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SOLICITATION AMENDMENT MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise
indicated, all other terms and conditions of the Solicitation
remain the same.

Ce document est par la présente révisé; sauf indication contraire,
les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Public Works and Government Services Canada - Pacific
Region
800 Burrard Street, Room 219
800, rue Burrard, pièce 219
Vancouver
British C
V6Z 0B9

| | |
|---|--|
| Title - Sujet Air Handler/Manifold Replacement | |
| Solicitation No. - N° de l'invitation 39903-180402/A | Amendment No. - N° modif. 002 |
| Client Reference No. - N° de référence du client 39903-180402 | Date 2017-09-28 |
| GETS Reference No. - N° de référence de SEAG PW-\$PWY-025-8166 | |
| File No. - N° de dossier PWY-7-40174 (025) | CCC No./N° CCC - FMS No./N° VME |
| Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2017-10-17 | Time Zone Fuseau horaire Pacific Daylight Saving Time PDT |
| 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: Fung, Donna(PWY) | Buyer Id - Id de l'acheteur pwy025 |
| Telephone No. - N° de téléphone (604) 671-9689 () | FAX No. - N° de FAX (604) 775-6633 |
| Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: CFIA - Burnaby Lab - Burnaby, BC | |

Instructions: See Herein

Instructions: Voir aux présentes

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

Les documents français seront disponibles sur demande.

This Amendment 002 is raised to:

- 1) incorporate Addendum #2,
- 2) provide the list of site visit attendees, and
- 3) extend the closing date of the solicitation.

Please see the attached Addendum #2.

Potential bidders who attended the mandatory site visit were:

Crosstown Metal Industries Ltd., Surrey, BC
Davidson Brothers Mechanical Contractors Ltd., Burnaby, BC
ESC Automation, Surrey, BC
Houle Controls, Burnaby, BC
Industra Construction Corp., Coquitlam, BC
Olympic International Ltd., North Vancouver, BC
Pro-Tech Industrial Movers, Delta, BC
Ridgway Mechanical Ltd., Coquitlam, BC
Trainor Mechanical Contractors Ltd., Nelson, BC
Webir Automation & Control Services Ltd., Coquitlam, BC
Wildstone Construction & Engineering Ltd., Penticton, BC

Extension of Time

Air Handling Unit Replacement / Exhaust Manifold
CFIA Laboratory, BC

Solicitation No: 39903-180402/A

Notice is hereby given that the time for reception of tenders previously due at
2:00 p.m. on 10 October 2017 is hereby extended to
2:00 p.m. on 17 October 2017.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

ADDENDUM #2

Date: Sept 28, 2017

CANADIAN FOOD INSPECTION AGENCY
AHU REPLACEMENT/EXHAUST MANIFOLD
BURBABY BC
Project No: R.39903-180402

The following revisions supersede the information contained in the original drawings and specification issued for the above named project, and shall become part thereof. No consideration will be allowed for extras due to the contractor or any subcontractor not being familiar with this Addendum.

1.0 STRUCTURAL DRAWINGS

- .1 Replace drawings S101 and S102 with attached S101 and S102 Rev 3 TENDER ADDENDUM NO. 1 2017.09 2017
- .2 Add drawing S105 Miscellaneous Sections and Details Rev 0 TENDER ADDENDUM NO. 1 2017.09 2017

2.0 MECHANICAL SCOPE

- .1 Revise mechanical scope of work as per attached MECHANICAL ADDENDUM NO MA-1 dated September 26, 2017 of (2) pages and MECHANICAL ADDENDUM NO MA-2 dated September 28, 2017 of (3) pages.

END OF ADDENDUM #2

[illegible]

This Addendum forms part of the Contract Documents and is to be read, interpreted and co-coordinated with all other parts. Include cost of all work contained herein in the Contract Price. The following revisions supersede information contained in the original drawings and specification issued of the above named project to the extent referenced and become part thereof. Please acknowledge receipt of this Addendum on the Form of Tender.

