks, Milestones, Deliverables and Schedule

SW 3.1.1 Task #1, Milestone #1: Determine Route Logistics & Map Route

The work required to be completed by the Contractor is as follows:

- 3.1.1.1 Contractor must conduct a thorough field assessment of the entire proposed route that will be trenched, noting any obstacles and risks. The proposed route is depicted in Figure 2 and 5. The route stretches across tundra, down a slope, across two gravel roads, one by the ICAN Control Building and the other in the Phase 3 land parcel, and along an existing cut line that demarcates a property line. NRCan is working with the Government of the Northwest Territories and the department of Environment and Climate Change Canada to establish an easement to allow for the trenching to take place along the property line that separates the respective owner's properties.
- 3.1.1.2 Contractor must deliver a report to Project Authority on field assessment and provide mitigation strategies for identified risks and solutions to overcome obstacles during trenching, prior to initiating trenching. Additionally, NRCan must have reviewed and approved in order to ensure that there is a comprehensive and mutual understanding of the work to be performed.
- 3.1.1.3 Contractor must prepare a trench route map using Google Earth, providing estimated locations of junctions, pull boxes, and termination points. The Project Authority can assist with this requirement.

SW 3.1.2 Task #2, Milestone #2: Liaise with Northwest Territories Power Corporation & Schedule Work

The work required to be completed by the Contractor is as follows:

- 3.1.2.1 Contractor must liaise with Northwest Territories Power Corporation (NTPC) on the extension of utility electrical supply from the mains transformer housed adjacent to ICAN to the location on Phase 3 that will house the Electrical Distribution Shelter (located at Latitude 68.324378° Longitude -133.544809°).
- 3.1.2.2 The Contractor must ensure that the required specifications for the cabling and subsequent pre-installation requirements between transformers to support the extension of utility electrical supply as set by NTPC are met, ideally through organizing an NTPC inspection of the installed cable.
- 3.1.2.3 NTPC has stated that their cable requirement is: WPA125-800 1C #1 SOL 07346-01-010 25KVAL CU CN URD XLP.

SW 3.1.3 Task #3, Milestone #3: Supply Cables

- 3.1.3.1 Supply and install two Teck #3 AWG 3 conductor stranded copper cables rated for 5kV and direct burial in the trench between the ICAN Control Building and the identified endpoints where antennas will be installed so that each cable supplies UPS capacity to each antenna location: ICAN2 Latitude 68.326207° Longitude -133.541784° & ICAN3 Latitude 68.324773° Longitude -133.543813°.
 - i) Cable slack must be accounted for at each end, providing a minimum of 6 meters to allow for small changes in subsequent installation of transformers or entry into buildings or antenna foundations.

- ii) The contractor must ensure that the deployed cable lengths can meet these requirements without addition of extra cable or splices, understanding that each cable has a specified purpose and future tie-in location and to ensure that the cables and ducts serve these purposes without compromise to these future developments.
- 3.1.3.2 Obtain from NTPC and install the required primary utility cable, specified as WPA125-800 1C #1 SOL 07346-01-010 25KVAL CU CN URD XLP, in a trench, as per specification from NTPC for subsequent connection of utility electrical supply from the utility transformer adjacent to the ICAN Control Building to the proposed location of the new NTPC transformer adjacent to and North of the new Electrical Distribution Shelter located at Latitude 68.324378° Longitude -133.544809°.
- i) The Contractor will be responsible to ensure that the installation requirements between transformers to support the extension of primary utility electrical supply as set by NTPC are met, ideally through organizing an NTPC inspection of the installed cable.
 - ii) The Contractor must install the primary utility in the same trench that will house the cables supplying UPS and/or communications ducts as detailed hereafter in this scope of work.
- 3.1.3.3 Install primary utility cable as per specification from NTPC to enable connection of the utility electrical supply from the ICAN Control Building utility transformer to the proposed location of NTPC transformer adjacent to new Electrical Distribution Shelter: 68°19'27.19"N, 133°32'42.77"W. Connection of the cable to service/transformers will be completed by NTPC

