

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
**Bid Receiving - PWGSC / Réception des  
soumissions - TPSGC**  
**11 Laurier St./ 11 rue, Laurier**  
**Place du Portage, Phase III**  
**Core 0A1 / Noyau 0A1**  
**Gatineau, Québec K1A 0S5**  
**Bid Fax: (819) 997-9776**

**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> UNCOOLED THERMAL CAMERA SYSTEM	
<b>Solicitation No. - N° de l'invitation</b> 47064-147625/A	<b>Date</b> 2013-11-29
<b>Client Reference No. - N° de référence du client</b> 1000317625	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$PV-924-64021	
<b>File No. - N° de dossier</b> pv924.47064-147625	<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> <b>on - le 2014-01-14</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Standard Time EST	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Caron, Anne	<b>Buyer Id - Id de l'acheteur</b> pv924
<b>Telephone No. - N° de téléphone</b> (819) 956-3874 ( )	<b>FAX No. - N° de FAX</b> (819) 956-3814
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> CANADA BORDER SERVICES AGENCY 79 BENTLEY AVE SCIENCE AND ENGINEERING OTTAWA Ontario K2E 6T7 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**  
Scientific, Medical and Photographic Division / Division de l'équipement scientifique, des produits photographiques et pharmaceutiques  
11 Laurier St./ 11 rue, Laurier  
6B1, Place du Portage  
Gatineau, Québec K1A 0S5

<b>Delivery Required - Livraison exigée</b> See Herein	<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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## **PART 1 - GENERAL INFORMATION**

### **1. Security Requirement**

There is no security requirement associated with this bid solicitation.

### **2. Requirement**

The requirement is detailed under Article 2.1 of the resulting contract clauses.

#### **2.1 Delivery Requirement**

Delivery must be completed by March 31, 2014.

### **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 of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## **PART 2 - BIDDER INSTRUCTIONS**

### **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 (2013-06-01) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: sixty (60) days

Insert: ninety (90) days

#### **1.1 SACC Manual Clauses**

B1000T (2007-11-30), Condition of Material

### **2. Submission of Bids**

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

### 3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) 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 questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

### 4. Applicable Laws

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

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.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

- Section I: Technical Bid (3 hard copies and 3 soft copies on CD.)
- Section II: Financial Bid (1 hard copy and 1 soft copy on CD.)
- Section III: Certifications (1 hard copy)
- Section VI: Additional Information (3 hard copies and 3 soft copies on CD)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

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

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-on-Green-Procurement) ([http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-on-Green-Procurement)

procurement/politique-policy-eng.html). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

**Section I: Technical Bid**

In their technical bid, bidders must 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. The total amount of Applicable Taxes must be shown separately.

**1.1 Prices - Items**

Bidders must submit firm prices for system as detailed in Annex "B". Failure to do so will render a bidder non-compliant and no further consideration will be given to bid.

**1.2 Exchange Rate Fluctuation**

C3011T (2010-01-11), Exchange Rate Fluctuation

**Section III: Certifications**

Bidders must submit the certifications required under Part 5.

**Section IV: Additional Information**

**1.1 Product(s) Offered**

The Bidder must indicate the make and model number of the products offered (identify specific components which make up the system - Bidder must ensure that cameras are all from same manufacturer):

Name of Manufacturer: \_\_\_\_\_

Model/Part Number: \_\_\_\_\_

**1.2 Delivery**

Deliveries must be completed by March 31, 2014. The best delivery that could be offered by the Bidder is \_\_\_\_\_.

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### 1.3 Contractor's Representative

The telephone number of the person responsible for:

General Enquiries

Name: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Facsimile No.: \_\_\_\_\_

eMail address: \_\_\_\_\_

Delivery & Follow-Up

Name: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Facsimile No.: \_\_\_\_\_

eMail address: \_\_\_\_\_

### 1.4 Service

Purchase of the system must include: regional technical support; technical phone support; support via the Internet; and support via a fax-back document system.

Response for service must be within 24 hours or less.

Also, provide the following with your bid:

- a) Location of available service facilities (after sales service and repair). List the service facilities closest to the destination.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- b) Locations of available replacement parts from consumables to major components.

\_\_\_\_\_  
\_\_\_\_\_

- c) Response time in regards to service calls, and escalation schedule, i.e. (how many days with no resolution to a problem until a more experienced person is called in, and from which location).

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- d) List the frequency of routine maintenance visits provided by a qualified service technician during the warranty period, if applicable and included in the price.

