



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

Travaux publics et Services gouvernementaux  
Canada

Voir dans le document/  
See herein

NA

Québec

NA

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux 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 annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

<b>Title - Sujet</b> Prototyping and Prod. 3D Printer Prototyping and Production 3D Printer System	
<b>Solicitation No. - N° de l'invitation</b> W1985-213230/A	<b>Date</b> 2021-06-11
<b>Client Reference No. - N° de référence du client</b> W1985-213230	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$MTA-555-16192	
<b>File No. - N° de dossier</b> MTA-1-44035 (555)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> Eastern Daylight Saving Time EDT <b>on - le 2021-07-13</b> Heure Avancée de l'Est HAE	
<b>F.O.B. - F.A.B.</b> Specified Herein - Précisé dans les présentes <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input checked="" type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Carbonneau, Julie	<b>Buyer Id - Id de l'acheteur</b> mta555
<b>Telephone No. - N° de téléphone</b> (418) 929-6780 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> MINISTERE DE LA DEFENSE NATIONALE 6769 NOTRE DAME EST BAT 10 Sud-FET 202 Depot D'atelier Reception commerciale MONTREAL Québec H1N2E9 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

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

**Issuing Office - Bureau de distribution**

Travaux publics et Services gouvernementaux Canada  
Place Bonaventure, portail Sud-Oue  
800, rue de La Gauchetière Ouest  
7e étage, suite 7300  
Montréal  
Québec  
H5A 1L6

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

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**TITLE: 3D PRINTER SYSTEM**

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Security Requirements**

1. Before award of a contract, the following conditions must be met:
  - (a) the Bidder must hold a valid organization security clearance as indicated in Part 6 - Resulting Contract Clauses;
  - (b) the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work sites must meet the security requirements as indicated in Part 6 - Resulting Contract Clauses;
  - (c) the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites;

### **1.2 Requirement**

The requirement is detailed under Article 6.2 of the resulting contract clauses.

### **1.3 Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

### **1.4 epost Connect service**

This bid solicitation allows bidders to use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003](#) (2020-05-28) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/1/2003/25>

#### 2.1.1 SACC Manual Clauses

B1000T (2014-06-26), Condition of Material - Bid

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/B/B1000T/3>

B3000T (2006-06-16), Equivalent Products

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/B/B3000T/5>

#### 2.1.2 Best Delivery Date – Bid **(To be completed by the bidder)**

While delivery is requested by February 1<sup>st</sup>, 2022, the best delivery time that could be offered by the bidder is \_\_\_\_\_ weeks from contract award date.

### 2.2 Submission of Bids

Bids must be submitted only to the Public Works and Government Services Canada (PWGSC) Quebec Region Bid Receiving Unit specified below by the date and time indicated on page 1 of the bid solicitation.

#### 2.2.1 Epost Connect

Bidders choosing to submit using epost Connect must send an email requesting to open an epost Connect conversation to the following address:

[TPSGC.RQReceptionSoumissions-QRSupplyTendersReception.PWGSC@tpsgc-pwgsc.gc.ca](mailto:TPSGC.RQReceptionSoumissions-QRSupplyTendersReception.PWGSC@tpsgc-pwgsc.gc.ca)

Note: **Bids will not be accepted if emailed directly to this email address.** This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/1/2003/active>), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

It is the Bidder's responsibility to ensure the request for opening an epost Connect conversation is sent to the email address above at least six days before the solicitation closing date.

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[Steps to follow for the Bid Submission to Bid Receiving Unit \(BRU\) using epost Connect \(https://buyandsell.gc.ca/steps-to-follow-for-the-bid-submission-to-bid-receiving-unit-bru-using-epost-connect \)](https://buyandsell.gc.ca/steps-to-follow-for-the-bid-submission-to-bid-receiving-unit-bru-using-epost-connect)

## 2.2.2 Facsimile

Facsimile number: 418-566-6168.

2.2.3 Bids transmitted by hardcopy to PWGSC will not be accepted.

## 2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

## 2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Quebec.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

## 2.5 Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
  - Office of the Procurement Ombudsman (OPO)
  - Canadian International Trade Tribunal (CITT)

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- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

## **PART 3 - BID PREPARATION INSTRUCTIONS**

### **3.1 Bid Preparation Instructions**

If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid must be gathered per section and separated as follows:

Section I: Technical Bid  
Section II: Financial Bid  
Section III: Certifications

Due to the nature of the solicitation, bids transmitted by hardcopy will not be accepted.

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

#### **Section I: Technical Bid**

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

#### **Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment.

##### **3.1.1 Exchange Rate Fluctuation**

[C3011T](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/C/C3011T/5) (2013-11-06), Exchange Rate Fluctuation  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/C/C3011T/5>

#### **Section III: Certifications**

Bidders must submit the certifications and additional information required under Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **4.1 Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### **4.1.1 Technical Evaluation**

##### **4.1.1.1 Mandatory Technical Criteria**

The technical evaluation will be based on the mandatory technical criteria detailed in Annex C.

Bidders must demonstrate that the goods and/or services offered are compliant with each of these mandatory technical criteria with documents and/or technical drawings, which must be submitted with their proposal. (No internet links will be accepted).

Bidders should complete the table in Annex C in order to indicate where the technical criteria are demonstrated within their submitted documents and/or technical drawings and include it with their proposal.

##### **4.1.2 Financial Evaluation**

Bidders must submit firm prices, customs duties and excise taxes included, and Applicable Taxes excluded.

Unless the bid solicitation specifically requires bids to be submitted in Canadian currency, bids submitted in foreign currency will be converted to Canadian currency for evaluation purposes. The rate given by the Bank of Canada in effect on the bid solicitation closing date, or on another date specified in the bid solicitation, will be applied as a conversion factor to the bids submitted in foreign currency.