SW 3.1.4 Task #4, Milestone #4: Supply Ducts

- 3.1.4.1 Supply and install two 4" HDPE ducts suitable for direct burial in permafrost zones between the ICAN Control Building and the location of the Distribution Shelter to be located at Latitude 68.324378° Longitude -133.544809°.
- i) These ducts must be extended from a point 36" above ground and underneath the ICAN Control Building to a point ~60" above ground and through the gravel pad that supports the Distribution Shelter in a manner that allows for each duct to easily be integrated into their own exterior mounted 24" by 24" weatherproof enclosure (both enclosures to be supplied and installed – see Task #7: Supply & Install Distribution Shelter).
- 3.1.4.2 Supply and install one 4" HDPE duct suitable for direct burial in permafrost zones between the location of the Distribution Shelter and the location of the proposed ICAN2 antenna (Latitude 68.326207° Longitude -133.541784°) to facilitate the extension of fibre optic cabling between the Distribution Shelter and the ICAN3 and ICAN2 antennas.
- i) This duct must be extended from a point ~60" above the gravel pad that supports the Distribution Shelter so that the duct can be integrated into one of the two exterior mounted 24" by 24" weatherproof enclosures (enclosures to be supplied and installed – see Task #7: Supply & Install Distribution Shelter).
 - ii) This duct must be routed via trench to a location adjacent to each antenna location to efficiently enable subsequent routing from a pull box at that location and over this duct to an antenna foundation in the future.
 - iii) Attention to the prevention of water intrusion in all ducts is of utmost importance due to the underlying permafrost conditions. The contractor must implement best practices in the installation of ducts to prevent water intrusion at any time during the construction and commissioning of their installation.

SW 3.1.5 Task 5, Milestone #5: Supply pull boxes

- 3.1.5.1 Supply and install pull boxes over 4" HDPE ducts along the trenched route at intervals where required to safely and efficiently pull fibre communication cables through from the beginning of the

duct at the ICAN Control Building to the proposed fibre optic cable demarcation points (Distribution Shelter, ICAN3, ICAN2) without risk of damaging the fibre optic cables. Best practices employed by the telecommunications and electrical installation and service industries must be followed.

- 3.1.5.2 Supply and install a pull box to support a 4-way junction at the perpendicular intersection of the trenched path and existing cable and ducts that run from the SSC Control Building and their SIV antenna directly to the west of ICAN1 antenna and the ICAN Control Building.
- i) This 4-way junction is to allow interconnectivity from both SSC and ICAN Control Buildings and to the Phase 3 Electrical Distribution Shelter.
 - ii) The replacement of the existing pull box may be necessary to accommodate the existing ducts into the new pull box.
 - iii) Careful excavation is required at this junction as operational electrical and fibre cables have been buried in this area.
 - iv) Careful attention must be placed on preventing water intrusion into existing, operational ducts.
 - v) Location is depicted in Figure 7 and can be identified precisely onsite by the Project Authority.

SW 3.1.6 Task #6, Milestone #6: Supply and install shelter and transformer pad

The work required to be completed by the Contractor is as follows:

- 3.1.6.1 Construction of the Shelter pad and transformer pad must be located at Latitude 68.324378° Longitude -133.544809°.
- 3.1.6.2 Install 24' (foot) by 24' (foot) pad consisting of 12" (inch) of 6" (inch) minus atop of geogrid, capped with 6" (inches) of ¾" (inch) crushed rock atop of geotextile.
- i) Geogrid must extend past the terminus of the pad's toe to allow for future expansion and to alleviate loss to spill-over.
 - ii) Pad must be built adjacent to the existing road embankment to accommodate ease of access to the shelter. The shelter and pad will reside next to the termination point of the main trench to allow for ducts and cables to enter the pad and subsequently the Distribution Shelter through exterior wall-mounted, lockable and waterproof enclosures on the East side of the shelter (along the 12' long wall). **See Annex B for Distribution Shelter Trenching Layout for guidance on the preferred layout of the pad, shelter and trenching areas.**
- 3.1.6.3 Transformer pad section must be built according to NTPC requirements. The contractor must liaise with NTPC to ensure that the gravel pad will meet their requirements. The transformer's installation must be in close proximity to the distribution shelter and positioned on the North side of the distribution shelter.

