



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

Bid Receiving - PWGSC / Réception des soumissions -  
TPSGC

11 LaurierSt./ 11, rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau

Québec

K1A 0S5

Bid Fax: (819) 997-9776

**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**

THERE ARE SECURITY REQUIREMENTS  
ASSOCIATED WITH THIS REQUIREMENT  
CE BESOIN COMPORTE DES EXIGENCES  
RELATIVES À LA SÉCURITÉ

**Vendor/Firm Name and Address**

Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**

Infrastructure Maintenance and Solution Services

Division (FK)

L'Esplanade Laurier,

East Tower 4th Floor

L'Esplanade Laurier,

Tour est 4e étage

140 O'Connor, Street

Ottawa

Ontario

K1A 0R5

<b>Title - Sujet</b> Heating, Ventilation Air Cond. Heating, Ventilation and Air Conditioning	
<b>Solicitation No. - N° de l'invitation</b> EJ196-210498/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> 20210498	<b>Date</b> 2021-06-04
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$FK-315-80012	
<b>File No. - N° de dossier</b> fk315.EJ196-210498	<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 2021-06-23</b> Heure Avancée de l'Est HAE	
<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> Lavigne, Pierre	<b>Buyer Id - Id de l'acheteur</b> fk315
<b>Telephone No. - N° de téléphone</b> (873) 354-5198 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b>	<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/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation  
EJ196-210498/A  
Client Ref. No. - N° de réf. du client  
20210498

Amd. No. - N° de la modif.  
002  
File No. - N° du dossier  
FK315. EJ196-210498

Buyer ID - Id de l'acheteur  
FK315  
CCC No./N° CCC - FMS No./N° VME

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### **SOLICITATION AMENDMENT 002**

**This solicitation amendment is raised to add the Revised Annex A – Statement of Work as it did not appear in Solicitation Amendment 001.**

**1. DELETE Annex A – Statement of Work in its entirety and REPLACE WITH this Annex A – Statement of Work – Revised**

See attached document

**\*ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED\***

## **SW 1 General**

- .1 The Contractor must furnish all necessary tools, services and labour to execute the work required for the maintenance of the equipment contained herein and must execute such work in a careful and workmanlike manner and in accordance with all related Codes, Standards and Regulations from all levels of Government (Provincial/Territorial, Municipal and Federal).
- .2 To carry out the work on this requirement, Service personnel employed by the Contractor must be in possession of:
  - a. **HVAC equipment - Three (3) service personnel with:**
    - A valid Ozone Depletion Prevention Card for the Province of Ontario (or approved interprovincial equivalent); and
    - A valid **Journeyman (JP)** Refrigeration and Air Conditioning Certification Licence (or approved interprovincial equivalent); and
    - A valid Fall Protection Certificate; and
    - A valid Aerial Manlift Certificate.
  - b. **Gas fired appliances - Three (3) service personnel with:**
    - A valid permanent Province of Ontario Certificate G1 (Gas Technician 1) (or approved interprovincial equivalent); and
    - A valid Fall Protection Certificate; and
    - A valid Aerial Manlift Certificate.

*The personnel named in 'HVAC equipment' above may also be named in items 'Gas fired appliances' provided they hold the required certifications of each category.*

- c. Apprentices employed by the Contractor must be fully registered in a Tradesman Program related to the services in Annex A, Statement of Work. Apprentices must work under the direction of a Journeyman Mechanic. Canada reserves the right to request proof of registration in a Tradesman Program related to the services in Annex A, Statement of Work at any time during the term of the contract.

## **SW 2 Scope of Work - preventive maintenance / inspection - Year 1 only**

### **.1 General**

The Contractor must provide all required maintenance as per SW 3 and the manufacturer's recommendations, including but not limited to the items listed below, to maintain the equipment listed in SW 5, Equipment Inventory.

### **.2 Included in Contract**

- a. Contractor must furnish all necessary tools, services, materials and labour for all maintenance inspections, leak testing, cleaning, lubrication and the replacement of drive belts, filters and fuses.
- b. The equipment inventory identified in SW5 must be inspected and maintained as described herein. All additional parts and labour required to effect repairs to this equipment will be at extra cost to Canada. For any repairs associated with the Equipment Inventory, the Contractor must immediately submit to the Technical Authority for review, a comprehensive parts & labour cost summary and the reason for repair(s). If the request is deemed fair and reasonable by the Technical Authority, compensation will be provided to the Contractor at extra cost to Canada. The proposed repairs must not proceed without prior consent from the Technical Authority.
- c. The Contractor is encouraged to identify modifications or improvements to the equipment or system(s) that will enhance equipment serviceability, life expectancy and/or efficiency.
- d. The Contractor will calculate the cost of the repairs (SW2.2b.), modifications or improvements (SW2.2c.) based on Basis of Pricing "Pricing Schedule 2". The Contractor may be called upon to effect this work.