Bidders must provide prices Delivered Duty Paid (DDP), department of National Defense (DND), 6769 rue Notre-Dame Est, Montréal, Quebec, H1N 1X9 and 720 Bluenose Pvt, Gloucester, Ottawa, Ontario, K1V 7M9, Canada, according to Incoterms 2010 for shipments from a commercial contractor. Bids will be assessed on a DDP basis.

### **4.2 Basis of Selection**

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price (Annex B) will be recommended for award of a contract.

## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

### **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

#### **5.1.1 Integrity Provisions - Declaration of Convicted Offences**

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

### **5.2 Certifications Precedent to Contract Award and Additional Information**

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

#### **5.2.1 Integrity Provisions – Required Documentation**

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### **5.2.2 Federal Contractors Program for Employment Equity - Bid Certification**

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

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## PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### 6.1 Security Requirements

**6.1.1** The following security requirements (SRCL and related clauses provided by the Contract Security Program) apply and form part of the Contract.

1. The Contractor/Offeror must, at all times during the performance of the Contract/Standing Offer, hold a valid Designated Organization Screening (DOS), issued by the Contract Security Program (CSP), Public Works and Government Services Canada (PWGSC).
2. The Contractor/Offeror personnel requiring access to sensitive site(s) must EACH hold a valid RELIABILITY STATUS, granted or approved by the CSP, PWGSC.
3. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of the CSP, PWGSC.
4. The Contractor/Offeror must comply with the provisions of the:
  - a) Security Requirements Check List and security guide (if applicable), attached at Annex D;
  - b) *Contract Security Manual* (Latest Edition).

### 6.2 Requirement

The Contractor must provide a Prototyping and Production Metal 3D Printer System in accordance with the Requirement at Annex "A".

#### 6.2.1 Optional Goods and/or Services

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described at Annex A of the Contract under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before March 31, 2023 by sending a written notice to the Contractor.

### 6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

### 6.3.1 General Conditions

2010A (2020-05-28), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/2010A/19>

#### 6.3.1.1 Warranty Period – General Conditions 2010A

Section 09 of general conditions 2010A is amended by replacing the period of twelve (12) months by twenty-four (24) months.

All other provisions of the warranty section remain in effect.

#### 6.3.1.2 Warranty – Modification – General Conditions 2010A

Section 09 entitled *Warranty of general conditions 2010A* is amended by deleting subsection 2 in its entirety and replacing it with the following:

The Contractor must pay the transportation cost associated with returning the Work or any part of the Work to the Contractor's plant for replacement, repair or making good. The Contractor must also pay the transportation cost associated with forwarding the replacement or returning the Work or part of the Work when rectified to the delivery point specified in the Contract or to another location as directed by Canada. If, in the opinion of Canada, it is not expedient to remove the Work from its location, the Contractor must carry out any necessary repair or making good of the Work at that location. In such cases, the Contractor will be responsible for all Costs (including travel and living expenses) incurred in so doing, Canada will not reimburse these Costs.

All other provisions of the warranty section remain in effect.

### 6.3.2 Supplemental General Conditions

4003 (2010-08-16), Licensed Software

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/4003/4>

4004 (2013-04-25), Maintenance and Support Services for Licensed Software

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/4004/5>

apply to and form part of the Contract.

### 6.4 Term of Contract

#### 6.4.1 Period of the Contract

The period of the Contract is from date of Contract to March 31, 2024 inclusive.

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## 6.4.2 Delivery Date

All the deliverables (3D Printer System, components and accessories) must be received within \_\_\_\_\_ weeks after contract award. (will be added at contract award).

Installation, start-up and training must be carried out within a maximum of 30 calendar days following delivery of the 3D Printer System.

### 6.4.2.1 Delivery Date for Optional Goods and/or Services

Optional Goods described at Annex A must be received within \_\_\_\_\_ weeks after the written notice (contract amendment) sent to the contractor. (will be added at contract award).

Installation, start-up and training must be carried out within a maximum of 30 calendar days following delivery of the 3D Printer System.

## 6.4.3 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at Annex "A" of the Contract.

## 6.5 Authorities

### 6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Julie Carbonneau  
Title: Acting Supply Specialist  
Public Works and Government Services Canada Acquisitions Branch  
Telephone: 418-929-6780  
E-mail address: [julie.carbonneau@tpsgc-pwgsc.gc.ca](mailto:julie.carbonneau@tpsgc-pwgsc.gc.ca)

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### 6.5.2 Project Authority

The Project Authority for the Contract is: (will be added at contract award)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_

Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

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### 6.5.3 Client Administrative Authority

The Client Administrative Authority for the contract is: [\(will be added at Contract award\)](#)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Client Administrative Authority must receive the original Invoice. All inquiries for request for payment must be made to the Client Administrative Authority.

### 6.5.3 Contractor's Representative **(To be completed by the bidder)**

Name and telephone number of the person to contact:

a) Contract Manager:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Phone number: \_\_\_\_\_  
Email: \_\_\_\_\_

b) Follow-up of delivery, installation and training :

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Phone number: \_\_\_\_\_  
Email: \_\_\_\_\_

c) After-sales Service :

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Phone number: \_\_\_\_\_  
Email: \_\_\_\_\_

The Contractor and/or his agent are authorized to provide after-sales service, maintenance and repairs under warranty and a full range of spare parts for the equipment offered.

## **6.6 Payment**

### **6.6.1 Basis of Payment.**

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices and lot prices, as specified in Annex B for a cost of \$ \_\_\_\_\_ (*amount will be inserted at contract award*). Customs duties are excluded and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### **6.6.2 Multiple Payments**

SACC Manual clause **H1001C** (2008-05-12) Multiple payments  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/H/H1001C/2>

### **6.6.3 SACC Manual Clauses**

SACC Manual clause **C2000C** (2007-11-30), Taxes - Foreign-based Contractor  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/C/C2000C/1>

## **6.7 Invoicing Instructions**

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:
  - The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
  - One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

## **6.8 Certifications and Additional Information**

### **6.8.1 Compliance**

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

## **6.9 Applicable Laws**

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Quebec.