SW 3.1.7 Task #7, Milestone #7: Supply & Install Shelter

The work required to be completed by the Contractor is as follows:

- 3.1.7.1 The Contractor must supply and install a 12' (foot) by 18' (foot) shelter onto crushed rock pad at Latitude 68.324378° Longitude -133.544809°. **See Annex for preferred Distribution Shelter layout.**
- 3.1.7.2 Shelter construction practices must meet/exceed Territorial and National building codes and include the following requirements:
- i) Wood frame, 6"x 10' stud walls 24" OC
 - ii) Pressure treated foundation resting atop of skids;

- iii) Floor joists installed 16" OC using mechanical fasteners;
- iv) Metal siding, roofing, flashing and trim;
- v) Insulated floor, walls and roof with fiberglass or similar batting with vapor barrier;
- vi) Primed and painted G1S ¾" plywood interior walls and ceiling overtop of strapping;
- vii) Double 32" steel doors, primed and painted, positioned either on the left or West side of the road-facing 18' long wall, complete with heavy-duty weather stripping, commercial-grade stainless steel deadbolt, hinges and handle hardware;
- viii) Loading ramp from grade to lip of double doorway constructed from pressure treated wood and accommodating the width of the double door frame for its entire running length;
- ix) Exterior photo-sensor activated LED area lighting at doorway; 3.1.6.2xi Primed and painted G1S ¾" plywood overtop of subfloor;
- x) ½" thick rubber matting floors, laid seam to seam/edge to edge, but not affixed permanently to the floor;
- xi) One L-shaped work bench capable of holding 200lb of equipment, constructed with dimensional lumber, with G1S ¾" ply hardwood sheeting for the table top; and,
- xii) Interior electrical components (can be surface mounted, inclusive of conduit) consisting of:
 - a) 16 circuit utility electrical panel with 20A breakers feeding:
 - b) Four ceiling mounted LED lights and one exhaust fan with timer switch on one circuit (including the exterior LED light)
 - c) Three 120V receptacles 18" off floor on one circuit
 - d) Two 120V receptacles at table top work bench height on one circuit
 - e) Two 4' electric baseboard heaters on one circuit
 - f) Two circuits for small security surveillance equipment rack

SW 3.1.8 Task #8, Milestone #8: Complete Trenching Program

The work required to be completed by the Contractor is as follows:

- 3.1.8.1 The Contractor will select the most appropriate equipment to excavate the required trench to code compliant specifications and best practices in a permafrost zone. It is recommended that a small excavator be used for this activity (ex. John Deere 60- 75G, Caterpillar 306-307, Case CX 75-80) in order to traverse over the cut line/property line in a manner that will not be detrimental to underlying permafrost and to minimize destruction of habitat. **NOTE: NRCan and its contractors are bound to conduct activities in a manner that is compliant with the *Species At Risk Act*. Failure to observe the stipulations under the *Act* and of any development approvals issued thereunder can result in fines and prosecution under the *Act*.**
- 3.1.8.2 The trench must be able to accommodate at minimum the space required for the placement of two Teck #3 AWG 3 conductor stranded copper cables rated to handle 5kV, a utility cable as per specification from NTPC to connect future utility electrical supply, and two 4" HDPE communications ducts that will house fibre optic cabling. All of these cables and ducts must be rated for direct burial and installed according to industry standards to prevent damage and water intrusion.
- 3.1.8.3 Excavation must be done in a manner that is respectful to the surrounding environment, where excavated material must be carefully staged so that replacement back into the trench can be completed without damage to the surrounding ground or vegetation. **It is recommended that fill be packed into trenches and built up above original grade in a manner that accounts for subsidence of the disturbed area.**

