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Halifax
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B3J 1T3
Bid Fax: (902) 496-5016

**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
Atlantic Region Acquisitions/Région de l'Atlantique
Acquisitions
1713 Bedford Row
Halifax, N.S./Halifax, (N.E.)
Halifax
Nova Scot
B3J 1T3

Title - Sujet BIO Fish Lab FIMS Demolition	
Solicitation No. - N° de l'invitation EB144-211982/A	Amendment No. - N° modif. 005
Client Reference No. - N° de référence du client EB144-21-1982	Date 2021-01-11
GETS Reference No. - N° de référence de SEAG PW-SPWA-502-6105	
File No. - N° de dossier PWA-0-84099 (502)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Atlantic Standard Time AST on - le 2021-01-18 Heure Normale de l'Atlantique HNA	
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: Parsons (PWA), Richard	Buyer Id - Id de l'acheteur pwa502
Telephone No. - N° de téléphone (902) 399-8427 ()	FAX No. - N° de FAX (902) 496-5016
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

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

Solicitation No. - N° de l'invitation
EB144-211982
Client Ref. No. - N° de réf. du client

Amd. No. - N° de la modif.
005
File No. - N° du dossier

Buyer ID - Id de l'acheteur
PWA 502
CCC No./N° CCC - FMS No./N° VME

Amendment 005 is raised for the following:

Bidder Questions:

Question 1:

On the electrical drawing ED2.1 notes 2 and 3 ask for 8 highbay fixtures. Can you please confirm this is 16 Highbay in total and not 8 per instance of the note on the drawing?

Answer 1:

There is a total of 16 luminaires (eight per circuit). Each diamond note represents one(1) luminaire location.

Drawings:

AD01.1 DEMOLITION PLAN - FOUNDATION

AD01.1 DEMOLITION NOTES:

.1Delete note, "8. DEMOLISH EXISTING COLUMN AND FOOTING" and replace with, "8. EXISTING COLUMN AND FOOTING TO REMAIN (SUPPORTS PEDWAY ABOVE)."

Specifications:

Add Specification Section "25 05 01 – EMCS: General Requirements" to the project manual and include the section title in the project manual table of contents. See Attachment below.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED

Part 1 General

1.1 SUMMARY

- .1 Section Includes:
 - .1 General requirements for selective demolition of the building Energy Monitoring and Control System (EMCS).
- .2 Related Requirements:
 - .1 Section 02 41 19.13 – Selective Building Demolition.

1.2 REFERENCE STANDARDS

- .1 American National Standards Institute (ANSI)/The Instrumentation, Systems and Automation Society (ISA):
 - .1 ANSI/ISA 5.5-1985, Graphic Symbols for Process Displays.
- .2 American National Standards Institute (ANSI)/ Institute of Electrical and Electronics Engineers (IEEE):
 - .1 ANSI/IEEE 260.1-2004, American National Standard Letter Symbols Units of Measurement (SI Units, Customary Inch-Pound Units, and Certain Other Units).
- .3 American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE):
 - .1 ASHRAE STD 135-2016, BACNET - Data Communication Protocol for Building Automation and Control Network.
- .4 Canadian Standards Association (CSA Group):
 - .1 CAN/CSA-Z234.1-00(R2011), Canadian Metric Practice Guide.
- .5 Consumer Electronics Association (CEA):
 - .1 CEA-709.1-2014, Control Network Protocol Specification.
- .6 Department of Justice Canada (Jus):
 - .1 Canadian Environmental Assessment Act (CEAA), 1995, c. 37.
 - .2 Canadian Environmental Protection Act (CEPA), 1999, c. 33.
- .7 Electrical and Electronic Manufacturers Association (EEMAC):
 - .1 EEMAC 2Y-1-2005, Light Grey Colour for Indoor Switch Gear.
- .8 Health Canada/Workplace Hazardous Materials Information System (WHMIS):
 - .1 Material Safety Data Sheets (SDS).
- .9 Transport Canada (TC):
 - .1 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.