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

##### **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.

##### **1.1 Technical Evaluation**

All proposals submitted must be completed in full and provide all of the information requested in the Request for Proposal (RFP) package to enable a full and complete evaluation. The onus is on the bidder to provide all the information necessary to ensure a complete and accurate assessment.

##### **1.1.1 Mandatory Technical Criteria**

See Annex "A"

The Bidder must provide, with their technical bid, technical literature/brochures, operating manuals, written documentation, etc. to demonstrate compliance with each area of the criteria listed in Annex "A". Failure to provide the technical literature or failure to demonstrate compliance with any area of the criteria will in the Bid being deemed non-compliant.

##### **1.2 Financial Evaluation**

1. The price of the bid will be evaluated as follows:
  - a) bidders must submit firm prices, Canadian customs duties and excise taxes included, and Applicable Taxes excluded.
  - b) 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.
2. Prices will be evaluated on a FOB Destination.
3. For the purpose of the bid solicitation, bidders with an address in Canada are considered Canadian-based bidders and bidders with an address outside of Canada are considered foreign-based bidders.
4. Prices will be evaluated based on bid price (detailed in Annex "B").

## **2. Basis of Selection**

### **2.1 Mandatory Technical Criteria**

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 will be recommended for award of a contract.

## **PART 5 - CERTIFICATIONS**

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

The certifications provided by bidders to Canada are subject to verification by Canada at all times. 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 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 with this request will also render the bid non-responsive or will constitute a default under the Contract.

### **1. Mandatory Certifications Required Precedent to Contract Award**

#### **1.1 Code of Conduct and Certifications - Related documentation**

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions 2003. The related documentation therein required will assist Canada in confirming that the certifications are true.

#### **1.2 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](http://www.labour.gc.ca/eng/standards_equality/eq/emp/fcp/list/inelig.shtml)" list ([http://www.labour.gc.ca/eng/standards\\_equality/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equality/eq/emp/fcp/list/inelig.shtml)) available from [Human Resources and Skills Development Canada \(HRSDC\) - Labour's](#) website.

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.

## **PART 6 - RESULTING CONTRACT CLAUSES**

### **1. Security Requirement**

There is no security requirement applicable to this Contract.

### **2. Requirement**

#### **2.1 Requirement**

The Canada Border Services Agency (CBSA) has a requirement for the supply and delivery an Uncooled Thermal Camera System as a whole. The system must include a low resolution subsystem and a high resolution subsystem. Both subsystems must include single fixed cameras and dual pan-tilt cameras. The two subsystems must be interconnected through a Video Analytics processing unit that will process and record the images from the four thermal cameras.

The Contractor must provide the system in accordance with the Mandatory Specifications detailed in Annex "A".

#### **2.2 Manuals**

The Contractor must provide one (1) the installation guide, the system documentation, the system structure and the setup information.

The user documentation must clearly define the procedures for all processes. CBSA must be granted the permission to copy and distribute all documentation without restriction within CBSA.

#### **2.3 Service**

Purchase of the system must include: local on-site service; technical phone support; support via the Internet; and support via a fax-back document system.

Response for service must be within 24 hours or less.

### **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.

#### **3.1 General Conditions**

2010A (2013-04-25), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

Subsection 9 of 2010A General Conditions - Goods or Services, is amended as follows:

Delete: Subsection 9 in its entirety.

Insert: "The Work is subject to inspection and acceptance by Canada. Despite prior acceptance of the Work and without restricting any conditions or warranty imposed by law, the Contractor, if requested by the Minister to do so, must replace, repair or correct at its option and its own expense any Work which becomes defective or which fails to conform to the Contract

requirements, where applicable. For goods, **the on-site warranty period will be Thirty-six (36) months after delivery and acceptance or the length of the Contractor's or manufacturer's standard warranty period, whichever is longer.** The on-site warranty covers parts, labour and all related expenses. Any Work replaced, repaired or corrected pursuant to this section is subject to all provisions of the contract to the same extent as Work initially performed."

#### **4. Term of Contract**

##### **4.1 Delivery Date**

All the deliverables must be received on or before (*insert the date*).

The Contractor must arrange with the CBSA a mutually acceptable date and time for the delivery.

#### **5. Authorities**

##### **5.1 Contracting Authority**

Anne Caron  
Public Works and Government Services Canada  
Acquisitions Branch  
Commercial Consumer Products Directorate  
11 Laurier Street, 6A2, Phase III  
Place du Portage, Hull, Quebec, K1A 0S5  
Telephone: (819) 956-3874  
Facsimile: (819) 956-3814  
E-mail address: [anne.caron@tpsgc-pwgsc.gc.ca](mailto:anne.caron@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.