- 3.1.8.4 At each of the two road crossings, excavation and replacement of excavated material must be completed in the shortest time possible to ensure that road passage is restored for safety, operational use and security.
- i) Excavation of existing road sections must be completed after the majority of the trench route and cable installation is completed to alleviate emergency access risks.
 - ii) Roads consist of blast rock, shale and gravel layers.
- 3.1.8.5 Should trenching activities encounter runoff paths or pooling water, a system of carefully excavated small runoff pits and water extraction pumps must be deployed while the trench is open. All pits must be in close proximity to the trench path to minimize disturbance and subsequently filled-in carefully with additional topping to allow for quick naturalization and account for subsidence.
- 3.1.8.6 Pull box locations must be accessible by small All-Terrain Vehicles and spaced according to industry best practices to support smooth installation of communications cabling throughout the year. **Pull box locations must be elevated and sealed to eliminate water intrusion. Deployment heights for pull boxes must account for natural subsidence due to impact of trenching on permafrost.**
- 3.1.8.7 Attention to buried communications and power cabling close to the ICAN Control Cabin is required. A line locate is necessary to ensure that the trenching activity does not impact existing operations. Junctions will be required for the communications ducts at the point where the trenching path intersects with existing communications ducts to allow for one 4-way interconnection. An existing pull box that houses operational fiber optic cables will need to be carefully excavated by hand so that a 4-way pull box can be set to rest overtop in effort to provide the existing duct access to one of the new ducts that are being installed. Location of this existing pull box is depicted in Figure 6.

Milestone Schedule:

Milestones	Schedule
Milestone #1 – Conduct field survey and provide plan	October 15, 2022
Milestone #2 – Liaise with NTPC – confirming cable and transformer	October 15, 2022
Milestone #3 – Supply cables	December 21, 2022 for supply, June 30, 2023 for installation
Milestone #4 – Supply ducts	December 21, 2022 for supply, June 30, 2023 for installation
Milestone #5 – Supply pull boxes	December 21, 2022 for supply, June 30, 2023 for installation
Milestone #6 – Supply and install shelter and transformer pad	November 16, 2023
Milestone #7 – Supply and install shelter	May 17, 2023
Milestone #8 – Complete trenching program	June 30, 2023

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XXXXX-XXXXXX

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002
File No. - N° du dossier
XXXXX-XXXXX

Buyer ID - Id de l'acheteur
NCS101
CCC No./N° CCC - FMS No./N° VME

SW 3.2 Method and Source of Acceptance

All deliverables and services rendered under any contract are subject to inspection by the Project Authority. The Project Authority shall have the right to reject any deliverables that are not submitted, as per the terms of the Statement of Work, or require their correction before payment will be authorized.

SW 4.0 OTHER TERMS AND CONDITIONS OF THE SOW

SW 4.1 Contractor's Obligations

In addition to the obligations outlined under Sections 1-3 of the Statement of Work, the Contractor must:

- Perform the work on a scheduled basis agreed upon between the Project Authority and the Contractor.
- If required, request for on site support and component specifications be made to the Station Manager/Project Authority.
- Clean up and dispose of installation debris, packing material and surplus installation and integration materials.
- Perform the work in accordance with applicable local codes and requirements including permits, and site practice.
- Ensure they are escorted by designated persons holding site-specific security clearance AT ALL TIMES. Contact the project authority to arrange for security escorts when accessing the site.

SW 4.2 Location of Work, Work Site and Delivery Point

Work is to be completed at the Contractor's place of business and at NRCan's Inuvik Satellite Station Facility (ISSF) in Inuvik, NT XOE OT0. All deliverables will be delivered to the project authority by email TBD

SW 4.3 Language of Work

All work is to be conducted in English.

Solicitation No. - N° de l'invitation
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CCC No./N° CCC - FMS No./N° VME

7) Update Annex "B" - Basis of Payment

DELETE: Basis of Payment in its entirety

INSERT: Basis of Payment to reflect SACC manual clause H1003C (2010-01-11) Milestone payments as follows:

ANNEX "B" - BASIS OF PAYMENT

1. The Contractor must submit a claim for payment using form [PWGSC-TPSGC 1111](#), Claim for Progress Payment.
Each claim must show:
 - a. all information required on form [PWGSC-TPSGC 1111](#);
 - b. all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
 - c. a list of all expenses;
 - e. the description and value of the milestone claimed as detailed in the Contract.
2. Applicable Taxes, must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.
3. The Contractor must prepare and certify one original and two (2) copies of the claim on form [PWGSC-TPSGC 1111](#), and forward it to the Technical Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place. The Technical Authority will then forward the original and two (2) copies of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.
4. The Contractor must not submit claims until all work identified in the claim is completed
5. Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:
 - a. an accurate and complete claim for payment using [PWGSC-TPSGC 1111](#), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
 - b. all the certificates appearing on form [PWGSC-TPSGC 1111](#) have been signed by the respective authorized representatives;
 - c. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

