STATEMENT OF WORK
FOR
MAINTENANCE AND REPAIR SERVICES
OF
INBOUND AND OUTBOUND BAGGAGE HANDLING SYSTEMS
AND
PASSENGER LOADING BRIDGES
AT
RONALD REAGAN WASHINGTON NATIONAL AIRPORT

PREPARED BY: Metropolitan Washington Airports Authority (MWAA)
Ronald Reagan Washington National Airport
Engineering and Maintenance Department (MA-120)
Maintenance Engineering Division (MA-126)

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01 INTRODUCTION

The Metropolitan Washington Airports Authority (the Authority) is responsible for the operation, maintenance and repair of Ronald Reagan Washington National Airport (referred to herein as “DCA”). This Statement of Work (SOW) addresses maintenance and repair of inbound and outbound baggage handling systems (BHS) and passenger loading bridges (PLB) located at DCA’s Terminal A.

02 SUMMARY OF WORK

The Contract is intended to provide full maintenance and repair services, 24-hour callback response, preventive maintenance services, and equipment maintenance and repair activity documentation and reporting for the inbound and outbound baggage handling systems and passenger loading bridges as described in Appendices A and B respectively. These services shall be performed in accordance with best commercial practices consistent with the intended design and usage of the equipment and as acceptable to the Authority.

The contractor shall provide all labor, materials, tools, parts, supplies, lubricants, equipment, transportation and supervision necessary to fulfill all requirements of the SOW.

The term of the contract is intended to consist of a Two (2) Year Base period with the option to extend the contract for two (2) additional one (1) year periods.
SECTION III - DEFINITIONS

AIRPORT – Ronald Reagan National Airport, aka, “DCA” as described in the SOW.

AOA - Aircraft Operation Area - The portion of the Airport used or intended to be used for landing, takeoff or surface maneuvering of aircraft. This is a security area requiring security badging. Workers in this area are required to obtain and display an AOA photo ID credential. Drivers in this area are required to obtain an Aerodrome Vehicle Operator's Permit.

AUTHORITY - The Metropolitan Washington Airports Authority

BAGGAGE HANDLING SYSTEM (BHS) - Shall mean all BHS related structures, mechanical and electrical equipment and components that are associated with the specified conveyor lines of the facility, including all types of check-in collection conveyors, associated door hatches, run outs/laterals, load/unload conveyors, transport conveyor segments, power turns, merges, inclined plate make-up devices, fire/security doors, Motor Control Panels, field control devices (e.g., photo eyes, limit switches, control stations/devices, audio/visual alarms, etc.), motors, motor starters, gearboxes, disconnects, push buttons, etc., including related BHS computers, controls and control hardware and software, with management and support services required to operate and maintain the specified baggage handling system as described by these documents.

BASE SERVICES - Contractor shall perform all work and all documentation and reporting services on all equipment covered by this Contract as listed and as described in the SOW and be paid, upon submission of an invoice, a lump sum payment of the total monthly Base Services price in the Schedule as well as for any supplemental monthly work performed during that month.

CLEAN - The absence of dirt, litter, debris, dust, surface marks, fingerprints, spills, oils, gum, grime, film, stains, streaks, spots, bag tags, blemishes, chemical residue, and/or any other foreign matter or chemical residue that cannot be removed without permanently damaging the underlying surface.

COTR - Contracting Officers Technical Representative.

CORRECTION - The elimination of a deficiency.

CORRECTIVE MAINTENANCE (CM) - Required corrective measures or repairs typically identified during a PM, inspection, system failure, or unusual circumstance adversely affecting the normal BHS or PLB operation. Corrective maintenance shall be performed on a priority basis as necessary to meet the required System Service Availability.

DCA - Ronald Reagan Washington National Airport

HCS - Hazardous Communication Standard also known as “HAZCON”.

JOB SITE - The area within the Authority’s property lines or portions of such area, which are defined within the SOW.

LITTER - Debris, waste paper, beverage containers, dead birds, dead animals etc.

MA-126 - DCA, Engineering and Maintenance Department, Maintenance Engineering Division

MAINTAINED SYSTEMS - For simplicity purposes, this phrase refers to the systems for which this Statement of Work refers to, as they pertain to the schedule associated with this Statement of Work.
METROPOLITAN WASHINGTON AIRPORTS AUTHORITY (the Authority) - The public body responsible for the operation and management of both Ronald Reagan Washington National Airport (DCA) and Washington Dulles International Airport (IAD).

MSDS - Material Safety Data Sheet

OSHA - U. S. Occupational Safety and Health Administration. The Federal Government agency responsible for providing the rules and regulations on safety and health requirements in the work place.

PLB - Shall mean all Passenger Loading Bridge and related structures.

PREVENTIVE MAINTENANCE (PM) - Scheduled cyclical maintenance of the BHS and PLB equipment and facilities performed to an acceptable standard and to the satisfaction of The Authority and in accordance with the approved Maintenance Schedule, Maintenance Standards, relevant codes of Practice/Standards, statutory regulations as well as good engineering practice and including regular inspection, servicing, cleaning, detection and correction of potential failures either before they occur or before they develop into major defects (imminent failures).

PRIMARY TERMINAL OPERATING HOURS – The hours of 5:00 A.M. through 11:00 P.M., daily 365 days a year.

QUALITY ASSURANCE (QA) - A means by which the Authority is able to confirm that the quantity and quality of services received conformed to Contract requirements. These methods/procedures are not intended to aid the contractor in the performance of the Contract requirements and shall not be a substitute for Contract quality control.

QUALITY CONTROL (QC) PROGRAM - A method used by the contractor to assure that quality services are provided to satisfy the Contract requirements.

RIGHT OF WAY – Catwalks and floors that provide access to the baggage handling systems.

SERVICES - Includes services performed, workmanship, and material furnished or utilized in the performance of services.

SUPERVISOR - Supervises individuals and/or groups/teams of employees/subcontractors.

VANDALISM - Willful or malicious abuse and/or destruction of property.

WORK CONTROL DESK - Unit where contractor shall check-in and check-out when arriving or departing the job site at DCA. The work control desk’s telephone number is (703) 417-8572.

WORK ORDER DESK - Unit that is primarily responsible for receiving, dispatching and tracking service requests. The work order desk’s telephone number is (703) 417-8063.
SECTION IV - BASE SERVICES

01 DESCRIPTION OF SERVICES

The contractor shall provide all supervision, labor, administrative support, materials, tools, parts, supplies, equipment and transportation necessary to perform all maintenance and repair services, preventive maintenance and 24 hour callback services, in addition to documentation, monitoring, and reporting of equipment activity and services described herein on all Baggage Handling Systems and Passenger Loading Bridges identified in Appendices A and B.

02 FULL MAINTENANCE AND REPAIR SERVICES

A. The contractor shall be responsible for performing all maintenance and repair work required to maintain equipment in the condition prescribed by the original equipment manufacturer’s recommended guidelines to include all items, fixtures, doors, lights, receptacles, switches, finishes, components, systems and subsystems.

B. The contractor shall maintain all equipment covered by this contract in compliance with all applicable codes, laws and regulations.

C. The contractor shall provide all non-vandalism replacement parts which are required to maintain, repair and keep the maintained systems fully operational and free of deficiencies unless otherwise stated in the SOW.

D. The contractor shall remove from service immediately any piece of equipment covered by this Contract that is not operating in compliance with the manufacturer’s recommendations, or presents a safety hazard and shall notify the COTR immediately.

E. When deficiencies are found, the contractor shall immediately proceed to repair and/or correct the deficiencies. If a piece of equipment is required to be removed from service for any reason other than a safety deficiency, the contractor shall coordinate the removal of the equipment from operation in advance in with the Authority.

F. In addition to the work encompassed by 02. A, B, and C, the following work items/repairs shall be included as part of Base Services and shall be performed at no additional cost to the Authority:

1. Re-set activated safeties and E-stops
2. Clearing baggage jams
3. Respond to improper loading of baggage, etc on the BHS
4. Respond to equipment running on arrival
5. Requests for unit shutdowns or restarts
6. Requests for access to equipment from MWAA maintenance sections
7. Removal of foreign objects from equipment

E. Requests for service will be dispatched by the Authority to the Contractor. However, the Contractor shall also be responsible for initiating and completing required repairs to correct all deficiencies that they discover while on the job site.

03 PREVENTIVE MAINTENANCE SERVICES

As part of Base Services, the Contractor shall perform and maintain a detailed cyclic preventive maintenance program for the tasks specified in Appendices C and D of the SOW. The contractor shall be responsible for
performing all daily inspections and cyclical preventive maintenance services required to maintain all equipment in the operating condition prescribed by the original equipment manufacturers recommended guidelines.