##### **5.2 Technical Authority**

The Technical Authority for the Contract is: (*will be inserted at contract*)

The Technical Authority named above 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 Technical Authority, however the Technical 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.

##### **5.3 Contractor's Representative**

The telephone number of the person responsible for: (*will be inserted at contract*)

## **6. Payment**

### **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 as specified in Annex "B" for a cost of \$ (*will be inserted at contract*). Customs duties are included 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

### **6.2 Single Payment**

*SACC Manual* clause H1000C (2008-05-12) Single Payment

## **7. Invoicing Instructions**

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.

Invoices must be distributed as follows:

- a. The original and one (1) copy must be forwarded to the following address for certification and payment.
- b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

## **8. Certifications**

### **8.1 Compliance**

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

## **9. Applicable Laws**

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

## 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 general conditions 2010A (2013-04-25);
- (c) Annex A, Mandatory Specifications;
- (d) Annex B, Basis of payment
- (e) the Contractor's bid dated (*insert date of bid*)

## 11. SACC Manual Clauses

SACC Manual clause B1501C (2006-06-16) Electrical Equipment  
SACC Manual clause G1005C (2008-05-12) Insurance  
SACC Manual clause B7500C (2006-06-16), Excess Goods

## 12. Shipping Instructions FOB Destination

Goods must be consigned and delivered to the destination specified in the contract:

FOB Destination as detailed in Annex "B" including all delivery charges and customs duties and taxes.

**ANNEX A****SPECIFICATIONS FOR THE UNCOOLED THERMAL CAMERA SYSTEM**

The supplied equipment and services must meet or better all of the requirements defined below. The supplied equipment is to be new, not used or refurbished - Bidder must ensure that cameras are all from same manufacturer. Systems not meeting all the following Mandatory Requirements will be considered non-compliant.

Bidder **must provide** with their proposal technical literature/brochures, operating manuals, written documentation (such as a description of system components and capabilities) etc to demonstrate compliance with each area of the criteria stated below at time of bid closing. *Please note that compliance must be demonstrated (by submission of supporting documentation such as technical literature/brochures, operating manuals, written statement describing how requirement is met etc) and that if the bidder only states "comply" without any further detail, this is not considered as a demonstration compliance.*

Proposal evaluation will be based upon the information supplied with the bid only. Failure to demonstrate compliance with any area of the criteria will render your proposal non-responsive and no further consideration will be given. References are to be specific to supporting documentation (ex. document title, page and paragraph number).

**Summary Description of the Thermal System:**

Sub-Systems	Name	Components	Minimum Resolution	Angle
Low Resolution (Section 2)	Single fixed low Resolution thermal camera	One Low Resolution Thermal camera (Table 1, 3)	320 x 240	60 to 70 degrees of Field of View
	Dual Pan camera system	One Dual Pan Tilt Mechanism (Table 4)	NA	NA
		One Low Resolution Thermal camera (Table 1, 5)	320 x 240	40 to 50 degrees of Horizontal Field of View
		One Visible light color camera (Table 2, 6)	640 x 480	Zoom 3.5 to 120 mm
High Resolution (Section 3)	Single fixed high Resolution thermal camera	One High Resolution Thermal camera (Table 1, 7)	640 x 480	90 to 100 degrees of Horizontal Field of View
	Dual Pan Tilt camera system	One Dual Pan Tilt Mechanism (Table 8)	NA	NA
		One High Resolution Thermal camera (Table 1, 9)	640 x 480	15 to 20 degrees of Horizontal Field of View
		One Visible light color camera (Table 2, 10)	640 x 480	Zoom 3.5 to 120 mm
Video Analytic		The hardware and software which is	NA	NA

System (Section 4)		able to process and record the images from the four thermal cameras (Table 11)		
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## 1. General Requirements for Cameras