Please issue an Addendum with the following wording:

1. Refer to IFT Mechanical Drawing M-106:
 - 1.1 Add new note M6.19 to read as follows: "PROVIDE ANGLE IRON SUPPORTS FOR DUCTWORK FROM CEILING AND FLOOR AT FLOOR PENETRATIONS IN VICINITY OF GRIDLINES 7 AND 9 AND F AND G."
2. Refer to IFT Mechanical Drawing M-109:
 - 2.1 Add note M8.05 to read as follows: "ALL PIPING AND FITTINGS ON THIS FLOOR SHALL BE THREADED. GROOVED PIPING/FITTINGS SHALL NOT BE ACCEPTED."
3. Refer to IFT Mechanical Drawing M-207:
 - 3.1 Refer to table "CENTRE PENTHOUSE (SOUTHEAST) EXHAUST FANS/ SCRUBBERS/FILTERS TO REMAIN". Delete row referencing EF-326.
4. Refer to IFT Mechanical Drawing M-208:
 - 4.1 Refer to table "CENTRE PENTHOUSE (NORTHWEST SIDE) EXHAUST FANS". Revise ef-341, EF-342, and EF-343 to "REMAIN".
5. Refer to IFT Mechanical Drawing M-209:
 - 5.1 Refer to table "NEW CENTRE PENTHOUSE (NORTHWEST SIDE) CONTROL VALVES". Delete rows referencing V-341, V-342, and V-343.
6. Refer to drawing M-204 (Section 2-M-204). FES-1 and FES-2 are to be hatched indicating removal. Refer to general note 4 on this sheet reproduced here for clarity "EXISTING FUME EXHAUST FILTER MEDIA FOR SCRUBBERS/FILTERS, **FES-1, FES-2**, FES-3, FEF-3, AND FEF-4 ARE TO BE REMOVED BY CFIA OFFICIALS PRIOR TO DEMOLITION OF EXHAUST FANS, HOUSING, SILENCER, SCRUBBER PUMP, DUCTWORK, STRUCTURAL STEEL SUPPORT, AND ALL OTHER APPURTENANCES TO BE REMOVED BY CONTRACTOR. THE REMAINDER OF FUME EXHAUST SCRUBBERS AND FUME EXHAUST FILTERS (FEF-1, FEF-2, AND FEF-5) ARE TO REMAIN."
7. Refer to specification section 23 74 11 clause 2.1.3.2. Delete clause. Insert new clause to read as follows: "Provide floor fully welded to the intermediate support members and all seams shall be continuously welded. Floors that are attached with screws or adhesive sealants are not acceptable. Floors that "oil can" are not acceptable. Floor to be checker plate aluminum, fully welded, with an integral water dam."
8. Refer to specification section 23 34 00. Insert new clause .25 to read as follows: "The fan supplied must meet the system exhaust CFM. The fan motor horsepower shall not be larger than that shown on the fan schedule."
9. Refer to specification section 23 90 11 clause 3.2.3 table "EXHAUST FAN CONTROL (PDEF-1 AND EF-301)". Table title to read "EXHAUST FAN CONTROL (PDEF-301 AND EF-301)."
10. Following are answers on questions received by Contractors:
 - Q1. Is the PDEF-301 interlock with AHU101, 102 & 302 to be via hardwired or software? Section 25 90 11 Page 4 of 9 Item .2 .1
 - A1. PDEF-301 interlocks shall be via DDC software.
 - Q2. In the sequence of operations, there is reference to "outdoor air", "isolation", and "bypass" dampers at the PDEF exhaust fans. The drawing M-212 shows the Plume Dilution Exhaust Fan, but it is unclear where and how many dampers there are. How many dampers are there per complete PDEF unit, or how many dampers are for each of the four exhaust fans to make up the PDEF unit?
 - A2. There are total of 6 dampers on PDEF-301 unit. Each fan has isolation damper [typical of 4] and 2 outdoor air by-pass dampers are plenum mounted as shown on drawing M-212.
 - Q3. Related to question 2 is the phrase "...the DOC panel enclosure controlling the PDEF" in the sequence of operations, page 5 of 9. I do not see "DOC" in the abbreviation list. Is this supposed to be "DDC"? Or is there a non-DDC panel for control of the PDEF system? In Section 23 34 00, the following "Include BACNET communication card, which will allow information to be sent from the control package to the building control system." suggests that there is non-DDC control for the Lab exhaust static pressure control. Is this the PDEF?