The preventive maintenance program shall consist of the following three parts:

1. Schedule
2. Task and Frequencies
3. Corrective Action

1. Schedule

A. The contractor shall follow the Authority’s CMMS generated preventive maintenance schedule. The Authority will provide the contractor with standing work orders for the scheduled preventive maintenance services at the beginning of each month for the contractor to complete by the end of the month. The contractor shall perform these preventive maintenance work orders within plus or minus 2 days from the last cyclical date the maintenance was performed. Should the contractor have recommended changes or additions to the preventive maintenance schedule, the contractor shall provide written notification and justification to the COTR within 30 days after the contract start date.

B. During contractor duty hours no unit shall remain out of service for preventive maintenance services without the presence of technicians performing work.

C. Preventive maintenance shall be performed as stated on the equipment listed below:

1. Daily inspections shall be performed at the beginning of each shift.
2. Monthly, quarterly and semi-annual tasks shall be scheduled and performed in coordination with the airlines’ operation. At no time shall preventive maintenance impede airline operations.

D. The contractor shall not schedule any equipment to be out of service for preventive maintenance the week preceding or the week following the Thanksgiving holiday and the Christmas holiday unless approved in advance by the COTR.

E. All information pertaining to accomplishment of the work shall be documented on the work order. Documentation shall include mechanic names; date of service, parts/materials used and hours spent accomplishing the task.

F. Work orders shall be turned back in to the Authority no later than 2 business days after completion of work.

2. Tasks and Frequencies

The Contractor shall follow the Authority provided tasks and frequency guidelines shown in Appendices C and D to perform and accomplish the preventive maintenance for all equipment included in the SOW. Should the Contractor have recommended changes or additions to the information in Appendices C and D, the Contractor shall provide written notification and justification to the COTR within 30 days after the contract. Any approved change will be added to the SOW through a contract modification. The contractor shall post a copy of the resulting final approved tasks and frequency guidelines on the job site for the contractor employees’ information.
3. **Corrective Action**

The contractor shall request a corrective maintenance work order through the Work Order Desk for all deficiencies discovered during the performance of inspections and preventive maintenance.

04 **24 HOUR CALLBACK**

A. The contractor shall provide 24 hours, 7 days a week, 365 days a year dispatch desk with a single point of contact for all 24-hour call back requests for service. A person, not voice mail, shall answer calls placed to the dispatch desk. Dispatch desk personnel shall be responsible to log and forward basic information about calls including party calling, caller’s contact information, accurate technical description of the problem or request, extent of the outage if a portion of the system is down, equipment and location involved, and any other relevant technical portions of the activity log entry for the call. The phone number to the dispatch desk shall be provided to the COTR on the day of contract award.

B. The contractor shall respond to all requests for service and corrective action 24 hours a day, 365 days of the year. The contractor may at a minimum initially dispatch one journeyman level mechanic to respond to the call for service. However, if the contractor determines additional mechanics are required to complete the repairs and return the equipment to service, the contractor shall dispatch the additional mechanics at no cost to the Authority. No repair shall be postponed or any unit placed out of service due to lack of contractor resources.

05 **EXCLUDED SERVICES**

All items, finishes, components, systems and subsystems of the maintained systems are covered by this SOW with the following exclusions.

Baggage Handling Systems shall not include:

1. Inspection, testing, maintenance, repair and replacement of fire detection and fire alarm systems including automatic fire sprinkler heads/guards, smoke/thermal fire detectors, and local and remote annunciation systems.

2. Repair and/or replacement of primary electrical power service up to and including equipment disconnect switches.

3. Repair and/or replacement of heating, ventilating and air conditioning systems or equipment.

4. Fire extinguishers.

5. TSA baggage scanning equipment.

Passenger Loading Bridges shall not include:

1. Inspection, testing, maintenance, repair and replacement of fire detection and fire alarm systems including automatic fire sprinkler heads/guards, smoke/thermal fire detectors, and local and remote annunciation systems.

2. Fire extinguishers.

3. Routine custodial cleaning.
4. Potable water cabinets and associated equipment.
5. PC air units on PLB 2, 3 and 9
6. Carpet
7. Paint
SECTION V - SUPPLEMENTAL SERVICES

01 DESCRIPTION OF SERVICES

A. The Authority may, during the course of this Contract, request that the contractor perform supplemental services which are outside the requirements of the Base Services Section of this Contract. An example of a supplemental service is the cost of a replacement motor which exceeds $500 in cost.

B. The contractor shall provide all supervision, labor, materials, supplies, parts, tools, and equipment necessary to perform these services. Such work shall be compensated at the rates listed in the Schedule. There shall be no interference with tasks and baseline responsibilities set forth in this SOW for contractor personnel assigned to this Contract.

C. The Authority shall incur no obligation for out of scope work that is not authorized in advance, in writing.

02 CONTRACT SERVICES CALL ORDER

A. All work performed under Supplemental Services will be requested and approved in advance in writing by the COTR using the “Contract Services Call Order” form (Appendix E). The Call Order will contain a detailed description of the services that are required from the contractor. The contractor shall provide the COTR a detailed cost estimate, which includes an itemized breakdown for labor, parts and materials as well as a schedule with critical milestones for completing the Call Order.

B. Labor rates included on the Schedule for the Contract shall be used in preparing these estimates. Both the cost breakdown and schedule shall be made part of the Call Order. Unless otherwise directed by the Authority, the contractor shall provide the Authority an accurate written estimate of the cost and time for the contractor to complete each of the tasks requested by the Authority. These estimates are to be provided by the contractor to the Authority at least 48 hours prior to the contractor initiating any work on a task. The contractor shall not proceed with any of the work described in such Call Orders until written authorization has been received from the COTR.

C. The contractor shall be reimbursed for the labor and materials to complete such tasks in accordance with the provision of this SOW entitled "Method of Payment". The Authority shall incur no obligation for out of scope work that is not authorized in advance, in writing.
SECTION VI - CONTRACT START UP

01 KEY CONTRACTOR PERSONNEL

The contractor shall identify and provide the COTR with a list of names and telephone numbers of its key personnel who shall be responsible for fulfilling all the requirements of this SOW. Contractor’s Key Personnel List shall be provided in the Offeror’s proposal (See Attachment 02) for evaluation by the Airports Authority. Individuals whose qualifications are presented will be committed to the project for its durations unless otherwise determined by the COTR.

02 PREINSPECTION OF EQUIPMENT

A. The contractor shall perform a Condition Survey and assess all equipment covered under this SOW to establish a condition baseline. The Condition Survey shall include observations of deficiencies in equipment condition, operation and/or performance and shall provide a documented baseline report of deficiencies and serve as a “starting point” for contractor to provide ongoing maintenance. The contractor shall be responsible for providing any additional resources necessary to complete this task as part of the Base Services portion of the contract.

B. The Condition Survey report shall identify and validate all deficiencies that the contractor claims exist, together with a detailed breakdown of the estimated cost to repair each deficiency and a recommended priority to correct each. The Condition Survey report shall be submitted to the COTR within thirty (30) calendar days after contract start date. The Authority will determine how and when each item will be addressed. Correction of these deficiencies will be accomplished by either Supplemental Services under this SOW or by competitive procurement as determined by the Authority. Any Deficiencies found after the Condition Survey report has been submitted will be considered the contractor’s responsibility and will be covered under Base Services or Supplemental Services depending on the circumstances. If the contractor fails to submit the condition survey report within thirty (30) calendar days after contract start date, any deficiencies found will be considered the contractor’s responsibility and will be covered under Base Services or Supplemental Services depending on the circumstances.
SECTION VII - DOCUMENTATION AND REPORTING

01 MAINTENANCE REPORTING

The contractor shall document all maintenance work via Authority generated work orders. Upon completion of work the contractor shall provide all relevant information data on the work order that relates to the work performed by the contractor. This information data shall include the name of mechanic(s), date of service, specific repairs accomplished, date completed, hours worked and any comments necessary to explain corrective action or work performed.

02 EQUIPMENT RELATED ACCIDENTS/INJURIES

The contractor shall provide a formal report of all accidents and/or injuries, which occur and involve the equipment covered by this Contract via email no later than two hours after the occurrence. This report shall identify all parties involved, location, times and suspected cause of incident.

03 DAILY ACTIVITY EMAILS

A. The contractor shall send an email to the COTR at the beginning of each shift communicating information on the contractor’s planned work for that particular shift.

B. The contractor shall send a pictorial email to the COTR at the end of each shift communicating information on the contractor’s accomplished work for that particular shift. This email shall include pictures and information on all planned (PMs and scheduled CM) and unplanned (bag jams, equipment outages, etc.) work.

04 VANDALISM INCIDENTS

A. The contractor shall respond to all calls for suspected vandalism that involve the equipment covered by this Contract. If the contractor finds suspected vandalism damage to the equipment the contractor shall secure the equipment, contact the Police and wait at the equipment until the Police respond and prepare an Incident Report.

B. The contractor shall immediately notify the COTR via email of each occurrence of suspected vandalism. This notification shall include electronic photographs of the damage along with a description of the damage, police report number, probable cause and estimated cost or extent of damage.