## 6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions:
  - i) 4003 (2010-08-16), Licensed Software;
  - ii) 4004 (2013-04-25), Maintenance and Support Services for Licensed Software;
- (c) the general conditions 2010A (2020-05-28), General Conditions – Goods (Medium Complexity);
- (d) Annex A, Requirement;
- (e) Annex B, Basis of payment;
- (f) Annex D, Security Requirements Check List (*if applicable*);
- (g) the Contractor's bid dated \_\_\_\_\_ (*insert date of bid*)

## 6.11 Defence Contract

SACC Manual clause [A9006C](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A9006C/5) (2012-07-16), Defence Contract  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A9006C/5>

## 6.12 SACC Manual Clauses

[A2000C](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A2000C/1) (2006-06-16), Foreign Nationals (Canadian Contractor)  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A2000C/1>  
[A2001C](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A2001C/1) (2006-06-16), Foreign Nationals (Foreign Contractor)  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A2001C/1>  
[A9062C](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A9062C/4) (2011-05-16), Canadian Forces Site Regulations  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A9062C/4>  
[B1501C](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/B/B1501C/2) (2018-06-21), Electrical Equipment  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/B/B1501C/2>  
[B9028C](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/B/B9028C/1) (2007-05-25), Access to Facilities and Equipment  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/B/B9028C/1>  
[G1005C](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/G/G1005C/3) (2016-01-28), Insurance, No specific Requirement  
<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/G/G1005C/3>

## 6.13 Dispute Resolution

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.

Solicitation No. - N° de l'invitation  
W1985-213230-A  
Client Ref. No. - N° de réf. du client  
W1985-213230

Amd. No. - N° de la modif.  
File No. - N° du dossier  
MTA-1-44035

Buyer ID - Id de l'acheteur  
MTA555  
CCC No./N° CCC - FMS No./N° VME

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- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

## **ANNEX "A" - REQUIREMENT**

### **1. SCOPE**

#### **1.1. PUROPOSE**

The purpose of this annex is to describe the requirements and the work effort required from the supplier to the 202 Workshop Depot (202WD) maintenance group to provide the necessary equipment and services, such as delivery, installation, commissioning and training, in order to meet the requirements for the purchase of a Metal 3D Printing System for Prototyping and Production.

#### **1.2. WORK GOAL**

The Desktop Metal 3D printing system is required because:

The international standardization bodies ISO and ASTM work in collaboration on the development of standards dedicated to the additive manufacturing (AM) sector thanks to the ISO / TC 261 and ASTM F42 Technical Committees, most of the standards of which are still in the development phase. Currently, there are few standards that deal specifically with the mechanical properties of parts manufactured by A.M. of Metals, creating challenges in providing equal comparisons between machines, materials and models that predict the final properties of the parts. Also, the rapid evolution of A.M. has forced manufacturers to develop their own production and qualification standards and specifications. To achieve this, they thoroughly study the processes within their R&D department, including understanding the risks and limitations and defining operating strategies, sampling methodologies, testing techniques, and operator requirements

Monitoring the quality of a product manufactured by A.M. must be different from that of a product manufactured in a conventional manner. Gradually adding material to build a part means that the properties of the material constituting that part are very dependent on the type of machine and the process parameters. It is not yet possible to accurately predict the final properties of the material without coupling them to a machine and its set of manufacturing parameters. Also, each step of the overall process must therefore be clearly defined: the choice of design, the orientation of the part, the choice of post-processing influence the repeatability during the production of large series of parts.

At the level of the Ministry of National Defense, the 202WD initiative will be used to develop standards and specifications for metal parts manufactured by A.M. for military applications, which do not yet exist. In this matter, the 202WD will acquire different A.M. machines operating under various technologies over the next few years.

The Royal Canadian Navy already uses this precise system at its Installations in Nova Scotia and Ontario. It is required in order to share research and progress concerning the A.M. of metals.

#### **1.3. BACKGROUND**

The 202WD is a Canadian Armed Forces (CAF) repair unit, located in Montreal, Quebec, which provides maintenance services. The unit's duties is to repair and recondition all land equipment and CAF materiel. A detachment from 202WD, called the Land Engineering Support Center (LESC), located in Ottawa, Ontario, specializes in engineering for equipment upgrades. As part of its work, the 202WD is focused on designing, manufacturing and integrating improvements to land equipment in the form of prototypes.

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202WD, located in Montreal, desires to acquire one (1) Metal 3D Printing System for Prototyping and Production.

To meet the growing demand for functional prototypes, the use of a metal 3D Printing System allows to manufacture parts, components and to support production. Manufactured parts can be tested exhaustively. In summary, it helps in engineering design and development.

## **2. APPLICABLE DOCUMENTS**

### **2.1. APPLICABILITY**

The documents listed in section 2.3 establish mandatory standards that apply and form part of the Annex A. The Contractor is responsible for ensuring that he has obtained the most recent versions of each document. The version of the documents below is in effect at the time the execution of the contract becomes effective and forms part of the Annex A. All other reference documents contained elsewhere are to be considered as sources of additional information only.

### **2.2. PRIORITY ORDER**

In the event of a conflict between the content in this Annex A and the reference documents, the content of this Annex A takes precedence.

### **2.3. NATIONAL DEFENCE DOCUMENTS**

The documents below are part of this document to the extent indicated by it. The version of the document which is in effect on the date of the Solicitation will apply unless specified otherwise

D-LM-008-002/SF-001: SPECIFICATION FOR MARKING FOR STORAGE AND SHIPMENT

D-LM-008-036/SF-000: DEPARTMENT OF NATIONAL DEFENCE MINIMUM REQUIREMENTS FOR MANUFACTURER'S STANDARD PACK

Material description and execution requirements:

**SAFETY DEVICES** - The machine and its controls must be equipped with the latest and most effective devices for the protection of the operator and the equipment. The covers, protections and / or other safety devices must not interfere with the operation of the machine.