### **.3 Performance**

The Contractor must maintain the equipment at its original performance level to provide conditions within the range required by the equipment being served by this system or as otherwise specified by the Technical Authority.

**SW 2.1 Scope of Work - All inclusive, comprehensive preventive maintenance - effective year 2 through year 5**

.1 General

The Contractor must provide all required maintenance as per SW 3 and the manufacturer's recommendations, including but not limited to the items listed below, to maintain the equipment listed in SW 5, Equipment Inventory.

.2 Included in Contract

- a) Labour for all inspections, leak testing, cleaning, lubrication, maintenance and repairs;
- b) Provide all replacement parts and components, heat transfer media (eg. Glycol), refrigerant, related piping and valves of unit up to isolation valves, insulation, connecting duct work and associated electrical and controls (including motor starters) and condensate drainage system(s). Cleaning of duct work and terminal devices (eg. grilles and diffusers) is not the responsibility of the Contractor;
- c) The Contractor must replace any defective system components with components matching original supplier's specifications to ensure system integrity. Replacement components must be new or manufacturer warranted "as new" rebuilt (with Technical Authority's approval). For the period of this contract, the Contractor must have access, at all times, to sufficient direct replacement parts to ensure immediate repair of any component that would render the system out of service or inaccessible to operator interaction. Failure to comply with these requirements will be assessed by the Technical Authority and may result in reduction of contract payments relative to the duration and consequences of the "out of service" condition.

.3 Performance

The Contractor must maintain the equipment at its original performance level to provide conditions within the range required by the equipment being served by this system or as otherwise specified by the Technical Authority.

.4 Exclusions

The Contractor is not required as part of this contract to make renewals or repairs necessitated by reason of the negligent operation or misuse of the equipment by others or by reason of any other cause beyond his control except ordinary wear and tear of the equipment.

The contractor must provide clear and concise rationale of the events leading up to the failure.

.5 Extra Work

- .1 The Contractor must immediately inform the Technical Authority in writing *within 24 hours* of necessary repairs not included herein as being part of the work to be performed under the Contract. The Contractor may be called upon to effect these repairs.
- .2 The Contractor must identify modifications or improvements to the equipment or system(s) that will enhance equipment serviceability, life expectancy and/or efficiency.
- .3 The Contractor will calculate the cost of the repairs (SW2.1.5.1), modifications or improvements (SW2.1.5.2) based on Basis of Pricing "Pricing Schedule 2". The Contractor may be called upon to effect this work.

.6 Wiring Diagrams - Adjustments Procedures and Operational Descriptions

Prove to the satisfaction of the Technical Authority when requested, possession of complete schematic wiring diagrams, detailed adjustment procedures and detailed operational descriptions of all equipment included in this Contract.

.7 Environmental Protection

***The Contractor must conform to all applicable environmental laws and regulations in effect including the Federal Halocarbon Regulations.***

- a. During repair or replacements the Contractor must use closed-loop refrigerant recovery equipment to minimize Refrigerant emissions. A complete leak test on all refrigeration systems must be performed twice during the calendar year (6 month intervals), and repairs made as required. Units must then be tagged as **leak free**.
- b. The Contractor must ensure that all Federal Halocarbon Regulation log book(s) entries are completed after each service and/or leak test. A copy of each leak test notice must be submitted to the Technical Authority with each respective invoice or upon request.
- c. The Contractor must ensure against oil spills or damage to surfaces and roofing system by providing protection such as plywood or plastic under the equipment during service operations. In the event of an accidental spill, the Contractor must notify the Technical Authority immediately so that remedial action can be taken.
- d. The Contractor must not leave waste materials on site unless approved by the Technical Authority.
- e. The Contractor must not dispose of waste or volatile materials, such as mineral spirits or paints and oil thinner into waterways, storm or sanitary sewers.
- f. The Contractor must control the disposal of the runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

**SW 3 Service**

.1 General

Unless otherwise noted, all equipment must be inspected monthly or more frequently if found necessary, to provide trouble free operation of the equipment.