C. The contractor shall in all instances of suspected vandalism provide the COTR within three (3) business days time; date stamped digital photographs, a complete statement of justification, a Police Incident Report Number, a CMMS Work Order Request Number, and an estimated cost break down to complete the repairs.
SECTION VIII - GENERAL REQUIREMENTS

01 CONTRACT MANAGER

A. The contractor shall provide a qualified and experienced full-time Contract Manager. The Contract Manager shall have full authority to act for the contractor and serve at all times to carry out all the provisions of the Contract. The Contract Manager shall be in charge of and have overall responsibility for the work to be carried out under this contract and as such shall devote their time exclusively to this task.

B. The name of the Contract Manager and an equally responsible alternate who shall assume the Contract Manager’s duties when the primary Contract Manager is absent shall be designated in the Offeror’s proposal (See Attachment 02). The Contract Manager and his/her alternate whose qualifications are presented will be committed to the project for its durations unless otherwise determined by the COTR.

C. The Contract Manager shall be available for calls 24 hours a day, seven (7) days a week. The Contract Manager shall be available at all times to attend regularly scheduled and/or on-demand meetings, tours and inspections requested by The Authority and/or user Airlines to discuss the Maintained Systems.

D. The Contract Manager shall possess excellent computer skills to perform trending, queries and analysis of the Maintained Systems’ performance histories. The Contract Manager shall also possess the ability to receive and send email, and have basic spreadsheet, word processing and database skills.

E. The Contract Manager shall possess skills relating to the operation and maintenance of the Maintained Systems and related sub-systems.

F. The Authority shall have the right in its sole discretion to approve or reject any Manager selected by the contractor at any time.

02 CONTRACTOR PERSONNEL

A. Contractor personnel, including new hires, which will perform maintenance and repair and call back services shall have at least five (5) years experience in the business of installing, troubleshooting, diagnosing, repairing and maintaining the types of equipment covered by this contract.

B. The contractor’s personnel shall conduct themselves in a professional, orderly and safe manner at all times while on the job site.

C. The contractor’s personnel shall present a neat appearance and be easily recognized as contractor employees. All personnel shall portray a professional image at all times. Clothing and shoes shall be worn in accordance with OSHA standards.

D. The contractor agrees to transfer promptly from the Airports any employee or employees that the Authority advises are not satisfactory and to replace such personnel with employees satisfactory to the Authority; but in no event shall the Authority be responsible for monitoring or assessing the suitability of any employee or agent of the contractor.

03 CONTRACT DUTY HOURS

Contract duty hours shall be 6:00 A.M. – 11:00 P.M. 365 days per year, including holidays.
04 QUALITY CONTROL PROGRAM

The contractor shall implement an effective quality control program. This program shall insure the Contractor fulfills all the requirements of this SOW. This program shall include but not be limited to all elements of the quality control program described in the technical proposal that the contractor submitted in response to the Authority's solicitation for this contract.

05 AUTHORITY’S QUALITY ASSURANCE SURVEILLANCE PROGRAM (QASP)

A. The contractor is responsible for the day-to-day inspection and monitoring of all contractor work performed to ensure compliance with Contract requirements.

B. Each phase of the maintenance services rendered under this Contract is subject to Authority inspections, both during and after completion of work. The Authority’s QASP is NOT a substitute for adequate and consistent quality control by the contractor.

C. The Authority has the right, at all times, to inspect services performed, contractor’s workmanship and materials furnished/utilized in the performance of such services to the extent practicable. The Authority shall perform inspections, as it deems necessary, throughout the term of the Contract. However, inspections and/or walk-through shall be conducted in a manner that will not unduly interrupt/delay the contractor’s work.

D. The Authority has the right to arrange for a third party to conduct a condition assessment on the Maintained Equipment, to identify and analyze equipment failures.

E. If any of the services do not conform to Contract requirements, the Authority may require the contractor to perform the services again in conformity with Contract requirements, at no increase in Contract amount. When defects in service cannot be corrected by performing the service again, the Authority may:

1. Require the contractor to take the necessary action to ensure that future performance conforms to Contract.

2. Reduce the monthly payment to reflect the reduced value of the services performed. The Contracting Officer shall make a determination as to an appropriate sum of money that will approximately equate to the reduced service.

F. If, after having been directed by the Authority to correct a Contract deficiency, the contractor fails to promptly perform the services again or fails to take the necessary action to ensure future performance is in conformity with Contract requirements, the Authority may:

1. Perform the services (by Contract or otherwise) and charge the contractor any cost incurred by the Authority directly related to the performance of such service.

2. Terminate the Contract for default.

G. Typical Authority QASP methods.


2. Random COTR inspections of the facility.
3. CMMS Queries for status of open CM & PM work orders.
4. Random reviews of contractor’s employee payroll to ensure Contract manpower requirements are being met.

06 RESPONSE TIME

A. The contractor shall be available to respond to all BHS and PLB outages, service callback requests and emergencies as necessary at the Airport 24 hours a day 365 days a year for the term of the contract. The contractor shall respond to all requests within 15 minutes during contract duty hours and within 1 hour at all other times.

B. Response time is defined as from the time the contractor receives the call from the Authority to the time the contractor arrives at the Airport and checks in with the Authority.

07 CONTRACTOR CHECK-IN/CHECK-OUT PROCEDURE

The contractor shall, immediately upon arriving to the job site; check-in with the Authority’s Work Order Desk (417-8063) and immediately prior to their departure from the job site shall checkout with the Authority’s Work Order Desk. During callback check-in the contractor shall inform the Work Order Desk as to the purpose of the visit. During callback checkout the contractor shall apprise the Work Order Desk of the status of the unit(s) of which they responded. Check-in and checkout is defined as reporting in person or by utilizing an on-site Authority owned non-cellular phone.

08 COMMUNICATION AND COORDINATION WITH AUTHORITY AND AIRLINES

A. The contractor shall maintain an effective Communication and Coordination Policy with the Authority and Airlines utilizing email, telephones, faxes, pagers, etc. to ensure the Authority and Airlines are kept abreast of current equipment status, planned outages, injuries, vandalism, etc. for the duration of the Contract.

B. The contractor shall be responsible for coordinating and cooperating in all respects with the airlines and the Authority and/or their representatives to insure all maintenance tasks are scheduled around the requirements of the user airline’s operation.

C. The contractor’s key personnel shall have cell phones with e-mail, texting and camera capabilities.

09 STATUS MEETINGS

The Contractor’s representative(s) shall attend all meetings as required by the COTR to perform inspections, discuss, coordinate and evaluate the status and performance of services under this contract. These meetings will be held on a weekly basis or as frequently as the COTR deems it necessary.

10 ACCIDENTS

The contractor shall be responsible for promptly notifying the Airport Police and the COTR of all accidents relating to the Maintained Systems covered by this Contract that involve bodily injury to workers, building occupants, visitors, or other persons. The COTR will provide information necessary concerning whom to contact and the specific form of the follow-up written notice.
11 LOST AND FOUND PROPERTY

The Contractor shall immediately turn in to the Authority’s Lost and Found Department all property found on the job site. Any violations or disregard of the rules, regulations and/or policies may be cause for immediate termination.

12 DELIVERY OF SUPPLIES

The contractor shall schedule its own supply deliveries. The contractor shall arrange to have deliveries made during loading dock hours.

13 SECURITY REQUIREMENTS

A. Contractor shall be responsible for, at no additional cost to the Authority, ensuring that all contract employees obtain an airport security badge prior to the Contract start date. Airport security badges shall be visibly displayed by all contract employees at all times while on the job site. The contractor shall provide the COTR with a photo-copy of all contract personnel security badges on the Contract start date.

B. The contractor shall secure and safeguard all keys, key cards, and any other entry devices and codes provided by the Authority. The contractor shall maintain a record of the key numbers issued to its employees. These prohibitions and requirements shall also be applicable to all individuals with regard to access, removal, and/or possession of any information, confidential data, materials, supplies, or equipment. The contractor shall not duplicate and shall not allow any such issued items to be duplicated or removed from the job site. All keys and other entry devices used by the contractor’s employees in the performance of the work shall be returned to the Authority when the Contract expires.

C. The contractor shall immediately report to the Authority all keys and/or security badges issued to it by the Authority that are lost or stolen.

D. The contractor shall ensure that, under no circumstances any of its employees shall enter an area not authorized for access by the contractor.

E. Contractor employees shall be subject to, and shall at all times, conform with any and all rules, regulations, policies, and procedure pertaining to security at the airport. Any violations of the rules, regulations, policies, and procedures may be cause for immediate termination.

F. The contractor shall be responsible for, at its own expense, compliance with the requirements and procedures to obtain approval of any motor vehicle to operate in the Air Operations Area (AOA).

14 SAFETY

A. All Contract employees shall comply with all applicable OSHA and Authority rules and practices, including directives issued by the Airport Manager, Airport Operations, MWAA Police and Fire Departments, Federal Aviation Administration, and Authority Divisions while on the job site.

B. The contractor shall provide and ensure that all personnel at the work site wear the safety devices/apparel described below as required.