**INTERCHANGEABILITY** - To allow replacement of worn parts, all parts with the same part number must be functionally interchangeable and must be dimensionally identical within the specified tolerance limits used by the manufacturer

**CONSTRUCTION** - The machine must be constructed in such a way that when installed and connected to the power supply, it must be ready for operation. The machine must be built with new parts without defects and without repairs.

**SURFACES** - All surfaces of casted and forged parts, stampings and welds must be cleaned and free of sand, dirt, sprues, burrs, scale, flux and other noxious or foreign matter. The edges of the outer surface should be either rounded or bevelled, unless sharpening is required to perform a necessary function. Unless otherwise specified, the condition and finish of all surfaces should be in accordance with manufacturer's standard commercial practice.

### 3. MANDATORY REQUIREMENTS

The Contractor must provide one (1) Metal 3D Printing System for Prototyping and Production, referenced as 3D Printing System in this annex, or equivalent that meets all the requirements identified in this Annex A, at 202WD in Montreal, Quebec.

#### 3.1. GENERAL REQUIREMENTS

- 3.1.1 At a minimum, the 3D Printing System must not use lasers in the manufacturing process. Volatile metal powders for raw materials are not acceptable. The 3D Printing System must be from a single manufacturer with no third party equipment or special installations required.
- 3.1.2 The 3D Printing System must be a process in only two steps, printing and then sintering/firing. The 3D Printing System does not need a binder material dissolution tank "Debinder".
- 3.1.3 3D Printing System requirements:
  - 3.1.3.1 Technology
    - 3.1.3.1.1 Printer Technology : Bound Metal Deposition;
    - 3.1.3.1.2 Support Technology: Separable Supports;
    - 3.1.3.1.3 Interface Technology: Ceramic Release Layer.
    -
  - 3.1.3.2 Performance
    - 3.1.3.2.1 Maximum Build rate: > 15 cm<sup>3</sup> / hr;
    - 3.1.3.2.2 Layer Height :
      - Between at least 75 and 125 µm (high resolution print head) Between at least 175 and 275 µm (standard resolution print head)
    - 3.1.3.2.3 Max Build weight: > 6 kg.
    -
  - 3.1.3.3 Physical
    - 3.1.3.3.1 External Dimensions: <100 cm x 100 cm x 60 cm (H x W x D);
    - 3.1.3.3.2 Weight : < 100 kg;
    - 3.1.3.3.3 Build Chamber: Heated;
    - 3.1.3.3.4 Extruder Assembly : Quick-release print heads;
    - 3.1.3.3.5 Extrusion head: 2;
    - 3.1.3.3.6 Build Enveloppe: > 27.5 cm x 17.5 cm x 17.5 cm (H x W x D);
    - 3.1.3.3.7 Build Plate: heated up to 70°C;
    - 3.1.3.3.8 Vacuum build plate;
    - 3.1.3.3.9 Print Sheets: Polypropylene, Peel-Away;
    - 3.1.3.3.10 Build nozzle diameter:
      - <0.30 mm (high resolution print head);
      - <0.50 mm (standard resolution print head).
    - 3.1.3.3.11 Power requirements: 100-130 VCA, 50/60 Hz, 15 A, 1 Phase.
  - 3.1.3.4 Material
    - 3.1.3.4.1 Material Holding: RFID-enable, hot swappable cartridges;
    - 3.1.3.4.2 Material Loading: Push-to-released;

- 3.1.3.4.3 Detect and interrupt printing when material is empty;
- 3.1.3.4.4 Manufacturing support (Build media): Bounded metal rods (metal powder + wax polymer binder);
- 3.1.3.4.5 Interface Material: Bounded ceramic rods.

#### 3.1.3.5 Platform

- 3.1.3.5.1 Network connectivity: Wireless and Ethernet;
- 3.1.3.5.2 Supported file types: STL, IGES, JT, STEP, VDA-FS, U3D, VRML;
- 3.1.3.5.3 Software: Fabricate™ or its fully compatible equivalent;
- 3.1.3.5.4 Onboard control: at least 6-inch Touchscreen display;
- 3.1.3.5.5 Chamber view: In-chamber build plate camera;
- 3.1.3.5.6 Software has to be provided as a local version to be installed and tested on the DND network.

#### 3.1.4 Furnace requirements and specifications:

##### 3.1.4.1 Performance

- 3.1.4.1.1 Atmosphere: Partial-pressure sintering (vacuum enabled);
- 3.1.4.1.2 Heating: SiC heating elements (4 sides);
- 3.1.4.1.3 Max temperature: 1400 °C;
- 3.1.4.1.4 Average heat load: 8100 BTU / hr;
- 3.1.4.1.5 Max heat load: 15 600 BTU / hr for 2 hours;
- 3.1.4.1.6 Thermal uniformity: ±5 °C at sintering temperatures;
- 3.1.4.1.7 Function allowing to eliminate the need of a binder material dissolution tank "Debinder" by performing this directly into the oven.

##### 3.1.4.2 Physical

- 3.1.4.2.1 External dimensions: <165 cm x 140 cm x 80 cm (H x L x P);
- 3.1.4.2.2 Height : <165 cm (closed), <225 cm (open);
- 3.1.4.2.3 Weight: <800 kg;
- 3.1.4.2.4 Workload envelope: 30 cm x 20 cm x 20 cm;
- 3.1.4.2.5 Work Support: Adjustable multi-level trays with ceramic setters;
- 3.1.4.2.6 Retort: Graphite ring stacking;
- 3.1.4.2.7 Ventilation: Effluent air exhaust; Liquid drain line (1/2 inch Push-to-connect);
- 3.1.4.2.8 Binder management: Removable liner for cold recovery;
- 3.1.4.2.9 Manipulation: Safe for fingers around pinch points;
- 3.1.4.2.10 Fail safes: Thermal interlocks, Front-mounted emergency stop and Overheating protection;
- 3.1.4.2.11 Onboard control: At least 7 inches Touchscreen display;
- 3.1.4.2.12 Mobility: Swivel casters with adjustable levelling locks;
- 3.1.4.2.13 Power requirements: 208 VCA, 50/60 Hz, 30 A, 3 phases. Must include 600V transformer.