- A3. Refer to section 25 90 11 page 5 of 9 and revise DOC to read DDC [typo].
Refer to section 23 34 00 2.10 for factory installed control panel. As specified Control Contractor shall provide static pressure sensors and all associated wiring, devices, and programming required for interface of factory provided control panel and DDC system. Static pressure set point shall be provided by DDC system.
- Q4. It appears from the Points List in the spec 25 90 11, that there is only a duct air pressure point on the PDEF. From the sequence of operations it appears that there are more DDC points for the PDEF. Related to question 3 above, could you please confirm what DDC points are on the PDEF?
- A4. Refer to answers A2 and A3 and specified sequence of operations. Controls point count is approximate. Controls Contractor shall verify exact quantity and provide additional points as required to achieve the sequence of operation described in the contract document.
- Q5. Are all the air valves listed in the mechanical schedule to be controlled by the DDC? If so, do any of them have existing DDC control (and controls may be reused)?
- A5. Air valves are not required to be DDC controlled. As per mechanical equipment schedule and specification section 23 36 00 Air terminal units, air valves shall be Venturi Pressure Independent Constant Volume Exhaust Air Valve. Provide differential pressure monitoring across the air valve with hi/lo alarm as per points list. Refer to specification section 23 36 00 -2.2.10 for pressure differential tapping.
- Q6. If all 80 air valves are to be on DDC controls, is it expected that a VAV controller (Reliable MachProAir) will be used to control these air valves? And would a differential pressure sensor be needed (as per Points List), or could the velocity pressure sensor on the VAV controller be used?
- A6. Air valves are not required to be DDC controlled. Refer to answer A5.
- Q7. The Points List refers to a differential pressure sensor on all fume hoods. I see approx. 35 hoods/canopies listed, but it is hard to tell since there is not a single mechanical schedule for the hoods and no clear marking of them in the space (that I could see). Is there a definite number of fume hoods for these differential pressure sensors?
- A7. The Points list refers to All Fume Hoods Exhaust Ducts. Refer to answers A5 and A6.
- Q8. Are flow sensors to be used on the heating and chilled water? I see reference to them in the Points List, but not in the Devices and Products section of the spec.
- A8. Flow sensors are not required on new chilled and hot water piping. Delete reference in DDC point list.
- Q9. There are 3 humidifiers in the mechanical schedule, HU101, HU102 and HU103, but the sequence of operations refers to 6 humidifiers. Is it to be one humidifier per AHU?
- A9. There are three humidifiers as per equipment schedule, drawing M-107, and notes M7.09 M7.15. Humidifiers shall be manifolded together with independent controls for each of hot and cold deck steam distribution manifolds.
- Q10. Section 23.31.14.2.2.7 states that the 316 stainless steel 18 gauge ducting requires reinforcing every 600mm. Does this refer to the round exhaust piping (which would seem excessive) or is it referring only to stainless steel rectangular ducting?
- A10. This clause is applicable to all new exhaust ductwork under this contract. Note that this refers to "reinforcement" as defined by SMACNA and is typical for medium pressure duct installations.
- Q11. Is spiral lock 316 stainless steel pipe expectable for the exhaust piping or it to be a roll formed and welded fabrication?
- A11. All new exhaust ducting under this contract shall be continuously welded. Spiral lock is unacceptable.
- Q12. Section 23.31.14.3.5 states "Provide watertight duct for: 1 AHU-101/2 and AHU-302 new ductwork systems". Since all of the outdoor ducting subjected to the elements is insulated and cladged, is it necessary to weld or solder all of this ducting? Does the inside crawl space ducting require soldering and welding or does this refer to a specific section of ducting in this contract. There is a large cost involved with a welded or soldered fabrication and installation.
- A12. All new ductwork for AHU-101, 102, and 302 are to be watertight (welded).

END OF ADDENDUM # MA-1

This Addendum forms part of the Contract Documents and is to be read, interpreted and co-coordinated with all other parts. Include cost of all work contained herein in the Contract Price. The following revisions supersede information contained in the original drawings and specification issued of the above named project to the extent referenced and become part thereof. Please acknowledge receipt of this Addendum on the Form of Tender.