1.1 **Gas fired appliances**

Must be inspected monthly during the operating season or more frequently if found necessary, to provide trouble free operation of the equipment. Seasonal start-up and shutdown of the equipment must be coordinated with the Technical Authority. The performance of the work required must provide for operation of the complete system(s) based on original design or subsequent approved design modifications, and must be as recommended by the manufacturer(s).

- a) A thorough inspection and cleaning of the appliance(s) waterside and fireside must be performed on an annual basis and must be coordinated with the Technical Authority;
- b) An annual combustion test is to be performed on each appliance during the operating season. A copy of the combustion test report(s) must be submitted to the Technical Authority upon completion.

1.2 **Chillers (Aircraft Training Centre):**

Must be inspected monthly or more frequently if found necessary, to provide trouble free operation of the equipment. The performance of the work required must provide for operation of the complete system(s) based on original design or subsequent approved design modifications, and must be as recommended by the manufacturer(s).

- a) The full oil charge and filter(s) must be replaced at intervals as per manufacturer's recommendations or more often if conditions indicate deterioration. The contractor shall provide a full oil analysis report for the chiller(s), from a sample taken prior to an oil change or at the end of each cooling season within the last month of chiller operation. The reports shall include recommendations based on analysis data and manufacturer's guidelines. They are to be submitted no later than December 15th of each year, to permit any required corrective work to be performed during this off season. The contractor is responsible for disposing of used oil and oil contaminated materials.

- b) Evaporator tubes (Carrier chiller only) are to be inspected biannually (every second year). The tubes are to be cleaned as often as necessary to maintain proper heat transfer as per chiller's capacity; Eddy Current Tube Analysis (electronic tube testing) to be performed at time of tube inspections and reports must include recommendations based on analysis data and manufacturer's guidelines; the reports are to be submitted to the Technical Authority for review. While the evaporators are open for cleaning and inspection, any leaking tubes are to be identified and repairs made accordingly. The Technical Authority must be informed whenever tube maintenance is done and allowed to inspect the unit prior to re-closing.
- c) In the first and third year of the contract, a refrigerant sample from each chiller must be submitted to a full chemical analysis and a detailed report submitted. A complete report must be submitted to the Technical Authority.

**Chiller (Building U-100):**

Must be inspected monthly during the cooling season (April-October), to provide trouble free operation of the equipment. The performance of the work required must provide for operation of the complete system(s) based on original design or subsequent approved design modifications, and must be as recommended by the manufacturer(s).

- a) The full oil charge and filter(s) must be replaced at intervals as per manufacturer's recommendations or more often if conditions indicate deterioration. The contractor shall provide a full oil analysis report for the chiller(s), from a sample taken prior to an oil change or at the end of each cooling season within the last month of chiller operation. The reports shall include recommendations based on analysis data and manufacturer's guidelines. They are to be submitted no later than December 15th of each year, to permit any required corrective work to be performed during this off season. The contractor is responsible for disposing of used oil and oil contaminated materials.
- b) Evaporator tubes (Carrier chiller only) are to be inspected biannually (every second year). The tubes are to be cleaned as often as necessary to maintain proper heat transfer as per chiller's capacity; Eddy Current Tube Analysis (electronic tube testing) to be performed at time of tube inspections and reports must include recommendations based on analysis data and manufacturer's guidelines; the reports are to be submitted to the Technical Authority for review. While the evaporators are open for cleaning and inspection, any leaking tubes are to be identified and repairs made accordingly. The Technical Authority must be informed whenever tube maintenance is done and allowed to inspect the unit prior to re-closing.
- c) In the first and third year of the contract, a refrigerant sample from each chiller must be submitted to a full chemical analysis and a detailed report submitted. A complete report must be submitted to the Technical Authority.

**.2 Scheduling**

Unless otherwise directed, preventive maintenance must be performed during regular working hours, Monday through Friday, 08:00 to 16:00 hours excluding statutory holidays. Within thirty (30) days after contract award the Contractor must provide a detailed schedule of maintenance to be applied for the term of this contract. The proposed schedule must be reviewed by the Technical Authority and may require revision by the Contractor to meet Technical Authority's requirements. Any such changes must be considered as part of this agreement.