##### 3.1.4.3 Gas

- 3.1.4.3.1 Manufacturing (Forming) gaz: Argon or Nitrogen (depends on the material);
- 3.1.4.3.2 Gas connectivity: 900L onboard tank (canister) (x2), External gas connections.

- 3.1.4.4 Platform
  - 3.1.4.4.1 Network connectivity: Wireless and Ethernet;
  - 3.1.4.4.2 Software: Fabricate™ of its fully compatible equivalent;
  - 3.1.4.4.3 Automation: Automatic 2D nesting with part placement instructions.

### 3.1.5 Printing material requirements for additive manufacturing

- 3.1.5.1 Performance
  - 3.1.5.1.1 Packaging: Suitable for hot-swappable media cartridges;
  - 3.1.5.1.2 Stainless Steel: 17-4 PH grade; 316L grade;
  - 3.1.5.1.3 Carbon steel: H13 tool steel; AISI 4140;
  - 3.1.5.1.4 Other metals: Copper.

### 3.1.6 Software requirements

- 3.1.6.1 Fabricate™ or its compatible equivalent, simplifies model preparation and automates metal 3D printing;
- 3.1.6.2 Live Parts™ or its compatible equivalent, applies morphogenetic principles and an advanced simulation to generate an optimized conception of parts in minutes;
- 3.1.6.3 Fab Flow™ or its compatible equivalent for busy manufacturing workshops, combines communications and workflow management into a single platform;
- 3.1.6.4 Allows parts to be printed from .stl and .ipt format;
- 3.1.6.5 Includes, at least, a 3-years license for unlimited users;
- 3.1.6.6 The 202WD will provide the computer to run the software provided by the Vendor. The Vendor must present the minimum specifications required in order to run their software and identify if any additional material or software is required.

### 3.1.7 Accessories / Starting set

- 3.1.7.1 Three (3) rechargeable metallic material cartridges;
- 3.1.7.2 One thousand six hundred and twenty (1 620) cc of 17-4 material;
- 3.1.7.3 One thousand six hundred and twenty (1 620) cc of 316L material;
- 3.1.7.4 One thousand six hundred and twenty (1 620) cc of 4140 material;
- 3.1.7.5 One thousand six hundred and twenty (1 620) cc of H13 material;
- 3.1.7.6 Five (5) High-resolution print head;
- 3.1.7.7 Ten (10) nozzle brush;
- 3.1.7.8 Ten (10) rechargeable interface material cartridge;
- 3.1.7.9 One (1) volume of interface material to be able to fill 4 cartridges;
- 3.1.7.10 One Hundred (100) printing sheet;
- 3.1.7.11 Twenty-four (24) Binder trap liner;
- 3.1.7.12 Two (2) chamber O-ring;
- 3.1.7.13 One (1) discharge pump filter;
- 3.1.7.14 One liter (1 L) pump oil;
- 3.1.7.15 Thirty-two (32) setter plate;
- 3.1.7.16 Four (4) furnace part tray;
- 3.1.7.17 One (1) build material feed tray;
- 3.1.7.18 Four (4) interface material feed tray;
- 3.1.7.19 Nine hundred liters (900 L) of furnace Inert gas;
- 3.1.7.20 Forty (40) Sintering getter.

- 
- 3.1.8 The 3D Printing System cannot be a prototype or an existing model requiring major modifications in order to comply with the requirements stated in this Annex A. The equipment must meet all the criteria and must use a technology proven within the manufacturer.
- 3.1.9 The 3D Printing System must be turn-key, including all parts, software and accessories needed for the proper operation of the equipment.
- 3.1.10 The Contractor must provide an after-sale service for a minimum duration of 2 years according to the following characteristics:
- Contract type : By phone and by email for technical questions and in person for any repair and/or maintenance;
  - Expected response time for regular request: 24 hours; Urgent request: 4 hours;
  - Service type: Advice, Inform, Repair.
- 3.1.11 The 3D Printing System must comply with CSA Z107.58-15 and CSA Z432-21 standards or equivalent.
- 3.1.12 The operation noise level must not exceed 80 dB (A).
- 3.1.13 The 3D Printing System must be compatible with 100-130 VAC, 50/60 Hz, 1 phase, 15 A and, for the oven with a power supply of 600V three-phase at 60Hz (connected to the infrastructure). If the 3D Printing System requires a different power supply, a transformer must be provided in order to connect the machine to the infrastructure. All electrical components must be approved by CSA for installation and use in Canada.

#### **4 DELIVERABLES (FOR THE 3D PRINTING SYSTEM OF FAIR CONTRACT AND OPTIONNAL SYSTEMS)**

The Contractor will have to attend a Kick-off meeting, via a Zoom conference, before the manufacturing / delivery of the equipment to ensure that the chosen installation location is compatible with the future installation of the equipment and to identify any additional requirements.

##### **4.1 FIRM CONTRACT**

One (1) 3D Printing System, all of its components and accessories, delivery, installation and training at 202WD in Montreal, Quebec.

##### **4.2 OPTIONS**

- 4.2.1 One (1) 3D Printing System, all of its components and accessories, delivery, installation and training at LESC in Ottawa, Ontario;
- 4.2.2 One (1) additional 3D Printing System, all of its components and accessories, delivery, installation and training at 202WD in Montreal, Quebec.