- Approved back support and protective devices
- Eye protection in compliance with ANSIZ87.1. -1968.
- Hearing Protection
• Safety Shoes
• Hard hats
• Reflective vests
• Other safety devices/apparel as conditions warrant

C. The Authority reserves the right to inspect all areas for safety violations at its discretion, direct the contractor to make immediate improvement of necessary conditions and/or procedures, and/or stop the work if other hazards are deemed to exist.

D. In the event that the Authority should elect to stop work because of any type of existing safety hazards after the contractor has been notified and provided ample time to correct, the contractor shall bear all costs for eliminating the hazard(s) and shall not be granted compensation for the work stoppage. The contractor shall pay all additional expenses.

E. Aisles, passageways, alleyways, entrances, exits or right-of-ways to fire protection equipment must be kept unobstructed at all times.

F. The contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The contractor shall take all necessary precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to persons, properties, equipment and vehicles.

G. Damage caused by the contractor to any properties shall be repaired and have any needed replacements made to the satisfaction of the Authority at the expense of the contractor. The Authority, at its sole direction, may elect to repair or replace the damaged property, and deduct such costs from monies due the contractor.

H. The contractor shall, on the Contract start date, submit its own detailed safety and protection plan/program that shall comply with all safety, environmental protection, property protection and health provisions of the Contract.

I. Prior to use of any products or materials, the contractor shall provide the following submittals for review and approval by the COTR.

1. Manufacturer’s product data and literature
2. Manufacturer’s installation recommendations
3. Samples, if required by the COTR
4. Material Safety Data Sheets (MSDS)

15 FIRE PREVENTION AND PROTECTION

A. Fire prevention and protection at Authority facilities property is essential. The Authority shall provide limited fire prevention equipment within the facilities. The availability of fire protection equipment provided by the Authority shall not limit the contractor’s responsibility or liability for maintaining a reliable fire prevention and protection program for its employees and the property serviced.

B. The contractor shall be knowledgeable of and provide adequate and appropriate training for all employees in the proper method of reporting a fire. All pertinent information regarding fire-reporting procedures may be obtained from the COTR.
16  EQUIPMENT STORAGE - AOA

The contractor shall not store any equipment, lifts, tools, parts, etc. on the AOA.

17  SMOKE FREE ENVIRONMENT

The Authority’s facilities are smoke free. The contractor and its employees shall adhere to the rules and regulations in regard to this facilities maintenance of a smoke free environment.

18  FIXED IMPROVEMENTS AND OPERATING FACILITIES

A. During the period of performance of the Contract, title to the Fixed Improvements made by the contractor on the job sites shall remain with the contractor. “Fixed Improvements” includes any improvements, fixtures, additions, annexations or alterations to the job sites or a portion thereof which cannot be removed or changed without material damage to, or destruction of, either itself or the job sites or a portion thereof. All Fixed Improvements on the job sites shall require the prior written approval of the Authority.

B. The contractor shall have no right during the term of this Contract to demolish or remove, in whole or in part, any Fixed Improvements on the job sites except with the prior written consent of the Authority, which may, at the discretion of the Authority, be conditioned on the obligation of the contractor to replace the same by a building structure or improvements, shall be left in place and title to them shall transfer to the Authority unless otherwise acquired in writing by both the contractor and the Authority.
SECTION IX - SPECIAL REQUIREMENTS

01 PERMITS AND RESPONSIBILITIES
A. The contractor shall, without additional expense to the Authority, be responsible for obtaining all necessary licenses and permits. The contractor shall also be responsible for all damages to persons or property that occur as a result of the contractor’s negligence and shall take proper safety and health precautions to protect the work, the workers, the public and the property of others. In addition, the contractor shall be responsible for all materials delivered and work performed until completion and acceptance of the entire work.

B. The contractor shall comply with all applicable revisions, additions, changes and/or upgrades to any Federal, state, and municipal laws, codes, and regulations which are in effect on the date of Contract and which affect the performance of the work. The contractor shall also obtain and pay the costs of any royalties and licenses for any patented or copyrighted items used in the performance of the work.

C. It shall be the responsibility of the contractor to promptly notify the COTR if an official in charge of compliance with the Occupational Safety and Health Act visits the work site.

02 REGULATION REQUIREMENTS
A. The contractor shall comply with all applicable Federal, state, local, Authority and the Airports regulatory, code and procedural requirements. This shall include but not be limited to the contractor complying with the following Authority requirements:

1. The Authority’s:
   • Construction Safety Manual
   • Orders and Instructions
   • Design Manual

2. The Airport’s:
   • Advisories
   • Orders and Instructions
   • Security, Traffic and Parking Requirements
   • Safety Procedures including Lockout/Tagout, Confined Space Entry, Hazardous Materials, Material Safety Data Sheets etc.

B. The contractor shall report all incidents and accidents immediately to the Authority in accordance with Federal and State laws and regulations and Authority Orders and Regulations.

03 ASBESTOS CONTAINING MATERIALS/LEAD-BASED PAINT
A. Most facilities at the Airport except for current CDP construction were constructed prior to 1981. Therefore, these facilities should be presumed to have both Asbestos Containing Materials (ACM) and paint containing lead in their construction.

B. Prior to undertaking any activities that could disturb these materials the contractor shall obtain prior written approval from the Authority to proceed with such activities.
04 **HAZARDOUS/CARCINOGENIC MATERIALS**

A. The contractor shall not bring, produce, use, or store on the job site any hazardous or carcinogenic products without prior written approval by the Authority. All hazardous and/or carcinogenic waste transported or generated on-site at the Airport by the contractor must be properly disposed off the Airport site by the contractor as required by law and at no additional cost to the Authority.

B. The contractor shall provide the Authority with complete, legible copies of all regulatory notices, violations, citations, etc. received by the contractor that pertain directly or indirectly to the fulfillment of this SOW.

05 **VOC REQUIREMENT**

The contractor shall use on the job site only chemicals and cleaning products that do not exceed the national Volatile Organic Chemical (VOC) limitations rule(s) published by the U.S. Environmental Protection Agency (EPA).

06 **HAZARDOUS WASTE**

A. The contractor shall initiate a Hazardous Waste Management training program for its employees and subcontractors on the proper disposal of hazardous materials. Contractor shall ensure employees are aware that the domestic drains, and storm drains shall not be used to dispose of gasoline, paint, thinners, oils, solvents, concentrated cleaning agents and other toxic material.

B. The contractor is responsible for collecting, accumulating, recycling, and/or offsite disposal of its hazardous and toxic waste off the Airport in compliance with Federal, state and local laws governing hazardous waste storage and disposal.

C. The contractor shall provide the Contracting Officer and the COTR with documentation of hazardous materials or wastes that are accumulated, handled, generated, or disposed of by the contractor’s operations. The documentation shall demonstrate the adequacy of the handling and disposal operations used by the contractor and will demonstrate that the contractor activities will not result in contamination of Airport properly. The Authority shall provide this documentation upon request during periodic environmental inspections of the contractor’s premises. The Authority shall be copied on all correspondence with regulatory agencies concerning the contractor’s compliance with environmental regulations.

D. If the contractor generates hazardous waste in an amount that makes it subject to state and EPA hazardous waste requirements, the contractor shall apply for a Hazardous Waste Generator Identification Number, without additional expense to the Authority. Hazardous waste shall be shipped off the Airport using the contractor’s Hazardous Waste Generator Identification Number documented on a complete and properly signed Uniform Hazardous Waste Manifest. The contractor shall be required to submit an Annual Hazardous Waste Report to the State of Virginia Department of Environmental Quality.

E. The contractor shall be responsible for developing a Resource and Conservation Act Contingent (RCRA) Plan if the amount of hazardous waste generated places it into a category that requires a plan.

F. The contractor shall be responsible for notification and reporting required under SARA, Title III regulations.
G. The contractor shall, at start of Contract, implement a written hazardous waste spill contingent plan listing materials used, spill prevention procedures, containment equipment and procedures to be used in the event of spill, personnel protective equipment requirements, notification procedures, in accordance with the Resource Conservation and Recovery Act (RCRA) and the Occupational Safety and Health Administration (OSHA) regulations.

H. In the event of the spill, the contractor shall notify the Airport Fire Department at (703) 417-8250. The contractor shall be responsible for all cleanups, site remediation and disposal costs including hazardous waste response teams that may be required at the site. All procedures shall be in accordance with applicable Federal, state and local environmental and OSHA regulations. The contractor shall remove all hazardous waste materials from the Airport at the end of each workday. Hazardous materials that are temporarily stored at the job site shall be placed in containment devices that are capable of containing 110 percent of the volume of the substance in the event of a spill.
SECTION X - CONTRACTOR FURNISHED RESOURCES

01 GENERAL

A. The contractor shall furnish all resources (i.e. supervision, labor, materials, tools, parts, supplies and equipment) necessary to fulfill all the requirements and satisfactorily perform all services described in this SOW in a safe, orderly, timely, efficient and workmanlike manner. The contractor shall provide any additional resources to fulfill the contract requirements at no additional cost to the Authority.