**.3 Maintenance Plan**

Contractor must produce a detailed comprehensive maintenance service plan specific to the equipment inventory which must outline all tasks, procedures, all maintenance routines and frequencies to meet or exceed manufacturers' recommendations identifying the maintenance that will be performed annually, semi-annually, quarterly and monthly. This maintenance plan must contain and reflect the manufacturer's recommended maintenance and all requirements of this agreement. The proposed maintenance plan must be reviewed by the Technical Authority and may require revision by the Contractor to meet Technical Authority's requirements. Any such changes must be considered as part of this agreement.

This plan must fully list all operating inspections, maintenance schedules and tests necessary to maximize equipment longevity and ensure the optimum level of performance over the full operating range of the equipment. The comprehensive maintenance service plan must be submitted to the Technical Authority in the Microsoft Office Suite format (including sample inspections sheets for all routines), within sixty (60) calendar days after award of the Contract.

**The Maintenance Plan must be viewed and approved by the Technical Authority prior to acceptance and implementation.**

.4 Control Systems:

Conduct periodic tests of the Control Systems where applicable, to ensure all circuits and settings are properly adjusted to suit requirements of the design capabilities of the system as originally furnished by the manufacturer. The frequency of testing controls will be according to manufacturer's specifications.

.5 Air Filter Service

The Contractor must replace filters as required to fit the filter sections provided by the manufacturer. Filter size to match original as supplied by the manufacturer. For general purpose air handling, use filters as described in (a) below. For computer room or other areas requiring higher than standard filter efficiency, use filters as described in (b) below.

(a) General Purpose Filter Specification

The media must be contained in a fiberboard casing and supported between a metal or fiberboard grid. Filter to be listed with U.L.C. as Class II. The filter media is to be formed of continuous interlaced glass filament held in place with a thermo plastic bond and coated with a fire retarding adhesive film. This adhesive must be non-toxic, non-hygroscopic and have a flash point in excess of 260°C. Filters must have an initial resistance rating of 35-55 Pa at 2.54 m/s and 236 l/s per .093 meter<sup>2</sup> face area for a 50 mm thick filter; and a rated **average arrestance** of 80%-85% based on A.S.H.R.A.E. 52.1-1992 and section 7.4 of ARI Standard 850-93.

(b) Computer Room / Special Areas Filter Specification

Pleated type, cotton or synthetic fiber media supported by metal grid, and secured with odourless waterproof cement in a rigid double wall beverage board frame. Filter to be listed U.L.C. Class II. Filters must have an initial resistance rating of 55-62 Pa at 2.54 m/s and 236 l/s per .093 m<sup>2</sup> face area for a 100 mm thick filter; and a rated **average efficiency** of 25%-30% based on A.S.H.R.A.E. 52.1-1992 and section 7.4 of ARI Standard 850-93.

.6 Service Calls

All service calls between regular inspections must be answered by a qualified Journeyperson (JP) within one (1) hour of receiving the call on a 24 hour, 7 day basis. All named Service personnel must be able to report on site ready to service the system within one (1) hour of receiving the request for service and such work shall proceed continuously until the system is returned to safe operating condition.

.7 Non-working Service Manager

The non-working Service Manager is an administration function with knowledge and experience in HVAC maintenance and will be the liaison between all service technicians performing the work and the Technical Authority. They must be in full charge of the operations of the contractor in the performance of the services and must be authorized to accept any notice, consent, order, direction, decision or other communication on behalf of the contractor that may be given under the contract.

In the event of an emergency, the non-working Service Manager will be contacted and an action plan discussed and implemented to mitigate any potential impact on the client's operation. The manager must be able to communicate in English or French.

The Technical Authority may request that the Contractor's non-working Service Manager respond on site within two (2) hours of receiving the call on a twenty-four (24) hour, seven (7) day basis.

#### SW 4 **Reporting**

- .1 The Contractor must report to the Technical Authority, within twenty-four (24) hours, every visit required other than regular maintenance or any situation. The report must detail all work completed, work outstanding and the reasons therefore and an estimated time frame for completion.

The Contractor must call to the attention of operating staff verbally followed by a written report to the Technical Authority any improper procedures that may be noted by him and provide written instruction to guide the Technical Authority's staff.

The Contractor must notify the Technical Authority in writing of any malfunction of equipment or systems related to, but not part of, the contract equipment which could adversely affect the reliability or cause damage to the system components under the maintenance contract.

- .2 **Equipment report cards:**

A completed service report card outlining any and all service performed on the equipment must be enclosed in a clear vinyl envelope and affixed safely to the equipment. These report cards are to remain with the equipment for the duration of the contract and are to be turned over to the Technical Authority upon contract completion or termination.