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### 4.3 DOCUMENTS

- 4.3.1 All information that the Contractor must provide in connection with the deliverable must be provided in English and, if possible, in French;
- 4.3.2 The Contractor must provide all documents electronically, including receipts, instructions and operation manuals, maintenance plan, training, parts list and all other relevant documentation within 30 working days following the award of contract.
- 4.3.3 The Contractor agrees to provide, within 30 working days of contract award, all technical documentation for all infrastructure resources required for the operation and installation of the equipment. These technical documents must mention the types of power supply resources as well as the values in metric or imperial units. The set of installation drawings for the 3D Printing System described in this Annex A must include all floor mounting pedestal recommendations, description of the anchor holes and their locations, if necessary, as well as any requirements of the machine: electricity, compressed air, water, etc.
- 4.3.4 The Contractor must provide to the Technical Authority (TA) the following manuals:
- Operator's manual;
  - Installation manual;
  - Parts manual;
  - Maintenance manual;
  - Electrical circuits schematics;
  - Calibration, Tests and Tolerancing documentations.
- 4.3.5 The Contractor must provide at least two (2) hard copies and one (1) electronic copy in PDF format, the text of which is searchable. These copies must be provided for each document.
- 4.3.6 The Contractor must provide an authorization letter that allows the reprints of manuals or section of manuals from electronically submitted copies. The authorization letter must be delivered in person or mailed to the TA of 202WD or its designated representative. The signed contract associated with this Annex A serves as a reprint acceptance.
- 4.3.7 The Contractor must provide an installation plan for the equipment and all its components, based on the layout plan provided by the 202 WD in DWG version (compatible with AutoCAD version 2014 or later). The installation plans must meet the following conditions:
- The drawing of the equipment according to the actual dimensions of all its components
  - All equipment must be contained and shown in the plan
  - The plan must include at least the overall dimensions of equipment and its components.
- 4.3.8 All document deliverable must be sent electronically in a format that is compatible with the Microsoft office suite, or in a format that is acceptable to the TA.
- 4.3.9 The Contractor must provide delivery reports to the TA which describes when the equipment will be received by the Contractor and when it will be shipped to the 202WD.

#### 4.4 WARRANTY

Each 3D Printing System must be guaranteed for a minimum period of two (2) years. The Contractor will be responsible for providing labor, parts and on-site service at their own expense during the warranty period and must repair all defects within fifteen (15) working days of being notified by the TA or his designated representative that the equipment is defective. All other warranties greater than that specified in this Annex A will be considered valid.

#### 4.5 SOFTWARE

Each 3D Printing System must have all updates included, on all its software, for a minimum period of three (3) years.

#### 4.6 DELIVERY

The reception must be done using a forklift. Delivery sites have an unloading dock.

#### 4.7 INSTALLATION AND COMMISSIONING

- 4.7.1 The 202WD requires a turn-key installation. All work must be carried out during the normal work week (Monday to Friday) and during business hours (7:00 a.m. to 3:00 p.m.).
- 4.7.2 The Contractor must provide all personnel, materials, equipment, software and accessories needed for installation, verification, calibration and commissioning of the equipment on site. The Contractor must bring to the site all materials and tools necessary for the installation, commissioning and training.
  - All supplied personnel should be considered qualified by the Contractor to direct the delivery, installation, commissioning and training.
  - The installation and commissioning must be done upon delivery of the equipment, or **not later than 30** calendar days after delivery of the equipment.

#### 4.8 TRAINING

- 4.8.1 The operator's training will take place where the equipment's have been delivered. The training must have minimum duration of 16 hours. Depending on the required time, less than 16 hours may be used at the discretion of the 202WD. It must be given in English or if possible in French. The contractor will be paid for the hours he has reasonably and properly performed.
- 4.8.2 The operator's training will cover safety, introduction to the 3D Printing System, operating the 3D Printing System, use of the control console, use of the software's and preventive maintenance operations. The minimal duration is the ensure that the training cover adequately the material. At least eight (8) operators must be able to attend the training. The training must be carried out by a trained technician or a Contractor's technical service representative.
- 4.8.3 The training must also include a minimum period of four (4) hours where operators will be able to test the 3D Printing System at their discretion in order to assess the capabilities of the 3D Printer System and practice the elements presented during training. All documentation used during training (videos, PowerPoints, etc.) must be submitted electronically to the TA.

- 4.8.4 The training must be given upon delivery and/or installation or not later than 30 calendar days after delivery of the equipment.

#### **4.9 MINISTRY OF NATIONAL DEFENCE RESPONSIBILITIES**

The installation area will be free of all non-essential material. The installation of plumbing, ventilation and electrical connections required as needed for the equipment is assumed by the 202WD. The 202WD will provide the labor, forklift operator and forklift to lift the machine from the delivery vehicle and move it to its final location inside the building. The 3D Printing System must be delivered to the site in one shipment ready for installation. The 202WD may choose to provide observers to monitor the assembly of the system. Any new material should not be brought to the site until the day of installation. The 202WD will not be responsible for the storage or loading / unloading of the Contractor's material before this date.

#### **4.10 ADRESSES FOR DELIVERY**

All deliverables must be shipped to the following adress:

Firm Contract :  
202 Workshops Depot  
6769 Notre Dame Est, building 10 South  
Montreal, Quebec, Canada  
H1N 1X9

Option Contract :  
202 Workshops Depot  
6769 Notre Dame Est, building 10 South  
Montreal, Quebec, Canada  
H1N 1X9

AND / OR

Land Engineering Support Center (LESC)  
CFB Uplands, Building 55  
720 Bluenose Pvt  
Gloucester, ON (Ottawa)  
K1V 7M9

#### **4.11 CONTRACTOR'S CONSIDERATION**

During a visit to the installation site, the Contractor must inform the TA at least 15 working days prior to the visit with the name of the personnel that will be present to obtain the necessary authorizations. In addition, the Contractor must have previously obtained security clearances for all employees that will work on the Garrison.