B. Adequate Equipment shall be provided or available to permit the timely completion of all operations. The contractor’s equipment shall be of such type as to accurately and effectively perform the task(s) intended. The contractor shall maintain equipment in good operating condition so as not to leak fuel or lubricants or produce excessive noise or noxious fumes beyond normal functioning levels as prescribed by the manufacturer. The contractor’s trucks and/or trailers shall be clearly marked with safety cones or other devices when parked to ensure the public is well aware of their presence during operations. At the end of each workday, the contractor shall remove all equipment and debris from the worksite.

C. All electrical powered equipment used on-site by the contractor shall be protected by Underwriters Laboratory (UL) approved Ground Fault Interruptions (GIF) devices.

02 REPLACEMENT PARTS

A. The contractor shall purchase all replacement parts necessary under this contract with individual costs per part less than $500 (exclusive of shipping and taxes). The Contractor shall install these parts under Base Services at no additional cost to the Authority.

B. The contractor shall maintain a sufficient amount of replacement parts to maintain the equipment in a safe and efficient operating condition. Parts requiring repair shall be rebuilt to “as new” condition. No parts covered under this contract may be removed from the area without written approval from the Authority. This does not include renewal/repair components stocked on the job by the contractor. The replacement parts shall remain the contractor’s sole property until installed on the equipment. In performing the indicated work, the contractor agrees to provide parts used by the manufacturer of the equipment for replacement or repair and to use lubricant obtained from and/or recommended by the manufacturer. Equivalent parts or lubricants may be used if approved in writing by the Authority.

C. The contractor shall provide and maintain sufficient parts and supplies on hand to correct the majority of all service callbacks.

03 SAFETY EQUIPMENT

The Contractor shall provide all necessary safety equipment/devices, personal protective equipment and clothing as required for its employees.

04 COMMUNICATION EQUIPMENT

The contractor shall maintain an effective communication and coordination policy with the Authority utilizing email, telephones, faxes, scanners, text messaging devices, etc. to ensure the Authority is kept up to date for the term of the contract.
05  ONSITE OFFICE/COMPUTER EQUIPMENT

A. The contractor shall be responsible for providing at its sole expense all materials, supplies, furniture, fixed improvements and equipment it may require in the office space.

B. The contractor shall provide digital cameras capable of taking time/date stamped photos. The cameras shall remain onsite at all times when the contractor is performing work.
SECTION XI - AUTHORITY FURNISHED RESOURCES

01 ON-SITE OFFICE SPACE

A. To facilitate fulfilling the requirements of this SOW, the Airports Authority will provide the contractor office space at the Airport. The contractor shall use this space for Airports Authority work only.

B. The contractor shall keep such area clean and orderly at all times.

C. The contractor shall keep the on-site office door locked whenever unoccupied.

D. The contractor shall not allow persons who do not possess a current Airport security badge to remain in the on-site office unescorted.

E. The contractor shall not store any items not related to the contract in the on-site office.

02 ON-SITE OFFICE COMPUTER

A. The Authority will provide the Contractor the use of a computer system and access to Authority’s Local Area Network for the sole purpose of fulfilling the requirements of the contract.

B. The computer systems and related equipment shall remain on the jobsite at all times and shall only be used for the purpose of fulfilling the requirements of this contract. The Authority’s IT department to verify compliance of this requirement may monitor Contractors computer usage.

C. The Contractor shall not allow unauthorized users to operate or use the Authority provided computer.

D. The computer, related equipment and data shall remain the property of the Authority at the end of the contract. The Contractor shall be responsible for maintaining the equipment in good working order and the repair or replacement of any equipment that is damaged, lost or stolen.

03 ONSITE PARKING SPACE

A. The Authority will provide at no cost to the contractor one (1) parking space for an on-site service vehicle.

B. The Authority will provide unreserved general parking spaces for the contractors’ on-site employee’s private vehicles. The Authority will charge the contractor for these parking spaces at the same rate as the Authority charges its tenants and concessionaires for similar parking.

C. Visitor parking spaces will be provided at no charge for the contractor to attend meetings, conferences and conduct Contract related business at the East Building and Authority Corporate Office Building. Visitor passes for this space shall be obtained from the receptionist desk.

04 REPLACEMENT PARTS

The Airports Authority will purchase all replacement parts necessary under this contract with individual costs in excess of $500 (less shipping and taxes). The Contractor shall install these parts under Base Services at no additional cost to the Authority.
05 UTILITIES

The Authority will pay the cost of utilities (electric, water, etc.) used in the operations and maintenance of the Maintained Systems as reasonable. The Authority will not compensate, or will back charge, the contractor for unreasonable utility charges.
SECTION XII - DELIVERABLES

The contractor shall be required to submit the following deliverables to the Authority’s COTR for this Contract. The Section of this Statement of Work describing the required deliverables are provided with each deliverable listed below.

01 CONTRACT START DATE

A. Contractor’s 24 Hour Dispatch Phone Number
B. Contractor’s Key Personnel List
C. Photo-copies of Employee Security Badges
D. Contract Manager and Alternate Information
E. Contractor’s Safety Plan

02 DAILY

A. Completed Work Orders
B. Beginning of Shift Email
C. End of Shift Email

03 THIRTY (30) CALENDAR DAYS AFTER CONTRACT START DATE

A. Recommended Changes to the Preventive Maintenance Program
B. Condition Survey Report

04 AS REQUIRED

A. Accident/Injury Report
B. Vandalism Incident Report
SECTION XIII - METHOD OF PAYMENT

The contractor shall submit an invoice on a monthly basis for services completed, to the satisfaction of the COTR during the previous month. The Authority shall incur no obligation for out of scope work that is not authorized in advance, in writing. These monthly invoices shall be itemized to provide a breakdown of cost for all services according to the following:

01  BASE SERVICES

The contractor shall invoice the Authority for operation, corrective maintenance and preventive maintenance services at the end of each calendar month in which the work was performed in accordance with the SOW, and shall be paid for actual services performed.

The Authority reserves the right to withhold a portion of the monthly payment to the extent the contractor has not fulfilled the requirements of the SOW for the month in which the services were performed.

02  SUPPLEMENTAL SERVICES

In addition to the Base Services payment described above, the Authority will reimburse the contractor for performing supplemental services as described below.

A.  VANDALISM REPAIR SERVICES

The contractor shall be reimbursed for the labor and materials required to complete validated vandalism repairs in accordance with the fully loaded labor rates specified in the Schedule. The contractor shall be reimbursed for all materials used in the performance of vandalism repairs at Invoice plus 10 percent. The contractor shall not mark-up shipping/handling costs. The contractor shall not invoice the Authority for any work unless a Call Order signed by the COTR has been received or for any work described in a Call Order until after all the work described in the Call Order has been completed to the satisfaction of the COTR.

B.  PARTS/MATERIALS

The contractor shall invoice the Authority for the actual cost expended by the contractor to purchase replacement parts and/or materials (for a single item) in excess of $500.00 (Five Hundred Dollars) to fulfill the requirements of the Statement of Work and which have been approved in writing by the CO and/or COTR. The actual cost of the replacement parts is excluding the price of shipping. Materials costing less than $500 will not be reimbursed, as they are part of base services. No combining of cost for multiple replacement parts and/or materials shall be permitted. This cost shall be invoiced to the Authority at the end of the calendar month in which the contractor incurred it. Original invoice of parts purchased must be submitted to the Authority. The contractor will be allowed a 10% mark-up for each part over $500.00. The contractor shall not mark-up shipping/handling costs.
SECTION XIV - CONTRACT PHASE OUT

01 AUTHORITY PROVIDED RESOURCES

Upon expiration/termination of the Contract, the contractor shall return to the Authority, in good condition, less any reasonable wear and tear, all Authority provided resources, computer hardware, barcode equipment, communication devices, documentation, drawings, etc loaned by the Authority.

02 SECURITY DEVICES

Upon expiration/termination of the Contract or discontinuance of employment of any of contractor personnel working in the Airport, all airport keys, security badging and all other Authority identification shall be surrendered to the COTR.

03 RECORDS AND DOCUMENTATION

Upon Contract termination or the end of the Contract term all records and documentation, including, but not limited to, Databases, Drawings, O&M Manuals, Preventive Maintenance Schedules, Preventive Maintenance Records, Data etc. shall remain the sole property of the Authority.
SECTION XV - APPENDICES

A - INBOUND AND OUTBOUND BAGGAGE HANDLING SYSTEM DESCRIPTIONS

B – PASSENGER LOADING BRIDGE DESCRIPTIONS

C - BHS PM TASK AND FREQUENCY REQUIREMENTS

D – PLB PM TASK AND FREQUENCY REQUIREMENTS

E – CONTRACT SERVICES CALL ORDER FORM
APPENDIX A

INBOUND AND OUTBOUND BAGGAGE HANDLING SYSTEM DESCRIPTIONS
**INBOUND AND OUTBOUND BAGGAGE HANDLING SYSTEM DESCRIPTIONS**

**New Systems**

As of the writing of this Statement of Work there are two baggage systems being designed for installation in Terminal A. It is anticipated that these new systems will be operational by the time of contract award. The new systems will be covered under a one-year warranty period by the installer of the systems. Upon expiration of the warranty period the maintenance contractor shall assume full responsibility for the systems. During the warranty period however, the maintenance contractor shall be responsible for all preventive maintenance tasks and shall be responsible for responding to all system issues. If an issue is thought to be a warranty related item, the contractor shall immediately notify the COTR. The contractor is responsible for all items not deemed by the COTR to be warranty issues.