- .3 **Service Reports:**

A signed, written service report must be completed at each regular maintenance visit, attesting that maintenance was performed as per the Maintenance Plan (SW3.3) and must be left on site in a suitable protective binder.

- .4 **Analysis reports:**

- Gas fired appliance(s) combustion analysis reports are to be submitted, as stipulated in SW3.1.1 b). They are to be submitted no later than December 15th of each year;
- Chiller oil analysis reports are to be submitted, as stipulated in SW3.1.2 a). They are to be submitted no later than December 15th of each year;
- Eddy Current Tube analysis reports are to be submitted as per SW3.1.2 b)
- Chiller refrigerant analysis reports are to be submitted as per SW3.1.2 c). They are to be submitted no later than December 15th of each year.

***Attestation of maintenance as per Maintenance Plan (SW3.3) including any recommendations and/or comments must be submitted with the quarterly invoice to the attention of:***

Public Services and Procurement Canada  
Crown Managed Assets and Maintenance and Operational Assurance Directorate  
Real Property Services  
180 Kent Street  
18th Floor  
Ottawa, Ontario  
K1A 0S5  
Attention of: **TECHNICAL AUTHORITY**

#### **Invoices Must include:**

- (a) PWGSC reference (8M3-0999-100) & contract number (EJ196-210498)
- (b) period covered by invoice
- (c) building name & address

**NOTE:** ***Invoices will be returned unpaid if attestation of maintenance has not been received for the invoiced period.***

**SW5 Equipment Inventory**

Building: Aircraft Training Centre

No. of Units	Location Room No.	Make	Model	Serial Number	Details
1	Building Roof	Engineered Air	FWE313/C/O	54073 RTU-1	RTU-1, 15HP/11,782 CFM Supply & 7.5HP/10,500 CFM Return, Packaged Heating (Glycol) and 30 Tons Cooling (R-410a, 3 circuits) Roof Top Air Handling Unit c/w Control Valves & Piping Within Unit. Filters: 6X24X24X2 Pleated, 6X24X24X4 Pleated Belts: 2X B62, 2X B87
1	Building Roof	Engineered Air	FWE183/C/O	M16889 RTU-2	RTU-2, 7.5HP/7,200 CFM Packaged Heating (Glycol) and 18 Tons Cooling (R-410a, 3 circuits) Roof Top Air Handling Unit c/w Control Valves & Piping Within Unit. Filters: 4X24X24X2 Pleated, 4X24X24X4 Pleated Belts: 2X B87
2	Rooftop	Franklin	FPOB1K2	N/A	P1 and P1.A Dry-Cooler Circulating Pumps
1	Rooftop	Liebert	DD0419B	C17AT2A012	Glycol Dry-Cooler #1, Single Fan, 1/4hp
1	Rooftop	Engineered Air	FWE163/DJS40/0	B54306 RT-1	RTU #1 Gas Fired, DX, Rooftop Make-up Air Unit Filters: 4X24X24X2 Pleated, 4X24X24X4 Pleated
1	Rooftop	Engineered Air	FWE163/DJS40/0	B54306 RT-2	RTU #2 Gas Fired, DX, Rooftop Make-up Air Unit Filters: 4X24X24X2 Pleated, 4X24X24X4 Pleated
1	Rooftop	Engineered Air	FWE61/DJS20/0	B54306 RT-3	RTU #3 Gas Fired, DX, Rooftop Make-up Air Unit Filters: 2X25X20X2 Pleated, 2X25X20X4 Pleated
1	Rooftop	Engineered Air	FWE61/DJS20/0	B54306 RT-4	RTU #4 Gas Fired, DX, Rooftop Make-up Air Unit Filters: 2X25X20X2 Pleated, 2X25X20X4 Pleated
1	Extension Building Rooftop	Aaon	RN-009-4-0-BA02-3F9	201011-ANGQ13295	Indirect Gas Fired (195 MBH), DX (9 ton, 410a), Packaged Rooftop Unit c/w Speed Drive Controller. Filters: 4X20X25X4 Pleated, 2X16X20X4 Pleated Belts: 1X BX53
1	Extension Building Rooftop	Daikin	RXS09DAVJU	E000193	Ductless Split Heat Pump (8500BTUH Cooling/10000BTUH Heating)
1	Extension Building Mechanical Room	Uponor/Laars	HT1.330	BR3140948	Gas Fired Direct Vent Boiler for Slab Heating System, 126MBH c/w Hydronic Circulators and Zone Valves
1	Room 110	HTP	EL-399N	021913A1006401 (#1)	Gas Fired Hydronic Heating Boiler (400MBH) c/w Watts Low Water Cut-off
1	Room 110	HTP	EL-299N	03071221008174 (#2)	Gas Fired Hydronic Heating Boiler (300MBH) c/w Watts Low Water Cut-off
1	Room 110	HTP	EL-301N	072015F1421740 (#3)	Gas Fired Hydronic Heating Boiler (307MBH) c/w Watts Low Water Cut-off
1	Room 110	Rheem Ruud	RF50-98C	0795H00235	Gas Fired Domestic Hot Water Heater (98MBH)
1	1 <sup>st</sup> Floor Room #012	Metex	2045	N/A	Glycol Make-up Feed Tank
1	2nd Floor Room #152	Liebert	DS042KUB1EI385S	N16M8H0034	AC-1, 42kW, DX, R-410A on Dry-Cooler Filters: 2X25X20X2 Pleated, 1X25X16X2 Pleated
1	1st Floor Room #022	Liebert	PX029DG18SA386	Y16M6S0221	AC-2, 29kW, DX, R-410A on Dry-Cooler Filters: 2X25X20X2 Pleated, 1X30X29X2 Pleated
2	Pump Room	Tandem Chillers	WX040DZV	0815-2002 Chiller #1 0815-2003 Chiller #2	Water Cooled Scroll Modular Chillers, 40 Tons, 2 Circuit, R-410a (16.5 lbs/circuit), 575/3/60 c/w SRM-1 Chiller Controller
2	Pump Room	Danfoss	177U3759	575304Y395 (P-3A) 575404Y395 (P-3B)	Variable Frequency Drives for Chiller Condenser Water Pumps P-3A & P-3B
2	Pump Room Roof	RefPlus	FLD243C-8	2015090384 (DC-1) 2015090385 (DC-2)	Glycol Dry Coolers (8 Fans, 600/3/60)