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File No. - N° du dossier
XXXXX-XXXXXX

Buyer ID - Id de l'acheteur
NCS101
CCC No./N° CCC - FMS No./N° VME

The schedule of milestones for which payments will be made in accordance with the Contract is as follows:

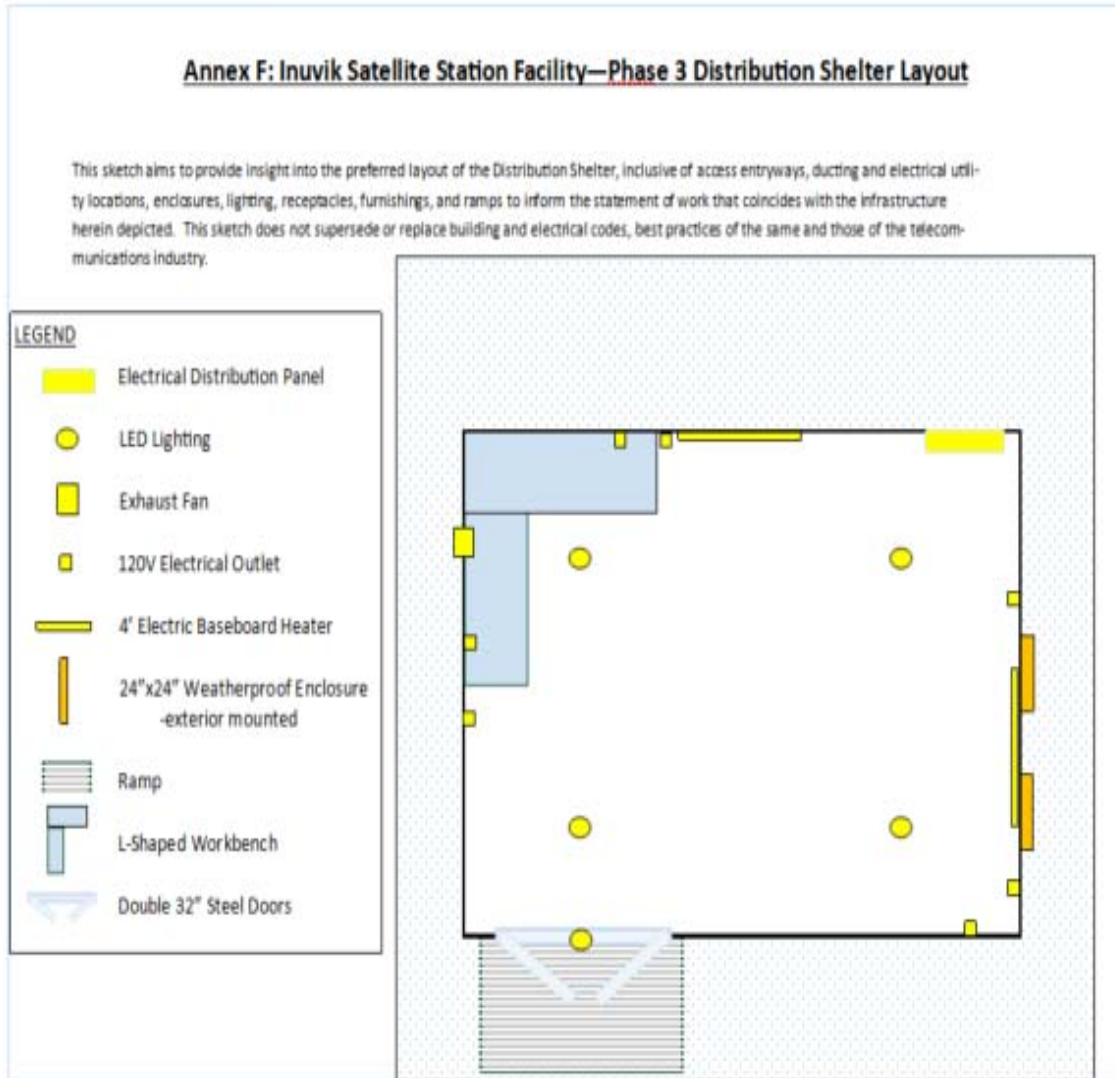
Milestone Number	Description of Deliverable	Firm Amount (CAD)	Due Date
			30
1	Task #1: Conduct field survey and provide plan to TA	\$_____	October 15 th 2022
2	Task #2: Liaise with Northwest Territories Power Corporation & confirm both cable and transformer and schedule of work and provide via report to TA	\$_____	October 15 th 2022
3	Task #3: Supply cables as per SOW	\$_____	December 21 2022 for supply; 30 June 2023 for installation
4	Task 4# Supply ducts as per SOW	\$_____	December 21 2022 for supply; 30 June 2023 for installation
5	Task #5: Supply pull boxes as per SOW	\$_____	December 21 2022 for supply; 30 June 2023 for installation
6	Task #6: Supply, develop and install both Shelter pad and Transformer Pad	\$_____	November 16, 2023
7	Task #7: Supply & Install Distribution Shelter	\$_____	May 17 TH , 2023
8	Task #8: Complete trenching program	\$_____	June 30 th , 2023

