

**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**
**Public Works and Government Services / Travaux
publics et services gouvernementaux**
Kingston Procurement
Des Acquisitions Kingston
86 Clarence Street, 2nd floor
Kingston
Ontario
K7L 1X3
Bid Fax: (613) 545-8067

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

Title - Sujet Stereo PIV System	
Solicitation No. - N° de l'invitation W0114-155185/A	Date 2014-11-20
Client Reference No. - N° de référence du client W0114-15-5185	
GETS Reference No. - N° de référence de SEAG PW-\$KIN-610-6482	
File No. - N° de dossier KIN-4-42156 (610)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-10-05	
Time Zone Fuseau horaire Eastern Standard Time EST	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Correia-Reid, Vincent	Buyer Id - Id de l'acheteur kin610
Telephone No. - N° de téléphone (613) 545-8738 ()	FAX No. - N° de FAX (613) 545-8067
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF NATIONAL DEFENCE CFB KINGSTON 5 SOMME AVE, Bldg-C36 KINGSTON Ontario K7K7B4 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

Public Works and Government Services / Travaux publics
et services gouvernementaux
Kingston Procurement
Des Acquisitions Kingston
86 Clarence Street, 2nd floor
Kingston
Ontario
K7L 1X3

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

Solicitation No. - N° de l'invitation

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Buyer ID - Id de l'acheteur

kin610

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

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File No. - N° du dossier

KIN-4-42156

CCC No./N° CCC - FMS No/ N° VME

SEE ATTACHED

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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 in Annex A.

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.

4. Trade Agreements

The requirement is subject to the provisions of the North American Free Trade Agreement (NAFTA), and the Agreement on Internal Trade (AIT).

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](#) (2014-09-25) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

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 (2 hard copies)

Section II: Financial Bid (1 hard copy)

Section III: Certifications (1 hard 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-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-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 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. The total amount of Applicable Taxes must be shown separately.

1.1 Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

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 Financial Evaluation

SACC Manual Clause A0220T (2013-04-25), Evaluation of Price

The bidder's unit price will be multiplied by the required number of units to calculate the extended price. The Evaluated price is the sum of the extended prices for all line items.

Bidders must provide a unit price for every item identified in Annex "B" Basis of Payment.

2. Basis of Selection

- 2.1** A bid must comply with all requirements of the bid solicitation 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 associated information 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 in carrying out any of its obligations under the Contract, 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 may render the bid non-responsive or constitute a default under the Contract.

1. Certifications Required Precedent to Contract Award

1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions **2003**. The associated information required within the Integrity Provisions 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_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - 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

The Contractor is to provide goods in accordance with the Requirement at Annex "A".

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

2030 (2014-09-25) General Conditions - Goods (Higher Complexity), apply to and form part of the Contract.

3.2 Supplemental General Conditions

4003 (2010-08-16), Licensed Software; and
4004 (2013-04-25), Maintenance and Support Services for Licensed Software;

apply to and form part of the Contract.

4. Term of Contract

4.1 Delivery Date

All the deliverables must be received on or before March 31, 2015.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Vincent Correia Reid
Title: Intern Officer
Public Works and Government Services Canada
Acquisitions Branch
Directorate: Acquisitions Kingston
Address: 86 Clarence Street, 2nd floor
Kingston, Ontario K7L 1X3
Telephone: 613-545-8738
Facsimile: 613-545-8068
E-mail address: vincent.correia-reid@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 Project Authority

The Project Authority for the Contract is:

Name: Dana Hollinsworth
Organization: Royal Military College of Canada
Address: Department of National Defence, RMC Kingston
Department of Mechanical and Aerospace Engineering
19 General Crerar Cresc., Sawyer Bldg
Kingston, ON
K7K 7B4
Telephone: 613-541-6000 ext 6065
E-mail address: hollinsworth-d@rmc.gc.ca

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.

5.3 Contractor's Representative

Name: _____
Phone: _____
E-mail: _____

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 in accordance with the basis of payment, in Annex "B", as specified in the Contract. Customs duties are included and Applicable Taxes are extra.

6.2 Limitation of Price

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

6.3 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.

8. Certifications

8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract.

Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to, provide the associated information, 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 2030 (2014-09-25) - Goods (Higher Complexity);
- (c) the supplemental general conditions, 4003 (2010-08-16), Licensed Software; and
- (d) the supplemental general conditions, 4004 (2013-04-25), Maintenance and Support Services for Licensed Software;
- (e) Annex A, Requirement;
- (f) Annex B, Basis of Payment
- (g) the Contractor's bid dated _____ (insert date of bid)

11. SACC Manual Clauses

SACC Manual Clause G1005 (2008-05-12) – Insurance

ANNEX "A"

REQUIREMENT

The Contractor must provide a Time-Resolved, 3D Stereo PIV System that meets all of the following mandatory requirements below:

- High Repetition Rate Laser at least 30 mJ/pulse (per head @527 nm) at 1 kHz repetition rate, up to 10 kHz repetition rate from each head, includes beam combination optics, laser heads, power supply, and chiller.
- Adjustable light sheet optics for 527/532 nm - sheet waist focal length infinitely adjustable between 300 - 2000 mm, two sets of cylindrical lenses: -10 and -20 mm focal lengths, anti-reflection coating for 527/532 nm
- High Speed Controller; External - 16 output channels, 3 input channels (start, external cycle, and external image clock), 10 ns time resolution, external with USB interface. External trigger device for HSS camera triggering/synchronization.
- Software package (hardware support and data processing license) - 64-bit, parallelized software for image acquisition and data processing, control of all system hardware components for synchronized data acquisition for internally and externally triggered events, parameter scan image acquisition, phase-locked image acquisition with automatic scan of user-defined phase range, functions for: image arithmetic, image transformation (mirror, rotate, apply image correction), geometric and adaptive image masking, copying and reorganizing data with a date set or project, linear and non-linear image filtering, shift and rotation correction (to remove vibration effects), subtraction of running average image over time, profile and time plot generation, image/vector field stitching, and unlimited user definability of new image and vector field processing functions, data organization. Compatibility with Windows 7 (64-bit) operation system required.
- 2D PIV Software with deformed window correlation and sub-pixel window off-set, Adaptive PIV with automatic local adjustment of interrogation spot size, shape, and orientation based on local velocity gradients, GPU processing compatible for extreme parallelization, fixed and automatic image masking, Universal outlier detection post-processing, POD, Matlab and Tecplot readers, computation of all relevant vector and scalar field statics for two-component velocity fields.
- High-Speed Image Capture Software Package - acquisition controls for specific camera type, includes control over frame rate, image exposure, sequence length, and storage mode
- Stereo PIV Software for correction of calibration errors do to misalignment of the calibration plate and laser sheet, support for experiments which do not allow for in-situ calibration, quantification of laser light sheet thickness and overlap between two laser pulses, multiple image overlay to assist field of view overlap for multiple cameras, calculation of all relevant vector and scalar statics for all three velocity components
- Flow Seeder/Fog Generator - controllable output from 0 to 200 cubic meters/minute, 1 micron mean particle diameter, non-toxic water-based fog fluid.
- System Computer at least 16 GB RAM, 1 TB (or higher) Hard disk, screen monitor, keyboard, mouse, Windows 7 (64-bit).
- Two High Speed Cameras at least 1G pixel resolution sensor, high frame rate (1600 frames/sec or higher at full resolution). At least 6 GB RAM (preferably upgradable).
- Accessory, mounts and optical rails for the above cameras.
- Two camera lens adapters for F-mount camera lenses, full 360 degree adjustability about the axis of the camera,, image center preserving, rotation and tile locking mechanisms
- Stereo PIV Calibration system
- Two camera lens 50 mm focal length, F/1.4, F-mount, AF

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-
- Pressurized Aerosol Canisters for fog generator
 - PIV System Installation and Training - on-site by a qualified representative

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ANNEX B

BASIS OF PAYMENT

Pricing shall be all inclusive, FOB Destination. HST will not be included in pricing and will be shown as a separate item on invoices.

Line item	Description	Number Required	Unit Price	Extended Price
1	Stereo PIV System – Per Annex "A"	1		
EVALUATED TOTAL				