Building: U-100 Transportation Safety Board

No. of Units	Location Room No.	Make	Model	Serial Number	Details
1	X-Ray Room #26	Mitsubishi	PKA-A12HA6	N/A	Ductless Split AC Unit R-410A c/w Condensate Pump and Remote Control
1	FDR Lab Room 14	Mitsubishi	MSY-D36NA	8000087	Ductless Split AC Unit R-410A c/w Condensate Pump and Remote Control
1	Server Room	LG	LS240CP	904KAYR00026	Ductless Split AC Unit R-410A c/w Condensate Pump and Remote Control
1	SEM Room 34	LG	LS240CP	904KALC00008	Ductless Split AC Unit R-410A c/w Condensate Pump and Remote Control
1	Penthouse	Viessmann	RMT-270	97-270-722285400159	Gas Fired Heating Boiler #1 921MBH
1	Penthouse	Viessmann	RMT-270	97-270-722285400161	Gas Fired Heating Boiler #2 921MBH
1	Penthouse	GSW	JW70-250N	9604861926	Gas Fired Domestic Hot Water Boiler 250MBH
1	Penthouse	Carrier	30HXA076N-E171KA	4912Q20614	Rotary Screw Fluid Cooled Liquid Chiller (R-134a), 575/3/60, c/w Motor Starter, Carrier Comfort Network Chiller Controller
1	Roof	Carrier	09DK084101	4912062548	Air Cooled Condenser for Carrier Chiller 575/3/60
1	Mezzanine	Liebert Mini-Mate Plus	MME060E-YHO	55020	AHU #5, 5 Ton, DX Fan Coil Unit (R-22) c/w 10Kw Electric Reheat, 208/3/60 Filters: 1X20X20X4 Pleated Belts: 1X B42
1	Computer Room #63	Sanyo	KM0912W	0372404	Ductless Split AC Unit, 9KBTU, R-22
1	Computer Room #65	Sanyo	KM0912W	0324004	Ductless Split AC Unit, 9KBTU, R-22

Notes:

- Air cooled condensers are to be liquid pressure washed no less than annually; use of compressed air for coil cleaning is not permitted. Coordinate cleaning with the Technical Authority.
- With the exception of the chillers, AC evaporators are to be cleaned no less than annually. Coordinate cleaning with the Technical Authority.