**ANNEX "B" – BASIS OF PAYMENT**

**Table 1 – Firm Contract**

Item	Description In accordance with Annex A	Quantity	Unit	*Firm Unit Price	Total Price
1	Prototyping and Production 3D Printer System Including but not limited to: - Software - Technical Documentation - Various Manuals - Kick-off meeting (zoom) - Accessories  <b>Brand : _____</b> <b>Model : _____</b>	1	Lot	\$ _____	\$ _____
2	Installation and commissioning including all travel expenses.	1	Lot	\$ _____	\$ _____
3	On-site training for sixteen (16) hours including all travel expenses. <i>The contractor will be paid for the hours he has reasonably and properly performed.</i>	16	Hour	\$ _____	\$ _____
4	Warranty and after-sales service for a 2 years period.	1	Lot	\$ _____	\$ _____
5	Delivery including preparation, loading-unloading fees, packaging and all other fees.  to 202 <sup>e</sup> Dépôt d'Atelier Montreal, Qc, H1N 1X9	1	Lot	\$ _____	\$ _____
Bid Evaluation Price for Table 1 (excluding applicable taxes)					\$ _____

\*Currency (if other than CAD\$): \_\_\_\_\_

\* Custom Duties included

See table 2 on the next page

**Table 2 – Optional Goods** (will be applicable if Canada applies the option #1 and/or #2 and will be evidenced through a contract amendment by the Contracting Authority only).

Item	Description In accordance with Annex A	Option	Quantity	Unit	*Firm Unit Price	Total Price
1	Prototyping and Production 3D Printer System Including but not limited to: - Software - Technical Documentation - Various Manuals - Kick-off meeting (zoom) - Accessories  <b>Brand :</b> _____ <b>Model :</b> _____	OPTION #1 202° Dépôt d'Atelier, Montréal, Québec	1	Lot	\$ _____	\$ _____
		OPTION #2 Land Engineering Support Centre (LESC) Gloucester, Ontario	1	Lot	\$ _____	\$ _____
2	Installation and commissioning including all travel expenses.	OPTION #1 202° Dépôt d'Atelier, Montréal, Québec	1	Lot	\$ _____	\$ _____
		OPTION #2 Land Engineering Support Centre (LESC) Gloucester, Ontario	1	Lot	\$ _____	\$ _____
3	On-site training for sixteen (16) hours including all travel expenses. <i>The contractor will be paid for the hours he            has reasonably and properly performed.</i>	OPTION #1 202° Dépôt d'Atelier, Montréal, Québec	16	Hour	\$ _____	\$ _____
		OPTION #2 Land Engineering Support Centre (LESC) Gloucester, Ontario	16	Hour	\$ _____	\$ _____
4	Warranty and after-sales service for a 2 years period.	OPTION #1 202° Dépôt d'Atelier, Montréal, Québec	1	Lot	\$ _____	\$ _____
		OPTION #2 Land Engineering Support Centre (LESC) Gloucester, Ontario	1	Lot	\$ _____	\$ _____
5	Delivery including preparation, loading-unloading fees, packaging and all other fees.	OPTION #1 202° Dépôt d'Atelier, Montréal, Québec	1	Lot	\$ _____	\$ _____
		OPTION #2 Land Engineering Support Centre (LESC) Gloucester, Ontario	1	Lot	\$ _____	\$ _____
Bid Evaluation Price for Table 2 (excluding applicable taxes)						\$ _____

<i>Total Bid Evaluation Price Table 1 + Table 2 (excluding applicable taxes)</i>	\$ _____
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\*Currency (if other than CAD\$): \_\_\_\_\_  
\* Custom duties included

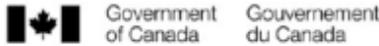
**ANNEX "C" – MANDATORY TECHNICAL CRITERIA THAT MUST BE DEMONSTRATED**

<b>MTC No</b>	<b>Mandatory Technical Criteria</b>  (reference to Annex A)	<b>Reference:</b>  Should specify where these technical criteria are demonstrated within your technical bid (Page #, section # or title and/or document's title).
<b>MTC 1</b>	The Bidder must provide details of two (2) contracts of similar scope * over the past four (4) years.  By "similar scope" is meant a contract for the acquisition of a 3D printing system for a minimum value of \$ 250,000.	
<b>MTC 2</b>	Criterion 3.1.1: At a minimum, the 3D Printing System must not use lasers in the manufacturing process. Volatile metal powders for raw materials are not acceptable. The 3D Printing System must be from a single manufacturer with no third party equipment or special installations required.	
<b>MTC 3</b>	Criterion 3.1.2: The 3D Printing System must be a process in only two steps, printing and then sintering. The 3D Printing System does not need a binder material dissolution tank "Debinder"	
<b>MTC 4</b>	Criterion 3.1.3.1.1 : Printer Technology : Bound Metal Deposition	
<b>MTC 5</b>	Criterion 3.1.3.1.2 : Support Technology: Separable Supports	
<b>MTC 6</b>	Criterion 3.1.3.2.1 : Maximum Build rate: > 15 cm <sup>3</sup> / hr.	
<b>MTC 7</b>	Criterion 3.1.3.2.2: Layer Height: Between at least 75 and 125 µm (high resolution print head) Between at least 175 and 275 µm (standard resolution print head)	
<b>MTC 8</b>	Criterion 3.1.3.3.3 : Build Chamber: Heated	
<b>MTC 9</b>	Criterion 3.1.3.3.5 : Extrusion head: 2	
<b>MTC 10</b>	Criterion 3.1.3.3.6 : Build Enveloppe: > 27.5 cm x 17.5 cm x 17.5 cm (H x W x D)	
<b>MTC 11</b>	Criterion 3.1.3.4.3 : Detect and interrupt printing when material is empty	