1.3 ABBREVIATIONS AND ACRONYMS

- .1 Acronyms used in EMCS:
 - .1 AEL - Average Effectiveness Level.
 - .2 AI - Analog Input.
 - .3 AIT - Agreement on International Trade.
 - .4 AO - Analog Output.
 - .5 BACnet - Building Automation and Control Network.
 - .6 BC(s) - Building Controller(s).
 - .7 BECC - Building Environmental Control Centre.
 - .8 CAD - Computer Aided Design.
 - .9 CDL - Control Description Logic.
 - .10 CDS - Control Design Schematic.
 - .11 COSV - Change of State or Value.
 - .12 CPU - Central Processing Unit.
 - .13 DI - Digital Input.
 - .14 DO - Digital Output.
 - .15 DP - Differential Pressure.
 - .16 ECU - Equipment Control Unit.
 - .17 EMCS - Energy Monitoring and Control System.
 - .18 HVAC - Heating, Ventilation, Air Conditioning.
 - .19 IDE - Interface Device Equipment.
 - .20 I/O - Input/Output.
 - .21 ISA - Industry Standard Architecture.
 - .22 LAN - Local Area Network.
 - .23 LCU - Local Control Unit.
 - .24 MCU - Master Control Unit.
 - .25 NAFTA - North American Free Trade Agreement.
 - .26 NC - Normally Closed.
 - .27 NO - Normally Open.
 - .28 OS - Operating System.
 - .29 O&M - Operation and Maintenance.
 - .30 OWS - Operator Work Station.
 - .31 PC - Personal Computer.
 - .32 PCI - Peripheral Control Interface.
 - .33 PCMCIA - Personal Computer Micro-Card Interface Adapter.
 - .34 PID - Proportional, Integral and Derivative.
 - .35 RAM - Random Access Memory.
 - .36 SP - Static Pressure.
 - .37 ROM - Read Only Memory.

- .38 TCU - Terminal Control Unit.
- .39 USB - Universal Serial Bus.
- .40 UPS - Uninterruptible Power Supply.
- .41 VAV - Variable Air Volume.

1.4 DEFINITIONS

- .1 Point: may be logical or physical:
 - .1 Logical points: values calculated by system such as setpoints, totals, counts, derived corrections and may include, but not limited to result of and statements in CDL's.
 - .2 Physical points: inputs or outputs which have hardware wired to controllers which are measuring physical properties, or providing status conditions of contacts or relays which provide interaction with related equipment (stop, start) and valve or damper actuators.
- .2 Point Name: composed of two parts, point identifier and point expansion:
 - .1 Point identifier: comprised of three descriptors, "area" descriptor, "system" descriptor and "point" descriptor, for which database to provide 25 character field for each point identifier. "System" is system that point is located on.
 - .1 Area descriptor: building or part of building where point is located.
 - .2 System descriptor: system that point is located on.
 - .3 Point descriptor: physical or logical point description. For point identifier "area", "system" and "point" will be short forms or acronyms. Database must provide [25] character field for each point identifier.
 - .2 Point expansion: comprised of three fields, one for each descriptor. Expanded form of short form or acronym used in "area", "system" and "point" descriptors is placed into appropriate point expansion field. Database must provide [32] character field for each point expansion.
 - .3 Bilingual systems to include additional point identifier expansion fields of equal capacity for each point name for second language.
 - .1 System to support use of numbers and readable characters including blanks, periods or underscores to enhance user readability for each of the above strings.
- .3 Point Object Type: points fall into following object types:
 - .1 AI (analog input).
 - .2 AO (analog output).
 - .3 DI (digital input).
 - .4 DO (digital output).
 - .5 Pulse inputs.

- .4 Symbols and engineering unit abbreviations utilized in displays: to ANSI/ISA S5.5:
 - .1 Printouts: to ANSI/IEEE 260.1.

1.5 SYSTEM DESCRIPTION

- .1 Refer to drawings for location of EMCS panels.
- .2 Work covered by sections referred to above consists of selective and partial removal of fully operational EMCS, including, but not limited to, following:
 - .1 Building Controllers.
 - .2 Control devices as indicated on drawings.
 - .3 Data communications equipment necessary to effect EMCS data transmission system.
 - .4 Field control devices.
 - .5 Miscellaneous work as specified in these sections and as indicated.

1.6 QUALITY ASSURANCE

- .1 Have local office within 50 km of project staffed by trained personnel capable of providing instruction, routine maintenance and emergency service on existing Delta Control system.
- .2 Have access to local supplies of essential parts.
- .3 Ensure qualified supervisory personnel continuously direct and monitor Work and attend site meetings. Supervisory personnel shall be factory trained on Delta Intellaweb system.
- .4 Health and Safety:
 - .1 Do construction occupational health and safety in accordance with Section 01 35 29.06- Health and Safety Requirements.

1.7 EXISTING- CONTROL COMPONENTS

- .1 Remove existing control wiring and devices as indicated. Maintain integrity of existing campus control network that exists outside the scope of demolition.
- .2 Re-use field control devices that are usable in their original configuration.
- .3 Submit written request for permission to disconnect controls and to obtain equipment downtime before proceeding with Work.
- .4 Remove existing controls not re-used or not required. Place in approved storage or dispose of as directed.

Part 2 Products

2.1 ACCEPTABLE CONTRACTOR

- .1 Controls and Equipment – Halifax branch.

Part 3 Execution

3.1 MANUFACTURER'S RECOMMENDATIONS

- .1 Maintain network integrity during demolition.
- .2 All demolition work to be performed under direct supervision of the local Delta Controls Representative.

END OF SECTION