Please issue an Addendum with the following wording:

1. Refer to IFT Mechanical Drawing M-204:
 - 1.1 Delete General Note # 4.
 - 1.2 Add new General Note # 4 to read as follows: "EXISTING FUME EXHAUST FILTER SECTIONS, SCRUBBER SECTIONS, AND HOUSINGS FOR SCRUBBERS/FILTERS, FES-1, FES-2, FES-3, FEF-3, AND FEF-4 ARE TO BE REMOVED BY CFIA OFFICIALS PRIOR TO DEMOLITION OF EXHAUST FANS. DUCTWORK, STRUCTURAL STEEL SUPPORT, AND ALL OTHER APPURTENANCES TO BE REMOVED BY CONTRACTOR. THE REMAINDER OF FUME EXHAUST SCRUBBERS AND FUME EXHAUST FILTERS (FEF-1, FEF-2, AND FEF-5) ARE TO REMAIN. SUPPORTS FOR FEF-1, FEF-2, AND FEF-5 ARE TO REMAIN AS REQUIRED."
2. Refer to IFT Mechanical Drawing M-206.
 - 2.1 Delete General Note # 4.
 - 2.2 Add new General Note # 4 to read as follows: "EXISTING FUME EXHAUST FILTER SECTIONS, SCRUBBERS SECTIONS, AND HOUSINGS FOR SCRUBBERS AND FUME EXHAUST FILTER IN THIS AREA ARE TO BE REMOVED BY CFIA OFFICIALS PRIOR TO DEMOLITION OF EXHAUST FANS. DUCTWORK, STRUCTURAL STEEL SUPPORT, AND ALL OTHER APPURTENANCES TO BE REMOVED BY CONTRACTOR."
3. Refer to attached (2 pages) for additional information.

END OF ADDENDUM # MA-2

Items noted below as “**CFIA TO REMOVE**” will be removed by CFIA under separate contract.

| North Penthouse | Housing | Filter Section | Scrubber Section | Structural Supports | Fan |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------------------|---|
| FEF-1 | TO REMAIN | TO REMAIN | N/A | TO REMAIN | TO BE REMOVED UNDER THIS CONTRACT (EF-301) |
| FEF-2 | TO REMAIN | TO REMAIN | N/A | TO REMAIN | TO BE REMOVED UNDER THIS CONTRACT (EF-302) |
| FEF-3 | CFIA TO REMOVE | CFIA TO REMOVE | N/A | TO BE REMOVED UNDER THIS CONTRACT | TO BE REMOVED UNDER THIS CONTRACT (EF-383) |
| FEF-4 | CFIA TO REMOVE | CFIA TO REMOVE | N/A | TO BE REMOVED UNDER THIS CONTRACT | TO BE REMOVED UNDER THIS CONTRACT (EF-384) |
| FEF-5 | REMAIN | REMAIN | N/A | TO REMAIN | TO BE REMOVED UNDER THIS CONTRACT (EF-385) |
| FES-1 | CFIA TO REMOVE | CFIA TO REMOVE | CFIA TO REMOVE | TO REMAIN | TO BE REMOVED UNDER THIS CONTRACT (EF-303) |
| FES-2 | CFIA TO REMOVE | CFIA TO REMOVE | CFIA TO REMOVE | TO REMAIN | TO BE REMOVED UNDER THIS CONTRACT (EF-304) |
| FES-3 | CFIA TO REMOVE | CFIA TO REMOVE | CFIA TO REMOVE | TO BE REMOVED UNDER THIS CONTRACT | TO BE REMOVED UNDER THIS CONTRACT (EF-311) |

| Central Penthouse | Housing | Filter Section | Scrubber Section | Structural Supports | Fan |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------------------|--|
| FES-4 | CFIA TO REMOVE | N/A | CFIA TO REMOVE | TO BE REMOVED UNDER THIS CONTRACT | TO BE REMOVED UNDER THIS CONTRACT (EF-319) |
| FES-5 | CFIA TO REMOVE | N/A | CFIA TO REMOVE | TO BE REMOVED UNDER THIS CONTRACT | TO BE REMOVED UNDER THIS CONTRACT (EF-320) |
| FEF-6 | CFIA TO REMOVE | CFIA TO REMOVE | N/A | TO BE REMOVED UNDER THIS CONTRACT | TO BE REMOVED UNDER THIS CONTRACT (EF-321) |

| South Penthouse | Housing | Filter Section | Scrubber Section | Structural Supports | Fan |
|-----------------|-------------------------------------|-------------------------------------|------------------|-------------------------------------|--|
| FEF-7 | TO BE RELOCATED UNDER THIS CONTRACT | TO BE RELOCATED UNDER THIS CONTRACT | N/A | TO BE RELOCATED UNDER THIS CONTRACT | TO BE RELOCATED UNDER THIS CONTRACT (EF-339) |