<b>MTC 12</b>	Criterion 3.1.3.4.4 : Manufacturing support (Build media): Bounded metal rods (metal powder + wax polymer binder)	
<b>MTC 13</b>	Criterion 3.1.3.5.3 : Software Fabricate™ or its fully compatible equivalent	
<b>MTC 14</b>	Criterion 3.1.4.1.1 : Atmosphere: Partial-pressure sintering (vacuum enabled)	
<b>MTC 15</b>	Criterion 3.1.4.1.3 : Max temperature: 1400 °C	
<b>MTC 16</b>	Criterion 3.1.4.1.6 : Thermal uniformity: ±5 °C at sintering temperatures	
<b>MTC 17</b>	Criterion 3.1.4.2.4 : Workload envelope « for sintering »: 30 cm x 20 cm x 20 cm	
<b>MTC 18</b>	Criterion 3.1.4.2.7 : Ventilation: Effluent air exhaust; Liquid drain line (1/2 inch Push-to-connect)	
<b>MTC 19</b>	Criterion 3.1.4.3.2 : Gas connectivity: 900L onboard tank (canister) (x2), External gas connections	
<b>MTC 20</b>	Criterion 3.1.5.1 Performance 3.1.5.1.1: Packaging: Suitable for hot-swappable media cartridges 3.1.5.1.2: Stainless Steel: 17-4 PH grade; 316L grade 3.1.5.1.3: Carbon steel: H13 tool steel; AISI 4140 3.1.5.1.4 : Other metals: Copper	

**ANNEX "D" – SECURITY REQUIREMENTS CHECK LIST**

 Government of Canada / Gouvernement du Canada	Contract number / Numéro du contrat <b>W1985-213230</b>	Security Classification / Classification de sécurité <b>UNCLASSIFIED</b>
<b>SECURITY REQUIREMENTS CHECK LIST (SRCL)</b> <b>LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)</b>		
<b>PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE</b>		
1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine		2. Branch or Directorate / Direction générale ou Direction
DÉFENSE NATIONALE		DGLPEM / SMA (MAT) / 202 DA
3. a) Subcontract Number / Numéro du contrat de sous-traitance	3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	
4. Brief Description of Work / Brève description du travail		
Acquisition d'un système d'impression 3D de métaux pour prototypage		
5. a) Will the supplier require access to Controlled Goods? / Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? / Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? / Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) / (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. / Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.		<input type="checkbox"/> No / Non <input checked="" type="checkbox"/> Yes / Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? / S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès		
Canada <input type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>
7. b) Release restrictions / Restrictions relatives à la diffusion		
No release restrictions / Aucune restriction relative à la diffusion <input type="checkbox"/>	All NATO countries / Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions / Aucune restriction relative à la diffusion <input type="checkbox"/>
Not releasable / À ne pas diffuser <input type="checkbox"/>		
Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:	Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:	Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:
7. c) Level of information / Niveau d'information		
PROTECTED A / PROTÉGÉ A <input type="checkbox"/>	NATO UNCLASSIFIED / NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A / PROTÉGÉ A <input type="checkbox"/>
PROTECTED B / PROTÉGÉ B <input type="checkbox"/>	NATO RESTRICTED / NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B / PROTÉGÉ B <input type="checkbox"/>
PROTECTED C / PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL / NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C / PROTÉGÉ C <input type="checkbox"/>
CONFIDENTIAL / CONFIDENTIEL <input type="checkbox"/>	NATO SECRET / NATO SECRET <input type="checkbox"/>	CONFIDENTIAL / CONFIDENTIEL <input type="checkbox"/>
SECRET / SECRET <input type="checkbox"/>	COSMIC TOP SECRET / COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET / SECRET <input type="checkbox"/>
TOP SECRET / TRÈS SECRET <input type="checkbox"/>		TOP SECRET / TRÈS SECRET <input type="checkbox"/>
TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) <input type="checkbox"/>



Contract Number / Numéro du contrat W1985-213230
Security Classification / Classification de sécurité UNCLASSIFIED

**PART A (continued) / PARTIE A (suite)**

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui  
If Yes, indicate the level of sensitivity:  
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate?  No / Non  Yes / Oui  
Short Title(s) of material / Titre(s) abrégé(s) du matériel :  
Document Number / Numéro du document :

**PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)**

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

<input checked="" type="checkbox"/> RELIABILITY STATUS COTE DE FIABILITÉ	<input type="checkbox"/> CONFIDENTIAL CONFIDENTIEL	<input type="checkbox"/> SECRET SECRET	<input type="checkbox"/> TOP SECRET TRÈS SECRET
<input type="checkbox"/> TOP SECRET-SIGINT TRÈS SECRET - SIGINT	<input type="checkbox"/> NATO CONFIDENTIAL NATO CONFIDENTIEL	<input type="checkbox"/> NATO SECRET NATO SECRET	<input type="checkbox"/> COSMIC TOP SECRET COSMIC TRÈS SECRET
<input type="checkbox"/> SITE ACCESS ACCÈS AUX EMPLACEMENTS			

Special comments:  
Commentaires spéciaux : \_\_\_\_\_

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.  
REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?  
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail?  No / Non  Yes / Oui  
If Yes, will unscreened personnel be escorted?  
Dans l'affirmative, le personnel en question sera-t-il escorté?  No / Non  Yes / Oui

**PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)**

**INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS**

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?  
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?  
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC?  No / Non  Yes / Oui

**PRODUCTION**

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?  
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ?  No / Non  Yes / Oui

**INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)**

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?  
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?  
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale?  No / Non  Yes / Oui



Contract Number / Numéro du contrat W1985-213230
Security Classification / Classification de sécurité UNCLASSIFIED

**PART C - (continued) / PARTIE C - (suite)**

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.  
Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.  
Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

**SUMMARY CHART / TABLEAU RÉCAPITULATIF**

Category Catégorie	PROTECTED PROTÉGÉ			CLASSIFIED CLASSIFIÉ			NATO				COMSEC						
	A	B	C	CONFIDENTIAL CONFIDENTIEL	SECRET	TOP SECRET TRÈS SECRET	NATO RESTRICTED NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET COSMIC TRÈS SECRET	PROTECTED PROTÉGÉ			CONFIDENTIAL	SECRET	TOP SECRET TRÈS SECRET	
											A	B	C				
Information / Assets Renseignements / Biens																	
Production																	
IT Media / Support TI																	
IT Link / Lien électronique																	

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?  
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?  No / Non  Yes / Oui

**If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".**  
**Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.**

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?  
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?  No / Non  Yes / Oui

**If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).**  
**Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquez qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).**