The new systems include a curbside line and an outbound line feeding a claim device. Currently the new systems are expected to include the following:

<table>
<thead>
<tr>
<th>Terminal A – Curb Side</th>
<th>Terminal A - Outbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inbound BHS Curb Side Transport Belt (CSI-1)</td>
<td>Outbound BHS Transport Belt (OB-01)</td>
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<tr>
<td>Inbound BHS Curb Side Power Turn (CSI-12)</td>
<td>Outbound BHS Carousel (MU-4)</td>
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</table>

**Existing Systems**

**Terminal A**

The inbound baggage handling system consists of two Sterns Maxi-II (old style) slope plate claim devises fed by conveyor belts originating from the baggage make-up area below. Baggage claim one is considered the oversize line and is fed by conveyor WI (West Inbound) which consists of five conveyor belt sections. Baggage claim two is fed by conveyor EI (East Inbound) which consists of ten conveyor belt sections.

The outbound baggage handling system consists of one Sterns Maxi-II (old style) slope plate make-up devise fed by two conveyor lines originating at the ticket counter.

| Inbound Baggage Slope Plate Claim Unit #1 (CD-1) |
| Inbound BHS West Line Load Belt (WI-1) |
| Inbound BHS West Line Transport Belt Incline (WI-2) |
| Inbound BHS West Line Transport Belt (WI-3) |
| Inbound BHS West Line Transport Belt (WI-4) |
| Inbound BHS West Line Transport Belt Incline (WI-5) |
| Inbound Baggage Slope Plate Claim Unit #2 (CD-2) |
Inbound BHS East Line Load Belt (EI-1)
Inbound BHS East Line Transport Belt Incline (EI-2)
Inbound BHS East Line 15 Degree Curve Portec (EI-3)
Inbound BHS East Line Transport Belt Flat/Declined (EI-4)
Inbound BHS East Line Transport Belt (EI-5)
Inbound BHS East Line 30 Degree Curve Portec (EI-6)
Inbound BHS East Line Transport Belt (EI-7)
Inbound BHS East Line Transport Belt (EI-8)
Inbound BHS East Line Transport Belt Incline/Flat (EI-9)
Inbound BHS East Line Transport Belt Incline (EI-10)
Outbound Baggage Slope Plate Claim Unit (MU-1)
Outbound BHS T1 Line Load Belt (TC1-1)
Outbound BHS T1 Line 90 Degree Curve Transnorm (TC1-2)
Outbound BHS T1 Line 90 Degree Spiral Curve Portec (TC1-3)
Outbound BHS T1 Line Transport Belt Decline (TC1-4)
Outbound BHS T1 Line Transport Belt Discharge (TC1-5)
Outbound BHS T2 Line Load Belt (TC2-1)
Outbound BHS T2 Line 90 Curve Transnorm (TC2-2)
Outbound BHS T2 Line 90 Spiral Curve Portec (TC2-3)
Outbound BHS T2 Line Transport Belt Decline (TC2-4)
Outbound BHS T2 Line Transport Belt (TC2-5)
Outbound BHS T2 Line 90 Degree Curve Portec (TC2-6)
Outbound BHS T2 Line Transport Belt Decline (TC2-7)
Outbound BHS T2 Line 90 Spiral Curve Portec (TC2-8)

**Terminal A JetBlue**
Belt system placed into service in 2010.

Inbound BHS Load Belt (IB-1)
Inbound BHS Incline (IB-2)
Inbound BHS Spiral curve, Portec (IB-3)
Inbound BHS Slave (IB-4)
Inbound BHS Transport Belt (IB-5)
Inbound BHS Transport Belt (IB-6)
Inbound BHS Transport Belt (IB-7)
Inbound BHS Incline (IB-9)
Inbound BHS 90 Degree Curve Portec (IB-10)
Inbound BHS 90 Degree Curve Portec (IB-11)
Inbound BHS Decline (IB-12)
Inbound BHS Merge with Fixed Plow Diverter (IB-13)
Inbound BHS Flat Plate Claim
Outbound BHS Ticket Counter/Curbside (OB-1)
Outbound BHS 90 Degree Curve (OB-2)
Outbound BHS Transport Belt (OB-3)
Outbound BHS 90 Degree Curve (OB-4)
Outbound BHS Ticket Counter (OB-5)
Outbound BHS Ticket Counter (OB-6)
Outbound BHS Transport Belt (OB-7)
Outbound BHS 90 Degree Curve (OB-8)
Outbound BHS Decline (OB-9)
Outbound BHS 90 Degree Curve (OB-10)
Outbound BHS Transport Belt (OB-11)
Outbound BHS Transport Belt (OB-18)
Outbound BHS 90 Degree Curve (OB-19)
Outbound BHS Transport Belt (OB-21)
Outbound BHS 90 Degree Curve (OB-22)
Outbound BHS Indexing Belt (OB-23)

Terminal B
The outbound baggage handling system consists of one Sterns flat plate make-up devise fed by a conveyor line originating at the ticket counter. The belt section drive units have been recently replaced with SEW Euro drives.

Outbound BHS TC-3 Line Ticket Counter (TC.03.01)
Outbound BHS TC-3 Line Ticket Counter (TC.03.02)
Outbound BHS TC-3 Line Decline Belt (TC.03.03)
Outbound BHS TC-3 Line Transport belt (TC.03.04)
Outbound BHS TC-3 Line Power Turn 180 degree (TC.03.05)
Outbound BHS TC-3 Line Decline Belt (TC.03.06)
Outbound BHS TC-3 Line Decline Belt (TC.03.07)
Outbound BHS TC-3 Line Transport belt (TC.03.08)
Outbound BHS TC-3 Line Power Turn 180 degree (TC.03.09)
Outbound BHS TC-3 Line Transport belt (TC.03.10)
Outbound BHS TC-3 Line Transport belt (TC.03.11)
Outbound BHS TC-3 Line Transport belt (TC.03.12)
Outbound BHS TC-3 Line Power Turn 180 degree (TC.03.13)
Outbound BHS TC-3 Line Transport belt (TC.03.14)
Outbound BHS TC-3 Line Power Turn 180 degree (TC.03.15)
Outbound BHS TC-3 Line Transport belt (TC.03.16)
Outbound BHS TC-3 Line Power Turn 180 degree (TC.03.17)
Outbound BHS TC-3 Line Transport belt (TC.03.18)
Outbound BHS TC-3 Line QUE belt (TC.03.19)
Outbound BHS TC-3 Line QUE belt (TC.03.20)
Outbound BHS TC-3 Line QUE belt (TC.03.21)
Outbound BHS TC-3 Line Make-up (MU-3)
APPENDIX B

PASSENGER LOADING BRIDGE DESCRIPTIONS
### PASSENGER LOADING BRIDGE DESCRIPTIONS

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<td>Unknown</td>
<td>Unknown</td>
<td>2000 era</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td>JBT</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Mid 90s era</td>
</tr>
<tr>
<td>9</td>
<td>A</td>
<td>Wollard</td>
<td>Unknown</td>
<td>Unknown</td>
<td>1969-70 era</td>
</tr>
</tbody>
</table>

**Gate 1** is a stationary pedestal PLB that can adjust vertically and has a cab element that has minimal extension capability. This bridge was manufactured by Wollard and has a very limited range of movement. Hydraulic lift cylinder and pump rebuilt in 2012. Canopy replaced in 2013.
Gates 2, 4, 6 and 9 have hybrid PLBs equipped with an internal ramp that can adjust vertically and a cab element that has minimal extension capability. These bridges were manufactured by Wollard and have a very limited range of movement.
Gates 3 and 5 have been equipped with a two-tunnel apron drive PLB. The two-tunnel apron drive bridges provide the most flexibility for aircraft servicing with the capability to rotate around the rotunda/support column; extend out toward the aircraft based on the tunnel section length; and articulate up and down to adjust to various aircraft door sill heights.

Gate 7: Installed in 2010
Manufacturer: Thyssen
Type: 3 tunnel hydraulic, configured for RJ Aircraft
Equipment: Hobart 90 KVA 400 Hz GPU. Trielectron 60 ton, roof mounted PCAir
Gate 8: Installed 2012  
Manufacturer: JBT  
Type: 3 tunnel AC drive  
Equipment: JBT JetPower-2  90 KVA 400 Hz GPU. Trielectron 60 ton, Bridge mounted PCAir
APPENDIX C

BHS PM TASK AND FREQUENCY REQUIREMENTS
BELT CONVEYOR

**Note:** Follow appropriate safety procedures including Lock Out Tag Out Procedures as established by the maintenance department.