**Table 1 – High and Low Resolution Thermal cameras**

<b>MANDATORY SPECIFICATION - DESCRIPTION</b>	<b>Reference to bid document (document name, page, and paragraph number)</b>
<p>1. <b>Open Architecture</b></p> <p>1.1. Must be an IP camera</p> <p>1.2. Camera must provide an API for system integration</p> <p>1.3. Must have direct access to video stream using a URL</p> <p>1.4. Must have SDK to control, and change camera settings remotely. The following settings must be adjustable remotely: Resolution, Video Compression, Network settings.</p> <p>1.5. The cameras must be Onvif compliant</p>	
<p>2. <b>Video</b> - Camera must support the following video settings</p> <p>2.1. Multiple compression formats including but not limited to MJPG and H.264</p> <p>2.2. Resolution, and frame rate must be controllable for each stream, and camera must support simultaneous streaming of different formats</p>	
<p>3. <b>Detector type</b> - The detector must be an Long Wave Infrared (LWIR) Uncooled thermal detector type</p>	
<p>4. <b>Detector protection</b> - The detector must not be damaged when exposed directly to the sun</p>	
<p>5. <b>Sensitivity</b> - The thermal image sensor must provide high sensibility imaging and must able to detect small object temperature. The Noise Equivalent Temperature Difference (NETD) must be less or equal than 75 mK</p>	
<p>6. <b>Visible light independency</b> - The Thermal camera must not be sensitive to the visible light and must perform in the complete dark as well in day time.</p>	
<p>7. <b>Reliability</b> - Camera must be reliable and do not require re-adjustment of the parameters or settings</p>	
<p>8. <b>Automatic Gain Control</b> - Camera must be able to compensate automatically the image level variations of the background</p>	
<p>9. <b>Frames Per Second (FPS)</b> – Camera must support at least 30 frames per second at the minimum resolution specified.</p>	
<p>10. <b>Analytic compatible</b> – The camera must be compatible with an internal or external Video Analytics system. The</p>	

image from the thermal camera must be able to be processed and stored in real time by the Video Analytic System	
11. <b>Environment</b> – Camera assembly must be waterproof and have an operating temperature range of -40 to +50 C, starting in the cold. Rated IP66 or better.	

**Table 2 – Visible light color cameras**

<b>MANDATORY SPECIFICATION - DESCRIPTION</b>	<b>Reference to bid document (document name, page, and paragraph number)</b>
1. <b>Open Architecture</b> 1.1. Must be an IP camera 1.2. Camera must provide an API for system integration 1.3. Must have direct access to video stream using a URL 1.4. Must have SDK to control, and change camera settings remotely. The following settings must be adjustable remotely: Resolution, Video Compression, Network settings. 1.5. The cameras must be Onvif compliant	
2. <b>Video-</b> Camera must support the following video settings 2.1. Multiple compression formats including but not limited to MJPG and H.264 2.2. Resolution, and frame rate must be controllable for each stream, and camera should support simultaneous streaming of different formats	
3. <b>Detector type</b> - The camera must be a color visible light sensor	
4. <b>Resolution</b> - The resolution of the camera must be at least <b>640 x 480</b> pixels	
5. <b>Focal length</b> – The lens must be a zoom with a focal length range from 3.5mm to 120mm. The lens must support at least x32 optical zoom.	
6. <b>Frames Per Second (FPS)</b> – Camera must support at least 30 frames per second at the minimum resolution specified.	
7. <b>Environment</b> – Camera assembly must be waterproof and have an operating temperature range of -40 to +50 C, starting in the cold. Rated IP66 or better.	

**2. Requirements for Low Resolution Sub-System**

**Table 3 – Single Fixed Low resolution thermal camera**

<b>MANDATORY SPECIFICATION - DESCRIPTION</b>	<b>Reference to bid document (document name, page, and paragraph number)</b>

1. Includes requirements of <b>Table 1</b> (Thermal cameras)	
2. <b>Resolution</b> – The resolution of the camera must be at least of <b>320 x 240</b>	
3. <b>Field of View</b> – The horizontal field of View of the camera must be between <b>60 to 70 degrees</b>	
4. <b>Power</b> – Camera must be Power over Ethernet compatible	

**Table 4 – Dual Pan / Tilt mechanism** (Pan Tilt head device must support two cameras)

MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
<b>1. Pan angle</b> 1.1. <b>Range</b> - Must be able to rotate continuous 360 degrees 1.2. <b>Speed</b> – Must be able to rotate at a speed from 0.1 to 45 degrees/s 1.3. <b>Accuracy</b> – Must be able to rotate with an accuracy of 0.1 degree or better	
<b>2. Tilt Angle</b> 2.1. <b>Range</b> - Must be able to rotate in a range of -90 degrees to +45 degrees 2.2. <b>Speed</b> – Must be able to rotate at a speed from 0.1 to 30 degrees/s 2.3. <b>Accuracy</b> - Must be able to rotate with an accuracy of 0.1 degree or better	
3. <b>Pre-set</b> – Must be able to have at least 10 presets	

**Table 5 –Pan Tilt - Low resolution thermal camera**

MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
1. Includes requirements of <b>Table 1</b> (Thermal cameras)	
2. <b>Resolution</b> – The resolution of the camera must be at least of <b>320 x 240</b>	
3. <b>Field of View</b> – The horizontal field of View of the camera must be between <b>40 to 50 degrees</b>	