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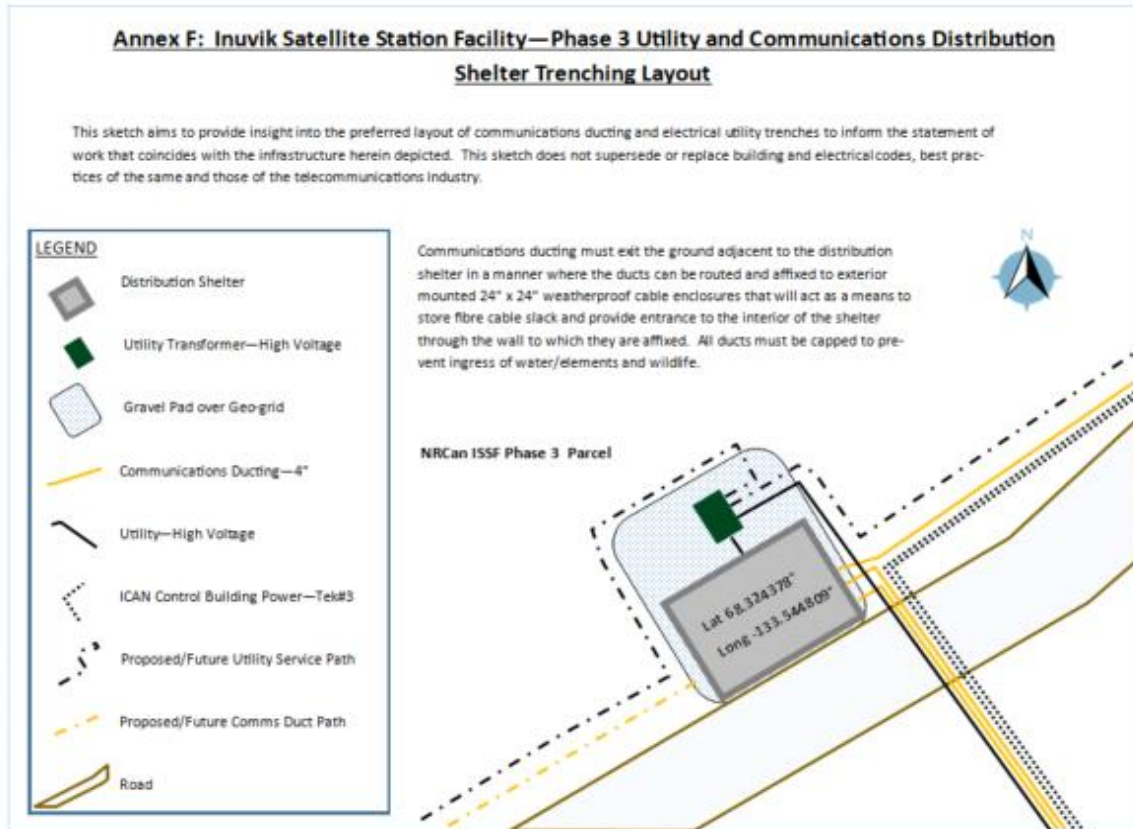
7) On page 52 of 53 insert Annex F: Phase 3 Shelter Layout to include the following:



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ALL OTHER TERMS AND CONDITIONS SHALL REMAIN UNCHANGED.