**Daily PM**

1. Walk through system and observe operation.
2. Listen for squeaks and/or grinding noise, which may indicate bearing failure.
3. Observe belt tracking.
4. Inspect for any safety hazards.
5. Check gearboxes for oil leaks.
6. Check for excessive drive vibration
7. Check for excessive movement of the drives.

**Monthly PM**

1. Inspect condition of conveyor belting.
2. Inspect conveyor belt tracking and adjust as necessary.
3. Inspect belting for proper tension and adjust as required.
4. Inspect belt lacing for broken or missing teeth and repair as necessary.
5. Inspect bearing locking collars for security and tighten as required.
6. Inspect bearing housing for cracks.
7. Check the security of all bearings and tighten as necessary.
8. Inspect pulley position on shaft to assure that the bushings are tight.
9. Check condition of lagging on lagged pulleys.
10. Inspect all Return Rollers, bearings and mounting plates
11. Check the security and alignment of conveyor side guards.
12. Check the security of supports and hangers.
13. Check all section fasteners.
14. Check the oil level in all gearboxes. Remove the plug located on the side of the gearbox, just below the output shaft, to check oil levels. The gearbox can be filled through the vent plug at the top of the unit. Fill until oil starts coming out of the plughole located just below the output shaft.
15. Clean oil out of drip pans and off of gearbox.
16. Check gearboxes for leaks.
17. Remove all debris from under and around the conveyors.
18. Use a shop vacuum to clean under and around conveyors.

**Quarterly PM**

1. Clean all old grease from around the seals on all bearings.
2. Grease all bearings that are equipped with zerk fittings. Do Not over grease most bearings will require only two or three pumps with grease gun.
3. Take and record motor amperage readings to check the motors condition.

**Annual PM**

1. Change gear box oil.
POWER TURN CONVEYOR

**Note:** Follow appropriate safety procedures including Lock Out Tag Out Procedures as established by the maintenance department.

**Monthly PM**

1. Inspect belting for rub marks and/or abrasions.
2. Inspect conveyor belt chain for looseness or damage.
3. Inspect belting for proper tension and adjust as required.
4. Check that all guards and safety devices are in place.
5. Inspect all fasteners for security.
6. Check the security of supports and hangers.
7. Check the oil level in all gearboxes. Remove the plug located on the side of the gearbox, just below the output shaft, to check oil levels. The gearbox can be filled through the vent plug at the top of the unit. Fill until oil starts coming out of the plughole located just below the output shaft.
8. Clean oil out of drip pans and off of gearbox.
9. Check gearboxes for leaks.
10. Remove all debris from under and around the conveyors.
11. Use a shop vacuum to clean under and around conveyors.

**Quarterly PM**

1. Clean and lubricate the chain.
2. Lubricate the upper and lower chain plate.
3. Take and record motor amperage readings to check the motors condition.

**Annual PM**

1. Change gear box oil.
SLOPE PLATE MAKE-UP UNITS

Note: Follow appropriate safety procedures including Lock Out Tag Out Procedures as established by the maintenance department.

**Monthly PM**

1. Remove a section of front trim from the drive section through which most inspections can be performed.
2. Inspect the main chain and cam followers for wear and security, at the drive section, by moving the unit in increments until the entire perimeter has been inspected.
3. Check drive chain tension and adjust as required.
4. Inspect sprockets for alignment and wear, and adjust or replace as required.
5. Inspect sprocket security.
6. Inspect bearing locking collars for security and tighten as required.
7. Inspect bearing housing for cracks.
8. Check the security of all bearings and tighten as necessary.
9. Check motors for security.
10. Check motor electrical connections.
11. Check the oil level in all gearboxes. Remove the plug located on the side of the gearbox, just below the output shaft, to check oil levels. The gearbox can be filled through the vent plug at the top of the unit. Fill until oil starts coming out of the plughole located just below the output shaft.
12. Inspect support wheels for cracks, deterioration and/or worn bearings and replace as required.
13. Check tie straps for wear and security and replace or repair as necessary.
15. Inspect the bumpers and finger guard for wear and security and replace or repair as necessary.
16. Use a shop vacuum to clean under and around conveyors.

**Quarterly PM**

1. Clean and lubricate the drive chain.
2. Clean and lubricate pillow block bearings. Do Not over grease most bearings will require only two or three pumps with grease gun.
3. Check pallet chain tension and expand unit as required.
4. Inspect leveling pads and screws to insure they are contacting the floor and adjust as necessary.
5. Take and record motor amperage readings to check the motors condition.

**Annual PM**

1. Change gear box oil.
CONVEYOR CONTROLS

**Note:** Follow appropriate safety procedures including Lock Out Tag Out Procedures as established by the maintenance department.

**Quarterly PM**

1. Inspect control cabinets for contamination.
2. Inspect Motor Starters, Coils and Overload Heaters for signs of overheating.
3. Check controls for proper voltage.
4. Test all warning alarms and beacons.
5. Inspect all pilot lights to insure that they are lighting and that there is no damage to lenses. Replace bulbs and/or lenses as required.
6. Inspect all pushbutton stations to insure they are functional.
7. Check all pushbutton bulbs and/or lenses and replace as necessary.
8. Check the alignment and security of all photo eyes and reflectors.
9. Clean any dust or dirt from the photo eye lenses and reflectors.
10. Inspect junction box covers and mounting.
APPENDIX D

PLB PM TASK AND FREQUENCY REQUIREMENTS
PLB PM TASK AND FREQUENCY REQUIREMENTS

The following preventive maintenance tasks and frequencies shall be performed as applicable.

**DAILY PM**

1. Walk through system and observe overall operation.
2. Listen for unusual noise.
3. Inspect for any safety hazards.
4. Check for oil leaks.
5. Check lighting.
6. Check for excessive vibration.
7. Check tires.

**QUARTERLY**

1. Drive bridge to all limits to detect any operational problems.
2. Manipulate the following limit Switches by hand making sure they work properly:
   a. Rotunda Rotation
   b. Slope Limits
3. Check cab rotation
   a. Rotate the cab full right and left. Operation should be smooth
4. Check canopy closure operation
   a. Left side raise - the motor will stop running when the Canopy is full up
   b. Right side raise – the motor will stop running when the canopy is full up
   c. Lower the canopy, either side, a few inches. The canopy down message will appear and the bridge will not drive forward
   d. Left side down: Extend the curtain until the clutch is engaged indicated by a clicking sound
   e. Right side down: Extend the curtain until the clutch is engaged indicated by a clicking sound.
5. Check horizontal drive
   a. Drive the bridge full forward. The slow down circuit will activate about 3 feet before full extension is reached and the bridge will stop before reaching the mechanical stops
   b. Drive the bridge full reverse. The slow down circuit will activate about 3 feet before full retract is reached
   c. Insure the travel warning bell is ringing whenever the bridge is moving
   d. Rotate the horizontal drive to its right and left limits. Drive unit should stop at the preset limits
      
      **Note:** All movement should be smooth in operation. If the operation is jerky and/or noisy check for obstruction on the roller tracks
6. Check vertical drive
   a. Raise and lower the unit- operation should be smooth
   b. Raise and lower the bridge to its upper and lower limits. The bridge should stop at the preset heights
   c. Inspect vertical lift column chain coupling
7. Vertical lift column fault limit switches
   
   **Note: Check only one limit switch at a time**
   
   a. Remove limit switch and manually trip while a second person attempts to raise or lower the bridge. If the bridge raises or lowers the limit switch is defective and must be replaced
   b. Repeat this procedure on other limit switch
      
      **Note: Any shims that are removed of that may fall free during this process must be replaced before re-securing the limit switches**

8. Inspect the operators console
   
   a. Check for moisture, rust, and debris
   b. Check all printed circuit boards, wire connections and other components for secure mounting
   c. Check for any evidence of arching or pitting signaling loose connections

9. Observe the cable carrier system while retracting and extending the bridge to insure not binding

10. Check rotunda access panel and hold down clamps for secure mounting

11. Check rotunda side curtains for tightness and adjust as required

12. Inspect canopy for tears and missing grommets and repair/replace as required

13. Check cab side curtains for tightness and adjust if necessary

14. Inspect all interior painted surfaces and touchup if required

15. Check all door hardware and locking mechanisms for proper adjustment and operation

16. Inspect all interior/exterior lighting fixtures and tubes for proper condition and operability. Clean bugs and debris from fixture lenses

17. Inspect all tunnel water diverters for tears and/or separations and repair/replace as required

18. Inspect tires for wear, damage, or separation and replace as required. Check and adjust air in tires.

19. Check the following electrical cables for deterioration and general condition
   
   a. Exposed cables under tunnels
   b. Exposed cables under cab
   c. Cables from rotunda to tunnel A
   d. 400Hz Aircraft Power Input cable
   e. Pre-conditioned Air unit cables

20. Check tunnel equalizing cable and adjust if necessary

21. Check and adjust Auto Leveler
   
   a. Check the set screws holding the wheel to the limit switch, they should be tight
   b. Turn the wheel by hand in both directions insuring freedom of operation and positive return to the neutral position
      
      **Note: Turning the wheel approximately 15° in either direction will engage the limit switch**
   c. Check the arm- it should move freely in both directions
   d. Check the auto level travel limits with the arm extended and the bridge in “auto level” mode
      
      1) By hand turn and hold the wheel to simulate the aircraft rising. About 4 seconds will pass before the auto-level warning light and bell come on
2) Reset the auto level system and check the down travel by turning and holding the wheel in the opposite direction. About 4 seconds later the warning light and bell come on.