**Table 6 – Pan Tilt - Visible light color camera**

MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
1. Includes requirements of <b>Table 2</b> (Visible light cameras)	

### **3. Requirements for High Resolution Sub-System:**

**Table 7 – Single Fixed high resolution thermal camera**

<b>MANDATORY SPECIFICATION - DESCRIPTION</b>	<b>Reference to bid document (document name, page, and paragraph number)</b>
1. Includes requirements of <b>Table 1</b> (Thermal cameras)	
2. <b>Resolution</b> – The resolution of the camera must be at least of <b>640 x 480</b>	
3. <b>Field of View</b> – The horizontal field of View of the camera must be between <b>90 to 100 degrees</b>	
4. <b>Power</b> – Camera must be Power over Ethernet compatible.	

**Table 8 – Pan / Tilt mechanism** (Pan Tilt head device must support two cameras.)

<b>MANDATORY SPECIFICATION - DESCRIPTION</b>	<b>Reference to bid document (document name, page, and paragraph number)</b>
1. <b>Pan angle</b> 1.1. <b>Range</b> - Must be able to rotate continuous 360 degrees 1.2. <b>Speed</b> – Must be able to rotate at a speed from 0.1 to 45 degrees/s 1.3. <b>Accuracy</b> – Must be able to rotate with an accuracy of 0.1 degree or better	
2. <b>Tilt Angle</b> 2.1. <b>Range</b> - Must be able to rotate in a range of -90 degrees to +45 degrees 2.2. <b>Speed</b> – Must be able to rotate at a speed from 0.1 to 30 degrees/s 2.3. <b>Accuracy</b> - Must be able to rotate with an accuracy of 0.1 degree or better	
3. <b>Pre-set</b> – Must be able to have at least 10 presets	

**Table 9 – Pan Tilt - High resolution thermal camera**

<b>MANDATORY SPECIFICATION - DESCRIPTION</b>	<b>Reference to bid document (document name, page, and paragraph number)</b>
1. Includes requirements of <b>Table 1</b> (Thermal cameras)	
2. <b>Resolution</b> – The resolution of the camera must be at least of <b>640 x 480</b>	
3. <b>Field of View</b> – The horizontal field of View of the camera must be between <b>15 to 20 degrees</b>	

**Table 10 – Pan Tilt - Visible light camera**

MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
1. Includes requirements of <b>Table 2</b> (Visible light cameras)	

**4. Requirements for Video Analytic Sub-System:**

**Table 11 – Video Analytics System**

MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
1. <b>System Description</b> – The Video Analytics System (VAS) is device that must include hardware and software that process video analytics software	
2. <b>Connexion to the four thermal cameras</b> – The VAS System must have an IP network connector in order to connect and process the images from the four thermal cameras	
3. <b>VMS compatibility</b> 3.1. The VAS must be able to send IP Video stream to a VMS including but not limited to, to Milestone, Genetec. 3.2. The VMS must be able to see live image from the thermal cameras from the VAS	
4. <b>Video Analytic for thermal images</b> – The VAS must embed a Video Analytic software able to process the images from the connected thermal cameras and avoid many false alarms	
5. <b>Tracking functionality</b> – The Video Analytic software embedded in the VAS must be able to track persons or objects in motion within the image	
6. <b>Recording functionality</b> – The VAS must have an internal storage and must be able to record on motion detection up to 500GB of streams from thermal cameras of the parts	
7. <b>Outdoor capabilities</b> – The Video Analytic software embedded in the VAS must be able to run in outdoor context and to avoid many false alarm due to dynamic background	

Solicitation No. – N° de l'invitation  
47064-147625/A

Amd. No. – N° de la modif.

Buyer ID – Id de l'acheteur  
Pv924

Client Ref. No. – N° de réf. du client  
1000317625

File No. – N° du dossier  
Pv92447064-147625

CCC No./N° CCC – FMS No/N° VME

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## ANNEX "B" BASIS OF PAYMENT

### Pricing Basis:

- a) Bidders must submit firm prices, Canadian customs duties and excise taxes included, and Applicable Taxes excluded.
- b) 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.
- c) Prices will be evaluated on a FOB Destination.

### **1. PRICING BASIS FOR UNCOOLED THERMAL CAMERA SYSTEM** *(Bidder to complete)*

This requirement is for the purchase of one (1) Uncooled Thermal Camera System FOB Destination and including delivery.

Details	System Price \$
Delivery to 79 Bentley Avenue, Ottawa, Ontario	