22. Lubricate the following:
   a. Vertical lift column ball screw assembly through the oil cup on top of each column using lube specification #2. Use 6 oz. Of lubricant. **Note:** After lubrication the bridge must be driven to the EXTREME UP and DOWN limits several times to insure proper distribution of the lubricant.
   b. After lubrication operate the bridge to all limits to distribute lubrication.

23. Inspect ground power unit
   a. Verify that wiring connections to the terminal block are connected securely and are in the proper phase sequence.
   b. Verify that the output cable is connected correctly and check lug bolt for tightness.
   c. Check the converters start/stop wiring in the output compartment.
   d. Check the output cables E and F safety interlock wiring connected to TB-6 pins E and F.
   e. Inspect bridge interlock wiring connected to TB-4.
   f. Verify that all connectors and wires are correctly secured to the IV sense board.
   g. Insure that the three wires from the input circuit breakers are securely fastened to the appropriate SCR.
   h. Verify that the connectors going to the low voltage suppressor board are properly seated.
   i. Inspect transistor drive boards and verify that all the 12 Volt and 9 pin D connectors are properly seated.
   j. Check the transistor output wire from each transistor terminal C2E1 is properly positioned and that the three transistor board mounting screws are tight.
   k. Inspect card rack connectors
      1) On the 24 phase board insure that the cable from P1 to inverters 1 & 2 is connected to the top connector and that the cable from P2 to inverters 3 & 4 is connected to the bottom connector.
      2) Check the 4 pin connector mounted in the center of the BITE board. This connector should have four wires coming into it from the IV sense board in the output compartment.
      3) Check the 4 pin connector mounted on the top of the logic board. This connector should have two wires coming into it from the RC drain board.
      4) Verify that all other circuit card edge connectors are properly seated.
   l. Test indicator lamps by depressing the lamp test button on the keypad.
   m. Inspect the units cable assembly
      1) Inspect for cuts, abrasions, and excessive wear.
      2) Inspect cable strain relief’s, and adjust as required.
      3) Check condition of wear nose for wear or deterioration and replace as required.
      4) Inspect all cable connections to insure that excessive force is not placed on the connectors.
      5) On banded style cables inspect for missing or defective bands.
      6) Inspect pendant pushbutton control for operation and security.
      7) Inspect pit and controls pushbuttons for operation and security, and clean debris out of pit as required.

24. Inspect exterior area around bridge
   a. Inspect exterior stairs and conveyors for damage and repair as required.
   b. Sweep entire ramp area (including column base) and pressure wash as necessary to remove oil or other stains present.
   c. Inspect fall protection cable for security, corrosion, and tightness.
SEMI-ANNUAL

1. Load test the 400 Hz cable for 5 minutes, then inspect cable for stiffness and check for hot spots using infra-red heat sensor
2. Check generator output at its rated capacity for 5 minutes using a load bank
3. Inspect weather seals from the rotunda to building, splice seals, and bellows seals between tunnels
4. Thoroughly pressure wash entire bridge and column base
5. Inspect all exterior painted surfaces and touch-up and repair all chipped, cracked, rusted or discolored surfaces
6. Inspect all interior painted surfaces and touch-up and repair all chipped, cracked, rusted or discolored surfaces
7. Check tunnel roller tracking and adjust if necessary
8. Clean all exhaust fans
9. Check mounting bolts on the horizontal drive unit, vertical lift column, and splice for tightness
10. Lubricate the following:
   a. Rotunda column flange and sleeve bearings with lube spec #1
   b. Vertical lift column thrust bearings with lube spec #1
   c. Wheel carriage and swivel column
      1) Wash chains in solvent then lubricate with lubricant spec #2
      2) Turret bearing with lubricant spec #1
      3) Bushings and Trunnion pin with lubricant spec #3
   **Note:** The wheel bearings should be lubricated each time the wheel assemblies are torn down with lubrication spec #1
   d. Cab canopy mechanical parts with lubricant spec #3
      1) Actuator pivot point
      2) Lower actuator arm pivot point
      3) Lower actuator arm bushings
      4) Pivot block
      5) Lower hinges
   e. Vertical lift column ball screw assembly, using lubricant #2. Use 6 oz of lubricant
      **Note:** After lubrication, the bridge must be driven to extreme UP and DOWN limits several times to insure proper distribution of lubricant
   f. Cable lift arm hinges with lubricant spec #3
   g. Cab rotation drive chains and sprocket shafts with lubricant #3
11. After lubrication operate the bridge to all limits to properly distribute lubricant
12. Check Rotunda floor alignment
13. Check drain spouts in tunnel floor gutters. Insure they are not clogged with debris
14. Check cable carrier system trolleys in track for smooth operation and possible binding
15. Check vertical gear motor for loose parts, excessive wear. Adjust magnet gap and torque springs
ANNUAL

1. Inspect the lift column slide pads

2. Check the horizontal drive chains and sprockets for signs of streaking, cracking, rusting, or pitting

3. Inspect the vertical drive, horizontal drive, cab rotation, and 400Hz hoist motor brakes.

4. Inspect roofing, flashing and appurtenances for ponding, cracks, separations, and other defects

5. Inspect rotunda to insure that floor/ceiling alignments are correct and center/hold downs are secure. Check that curtain alignment and tension are correct

6. Inspect all interior walls and ceilings for dents and other defects

7. Inspect all carpeting for wear, tripping hazards, raveling, looseness etc.

8. Insure all ramp hinges and panels are secure. Check all matting, molding, and scuff plates to insure they are secure. Check ramp to tunnel floor clearance for adequacy.

9. Inspect Cab Assembly
   a. inspect cab drive chain for excessive wear or damage
   b. inspect master link and block attaching points for wear
   c. Rotate cab full left & right. Listen for unusual noises at upper and lower bearing areas
   d. Check that clearance between floor and "C" tunnel floor is adequate
   e. Check curtain alignment and tension and inspect for tears, missing grommets etc.
   f. Inspect bumper pads to insure secure mounting, and no excessive wear

10. Inspect access platform & stair for excessively worn treads

11. Inspect cab leveling cables for broken wires, excessive wear in eye, thimble or sleeve, and that the anchor pin is secure

12. Inspect cab snubber assembly cylinder for bent, broken, or cracked collar or shafts

13. Inspect single snubber assembly for fluid level and leaks

14. **Note:** Inspect the vertical drive ball screw after ten (10) years service for excessive cracking, corrosion, pitting, gouges, brinelling, or unusual wear of the ball grooves. After this initial inspection inspect the ball screw every five (5) years thereafter
APPENDIX E

DCA CONTRACT SERVICE CALL ORDER FORM
RONALD REAGAN WASHINGTON NATIONAL AIRPORT
MAINTENANCE ENGINEERING BRANCH, MA-126

CONTRACT SERVICES CALL ORDER

Prepared: ____________________________ Date Prepared: ____________________________

Type of Work: ____________________________ Requested By: ____________________________

Contractor: ____________________________ Contract #: ____________________________

Address: ____________________________ Contractor POC: ____________________________

Office Telephone: ____________________________ Emergency Phone: ____________________________

Other Data: ____________________________ Contractor Fax: ____________________________

Location (Name, [Account Code]) and Description of Work


Work Estimates

Estimate Date: ____________________________ Site Visit Date: ____________________________

MWAA Estimator: ____________________________ Contractor Estimator: ____________________________

Work Item(s): ____________________________ QTY/UM: ____________________________


Estimated Cost: ____________________________ Notes: ____________________________

APPROVALS / ACCEPTANCE OF TASK

NOTE: By signing this Call Order, the Contractor acknowledges that he/she will only perform the work described herein after this Call Order is approved in writing by the COTR. Furthermore, the cost to the Authority for this work shall not exceed the “Estimated Cost” noted above.

Call Order # ____________________________

MA-126: ____________________________ Date: ____________________________ Date Issued: ____________________________

COTR: ____________________________ Date: ____________________________ Date Completed: ____________________________

Inspector: ____________________________ Date: ____________________________ Date Invoiced Rev’d: ____________________________

Contractor: ____________________________ Date: ____________________________ Invoice Amount: ____________________________

Remarks:
