

**City and County of San Francisco  
Office of Contract Administration  
Purchasing Division  
City Hall, Room 430  
1 Dr. Carlton B. Goodlett Place  
San Francisco, California 94102-4685**

**Agreement between the City and County of San Francisco and**

**Vanderlande Industries Inc.  
Contract No. 50030.01**

This Agreement is made this **1st** day of **September 2016**, in the City and County of San Francisco, State of California, by and between: **Vanderlande Industries Inc., 1975 West Oak Circle, Marietta, Georgia, 30062-2275** (the “Contractor”) and the City and County of San Francisco, a municipal corporation (the “City”), acting by and through its Airport Commission (the “Commission”).

**Recitals**

- A. The Commission wishes to operate, maintain and repair Airport-owned Baggage Handling Systems (BHS) and Passenger Boarding Bridges (PBB) in the Domestic Terminals for the San Francisco International Airport (the “Airport” or “SFO”); and,
- B. The Commission is authorized to enter into all contracts which relate to matters under its jurisdiction; and
- C. On February 17, 2016, the Commission issued a Request for Proposals (“RFP”) and as a result of the selection process prescribed in the RFP and upon the recommendation of the Airport Director, the Commission determined that the Contractor was the qualified proposer receiving the highest evaluation score; and
- D. On July 19, 2016, by Resolution No. 16-0206, and amended on August 9, 2016, by Resolution No. 16-0222, the Commission awarded this Agreement to the Contractor; and
- E. There is no Local Business Entity (“LBE”) subcontracting participation requirement for this Agreement; and
- F. Approval for this Agreement was obtained when the Civil Service Commission approved PSC No. 47087-15/16 on May 16, 2016; and
- G. The Contractor represents and warrants that it is qualified to perform the services required by City under this Agreement;

Now, THEREFORE, the parties agree as follows:

## **Article 1      Definitions**

The following definitions apply to this Agreement:

1.1 "Agreement" means this contract document, including all attached appendices, and all applicable City Ordinances and Mandatory City Requirements which are specifically incorporated by reference into this Agreement.

1.2 "City" or "the City" means the City and County of San Francisco, a municipal corporation, acting by and through both its Director of the Office of Contract Administration, referred to as "Purchasing," or the Director's designated agent, Airport Commission.

1.3 "CMD" means the Contract Monitoring Division of the City.

1.4 "Contractor" or "Consultant" means Vanderlande Industries Inc., 1975 West Oak Circle, Marietta, Georgia, 30062-2275.

1.5 "Deliverables" means Contractor's work product resulting from the Services that are provided by Contractor to City during the course of Contractor's performance of the Agreement, including without limitation, the work product described in the "Scope of Services" attached as Appendix A.

1.6 "Effective Date" means the date upon which the City's Controller certifies the availability of funds for this Agreement as provided in Section 3.1.

1.7 "Mandatory City Requirements" means those City laws set forth in the San Francisco Municipal Code, including the duly authorized rules, regulations, and guidelines implementing such laws, that impose specific duties and obligations upon Contractor.

1.8 "Party" and "Parties" mean the City and Contractor either collectively or individually.

1.9 "Services" means the work performed by Contractor under this Agreement as specifically described in the "Scope of Services" attached as Appendix A, including all services, labor, supervision, materials, equipment, actions and other requirements to be performed and furnished by Contractor under this Agreement.

## **Article 2      Term of the Agreement**

2.1 The term of this Agreement shall commence on the latter of: (i) **September 1, 2016** or (ii) the **Effective Date** and expire on **September 30, 2019**, unless earlier terminated as otherwise provided in this Agreement.

2.2 The City has two (2) options to renew the Agreement for a period of one (1) year each. The City may extend this Agreement beyond the expiration date by exercising an option at the City's sole and absolute discretion and by modifying this Agreement as provided in Section 11.5, "Modification of this Agreement."

## Article 3      Financial Matters

3.1      **Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation.** This Agreement is subject to the budget and fiscal provisions of the City's Charter. Charges will accrue only after prior written authorization certified by the Controller, and the amount of City's obligation under this Agreement shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Contractor's assumption of risk of possible non-appropriation is part of the consideration for this Agreement.

THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF THIS AGREEMENT.

3.2      **Guaranteed Maximum Costs.** The City's payment obligation to Contractor cannot at any time exceed the amount certified by City's Controller for the purpose and period stated in such certification. Absent an authorized Emergency per the City Charter or applicable Code, no City representative is authorized to offer or promise, nor is the City required to honor, any offered or promised payments to Contractor under this Agreement in excess of the certified maximum amount without the Controller having first certified the additional promised amount and the Parties having modified this Agreement as provided in Section 11.5, "Modification of this Agreement."

### 3.3      **Compensation.**

3.3.1      **Payment.** Contractor shall provide an invoice to the City on a monthly basis for Services completed in the immediate preceding month, unless a different schedule is set out in Appendix B, "Calculation of Charges." Compensation shall be made for Services identified in the invoice that the Airport Director, in his sole discretion, concludes has been satisfactorily performed. Payment shall be made within 30 calendar days of receipt of the invoice, unless the City notifies the Contractor that a dispute as to the invoice exists. In no event shall the amount of this Agreement exceed **Five Million, Three Hundred and Ninety Seven Thousand Dollars (\$5,397,000)**. The breakdown of charges associated with this Agreement appears in Appendix B, "Calculation of Charges," attached and incorporated by reference as though fully set forth in this Agreement. In no event shall City be liable for interest or late charges for any late payments.

3.3.2      **Payment Limited to Satisfactory Services.** Contractor is not entitled to any payments from City until Airport Commission approves Services, including any furnished Deliverables, as satisfying all of the requirements of this Agreement. Payments to Contractor by City shall not excuse Contractor from its obligation to replace unsatisfactory Deliverables, including equipment, components, materials, or Services even if the unsatisfactory character of such Deliverables, equipment, components, materials, or Services may not have been apparent or detected at the time such payment was made. The City may reject deliverables, equipment, components, materials and Services that do not conform to the requirements of this Agreement and in such case must be replaced by Contractor without delay at no cost to the City.

**3.3.3 Withholding Payments.** If Contractor fails to provide Services consistent with Contractor's obligations under this Agreement, the City may withhold any and all payments due Contractor until such failure to perform is cured, and Contractor shall not stop work as a result of City's withholding of payments as provided in this Agreement.

**3.3.4 Invoice Format.** Invoices furnished by Contractor under this Agreement must be in a form acceptable to the Controller and City, and must include a unique invoice number. The City shall make payment to Contractor at the address specified in Section 11.1, "Notices to the Parties," or in such alternate manner as the Parties have mutually agreed upon in writing.

**3.3.5 LBE Payment and Utilization Tracking System – Reserved.**

**3.3.6 Getting paid for goods and/or services from the City.**

(a) All City vendors receiving new contracts, contract renewals, or contract extensions must sign up to receive electronic payments through Paymode-X, the City's third party service that provides Automated Clearing House (ACH) payments. Electronic payments are processed every business day and are safe and secure. To sign up for electronic payments, visit [www.sfgov.org/ach](http://www.sfgov.org/ach).

(b) The following information is required to sign up: (i) The enroller must be their company's authorized financial representative, (ii) the company's legal name, main telephone number and all physical and remittance addresses used by the company, (iii) the company's U.S. federal employer identification number (EIN) or Social Security number (if they are a sole proprietor), and (iv) the company's bank account information, including routing and account numbers.

**3.4 Audit and Inspection of Records.** Contractor agrees to maintain and make available to the City, during regular business hours, accurate books and accounting records relating to its Services. Contractor will permit City to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Agreement, whether funded in whole or in part under this Agreement. Contractor shall maintain such data and records in an accessible location and condition for a period of not fewer than five years after final payment under this Agreement or until after final audit has been resolved, whichever is later. The State of California or any Federal agency having an interest in the subject matter of this Agreement shall have the same rights as conferred upon City by this Section. Contractor shall include the same audit and inspection rights and record retention requirements in all subcontracts.

**3.5 Submitting False Claims; Monetary Penalties.** The full text of San Francisco Administrative Code §§6.80-6.83, including the enforcement and penalty provisions, is incorporated into this Agreement. Under San Francisco Administrative Code §§6.80-6.83, any contractor, subcontractor, supplier, consultant or subconsultant who submits a false claim shall be liable to the City for the statutory penalties set forth in those sections. A contractor, subcontractor, supplier, consultant or subconsultant will be deemed to have submitted a false claim to the City if the contractor, subcontractor or consultant: (a) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

## **Article 4 Services and Resources**

**4.1 Services Contractor Agrees to Perform.** Contractor agrees to perform the Services provided for in Appendix A, "Scope of Services." Officers and employees of the City are not authorized to request, and the City is not required to reimburse the Contractor for, Services beyond the Scope of Services listed in Appendix A, unless Appendix A is modified as provided in Section 11.5, "Modification of this Agreement."

**4.2 Qualified Personnel.** Contractor shall utilize only competent personnel under the supervision of, and in the employment of, Contractor (or Contractor's authorized subcontractors) to perform the Services. Contractor will comply with City's reasonable requests regarding assignment and/or removal of personnel, but all personnel, including those assigned at City's request, must be supervised by Contractor. Contractor shall commit adequate resources to allow timely completion within the project schedule specified in this Agreement.

**4.3 Subcontracting.** Contractor may subcontract portions of the Services only upon prior written approval of City. Contractor is responsible for its subcontractors throughout the course of the work required to perform the Services. All Subcontracts must incorporate the terms of Article 10 "Additional Requirements Incorporated by Reference" of this Agreement, unless inapplicable. Neither Party shall, on the basis of this Agreement, contract on behalf of, or in the name of, the other Party. Any agreement made in violation of this provision shall be null and void. Contractor will not employ subcontractors.

If Appendix A includes as-needed services, such services shall be requested by City through the issuance of a written task order signed by City and Contractor, which task order shall be made a part of and incorporated into the Agreement as though fully set forth in this Agreement without the need for a formal amendment to the Agreement. The task order shall include a description of the as-needed services, the deliverables, schedule for performance, cost, and method and timing of payment.

### **4.4 Independent Contractor; Payment of Employment Taxes and Other Expenses.**

**4.4.1 Independent Contractor.** For the purposes of this Article 4, "Contractor" shall be deemed to include not only Contractor, but also any agent or employee of Contractor. Contractor acknowledges and agrees that at all times, Contractor or any agent or employee of Contractor shall be deemed at all times to be an independent contractor and is wholly responsible for the manner in which it performs the services and work requested by City under this Agreement. Contractor, its agents, and employees will not represent or hold themselves out to be employees of the City at any time. Contractor or any agent or employee of Contractor shall not have employee status with City, nor be entitled to participate in any plans, arrangements, or distributions by City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees. Contractor or any agent or employee of Contractor is liable for the acts and omissions of itself, its employees and its agents. Contractor shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Contractor's performing services and work, or any agent or employee of Contractor providing same. Nothing in this Agreement shall be construed as creating an employment or agency relationship between City and Contractor or any agent or employee of Contractor. Any terms in this Agreement referring to direction from City shall be construed as providing for direction as to policy and the result of Contractor's work only, and not as to the means by which such a result is obtained. City does not retain the right to control the means or the method by which Contractor performs work under this Agreement. Contractor agrees to maintain and make available to City, upon

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request and during regular business hours, accurate books and accounting records demonstrating Contractor's compliance with this section. Should City determine that Contractor, or any agent or employee of Contractor, is not performing consistent with the requirements of this Agreement, City shall provide Contractor with written notice of such failure. Within five (5) business days of Contractor's receipt of such notice, and consistent with Contractor policy and procedure, Contractor shall remedy the deficiency. If City believes that an action of Contractor, or any agent or employee of Contractor, warrants immediate remedial action by Contractor, City shall contact Contractor and provide Contractor in writing with the reason for requesting such immediate action.

**4.4.2 Payment of Employment Taxes and Other Expenses.** Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Contractor is an employee for purposes of collection of any employment taxes, the amounts payable under this Agreement shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Contractor which can be applied against this liability). City shall then forward those amounts to the relevant taxing authority. Should a relevant taxing authority determine a liability for past services performed by Contractor for City, upon notification of such fact by City, Contractor shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Contractor under this Agreement (again, offsetting any amounts already paid by Contractor which can be applied as a credit against such liability). A determination of employment status pursuant to the preceding two paragraphs shall be solely for the purposes of the particular tax in question, and for all other purposes of this Agreement, Contractor shall not be considered an employee of City. Notwithstanding the foregoing, Contractor agrees to indemnify and save harmless City and its officers, agents and employees from, and, if requested, shall defend them against any and all claims, losses, costs, damages, and expenses, including attorneys' fees, arising from this section.

**4.5 Assignment.** The Services to be performed by Contractor are personal in character and neither this Agreement nor any duties or obligations may be assigned or delegated by Contractor unless first approved by City by written instrument executed and approved in the same manner as this Agreement. Any purported assignment made in violation of this provision shall be null and void.

**4.6 Warranty.** Contractor warrants to City that the Services will be performed with the degree of skill and care that is required by current, good and sound professional procedures and practices, and in conformance with generally accepted professional standards prevailing at the time the Services are performed so as to ensure that all Services performed are correct and appropriate for the purposes contemplated in this Agreement.

**4.7 Liquidated Damages.** By entering into this Agreement, Contractor agrees that in the event the Services are delayed beyond the scheduled milestones and timelines as provided in Appendix A, City will suffer actual damages that will be impractical or extremely difficult to determine; further, Contractor agrees that the sum of Five Hundred Dollars (\$500) for each failure to comply with the Preventative Maintenance Standards as described in § 3.6 of Appendix A, is not a penalty, but is a reasonable estimate of the loss that City will incur based on the delay, established in light of the circumstances existing at the time this Agreement was awarded. City may deduct a sum representing the liquidated damages from any money due to Contractor under this Agreement or any other contract between City and Contractor. Such deductions shall not be considered a penalty, but rather agreed upon monetary damages sustained by City because of Contractor's failure to furnish deliverables to City within the time fixed or such extensions of time permitted in writing by City.

## Article 5 Insurance and Indemnity

### 5.1 Insurance.

5.1.1 **Required Coverages.** Without in any way limiting Contractor's liability under the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverages:

(a) Workers' Compensation, in statutory amounts, with Employers' Liability Limits not less than \$1,000,000 each accident, injury, or illness; and

(b) Commercial General Liability Insurance with limits not less than \$1,000,000 each occurrence and \$2,000,000 general aggregate for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Products and Completed Operations; and ✓

(c) Commercial Automobile Liability Insurance with limits not less than \$1,000,000 each occurrence, "Combined Single Limit" for Bodily Injury and Property Damage, including Owned, Non-Owned and Hired auto coverage, as applicable. ✓

5.1.2 Commercial General Liability and Commercial Automobile Liability Insurance policies must be endorsed to provide:

(a) Name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees.

(b) That such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that insurance applies separately to each insured against whom claim is made or suit is brought.

5.1.3 All policies shall be endorsed to provide thirty (30) days' advance written notice to the City of cancellation for any reason, intended non-renewal, or reduction in coverages. Notices shall be sent to the City address set forth in Section 11.1, entitled "Notices to the Parties."

5.1.4 Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of three years beyond the expiration of this Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

5.1.5 Should any required insurance lapse during the term of this Agreement, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If insurance is not reinstated, the City may, at its sole option, terminate this Agreement effective on the date of such lapse of insurance.

5.1.6 Before commencing any Services, Contractor shall furnish to City certificates of insurance and additional insured policy endorsements with insurers with ratings comparable to A-, VIII or higher, that are authorized to do business in the State of California, and that are satisfactory to City, in form evidencing all coverages set forth above. Approval of the insurance by City shall not relieve or decrease Contractor's liability.

5.1.7 The Workers' Compensation policy(ies) shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

5.1.8 If Contractor will use any subcontractor(s) to provide Services, Contractor shall require the subcontractor(s) to provide all necessary insurance and to name the City and County of San Francisco, its officers, agents and employees and the Contractor as additional insureds.

**5.2 Indemnification.** Contractor shall indemnify and hold harmless City and its officers, agents and employees from and shall defend them from and against any and all claims, demands, losses, damages, costs, expenses, and liability (legal, contractual, or otherwise) arising from or in any way connected with any: (i) injury to or death of a person, including employees of City or Contractor; (ii) loss of or damage to property; (iii) violation of local, state, or federal common law, statute or regulation, including but not limited to privacy or personally identifiable information, health information, disability and labor laws or regulations; (iv) strict liability imposed by any law or regulation; or (v) losses arising from Contractor's execution of subcontracts that are inconsistent with the requirements of this Agreement applicable to subcontractors; so long as such injury, violation, loss, or strict liability (as set forth in subsections (i) – (v) above) arises directly or indirectly from Contractor's performance of this Agreement, including, but not limited to, Contractor's use of facilities or equipment provided by City or others, regardless of the negligence of, and regardless of whether liability without fault is imposed or sought to be imposed on City, except to the extent that such indemnity is void or otherwise unenforceable under applicable law, and except where such loss, damage, injury, liability or claim is the result of the active negligence or willful misconduct of City and is not contributed to by any act of, or by any omission to perform some duty imposed by law or agreement on Contractor, its subcontractors, or either's agent or employee. The indemnity shall include, without limitation, reasonable fees of attorneys, consultants and experts and related costs and City's costs of investigating any claims against the City.

In addition to Contractor's obligation to indemnify City, Contractor specifically acknowledges and agrees that it has an immediate and independent obligation to defend City from any claim which actually or potentially falls within this indemnification provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered to Contractor by City and continues at all times thereafter.

Contractor shall indemnify and hold City harmless from all loss and liability, including attorneys' fees, court costs and all other litigation expenses for any infringement of the patent rights, copyright, trade secret or any other proprietary right or trademark, and all other intellectual property claims of any person or persons arising directly or indirectly from the receipt by City, or any of its officers or agents, of Contractor's Services.

Legal counsel shall not be engaged to defend the City unless such counsel has first been approved by the City in writing; and no settlement or compromise of any claim or lawsuit shall be made on the City's behalf without the express written consent of the City.



## Article 6 Liability of the Parties

6.1 **Liability of City.** CITY'S PAYMENT OBLIGATIONS UNDER THIS AGREEMENT SHALL BE LIMITED TO THE PAYMENT OF THE COMPENSATION PROVIDED FOR IN SECTION 3.3.1, "PAYMENT," OF THIS AGREEMENT. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, IN NO EVENT SHALL CITY BE LIABLE, REGARDLESS OF WHETHER ANY CLAIM IS BASED ON CONTRACT OR TORT, FOR ANY SPECIAL DAMAGES (EXCEPT AS SPECIFICALLY PROVIDED IN PARAGRAPH 6.3 BELOW), INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE SERVICES PERFORMED IN CONNECTION WITH THIS AGREEMENT.

6.2 **Liability for Use of Equipment.** City shall not be liable for any damage to persons or property as a result of the use, misuse or failure of any equipment used by Contractor, or any of its subcontractors, or by any of their employees, even though such equipment is furnished, rented or loaned by City.

6.3 **Liability for Incidental and Consequential Damages.** Each party shall be responsible for its proportionate share of incidental and consequential damages arising from this Agreement and/or from the performance of this Agreement. Nothing in this Agreement shall constitute a waiver or limitation of any rights that City may have under applicable law.

## Article 7 Payment of Taxes

7.1 Except for any applicable California sales and use taxes charged by Contractor to City, Contractor shall pay all taxes, including possessory interest taxes levied upon or as a result of this Agreement, or the Services delivered under this Agreement. Contractor shall remit to the State of California any sales or use taxes paid by City to Contractor under this Agreement. Contractor agrees to promptly provide information requested by the City to verify Contractor's compliance with any State requirements for reporting sales and use tax paid by City under this Agreement.

7.2 Contractor acknowledges that this Agreement may create a "possessory interest" for property tax purposes. Generally, such a possessory interest is not created unless the Agreement entitles the Contractor to possession, occupancy, or use of City property for private gain. If such a possessory interest is created, then the following shall apply:

7.2.1 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that Contractor, and any permitted successors and assigns, may be subject to real property tax assessments on the possessory interest.

7.2.2 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that the creation, extension, renewal, or assignment of this Agreement may result in a "change in ownership" for purposes of real property taxes, and therefore may result in a revaluation of any possessory interest created by this Agreement. Contractor agrees on behalf of itself and its permitted successors and assigns to report on behalf of the City to the County Assessor the information required by Revenue and Taxation Code section 480.5, as amended from time to time, and any successor provision.

7.2.3 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that other events also may cause a change of ownership of the possessory interest and result in the revaluation of the possessory interest. (see, e.g., Rev. & Tax. Code section 64, as

amended from time to time). Contractor agrees on behalf of itself and its permitted successors and assigns to report any change in ownership to the County Assessor, the State Board of Equalization or other public agency as required by law.

7.2.4 Contractor further agrees to provide such other information as may be requested by the City to enable the City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

## **Article 8 Termination and Default**

### **8.1 Termination for Convenience**

8.1.1 City shall have the option, in its sole discretion, to terminate this Agreement, at any time during the term hereof, for convenience and without cause. City shall exercise this option by giving Contractor written notice of termination. The notice shall specify the date on which termination shall become effective.

8.1.2 Upon receipt of the notice of termination, Contractor shall commence and perform, with diligence, all actions necessary on the part of Contractor to effect the termination of this Agreement on the date specified by City and to minimize the liability of Contractor and City to third parties as a result of termination. All such actions shall be subject to the prior approval of City. Such actions shall include, without limitation:

- (a) Halting the performance of all Services under this Agreement on the date(s) and in the manner specified by City.
- (b) Terminating all existing orders and subcontracts, and not placing any further orders or subcontracts for materials, Services, equipment or other items.
- (c) At City's direction, assigning to City any or all of Contractor's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, City shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.
- (d) Subject to City's approval, settling all outstanding liabilities and all claims arising out of the termination of orders and subcontracts.
- (e) Completing performance of any Services that City designates to be completed prior to the date of termination specified by City.
- (f) Taking such action as may be necessary, or as the City may direct, for the protection and preservation of any property related to this Agreement which is in the possession of Contractor and in which City has or may acquire an interest.

8.1.3 Within 30 days after the specified termination date, Contractor shall submit to City an invoice, which shall set forth each of the following as a separate line item:

- (a) The reasonable cost to Contractor, without profit, for all Services prior to the specified termination date, for which Services City has not already tendered payment. Reasonable costs may include a reasonable allowance for actual overhead, not to exceed a total of 10% of

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Contractor's direct costs for Services. Any overhead allowance shall be separately itemized. Contractor may also recover the reasonable cost of preparing the invoice.

(b) A reasonable allowance for profit on the cost of the Services described in the immediately preceding subsection (a), provided that Contractor can establish, to the satisfaction of City, that Contractor would have made a profit had all Services under this Agreement been completed, and provided further, that the profit allowed shall in no event exceed 5% of such cost.

(c) The reasonable cost to Contractor of handling material or equipment returned to the vendor, delivered to the City or otherwise disposed of as directed by the City.

(d) A deduction for the cost of materials to be retained by Contractor, amounts realized from the sale of materials and not otherwise recovered by or credited to City, and any other appropriate credits to City against the cost of the Services or other work.

8.1.4 In no event shall City be liable for costs incurred by Contractor or any of its subcontractors after the termination date specified by City, except for those costs specifically enumerated and described in Section 8.1.3. Such non-recoverable costs include, but are not limited to, anticipated profits on the Services under this Agreement, post-termination employee salaries, post-termination administrative expenses, post-termination overhead or unabsorbed overhead, attorneys' fees or other costs relating to the prosecution of a claim or lawsuit, prejudgment interest, or any other expense which is not reasonable or authorized under Section 8.1.3.

8.1.5 In arriving at the amount due to Contractor under this Section, City may deduct: (i) all payments previously made by City for Services covered by Contractor's final invoice; (ii) any claim which City may have against Contractor in connection with this Agreement; (iii) any invoiced costs or expenses excluded pursuant to the immediately preceding subsection 8.1.4; and (iv) in instances in which, in the opinion of the City, the cost of any Service performed under this Agreement is excessively high due to costs incurred to remedy or replace defective or rejected Services, the difference between the invoiced amount and City's estimate of the reasonable cost of performing the invoiced Services in compliance with the requirements of this Agreement.

8.1.6 City's payment obligation under this Section shall survive termination of this Agreement.

## 8.2 Termination for Default; Remedies.

8.2.1 Each of the following shall constitute an immediate event of default ("Event of Default") under this Agreement:

(a) Contractor fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Agreement:

3.5	Submitting False Claims.	10.4	Nondisclosure of Private, Proprietary or Confidential Information
4.5	Assignment	10.10	Alcohol and Drug-Free Workplace
Article 5	Insurance and Indemnity	10.13	Working with Minors
Article 7	Payment of Taxes	11.10	Compliance with Laws

(b) Contractor fails or refuses to perform or observe any other term, covenant or condition contained in this Agreement, including any obligation imposed by ordinance or statute and incorporated into this Agreement by reference, and such default continues for a period of ten days after written notice thereof from City to Contractor.

(c) Contractor (i) is generally not paying its debts as they become due; (ii) files, or consents by answer or otherwise to the filing against it of a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction; (iii) makes an assignment for the benefit of its creditors; (iv) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Contractor or of any substantial part of Contractor's property; or (v) takes action for the purpose of any of the foregoing.

(d) A court or government authority enters an order (i) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Contractor or with respect to any substantial part of Contractor's property, (ii) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction or (iii) ordering the dissolution, winding-up or liquidation of Contractor.

8.2.2 On and after any Event of Default, City shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Agreement or to seek specific performance of all or any part of this Agreement. In addition, where applicable, City shall have the right (but no obligation) to cure (or cause to be cured) on behalf of Contractor any Event of Default; Contractor shall pay to City on demand all costs and expenses incurred by City in effecting such cure, with interest thereon from the date of incurrence at the maximum rate then permitted by law. City shall have the right to offset from any amounts due to Contractor under this Agreement or any other agreement between City and Contractor: (i) all damages, losses, costs or expenses incurred by City as a result of an Event of Default; and (ii) any liquidated damages levied upon Contractor pursuant to the terms of this Agreement; and (iii), any damages imposed by any ordinance or statute that is incorporated into this Agreement by reference, or into any other agreement with the City.

8.2.3 All remedies provided for in this Agreement may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy. Nothing in this Agreement shall constitute a waiver or limitation of any rights that City may have under applicable law.

8.2.4 Any notice of default must be sent by registered mail to the address set forth in Article 11.

8.3 **Non-Waiver of Rights.** The omission by either party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other party at the time designated, shall not be a waiver of any such default or right to which the party is entitled, nor shall it in any way affect the right of the party to enforce such provisions.

#### 8.4 **Rights and Duties upon Termination or Expiration.**

8.4.1 This Section and the following Sections of this Agreement listed below, shall survive termination or expiration of this Agreement:

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3.3.2	Payment Limited to Satisfactory Services	9.1	Ownership of Results
3.3.7(a)	Grant Funded Contracts - Disallowance	9.2	Works for Hire
3.4	Audit and Inspection of Records	10.4	Nondisclosure of Private, Proprietary or Confidential Information
3.5	Submitting False Claims	11.6	Dispute Resolution Procedure
Article 5	Insurance and Indemnity	11.7	Agreement Made in California; Venue
6.1	Liability of City	11.8	Construction
6.3	Liability for Incidental and Consequential Damages	11.9	Entire Agreement
Article 7	Payment of Taxes	11.10	Compliance with Laws
8.1.6	Payment Obligation	11.11	Severability

8.4.2 Subject to the survival of the Sections identified in Section 8.4.1, above, if this Agreement is terminated prior to expiration of the term specified in Article 2, this Agreement shall be of no further force or effect. Contractor shall transfer title to City, and deliver in the manner, at the times, and to the extent, if any, directed by City, any work in progress, completed work, supplies, equipment, and other materials produced as a part of, or acquired in connection with the performance of this Agreement, and any completed or partially completed work which, if this Agreement had been completed, would have been required to be furnished to City.

#### **Article 9 Rights In Deliverables**

9.1 **Ownership of Results.** Any interest of Contractor or its subcontractors, in the Deliverables, including any drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared by Contractor or its subcontractors, shall become the property of and will be transmitted to City. However, unless expressly prohibited elsewhere in this Agreement, Contractor may retain and use copies for reference and as documentation of its experience and capabilities.

9.2 **Works for Hire.** If, in connection with Services, Contractor or its subcontractors creates Deliverables including, without limitation, artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, diagrams, surveys, blueprints, source codes, or any other original works of authorship, whether in digital or any other format, such works of authorship shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works shall be the property of the City. If any Deliverables created by Contractor or its subcontractor(s) under this Agreement are ever determined not to be works for hire under U.S. law, Contractor assigns all Contractor's copyrights to such Deliverables to the City, agrees to provide any material and execute any documents necessary to effectuate such assignment, and agrees to include a clause in every subcontract imposing the same duties upon subcontractor(s). With City's prior written approval, Contractor and its subcontractor(s) may retain and use copies of such works for reference and as documentation of their respective experience and capabilities. To the extent Contractor uses its own proprietary software, which software has not been developed for use on the work described in this Agreement, such proprietary software shall remain the property of Contractor. However, to the extent Contractor uses its proprietary software in the performance of its duties under this Agreement, each and every product of that use, including but not limited to data, reports, spreadsheets, diagrams and any and all other products resulting from Contractor's performance of the work described in this Agreement shall be the property of the City.

Contractor shall and hereby does grant the City a royalty-free license to all such proprietary software for the term of this Agreement. However, to the extent Contractor develops a software feature or function for use in the performance of its duties under this Agreement, all such features and functions shall become the property of the City and shall not be used by Contractor for any purpose other than in the performance of its duties under this Agreement without the express written consent of the City.

## **Article 10 Additional Requirements Incorporated by Reference**

**10.1 Laws Incorporated by Reference.** The full text of the laws listed in this Article 10, including enforcement and penalty provisions, are incorporated into this Agreement by reference. The full text of the San Francisco Municipal Code provisions incorporated by reference in this Article and elsewhere in the Agreement ("Mandatory City Requirements") are available at [www.sfgov.org](http://www.sfgov.org) under "Government."

**10.2 Conflict of Interest.** By executing this Agreement, Contractor certifies that it does not know of any fact which constitutes a violation of Section 15.103 of the City's Charter; Article III, Chapter 2 of City's Campaign and Governmental Conduct Code; Title 9, Chapter 7 of the California Government Code (Section 87100 *et seq.*), or Title 1, Division 4, Chapter 1, Article 4 of the California Government Code (Section 1090 *et seq.*), and further agrees promptly to notify the City if it becomes aware of any such fact during the term of this Agreement.

**10.3 Prohibition on Use of Public Funds for Political Activity.** In performing the Services, Contractor shall comply with San Francisco Administrative Code Chapter 12G, which prohibits funds appropriated by the City for this Agreement from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure. Contractor is subject to the enforcement and penalty provisions in Chapter 12G.

### **10.4 Nondisclosure of Private, Proprietary or Confidential Information.**

**10.4.1** If this Agreement requires City to disclose "Private Information" to Contractor within the meaning of San Francisco Administrative Code Chapter 12M, Contractor and subcontractor shall use such information consistent with the restrictions stated in Chapter 12M and in this Agreement and only as necessary in performing the Services. Contractor is subject to the enforcement and penalty provisions in Chapter 12M.

**10.4.2** In the performance of Services, either party may have access to the other party's proprietary or confidential information, the disclosure of which to third parties may damage City or Contractor. If either party discloses proprietary or confidential information to the other party, such information must be held by City or Contractor in confidence and used only in performing the Agreement. Contractor and City shall exercise the same standard of care to protect such information as a reasonably prudent person would use to protect its own proprietary or confidential information.

### **10.5 Nondiscrimination Requirements**

**10.5.1 Non Discrimination in Contracts.** Contractor shall comply with the provisions of Chapters 12B and 12C of the San Francisco Administrative Code. Contractor shall incorporate by reference in all subcontracts the provisions of Sections 12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code and shall require all subcontractors to comply with such provisions. Contractor is subject to the enforcement and penalty provisions in Chapters 12B and 12C.

**10.5.2 Nondiscrimination in the Provision of Employee Benefits.** San Francisco Administrative Code 12B.2. Contractor does not as of the date of this Agreement, and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in San Francisco Administrative Code Section 12B.2.

**10.6 Local Business Enterprise and Non-Discrimination in Contracting Ordinance.** Contractor shall comply with all applicable provisions of Chapter 14B ("LBE Ordinance"). Contractor is subject to the enforcement and penalty provisions in Chapter 14B.

**10.7 Minimum Compensation Ordinance.** Contractor shall pay covered employees no less than the minimum compensation required by San Francisco Administrative Code Chapter 12P. Contractor is subject to the enforcement and penalty provisions in Chapter 12P. By signing and executing this Agreement, Contractor certifies that it is in compliance with Chapter 12P.

**10.8 Health Care Accountability Ordinance.** Contractor shall comply with San Francisco Administrative Code Chapter 12Q. Contractor shall choose and perform one of the Health Care Accountability options set forth in San Francisco Administrative Code Chapter 12Q.3. Contractor is subject to the enforcement and penalty provisions in Chapter 12Q.

**10.9 First Source Hiring Program.** Contractor must comply with all of the provisions of the First Source Hiring Program, Chapter 83 of the San Francisco Administrative Code, that apply to this Agreement, and Contractor is subject to the enforcement and penalty provisions in Chapter 83.

**10.10 Alcohol and Drug-Free Workplace.** City reserves the right to deny access to, or require Contractor to remove from, City facilities personnel of any Contractor or subcontractor who City has reasonable grounds to believe has engaged in alcohol abuse or illegal drug activity which in any way impairs City's ability to maintain safe work facilities or to protect the health and well-being of City employees and the general public. City shall have the right of final approval for the entry or re-entry of any such person previously denied access to, or removed from, City facilities. Illegal drug activity means possessing, furnishing, selling, offering, purchasing, using or being under the influence of illegal drugs or other controlled substances for which the individual lacks a valid prescription. Alcohol abuse means possessing, furnishing, selling, offering, or using alcoholic beverages, or being under the influence of alcohol.

**10.11 Limitations on Contributions.** By executing this Agreement, Contractor acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or the board of a state agency on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. The prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than 20 percent in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Contractor must inform each such

person of the limitation on contributions imposed by Section 1.126 and provide the names of the persons required to be informed to City.

10.12 **Slavery Era Disclosure.** Reserved.

10.13 **Working with Minors.** Reserved.

10.14 **Consideration of Criminal History in Hiring and Employment Decisions**

10.14.1 Contractor agrees to comply fully with and be bound by all of the provisions of Chapter 12T, "City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions," of the San Francisco Administrative Code ("Chapter 12T"), including the remedies provided, and implementing regulations, as may be amended from time to time. The provisions of Chapter 12T are incorporated by reference and made a part of this Agreement. The text of the Chapter 12T is available on the web at <http://sfgov.org/olse/fco>. A partial listing of some of Contractor's obligations under Chapter 12T is set forth in this Section. Contractor is required to comply with all of the applicable provisions of 12T, irrespective of the listing of obligations in this Section. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12T.

10.14.2 The requirements of Chapter 12T shall only apply to a Contractor's or Subcontractor's operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement, and shall apply when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City of San Francisco which excludes Airport property. Chapter 12T shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

10.15 **Food Service Waste Reduction Requirements.** Contractor shall comply with the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16, including but not limited to the provided remedies for noncompliance.

10.16 **Sugar-Sweetened Beverage Prohibition.** Not-applicable.

10.17 **Tropical Hardwood and Virgin Redwood Ban.** Under San Francisco Environment Code Section 804(b), the City urges Contractor not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product.

10.18 **Preservative Treated Wood Products.** Not-applicable.

## Article 11 General Provisions

11.1 **Notices to the Parties.** Unless otherwise indicated in this Agreement, all written communications sent by the Parties may be by U.S. mail or e-mail, and shall be addressed as follows:

To City: Enrique Guadamos  
Terminal Systems Manager  
P.O. Box 8097, San Francisco, CA 94128-8097

gms



Enrique.guadamos@flysfo.com

To Contractor: Ken Lawson  
Director of Sales, Vanderlande  
1975 West Oak Circle  
Marietta GA, 30062

Any notice of default must be sent by registered mail. Either Party may change the address to which notice is to be sent by giving written notice thereof to the other Party. If email notification is used, the sender must specify a receipt notice.

**11.2 Compliance with Americans with Disabilities Act.** Contractor shall provide the Services in a manner that complies with the Americans with Disabilities Act (ADA), including but not limited to Title II's program access requirements, and all other applicable federal, state and local disability rights legislation.

**11.3 Payment Card Industry ("PCI") Requirements.** Reserved.

**11.4 Sunshine Ordinance.** Contractor acknowledges that this Agreement and all records related to its formation, Contractor's performance of Services, and City's payment are subject to the California Public Records Act, (California Government Code §6250 et. seq.), and the San Francisco Sunshine Ordinance, (San Francisco Administrative Code Chapter 67). Such records are subject to public inspection and copying unless exempt from disclosure under federal, state or local law.

**11.5 Modification of this Agreement.** This Agreement may not be modified, nor may compliance with any of its terms be waived, except as noted in Section 11.1, "Notices to Parties," regarding change in personnel or place, and except by written instrument executed and approved in the same manner as this Agreement. Contractor shall cooperate with Department to submit to the Director of CMD any amendment, modification, supplement or change order that would result in a cumulative increase of the original amount of this Agreement by more than 20% (CMD Contract Modification Form).

**11.6 Dispute Resolution Procedure.**

**11.6.1 Negotiation; Alternative Dispute Resolution.** The Parties will attempt in good faith to resolve any dispute or controversy arising out of or relating to the performance of services under this Agreement. If the Parties are unable to resolve the dispute, then, under San Francisco Administrative Code Section 21.35, Contractor may submit to the Contracting Officer a written request for administrative review and documentation of the Contractor's claim(s). Upon such request, the Contracting Officer shall promptly issue an administrative decision in writing, stating the reasons for the action taken and informing the Contractor of its right to judicial review. If agreed by both Parties in writing, the Parties may resolve disputes by a mutually agreed-upon alternative dispute resolution process. If the parties do not mutually agree to an alternative dispute resolution process or such efforts do not resolve the dispute, then either Party may pursue any remedy available under California law. The status of any dispute or controversy notwithstanding, Contractor shall proceed diligently with the performance of its obligations consistent with the Agreement and the written directions of the City. Neither Party will be entitled to legal fees or costs for matters resolved under this section.

**11.6.2 Government Code Claim Requirement.** No suit for money or damages may be brought against the City until a written claim has first been presented to and rejected by the City in conformity with the provisions of San Francisco Administrative Code Chapter 10 and California

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Government Code Section 900, et seq. Nothing set forth in this Agreement shall operate to toll, waive or excuse Contractor's compliance with the California Government Code Claim requirements set forth in San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq.

**11.7 Agreement Made in California; Venue.** The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California. Venue for all litigation relative to the formation, interpretation and performance of this Agreement shall be in San Francisco.

**11.8 Construction.** All paragraph captions are for reference only and shall not be considered in construing this Agreement.

**11.9 Entire Agreement.** This contract sets forth the entire Agreement between the parties, and supersedes all other oral or written provisions. This Agreement may be modified only as provided in Section 11.5, "Modification of this Agreement."

**11.10 Compliance with Laws.** Contractor shall keep itself fully informed of the City's Charter, codes, ordinances and duly adopted rules and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Agreement, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

**11.11 Severability.** Should the application of any provision of this Agreement to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (b) such provision shall be enforced to the maximum extent possible so as to effect the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable.

**11.12 Cooperative Drafting.** This Agreement has been drafted through a cooperative effort of City and Contractor, and both Parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No Party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the Party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

**11.13 Airport Intellectual Property.** Pursuant to Resolution No. 01-0118, adopted by the Airport Commission on April 18, 2001, the Airport Commission affirmed that it will not tolerate the unauthorized use of its intellectual property, including the SFO logo, CADD designs, and copyrighted publications. All proposers, bidders, contractors, tenants, permittees, and others doing business with or at the Airport (including subcontractors and subtenants) may not use the Airport intellectual property, or any intellectual property confusingly similar to the Airport intellectual property, without the Airport Director's prior consent.

**11.14 Labor Peace / Card Check Rule.** Without limiting the generality of other provisions in this Agreement requiring Contractor to comply with all Airport Rules, Contractor shall comply with the Airport's Labor Peace / Card Check Rule, adopted on February 1, 2000, pursuant to Airport Commission Resolution No. 00-0049 (the "Labor Peace / Card Check Rule"). Capitalized terms not defined in this provision are defined in the Labor Peace/Card Check Rule. To comply with the Labor Peace/Card Check Rule, Contractor shall, among other actions: (a) Enter into a Labor Peace/Card Check Rule Agreement with any Labor Organization which requests such an agreement and which has registered with the Airport Director or his / her designee, within thirty (30) days after Labor Peace/Card Check Rule Agreement has been requested; (b) Not less than thirty (30) days prior to the modification of this Agreement, Contractor shall provide notice by mail to any Labor Organization or federation of labor organizations which have

registered with the Airport Director or his / her designee (registered labor organization”), that Contractor is seeking to modify or extend this Agreement; (c) Upon issuing any request for proposals, invitations to bid, or similar notice, or in any event not less than thirty (30) days prior to entering into any Subcontract, Contractor shall provide notice to all registered Labor Organizations that Contractor is seeking to enter into such Subcontract; and (d) Contractor shall include in any subcontract with a Subcontractor performing services pursuant to any covered Contract, a provision requiring the Subcontractor performing services pursuant to any covered Contract, a provision requiring the Subcontractor to comply with the requirements of the Labor Peace/Card Check Rule. If Airport Director determines that Contractor violated the Labor Peace/Card Check Rule, Airport Director shall have the option to terminate this Agreement, in addition to exercising all other remedies available to him / her.

**11.15 Federal Non-Discrimination Provisions.** Contractor for itself, its personal representatives, successors in interest, and assigns, as part of the consideration hereof, does hereby covenant and agree that Contractor shall maintain and operate the Airport facilities and services in compliance with all requirements imposed pursuant to Title 49, Code of Federal Regulations, DOT, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964, as said regulations may be amended. Contractor, for itself, its personal representatives, successors in interest, and assigns, agrees that Contractor in its operation at and use of San Francisco International Airport, covenants that (1) no person on the grounds of race, color, national origin or sex shall be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities; (2) that in the construction of any improvements on, over, or under the Airport and the furnishing of services thereon, no person on the grounds of race, color, national origin or sex shall be excluded from participation or denied the benefits of, or otherwise be subject to discrimination, (3) that Contractor shall use all City premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, DOT, Subtitle A – Office of the Secretary of Transportation, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended. These Regulations are incorporated as though fully set forth in this Agreement. Contractor agrees to include the above statements in any subsequent contract that it enters into with subcontractors and cause those agreements to similarly include the statements, and cause those businesses to include the statements in further agreements. Failure by the contractor to comply with the requirements of this section is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Airport deems appropriate.

**11.16 Quality Standards Program.** This Agreement is subject to the Airport's Quality Standards Program. The Airport's Employment and Quality Standards (EQS) office oversees the Airport's Quality Standards Program (QSP) which is applicable to Service Providers at the Airport whose employees are involved in performing services that have an impact on Airport security and safety. More information may be found at: <http://www.flysfo.com/about-sfo/the-organization/rules-and-regulations> . EQS may be contacted at (650) 821-1003.

**11.17 Order of Precedence.** Contractor agrees to perform the services described below consistent with the terms and conditions of this Agreement, implementing task orders, the RFP, and Contractor's proposal dated **March 10, 2016**. The RFP and Contractor's proposal are incorporated by reference into this Agreement. Should there be a conflict of terms or conditions, this Agreement and any implementing task orders shall control over the RFP and the Contractor's proposal.

**11.18 Force Majeure.** Neither party shall be liable to the other for failure or delay in the performance of any of its obligations under this Agreement for the time and to the extent such failure or delay is caused by events or circumstances beyond the party's reasonable control such as, but not limited

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to: riots, civil commotion's, wars, hostilities between nations, governmental laws, orders or regulations, actions by the government or any agency thereof, storms, fires, sabotages, explosions or any other contingencies beyond the reasonable control of the respective party and of its sub-contractors (hereinafter referred to as "Force Majeure"). In such events, the affected party shall immediately inform the other party of such circumstances together with documents of proof and the performance of obligations hereunder shall be suspended during, but not longer than, the period of existence of such cause and the period reasonably required to perform the obligations in such cases. In the event the Force Majeure exceeds six (6) months, either party may elect to terminate this Agreement.

## **Article 12 MacBride And Signature**

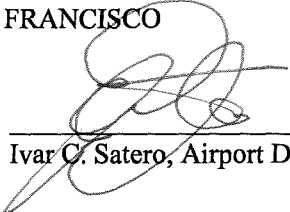
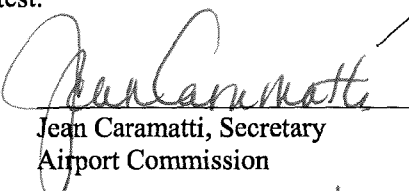

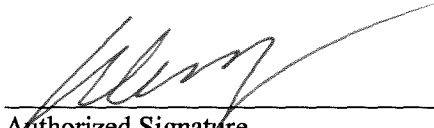
**12.1 MacBride Principles -Northern Ireland.** The provisions of San Francisco Administrative Code §12F are incorporated by this reference and made part of this Agreement. By signing this Agreement, Contractor confirms that Contractor has read and understood that the City urges companies doing business in Northern Ireland to resolve employment inequities and to abide by the MacBride Principles, and urges San Francisco companies to do business with corporations that abide by the MacBride Principles.

## **Article 13 Prevailing Wages**

**13.1 Prevailing Wages; Applicable Laws and Agreements.** Compensation and working conditions for labor performed or services rendered under this Agreement shall be in accordance with the Contract Documents, the San Francisco Charter, and applicable sections of the San Francisco Administrative Code, including section 6.22(E).

**13.2** The latest Wage Rates for Private Employment on Public Contracts in the City and County of San Francisco, as determined by the San Francisco Board of Supervisors and the Director of the California Department of Industrial Relations, and, when federal funds are involved, the current General Wage Determination Decisions, as determined by the U.S. Secretary of Labor, as same may be changed during the term of this Agreement, shall be included in this Agreement and are hereby incorporated by this reference. Contractor agrees that any person performing labor in the provision of the Work shall be paid no less than the highest general prevailing rate of wages as so determined, even if Contractor failed to take into account current or projected prevailing wages when it submitted its proposal. In the event existing or future prevailing wage rates exceed the labor costs that form the basis of Contractor's monthly labor charge of \$1,376,285.71 for all contract years, as set forth in Appendix B to this Agreement, in no event will the City be invoiced for or otherwise charged, nor shall the City be required to pay an increased labor rate. The cost of all labor rates greater than \$1,376,285.71 per month shall be borne exclusively by the Contractor. If federal funds are involved, where the minimum rate of pay for any classification differs among State, City and Federal wage rate determinations, the highest of the three rates of pay shall prevail. Contractor shall include, in any contract or subcontract relating to the Work, a requirement that all persons performing labor under such contract or subcontract shall be paid not less than the highest prevailing rate of wages for the labor so performed. Contractor shall require any contractor to provide, and shall deliver to City every week during the Agreement, electronic certified payroll reports with respect to all persons performing labor for this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day first mentioned above.

<b>CITY</b> AIRPORT COMMISSION CITY AND COUNTY OF SAN FRANCISCO  By:  Ivar C. Satero, Airport Director  Attest:  By:  Jean Caramatti, Secretary Airport Commission  Resolution No: <u>16-0206 / 16-0222</u> Adopted on: <u>7/19/16 / 8/9/16</u>  Approved as to Form:  Dennis J. Herrera City Attorney  By:  Stacey Lucas Deputy City Attorney	<b>CONTRACTOR</b>   Authorized Signature  <u>Wes Goode</u> Printed Name  <u>Vice President Service</u> Title  <u>Vanderlande Industries Inc.</u> Company Name  <u>87305</u> City Vendor Number  <u>1975 West Oak Circle</u> Address  <u>Marietta, GA 30062</u> City, State, ZIP  <u>(770) 250-2800</u> Telephone Number  <u>980182968</u> Federal Employer ID Number
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**Appendices**

- A: Services to be provided by Contractor
- B: Calculation of Charges

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## Appendix A – Services to be provided by Contractor

### DEFINITIONS AND ABBREVIATIONS

**Accessories:** Equipment installed on or adjacent to the passenger boarding bridge (PBB) or fixed walkway that is used for aircraft servicing. Accessories include pre-condition air (PCA) equipment, portable water supply equipment and cabinets (PWC) and aircraft electrical power supply equipment (400 Hz. or GPU).

**Baggage Handling System (BHS):** Shall mean all BHS related structures, including mechanical and electrical equipment and components that are associated with the specified conveyor lines of the facility. This encompasses 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, disconnects, push buttons, including related BHS computers, controls and control hardware and software, with management and support services required to operate and maintain the specified BHS as described by these documents.

**Consumable:** A consumable includes material or equipment that is necessary for the day-to-day operation and maintenance of the BHS. Material or equipment that carries a warranty from the Original Equipment Manufacturer (OEM) is not considered a consumable.

**Fixed Walkway:** A non-movable structure connecting the movable section(s) of the PBB to the terminal building. Fixed walkways are considered part of the PBB for purposes of this Agreement.

**Operations Plan:** The document, developed and updated by the Contractor and approved by SFO, that provides a detailed explanation of how operations will be conducted in compliance with the requirements of this Agreement and the OEM manuals and other documents relevant to the operation and maintenance of the BHS.

**Original Equipment Manufacturer (OEM):** The original manufacturer of the BHS, passenger boarding bridge (PBB) component or accessory.

**Passenger Boarding Bridge (PBB):** PBB shall mean the PBB and related structure, accessories, trim and finishes mechanical and electrical equipment and components, controls, software and computer equipment that are associated with the specified PBB. PBB systems are further described in the OEM-provided manuals.

**Passenger Loading Bridge (PLB):** Synonymous with PBB.

**Preventive Maintenance (PM):** PM is the scheduled cyclical maintenance of the PBBs and BHSs performed in accordance with the OEM's requirements and the maintenance plan. PM includes regular inspection, servicing, cleaning, detection and correction of potential failures either before they occur or before they develop in to major defects and/or imminent failures.

**Maintenance Plan:** The document developed and maintained by the Contractor that provides a detailed explanation of how maintenance will be conducted in conformance with the requirements of this Agreement, together with all operating manuals, maintenance manuals, training programs, system assurance monitoring plans and all other requirements and documents developed by the OEM, SFO and the Contractor.

**Mobilization:** The Mobilization period consists of all necessary preparatory work performed by Contractor in advance of the start of full operations and maintenance services. This includes all necessary work to provide complete day-to-day operations, maintenance and repair of airport-owned BHS and PBBs. Mobilization does not include cost for purchasing, renting or leasing of tools and equipment.

**Routine or Periodic Inspection (RI):** Periodic and repeated inspections of the PBBs conducted in accordance with the OEM's requirements and the maintenance plan.

**SFO:** San Francisco International Airport

**TSA:** The U.S. Transportation Security Administration.

**Appendix A**  
**Services to be provided by Contractor**

General Requirements and Standards for the Operations (Terminal 2 only), Maintenance and Repair of Airport-owned Baggage Handling Systems (BHS) and Passenger Boarding Bridges (PBB) in the Domestic Terminals.

**1. GENERAL**

**1.1 Administrative**

- 1.1.1 The Contractor shall provide all labor, supervision, materials, repair, replacement parts, tools, supplies, lubricants, equipment, and other incidentals necessary to perform complete maintenance and repair services including routine and unscheduled maintenance, repair, and inspection of Airport-owned PBBs, Fixed Walkways, Accessories, and BHS in the Domestic Terminals beginning with the mobilization period, and continuing for the duration of this Agreement.
- 1.1.2 The Contractor shall provide complete maintenance and repair services for Airport-owned Common Use equipment and On-Call services as required and designated by the equipment list in Appendix A – Attachment 3. The equipment list may change from time to time depending on the Airport annual gate allocation, and other changes to Airport facilities.
- 1.1.3 The Explosive Detection System (EDS) (baggage screening equipment components are furnished, maintained and operated by the Transportation Security Administration (TSA) and are not a part of this Agreement.
- 1.1.4 The Contractor shall be responsible for all equipment, supplies, parts, consumables and staffing necessary to operate and maintain, on a 24-hour, seven (7) day-a-week, 365 days-a-year (24/7/365) basis, Airport-owned PBBs, Fixed Walkways, Accessories, and BHS in accordance with these requirements, Original Equipment Manufacturer (OEM) requirements, and the design configuration of the system upon the effective date of this Agreement.
- 1.1.5 The Contractor shall be responsible for providing, storing, stocking, replenishing and the overall care and management of a sufficient supply of baggage tubs to insure that tubs are available and used for every bag inducted that requires their use.
- 1.1.6 The Contractor shall provide sufficient supplies of fallback baggage tags for immediate use when required.
- 1.1.7 The Contractor shall be available on a 24/7/365 basis to perform emergency work. The Contractor shall also perform preventative maintenance services, equipment maintenance and repair activities, make documentation of system conditions, and report on the PBBs and BHS.
- 1.1.8 The Contractor shall keep all PBBs, Fixed Walkways, Accessories, and BHS operational and available to the Airport and its associated airlines at a rate of 95% of the time, or greater.

- 1.1.9 Maintenance and repair duties shall include routine maintenance; scheduled and preventative maintenance; non-scheduled maintenance; ordinary wear; maintenance and update of manuals and other reference resources; maintenance and testing of equipment; maintenance of tools and other equipment; and on-call maintenance as required by SFO.
- 1.1.10 Operations and maintenance services shall be performed in accordance with the Operations and Maintenance Plan developed by the Contractor and approved by SFO.
- 1.1.11 Whenever BHS and PBB service is interrupted, restoration of the BHS and PBB shall be the Contractor's top priority.
- 1.1.12 The Contractor shall cooperate in all respects with SFO or its designee, the TSA, and user airlines and/or representatives. Preventative maintenance (PM) and non-scheduled maintenance tasks shall be coordinated with and scheduled around the requirements of the user airlines' operation. The Contractor shall submit a PM schedule to SFO for review and approval. The PM schedule shall be based on the OEM recommendations. In the event the OEM does not define PM requirements, then the Contractor shall develop its PM and routine inspection schedule based on the criticality of the components, as well as expected wear and use related factors. The Contractor's PM and routine inspection schedule shall be presented to SFO for approval and implementation.
- 1.1.13 The Contractor shall, as set forth herein, assure the operation and maintenance of the PBBs and BHS in conformance with the best industry practices, consistent with the intended design and usage of the PBBs and BHS and as acceptable to SFO.
- 1.1.14 The Contractor shall ensure that the PBBs, Fixed Walkways, Accessories, and BHS are operated and maintained consistent with all applicable local, state, Occupational Safety and Health Administration (OSHA), and federal laws and regulations, SFO codes, and safety standards; and shall assure a safe and efficient system for all personnel who operate, maintain, or have access to the equipment. The Contractor shall submit a Safety Plan suitable for this work for review and approval by SFO.
- 1.1.15 The contractor shall maintain and operate the BHS in accordance with all TSA regulations and guidance, including applicable TSA Planning Guidance and Design Standards (PGDS) regarding performance, modification, record keeping and general operating and security standards.
- 1.1.16 The Contractor shall provide all services in accordance with documented procedures that meet or exceed industry and Airport standards, including good business practices, quality of work performed, projected management, maintenance and engineering practices.
- 1.1.17 The Contractor shall maintain all records generated in performance of this Agreement and transfer them to the Airport in accordance with documented plans and procedures and records transfer schedule.
- 1.1.18 The Contractor, upon notice to proceed, shall conduct a baseline audit of the Airport-owned PBB, Fixed Walkways, Accessories and BHS. The results of this baseline audit shall be included in a Maintenance Plan to be submitted to SFO for review and approval.
- 1.1.19 The Contractor shall consult with the OEM of PBBs, Fixed Walkways, Accessories, and BHS, if necessary, to maintain the required operational rates and performance information.



- 1.1.20 The Contractor shall observe all Airport rules and provisions of SFO's Tenant Improvement Guide in undertaking any of its activities under these requirements.
- 1.1.21 The Contractor shall coordinate with SFO and other airlines in undertaking any of its activities in support of these requirements where such activities may affect SFO or the airline.
- 1.1.22 The Contractor's procurement and storage of fluids (e.g. hydraulic, cleaning, lubricating) and other materials used for PBB and BHS operation and maintenance shall be in accordance with federal, state, and local laws, Airport rules and regulations, and all other applicable regulations for the handling and storage of hazardous materials. Upon request, the Contractor shall provide a material safety datasheet to SFO in addition to all other required contributions and/or postings.
- 1.1.23 SFO reserves the right, at its discretion, to inspect any part of the PBB and/or BHS to the component level for safety violations or deficiencies and to direct the Contractor to make immediate corrections of deficient conditions and/or procedures, and/or to stop the work if hazards are deemed to exist.
- 1.1.24 The Contractor shall be fully responsible and liable for the facilities made available to it. Any damage to the PBBs and/or BHS, personal injury or other incident associated with the BHS must be reported immediately to Airport Airfield Operations. The Contractor shall cooperate fully with any incident investigation conducted by SFO or other authorities.
- 1.1.25 The Contractor shall be responsible for collecting and disposing of all waste generated in the operations and maintenance of Airport-owned BHS and PBB, and disposal shall be at an off-Airport location.
- 1.1.26 Preventative Maintenance and all scheduled maintenance performed during operating hours shall, in no way, delay operations and shall not affect any part of the BHS and PBB.
- 1.1.27 Where applicable, Contractor shall Track the warranty period for all components, and record labor hours for repairs and other costs for accomplishing warranty work as approved by the OEM.
- 1.1.28 The Contractor shall be fully responsible for any and all costs related to revoked or otherwise degraded warranty coverage resultant from their acts or omissions.
- 1.1.29 The Contractor shall acquire, or in the case of subcontractors, ensure that they have acquired, the proper insurance and SFO permits for all vehicles that are owned and operated at the site by its employees and/or subcontractors.
- 1.1.30 The Contractor will ensure that its personnel and/or subcontractor personnel shall follow TSA and U.S. Customs and Border Protection (CBP) rules and regulations when working in controlled security areas. The Contractor shall ensure that, under no circumstances, any of its employees or subcontractor employees enter an area not authorized for access by the Contractor or subcontractor.

- 1.1.31 The Contractor shall manage the procurement, inventory control, storing and re-ordering of spare parts as required for the maintenance of the PBBs, fixed walkways, accessories and BHS. The Contractor shall maintain a full stock of spare parts with, at a minimum, quantities of spare parts equal to or greater than that which are present at the start of the Agreement. The Contractor shall submit an invoice for the cost of all spare parts, and all such spare parts shall immediately become SFO property. Spare parts invoices must clearly state the amount the Contractor paid to suppliers for procurement of spare parts. The Airport will not pay a markup for any spare parts.
- 1.1.32 At the conclusion of this Agreement, the Contractor shall deliver to SFO all manuals, drawings, computer programs, procedures, records, tools, spare parts, equipment, and testing devices that SFO and the OEM have provided the Contractor for use in maintaining the PBBs, Fixed Walkways, Accessories, and BHS. All records, logs, reports, and related documentation relative to the maintenance of the PBBs, Fixed Walkways, Accessories, and BHS developed by the Contractor during the term of the Agreement, including the mobilization period, are the property of and shall be returned to SFO at the conclusion of this Agreement.
- 1.1.33 The Contractor shall be responsible for the maintenance and support of the BHS Low Level Controls (LLC) including all Programmable Logic Controls (PLC) hardware and software components and PLC programs for operating and maintaining the BHS. SFO will provide maintenance and support of the Upper Level Controls (ULC) for the inbound and outbound BHS, including:
- 1) Sortation computer systems including BHS Sort Control Servers
  - 2) Human Machine Interfaces (HMI)
  - 3) Reporting and tracking systems
  - 4) Dedicated Ethernet Networks to support the BHS
  - 5) Programmable Logic Controls (PLC) – Upper Level
  - 6) PLC software auditing systems
  - 7) PLC Interfaces with Transportation Security Administration (TSA) Explosive Detection System (EDS)
  - 8) Remote Start/Stop system of EDS CTX Machines
  - 9) Baggage Reconciliation System (BRS)

## 1.2 Personnel - General

- 1.2.1 The Contractor shall be responsible for all costs associated with staffing the work encompassed in this Agreement, including hiring, SFO security badging, parking, taxes, and wages.
- 1.2.2 The Contractor shall not assign, schedule or use personnel designated to perform work under this Agreement to other locations unless approved by the Airport.
- 1.2.3 The Contractor shall be responsible for providing skilled technicians with mechanical and electrical aptitude relevant to PBBs, Fixed Walkways, Accessories and BHS. Technicians must have a minimum of one (1) year experience working on PBBs, Fixed Walkways, Accessories and BHS before working independently.

- 1.2.4 Contractor shall provide a sufficient number of computer programmers and technicians to operate, maintain, troubleshoot, update, and repair the BHS and PBB computer systems and software.
- 1.2.5 BHS Control Room Personnel. The Contractor shall provide personnel to monitor and operate the Terminal 2 BHS 24/7/365 including updating databases, resource assignments and related tasks.
- 1.2.6 All employees must have an SFO Security Badge as required for unescorted access to the Airport's Security Identification Display Area (SIDA).
- 1.2.7 The Contractor shall require all prospective employees, including Contractor's employees, to show proof of citizenship or proof from the United States Immigration Authority that they have the legal right to work in the United States. The Contractor and its subcontractor(s) shall comply with all badging requirements.
- 1.2.8 The Contractor's and subcontractor's employees, who operate motorized vehicles in the performance of this Agreement, must possess a valid California Driver's License and valid San Francisco International Airport Operator's license. The Contractor shall have in place procedures to insure that employee's driver's licenses remain valid at all times. Participation in California's "PULL" program is strongly recommended.
- 1.2.9 The appearance of the Contractor's and subcontractor's personnel shall be clean and neat and their conduct courteous and consistent with the highest ethical standards.

### **1.3 Staffing**

- 1.3.1 **Operations and Maintenance (O & M) Manager:** The Contractor shall assign a qualified and experienced person as the O&M Manager to be responsible for overseeing and directing Terminal 2 BHS operations services and the maintenance and repairs of PBBs and BHS in Domestic Terminals. The O&M Manager, or his/her authorized representative (person designated by the Contractor), shall be available and on site at all times. This will include attendance at regularly scheduled or on- demand meetings by SFO and/or the user airlines to discuss the operation and maintenance of the Airport-owned BHS and PBBs. The Contractor shall attend all daily briefings as required. The O&M Manager shall also be available for periodic tours or inspections of the premises to be made with SFO and/or airline representatives. The O&M Manager shall be in charge of, and have overall responsibility for the work to be carried out under this Agreement and as such shall devote his/her time exclusively to this task. The O&M Manager shall be responsible for providing equal level replacement when the BHS O&M Manager is absent due to sick or vacation leave. SFO shall have the right to approve or reject any BHS O&M Manager selected by the Contractor and/or demand replacement at its sole discretion. SFO shall have the right to approve or reject any O & M Manager selected by the Contractor and/or demand his/her replacement at SFO's sole discretion.

- 1.3.2 **Staffing Levels:** The Contractor shall determine, in accordance with the operating and maintenance requirements of this Contract, the necessary staffing levels and experience and provide all the labor necessary to meet the requirements of this Contract. This staffing level shall be described in the Staffing Level and Allocation Plan submitted with the Proposal. The Contractor's failure to include minimum staffing levels in the Staffing Level and Allocation Plan does not relieve the Contractor of the obligation of providing the necessary staffing levels to ensure full performance of the work at no additional costs.
- 1.3.3 Contractor shall provide adequate staffing for each Manual Encode console for every shift.
- 1.3.4 Contractor shall provide Baggage Jam Responders. The Baggage Jam Responder's job duties shall consist of, but not be limited to clearing all baggage jams in a safe and expedient manner. The Baggage Jam Responder may also be used to help in any other area and perform any other duties the Contractor may require.
- 1.3.5 **SFO's Right to Reject Contractor Personnel:** SFO or its Representatives reserves the right, upon reasonable cause, to reject key personnel assigned to this Agreement.

#### **1.4 Training**

The Contractor is responsible for providing initial and recurrent training to all employees involved in the maintenance, repair and operation of Airport-owned PBBs, Fixed Walkways, Accessories, and BHS. The Contractor shall ensure and establish to the Airport's satisfaction that all employees who will be involved in the operation, repair and maintenance of the PBBs, Fixed Walkways, Accessories and BHS attend and participate in an Airport-approved maintenance training program.

## **2. OPERATIONAL REQUIREMENTS AND SERVICES**

- 2.1 **Mobilization:** The Contractor shall plan and perform all necessary work required for the successful start of full operations and maintenance services during the mobilization period. The Mobilization period shall not exceed thirty days (30). The start of the mobilization period will be agreed upon SFO and Contractor. Activities and requirements shall include, but not be limited to:
  - 2.1.1 Hiring the full complement of PBBs, Fixed Walkways, Accessories and BHS maintenance staff who shall have completed all required security checks and received an SFO security badge. Hiring component includes ensuring that operations and maintenance staff meet all requirements of Airport Rules and Regulations including security checks, security badging, and driver requirements.
  - 2.1.2 Training maintenance staff for PBBs, Fixed Walkways, Accessories and BHS such that staff is fully proficient on the specific requirements of the PBBs, Fixed Walkways, Accessories and BHS maintenance. Training shall include operational practice.
  - 2.1.3 Ensuring that the BHS Operations and Maintenance Manager or his designated representative is on-site full-time during mobilization.
  - 2.1.4 Making the BHS Operations and Maintenance Manager available for periodic tours and or inspection of the BHS to be made with SFO and/or others as requested by SFO.

- 2.1.5 Obtaining all necessary licenses and permits.
- 2.1.6 Provide adequate staffing during mobilization period for all testing as directed by SFO.
- 2.1.7 In the event of new BHS component or subsystem installation, the Contractor shall assure that its employees are fully trained by installation contractor and/or the OEM. BHS operations and maintenance employees hired subsequently shall receive equivalent training (in both content and duration) administered by the Contractor in accordance with the Contractor's training plan as approved by SFO.
- 2.1.8 All BHS operations and maintenance staff shall meet all requirements of Airport Rules and Regulations including security checks, security badging, and driver requirements.
- 2.1.9 Provide an inventory of all maintenance tools and equipment provided during transfer of operations and maintenance responsibilities. The Contractor shall purchase – at its sole expense – all tools, equipment, and supplies necessary for the operation and maintenance of the PBBs, Fixed Walkways, Accessories, BHS components and subsystems.
- 2.1.10 Procure all tools and equipment required to perform preventive maintenance and repair functions in accordance with OEM requirements. Certain tools that are required to perform specific maintenance tasks on OEM supplied equipment may be supplied by the OEM as part of the equipment supply and installation. These tools shall remain property of SFO and subject to all requirements for maintenance, storage, and condition upon return to SFO as specified elsewhere in this agreement.
- 2.1.11 Provide storage for all spare parts, supplies and equipment and maintain all storage areas in a clean and organized manner. At its discretion, SFO may inspect storage areas and inventory records for Airport-provided parts and equipment.
- 2.1.12 Develop and maintain an automated maintenance management and inventory control program for all PBBs, Fixed Walkways, Accessories and BHSs related work, which shall be reviewed with SFO prior to implementation.
- 2.1.13 Organize a maintenance library of available as-built documents, manuals, and other resources. The Contractor shall be thoroughly familiar with the contents of these documents in order to capably operate, maintain, diagnose and repair the BHS components and subsystems.
- 2.1.14 Provide a 24/7/365 contact telephone number for any service issues related to the BHS. The contact telephone number may be the same number provided to SFO for general emergency contact for the Contractor.

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2.1.15 The above tasks are not meant to be all inclusive, but only illustrative of the necessary actions the Contractor must accomplish during the mobilization period to be fully functional at time of commencement of responsibilities for operation and maintenance of the BHS. The mobilization requirements shall be maintained throughout the term of this agreement.

## **2.2 Maintenance Plan and Required Experience**

2.2.2 SFO must approve the Maintenance Plan prior to the Contractor's start of operations and maintenance of the BHS. Additional BHS subsystems or components for which the Contractor is responsible will automatically be subject to the existing Maintenance Plan after any revisions necessary to account for differing equipment or other changes are included and approved by SFO. The Maintenance Plan shall be submitted to SFO a minimum of twenty (20) business days prior to the Contractor's commencement of operation and maintenance of the BHS. SFO shall respond to the Contractor's proposed Maintenance Plan within fifteen (15) business days of submittal. Subsequent revisions to the Maintenance Plan must be approved by SFO prior to implementation of any changes to the existing Maintenance Plan. Revisions to the Maintenance Plan shall be submitted as necessary to insure that the Maintenance Plan reflects the actual conduct of the operations and maintenance services and meets these Requirements.

2.2.3 The Contractor's Maintenance Plan shall include the following:

- 1) A "real time" organizational and implementation framework around which the Contractor's operations and maintenance activities are conducted.
- 2) A scope of work that provides complete maintenance services for the BHS and PBBs. Any other services that the Contractor determines are required in order to assume complete responsibility for operation and maintenance of the BHS and PBBs that are not described herein shall be referred to in the Maintenance Plan as "additional services."
- 3) A training plan detailing how the Contractor will meet initial and recurrent training requirements.

- a) The Contractor shall be responsible for training all BHS operations and maintenance workers. The Contractor shall not allow personnel who have not successfully completed the approved training program(s) to operate or perform maintenance on the BHS and PBBs. The Contractor shall maintain accurate training records and make them available to the Airport upon request. Airport staff may audit and/or, on a space-available basis, participate in training sessions.
  - b) Contractor shall develop a Training Plan that includes a list of training classes and programs, a brief summary of their content, duration, and the objective of each class or program, and the qualifications of the instructor(s). The Training Plan and all revisions thereto must be approved by SFO. The approved Training Plan shall be included in the Maintenance Plan.
  - c) Contractor shall develop a program of recurrent training including PBB operations, baggage hygiene, new or modified equipment, procedures, techniques and any other updated content. Such training shall be conducted annually at minimum, or more frequently if deemed necessary by the Contractor or SFO. Baggage hygiene training shall be made available to the airlines using the BHS upon request.
  - d) The initial operator training and maintenance training specific to the requirements for newly installed BHS subsystems or components shall be included in the purchase cost if the Airport provided installation of the subsystems or components. Subsequent training requested from the OEM by the Contractor shall be at the Contractor's expense.
- 4) A Safety Plan detailing how the work will be accomplished in a safe manner and the BHS and PBBs protected from damage.
- a) During the term of this Agreement the Contractor shall provide all materials, training, and other resources required to ensure that the BHS and PBB can be safely operated and maintained in conformance with all applicable federal, state, local, Airport Rules and the approved documents developed concerning the BHS.
  - b) The Safety Plan shall be reviewed and updated annually along with the Maintenance Plan.
- 5) An operational Contingency Plan providing detailed steps to recover and continue baggage processing in the event of system failures or interruptions due to mechanical, electrical, controls, or environmental (not directly PBB and/or BHS-related) events that render some or all of the system degraded or unavailable. These plans must include the use of alternate equipment, manual methods, alternative sites or combinations of these and other mitigating measures. Resources required, and sources of those resources are to be included, as are communication plans. Procedures and methods to resume normal processing after the system is restored must be included. Contingencies to mitigate interruption of part or all of the inline baggage screening capability are to be developed directly with TSA and included in the Contractor's overall plan.
- 6) Maintenance Manager – Required Experience. The Maintenance Manager shall be the individual with primary responsibility to implement the Maintenance Plan and

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fulfill the Contractor's obligations regarding the operation and maintenance of the BHS and PBBs. The Maintenance Manager shall have a minimum of five (5) years of experience in operation, maintenance and repair of BHS and at least three (3) years of experience performing operations, maintenance, repair, and on-call services of PBBs of various ages at an airport(s) within North America serving more than 7 million annual enplanements. The BHS and PBBs Maintenance and Operations Manager may be a working member of the staff. The Contractor shall provide to SFO sufficient documentation, including resumes and proof of experience, to demonstrate that the proposed staff meet the minimum qualifications.

- 7) Proof of Experience: Provide information on the prior experience of the Contractor and the Maintenance Manager in the following areas:
  - a) Managing BHS operations and maintenance services to achieve maximum levels of safety and reliability.
  - b) Inventory management.
  - c) Preparing and automating BHS operation and maintenance documentation and reports.
  - d) Establishing and sustaining an effective quality control program.
  - e) Establishing a maintenance program and plan, to include establishing an automated maintenance management and inventory control program.
  - f) Performing corrective maintenance of all BHS components.
  - g) Performing preventative maintenance per OEM standards.
  - h) Maintaining maintenance records including warranty repairs, scheduled preventative maintenance, and non-warranty repairs.
  - i) Establishing a safety plan and asset protection plan.
  - j) Establishing and sustaining a training program.
- 8) Provide one example of each report as required in Performance Monitoring and Reports section.

## 2.3 Operational Duties

- 2.3.1 The Contractor shall execute the maintenance of the PBBs, Fixed Walkways, Accessories and BHS to meet, at a minimum, the Operations and Maintenance requirements specified in this Agreement. Should the Contractor specify more stringent performance requirements, those requirements shall govern.
- 2.3.2 It is the Contractor's responsibility to consult with the Original Equipment Manufacturers (OEM) of the PBBs, Fixed Walkways, Accessories and BHS, if necessary, to maintain the required operational rates and performance.
- 2.3.3 The Contractor shall be responsible to provide, train, and supervise all maintenance personnel and provide all materials, tools, equipment, and services required to accomplish the tasks specified to assure that the PBBs, Fixed Walkways, Accessories and BHS provide safe and reliable service, meeting the specified minimum performance criteria.
- 2.3.4 The Contractor will monitor the PBBs, Fixed Walkways, Accessories and BHS status and dispatch maintenance personnel as necessary to correct fault conditions including electrical and mechanical failures. A failure or fault is defined as any condition that renders a PBB,



Fixed Walkways, Accessory or BHS (or any subcomponent thereof) unserviceable or non-compliant to the performance specifications.

- 2.3.5 The Contractor is responsible for responding to and rectifying all fault conditions. Whenever the service of PBBs, Fixed Walkways, Accessories and BHS is interrupted, the restoration of such service shall be accomplished in accordance with the Maintenance Plan and the OEM maintenance manuals.
- 2.3.6 Baggage Removal – The Contractor shall be responsible for the removal of any baggage remaining in the system and any manual handling required in the event of a BHS system failure and to respond to all BHS related failures and emergencies as required allowing the transport of bags to their intended destination.
- 2.3.7 The Contractor shall staff the BHS Control Room on a 24/7/365 basis, and provide monitoring of the BHS via the BHS Management Information System (MIS) and the Maintenance Diagnostics System (MDS) while the systems are operational. The Control Room operator's general duties include, but are not limited to:
- 1) Alert maintenance personnel through radio communications of faults or failures and dispatch them to the appropriate location.
  - 2) Monitor system balancing.
  - 3) Monitor statistical reports.
  - 4) Monitor set make-up assignments as required by the user airline(s).
  - 5) Make BHS operational decisions, maintaining and coordinating implementation of any backup/fallback procedures necessary to facilitate continued operations.
  - 6) Ensure smooth daily start-ups by establishing and following start-up check lists and procedures.
- 2.3.8 Baggage Tag Duties
- 1) Fallback Tags – Contractor must verify, on a daily basis, the readiness to exercise/initiate any and all back-up or fallback modes or procedures at any time. This shall include (but is not limited to) verifying the availability of a sufficient stock of pre-printed Fallback/Pier tags as required to allow possible implementation on demand at any given time. Current stock must be sufficient to ensure that it will not be depleted faster than it can be replenished if use were required for extended periods.
  - 2) Initial stock will be provided by Contractor based on the recommendations of the OEM as well as airlines and other operations stakeholders. The Contractor shall be responsible for restocking (in a similar manner to spare parts purchases) as required to ensure continuous availability as described above and for distribution of Fallback tags as needed.
- 2.3.9 The BHS Control Room staff shall perform the following tasks

**Daily Tasks:**

- 1) Log onto the User interface workstation.
- 2) Ensure that BHS Sortation and MDS computers are operational.
- 3) Verify, via MDS, that there are no devices in an alarm state or condition that will prevent the BHS conveyors from starting and contact maintenance operations to correct any conditions that may prevent system start-up.
- 4) Verify, via the MDS, that all communication links are running and operational (Host/Message Broker BSM, PLC).
- 5) Monitor MDS for any visual and audible alerts, and notify maintenance operations of identified conditions that may need correction.
- 6) Verify that the flight schedule loaded is the correct flight schedule for the current days' flights and make any corrections needed.
- 7) Set and verify that all flights to make-up assignments are correct, and make changes as required.
- 8) Assist the TSA as necessary for system start-up and operation.
- 9) Verify readiness to exercise/initiate any and all back-up or fallback modes or procedures at any time.
- 10) Coordinate and communicate with users, maintenance and operations staff as required for baggage tub management, ensuring availability at load points at all times.
- 11) Monitor and accept/reject automatic FIDS/BIDS downloads.
- 12) Retrieve and file all Alarm Log Reports from all Alarm Printers.
- 13) Print End-of-Shift reports, log and file.
- 14) Operator Log-Off.
- 15) Fully advise next shift of current conditions and relevant issues as required.
- 16) Ensure that all previous days' "End of Day Tasks" has been completed.
- 17) Collect, log and file all "End of Day" reports printed during the nightly End-of-Day processing.

**Other Regular Tasks:**

- 1) Perform regular Preventative Maintenance (PM) of Control Room equipment (e.g., clean/dust computer areas and inside and outside of cabinets, check cables, clean or replace computer air filters)
- 2) Download and edit New Flight Schedules (If not provided by FIDS).
- 3) Maintain flight schedule.
- 4) Check spare parts inventory and initiate any required purchase requests.
- 5) Ensure/request maintenance staff performs scheduled PM.
- 6) Prepare and save weekly, monthly and yearly reports.
- 7) Print, distribute and file weekly, monthly and yearly reports.
- 8) Collect, label and store Incremental System Back-up tapes/CDs.
- 9) Prepare a blank tape/CD for automatic Incremental system- back up.
- 10) Prepare a blank tape/CD for Monthly Full System Back-up.
- 11) Perform Monthly Full System Back-up.
- 12) Collect, label and store Full System Back-up tapes/CDs.

2.3.10 The Contractor is responsible for coordinating decisions and managing those decisions regarding PBBs, fixed walkways, accessories and BHS fallback operational procedures.

- 2.3.11 The Contractor shall keep SFO and any other user airlines informed of all PBBs, Fixed Walkways, Accessories and BHS outages or failures that impact the airlines' operations. The Contractor shall inform SFO of these equipment outages or failures as soon as practical after each occurrence. Additionally, these periods of equipment outages or failures shall be reported via the daily and weekly reports.
- 2.3.12 The Contractor shall promptly notify SFO in writing of all available software upgrades for each piece of BHS equipment including, but not limited to Programmable Logic Controllers (PLCs), Automated Tag Readers (ATRs) and controllers, and shall purchase and install upgrades upon written approval by SFO.

**2.4 Response Time**

Response time for work requirements is dependent upon work priority and shall be in accordance with the following standards:

- 2.4.1 Emergency Work: The Contractor shall have available personnel to take action at the emergency job site within five (5) minutes following notification of a problem with a PBB, Fixed Walkway, Accessory and/or BHS. Emergency Work is defined as correction of any mechanical, electrical or controls issue or any condition in which the PBB, Fixed Walkway, Accessory and/or BHS not usable for its intended purpose.
- 2.4.2 Routine Work: Work orders shall be started as soon as possible following receipt of the work request. Routine work is defined as correction of any condition that is not causing the PBBs, Fixed Walkways, Accessories, and/or BHS to be unusable for its intended purpose. Routine work may be scheduled or unscheduled.
- 2.4.3 Urgent Work: Urgent work shall be started with the first available person after receipt of the request. Work in progress will be halted to perform urgent work.
- 2.4.4 Bag Jams: Bag Jams shall be responded within two (2) minutes of the occurrence.
- 2.4.5 Once the work has begun, the Contractor shall maintain continued and steady progress to ensure completion in the minimum reasonable time, considering competing workload, etc., except when a specific performance period is noted on the work request.
- 2.4.6 A "Downtime Event" shall be defined as the time in which a PBB, Fixed Walkway, Accessory or BHS related problem causes an interruption in the normally scheduled use of the PBBs, Fixed Walkways, Accessories or BHS. Duration of such events shall be measured from the initial notification to the Airline (beginning of the interruption) until the effected PBB, BHS, or other device/system is returned to service and the normal operation is restored. For the chart below, a month shall be defined as a calendar month. Reference Section 3.7 for response time requirements.
- 2.4.7 Situations resulting solely from operator error, and resolved solely by correction of that error, do not constitute Downtime Events. If the operator error results in a condition requiring maintenance action, a down time event is to be recorded.

<i>Down Time Event Limits (the Event starts from the time the Airline is notified of a non-</i>	<i>Number of Down Time Events Allowed Per Month</i>
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<i>operational PBB and/or BHS)</i>	
Greater than ten (10) minutes and less than or equal to (15) fifteen minutes	2
Greater than fifteen (15) minutes and less than or equal to thirty (30) minutes	1
Greater than thirty (30) minutes and less than or equal to forty-five (45) minutes	1
Greater than forty-five (45) minutes each single event counted as three (3).	0

## 2.5 Corrective Action

- 2.5.1 For any calendar month during the Agreement that the number of cumulative downtime events exceeds 5 (five) occurrences per every PBB, Fixed Walkway, Accessory and BHS covered under this Agreement, the Contractor shall promptly undertake reviews of maintenance procedures and shall propose a plan to SFO to correct the problems and return performance to within the allowed number of events.
- 2.5.2 Corrective actions shall be documented in a Failure Analysis Report to be issued by the Contractor to SFO. This report shall be submitted by the 10th day of the following month.
- 2.5.3 Any single downtime event exceeding 6 (six) hours shall be reported to SFO immediately and reviewed separately in accordance with the provisions as described in this Agreement with the exception that the Failure Analysis Report is to be submitted to SFO within 48 hours of the return to service of the specified PBB, Fixed Walkway, Accessory and/or BHS.
- 2.5.4 Should a downtime event exceed 24 hours SFO may at its sole discretion arrange for restoration of the specified PBB, Fixed Walkways, Accessory and/or BHS to operational condition using Airport and/or contracted resources at the Contractor's expense.

## 2.6 Terminal 2 Baggage Handling System Related Facilities and Supporting Infrastructure

- 2.6.1 Space rental and utilities required to operate and maintain these facilities are provided by the Airport. Janitorial maintenance and supplies are the responsibility of the Contractor.
- 2.6.2 Contractor shall be fully responsible and liable for the facilities made available to it, to include loss or damage thereto. This responsibility includes the observance of safety security, and sanitary directives. The Contractor may not use any SFO facilities other than those specifically provided. Contractor shall promptly notify the San Francisco Police Department – Airport Bureau of all equipment and supply theft and assist in determining loss.
- 2.6.3 BHS Control Room – T2.1.E119, 376 square feet. The BHS Control Room houses the controls equipment, operating, and monitoring systems required for the BHS to function.

The Airport shall have full right of entry and inspection of the BHS Control Room and the Airport-owned equipment therein at any time.

- 2.6.4 Shared Equipment Room – T2.1.E111. The BHS Sort Control Servers are located in an equipment room in which equipment used by others may also be located. The Contractor is required to participate in maintaining the cleanliness and security of the space in cooperation with the other users whose equipment is located therein. The other primary user is the TSA.
- 2.6.5 BHS Parts Storage and Work Room – T2.1.051, 2206 square feet. This space houses parts and equipment storage and work shop use as part of the original terminal space plan. The Airport shall have full right of entry and inspection of the BHS Parts Storage and Work Room and the Airport-owned equipment therein at any time.
- 2.6.6 BHS Administrative Office – T2.1.013, 163 square feet. The Airport shall have full right of entry and inspection of the space and the Airport-owned parts and/or equipment therein upon reasonable notice to the Contractor under routine circumstances and at any time the Airport's interest in the facility and/or parts and/or equipment dictates immediate entry.

## 2.7 General Safety

SFO reserves the right at its discretion to inspect any PBB, Fixed Walkways, Accessory and/or BHS for safety violations or deficiencies and to 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.

## 3. MAINTENANCE SERVICES – REQUIREMENTS

3.1 **General Maintenance Requirements.** The Contractor shall provide maintenance of the PBBs, Fixed Walkways, Accessories and BHS in conformance with the SFO-approved maintenance plan and maintenance manuals provided by the OEM(s). The Contractor shall provide complete maintenance services for common use equipment and on-call services as required and designated on the equipment list in Attachment 3 to this Appendix A. The work shall be performed diligently with top quality supplies, materials, equipment, and workmanship. Maintenance duties for BHS and PBBs, PBB Fixed Walkways and PBB Accessories to be undertaken by the Contractor shall include the following:

- 3.1.1 Routine maintenance: Activities including, but not limited to, routine inspections and testing designed to identify any unusual or abnormal equipment condition. The Contractor shall adhere to the OEM's requirements for routine inspections of the BHS, PBBs, Fixed Walkways and Accessories in accordance with the schedules and requirements of the OEM as stated in the maintenance manuals. All parts and components subject to wear and tear must be replaced or renewed when needed. Operation of BHS in adverse climatic conditions such as locations near salt water will require more frequent inspections of some items and a more frequent lubrication schedule.
- 3.1.2 Scheduled/Preventative Maintenance: Activities required for keeping the BHS, PBBs, Fixed Walkways and Accessories operating at the prescribed levels of safety, efficiency and reliability, as defined in the OEM Manuals, which are performed on a regular basis at specified intervals. Preventative maintenance shall include cleaning BHS conveyer

equipment as well as the surrounding area to keep equipment and surrounding areas free from any trash, dirt debris and graffiti. The Contractor shall adhere to a rigid program of preventative maintenance to prevent or reduce failures or the need for non-scheduled maintenance. Maintenance schedules and procedures established and recommended in the OEM manuals must be followed at all times with the goal of maintaining or exceeding BHS system design life expectancy. See Attachments 1 and 2 for examples of Preventative Maintenance Inspection Checklists. Execution of all tasks included on a checklist in a manner consistent with the standards set forth in this Agreement, and recording/retention of the completed checklist constitutes a completed Preventative Maintenance Inspection.

- 3.1.3 Non-Scheduled Maintenance: Activities requiring corrective measures or repairs necessitated by an inspection, a failure, or unusual circumstances adversely affecting the normal operations of PBBs, Fixed Walkways, Accessories, BHS or component(s). Non-scheduled maintenance shall be performed on a priority basis as necessary to meet the specified performance criteria.
- 3.1.4 Ordinary Wear: Activities requiring corrective measures or repair that may be required because of ordinary wear.
- 3.1.5 Other Maintenance: Updating maintenance manuals or other resources, maintenance of testing equipment, maintenance of tools, equipment and fixtures.
- 3.1.6 On-Call Maintenance: Maintenance as requested by SFO.
- 3.1.7 Maintenance of Accessories including specific components of pre-conditioned air (PCA), aircraft ground power (400 Hz, or GPU) and potable water supply cabinet (PWC) equipment at follows:
  - 1) All PCA supply components from the air handling unit to the aircraft including hoses, connectors, clamps, aircraft connectors, and carriages, baskets, reels or other stowage devices for the components. The cabin temperature sensor (probe) assembly, including the sensor unit, cable(s) and connectors shall also be maintained by the Contractor.
  - 2) Aircraft GPU (400hz) components from the gate box to the aircraft including supply cable assemblies, all conductors, cable hoist assembly, anti-abrasion devices, and cable controls (mounted on the supply cable and/or remotely).
  - 3) Aircraft Docking System (ADS) and components installed on building façade and/or pole including manual and electronic controls.
  - 4) Potable Water Cabinet (PWC) components from the output side of the backflow prevention device to the aircraft including all components inside the cabinet and the cabinet assembly itself.
- 3.1.8 The Contractor shall not remove PBBs, Fixed Walkways, Accessories and BHS subsystems or components from service for purposes other than maintenance and repair, nor shall the Contractor elect not to repair and restore to service failed PBBs, Fixed Walkways, Accessories and BHS subsystems or components. In no case may PBBs, Fixed Walkways, Accessories and BHS be used as sources of spare parts or materials unless a demonstrably critical operational need exists. SFO shall be immediately notified of such action, the reason for it and when the removed parts and/or materials will be replaced. The “donor”

subsystem or component must also be covered under these requirements and any parts and/or materials used must be in conformance with these requirements.

- 3.1.9 The Contractor shall ensure that OEM requirements necessary to retain warranty coverage, when such coverage is available, are fully complied with. The Contractor shall be responsible for all costs related to revoked or otherwise degraded warranty coverage resultant from their acts or omissions.
- 3.1.10 At the conclusion of this Agreement the Contractor shall deliver to SFO all manuals, drawings, computer programs, documentation, records, spare parts, tools, equipment, vehicles and testing devices that SFO and/or the OEM have provided the Contractor for use in operating and maintaining the BHS. All records, logs, reports and related documentation relative to the operation and maintenance of the BHS developed by the Contractor are also to be turned over to SFO.
- 3.1.11 The Contractor shall be responsible for providing and maintaining all necessary vehicles, including, but not limited to lift devices, fork-lift trucks, etc. that will be required and used under this Agreement.
- 3.1.12 The Contractor shall maintain all SFO-owned equipment, parts, supplies, and materials in good working order, properly maintained and secure for the duration of the agreement.

**3.2 Maintenance Tasks.** The following work tasks provide a general listing of activities assumed necessary to maintain and repair Airport-owned PBBs and BHSs. In addition to the general listing below, Contractor agrees to perform maintenance work in accordance the requirements of this Agreement.

- 3.2.1 The Contractor shall manage PBB maintenance services to achieve maximum levels of safety and reliability.
- 3.2.2 The Contractor shall manage inventory of parts and equipment.
- 3.2.3 The Contractor shall establish and sustain an effective quality control program.
- 3.2.4 The Contractor shall establish a maintenance program and plan, which is to include an automated maintenance management and inventory control program.
- 3.2.5 The Contractor shall maintain maintenance records, including records of warranty repairs, scheduled preventative maintenance, and non-warranty repairs.
- 3.2.6 The Contractor shall provide a visual check of the following items: missing or worn hardware, weathered paint, rust and corrosion, frayed or torn carpet and wall coverings, cracked or broken windows, water damage, oil leaks, loose crooked or poorly adjusted components.
- 3.2.7 The Contractor shall follow all required checklists as indicated in the BHS and PBBs OEM's manuals or utilized SFO approved checklists. Trained maintenance personnel must complete all checklists. Discrepancies not corrected on the spot must be scheduled for further maintenance attention. BHSs, PBBs, Fixed Walkways, and Accessories shall be removed from service for repair or maintenance inspection immediately if any defect or

condition affecting safe operation is found or suspected. The Contractor must coordinate with SFO for the closure of any of the above mentioned systems and or equipment.

3.2.8 The Contractor shall inspect functionality of potable water equipment; stair casters and baggage slide; PC Air hoses and aircraft attachment mechanism; bridge cables and limit switch conditions; 400 Hz cable ends and conditions; bridge tire conditions and conditions; inspect for damage due to neglect; and inspect for leaks or abnormal condition.

3.2.9 The Contractor shall inspect bridge controls and functionality; console illumination and safety features; mirror or camera visibility and adjustment; bridge canopy condition and functionality; condition and functionality of auto leveler; vertical column functionality and condition; extend bridge to assure proper adjustment and alignment; extend PC Air hose and inspect conditions; inspect all internal and external lights; inspect temperature probe; inspect and clear gutters and drains of obstructions; cab rotation and alignment; inspect rotunda flooring and side curtains for alignment; assure bridge doors are square and latches function and operate properly; note any unusual odors; note areas that will require paint touch up-both exterior and interior; and repair any damaged paint areas.

**3.3 Availability Standard.** The Contractor is required to keep all PBBs, Fixed Walkways, Accessories and BHS and sub systems operational and available to SFO and its associated airlines.

3.3.1 A monthly availability percentage of 95%, or greater, is required per system and subsystem. Sub systems shall be defined by agreement between the Contractor and SFO. Any service interruption due to events caused by outside entities such as power outages or failures of federally maintained equipment shall be reported but shall not count toward Downtime of the BHS. A monthly availability percentage below 95% shall constitute non-compliance. Measurements of availability shall not include pre-planned down time for preventive maintenance. The availability percentage will be calculated using a weighted reliability time metric of four (4) levels of criticality. The Airport and the Contractor shall meet and review the BHS in detail and determine the best level of criticality of sub-systems, components or combination of each prior to the start of work.

The levels are:

Level	Description	Weight
Level 1	<b>Highly Critical</b> A single point of failure area with maximum operational impact.	1.5
Level 2	<b>Critical</b> Failures with minimal levels of redundancy to mitigate operational impact.	1.2
Level 3	<b>Moderate</b> Failures with levels of redundancy that mitigates most operational impact.	1.0
Level 4	<b>Minor</b>	0.8



	Failures that can be mitigated to eliminate operational impact.	
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The availability percentage will be calculated on a monthly basis as follows:

- 1) Each BHS component outage shall be reported in minutes, and multiplied times weight to determine weighted minutes.
- 2) The total number of weighted minutes is then summed and subtracted from the total monthly minutes of required availability to obtain the Actual Available Monthly Minutes.
- 3) The Actual Available Monthly Minutes is then divided by the agreed upon total minutes minus scheduled PM minutes to determine the availability percentage.

$$\frac{\text{Actual Available Monthly Minutes}}{\text{Total Monthly Minutes} - (\text{minus}) \text{ Scheduled Preventative Maintenance Minutes}}$$

3.3.2 It is the Contractor's responsibility to consult with the BHS and/or component Original Equipment Manufacturers, if necessary, to maintain the required availability standards.

**3.4 Tracking Accuracy.** The Contractor is required to maintain the highest possible tracking accuracy of bags throughout the BHS including the sortation sub-system. The Contractor is required to achieve, on a monthly basis, the following tracking percentages:

3.1.1 In the Checked Baggage Inspection System (CBIS):

- 98% accuracy (<= 2% lost in tracking) if CBRA does not include a re-induction line, or current TSA PGDS standards if lower.
- 97% accuracy (< + 3% lost in tracking) if CBRA includes a re-induction line, or current TSA PGDS standards if lower.

3.1.2 Sortation Accuracy equal or higher than 97% (<= 3% lost in tracking)

3.1.3 Automated Tag Reader (ATR) read rates of 97% of valid tags (<= 3% not read), or as specified by TSA for ATR read rates used for risk based baggage screening, should such system be in use.

**3.5 Preventative Maintenance Standard.** The Contractor shall maintain a monthly Preventative Maintenance Inspection Completion Rate of 98% or higher. A completion rate below 98% shall constitute non-compliance.

The Preventative Maintenance Inspection Completion Rate is calculated as follows:

$$\frac{\text{Completed and "on-time" Preventative Maintenance Inspections}}{\text{Scheduled Preventative Maintenance Inspections}}$$

Example: 44 completed and on-time PM's / 45 Scheduled PM's = 98%

Exceptions: Annual and semi-annual preventative maintenance inspections must be completed at scheduled intervals and have a completion standard of 100%. Each failure to complete Annual or Semi Annual inspections per schedules shall constitute non-compliance.

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### **3.6 Preventive Maintenance – Measuring Non-Compliance**

- 3.6.1 The Contractor shall adhere to the OEM's requirements for Preventive Maintenance (PM) and Routine Inspections (RI) of the PBB and BHS in accordance with the schedules and requirements of the OEM(s) as stated in the maintenance manuals. For purposes of monitoring the Contractor's compliance with OEM schedules for PM and RI, the Contractor shall provide to SFO a monthly schedule detailing planned PM and RI tasks for all PBBs, Fixed Walkways, Accessories and BHS components and equipment covered under this Agreement. The Contractor will be viewed as non-compliant with the requirements if PMs are not conducted within five (5) days of the interval due date as defined in the Maintenance Plan, and within two (2) days of the interval due date defined in the Maintenance Plan for RI. Non-compliant PM and RI will be considered incomplete for purposes of calculating the Preventative Maintenance Inspections Completion Rate as required in this Agreement. For each incident of non-compliance, Contractor shall submit a written explanation and a plan to prevent recurrence of similar failures. Should more than two (2) incidents of non-compliance occur within a three (3) month period, SFO may, in its sole discretion assess liquidated damages as specified in this Agreement following.
- 3.6.2 See Attachments 1 and 2 of this Appendix A for example Preventative Maintenance Inspection Checklists. Accurate and timely completion of the checklist, and recording/retention of the completed checklist constitutes a completed preventative maintenance inspection.

### **3.7 Repair and Replacement of Damaged Parts, Components or Materials**

- 3.7.1 The Contractor shall maintain an inventory of spare parts, equipment, and consumables at a level sufficient to maintain the PBBs, Fixed Walkways, Accessories, BHS and all components in accordance with these requirements. Any inventory of spare parts, equipment, and consumables provided to the Contractor by SFO upon the commencement of this Agreement shall be maintained as received (i.e., same quantities of specific parts, equipment, and consumables) with allowance for reasonable resupply intervals, throughout the term of this Agreement.
- 3.7.2 To ensure that a proper inventory level of parts is maintained throughout the term of this Agreement the Contractor shall promptly order replacement parts after any part is withdrawn from the inventory. In the event of an extended down time event or disruption due to an "out of stock" occurrence, the Contractor shall demonstrate its good faith efforts, including pursuit of alternates, to validate that the replacement part in question was promptly ordered by the Contractor but has not yet arrived due to the lead time constraints of the supplier from whom the part was ordered, or due to delays in transportation.
- 3.7.3 Only OEM approved or recommended methods, parts, equipment, and consumables shall be used in any BHS operation, maintenance or repair. Exceptions may be granted for functionally equivalent items upon written request to SFO and at SFO's discretion.
- 3.7.4 During the term of this Agreement, the Contractor shall provide SFO with and up-to-date list of parts inventory every six (6) months. SFO may inspect inventory and/or records at any time.

3.7.5 At the conclusion of this Agreement equivalent quantities of all or any spare parts, equipment, and consumables provided to the Contractor by SFO will become the property of SFO. All shall be in the same condition as received and meet the same OEM specifications as the originally received inventory. SFO shall be reimbursed by the Contractor for items that are not accounted for or returned from the original inventory.

3.7.6 The Contractor shall accurately record any purchases made for spare parts, and fulfill any other requirements necessary to obtain reimbursement under the terms of the Warranty Agreement(s) for the PBB, BHS and components.

Repair and/or replacement of parts, components, or materials that become damaged as a consequence of system operation and/or maintenance shall be paid for by SFO in addition to the Monthly Invoice, excluding all tool and consumables. The Contractor shall promptly repair and/or replace damaged parts, components, or materials, regardless of the cause of such damage. SFO will reimburse the Contractor for the cost of such repairs and replacements where the need for the repairs did not result from or was caused by, in whole or part:

The careless or negligent acts or omissions of the BHS supplier(s), Contractor's employees, agent or subcontractors. There shall be no separate reimbursement for repairs or replacements for items covered by the warranties or guarantees provided by the Contractor / Supplier(s).

3.7.7 If it is necessary for the Contractor to replace any materials or spare parts, excluding all tools and consumables, of the BHS and PBBs, under this Contract, and SFO is responsible for the cost, the Contractor shall first submit to SFO, for approval, the name of the item, identifying number and quantity required, name of the proposed supplier and the supplier's price to Contractor without any markup. SFO's written approval is required before the purchase of any spare parts or material and SFO shall reimburse only the Contractor's cost of purchase, excluding markup. There shall be no reimbursement for repairs or replacements for items covered under warranty.

3.7.8 All actual costs shall be supported with copies of actual invoices. All cash discounts for spare parts and materials shall be accrued to the Airport. In order to minimize the actual costs to be paid by the Airport for purchased spare parts, the Contractor shall make all reasonable efforts to research appropriate vendors in order to secure price comparisons, taking into account such things as shipping charges and discounts available.

3.7.9 The Contractor shall assume responsibility for tracking the warranties available from the vendors on all purchased spare parts and exercise those warranties when required.

If replacement of spare parts is necessary and SFO is responsible for the cost of the spare part and/or equipment, the Contractor shall submit an invoice for the cost of all spare parts and/or equipment, and all such spare parts and/or equipment shall immediately become SFO property. Spare parts invoices must clearly state the amount the Contractor paid to suppliers for procurement of spare parts. The Airport will not pay a markup for any spare parts.

If replacement parts and/or equipment is manufactured or fabricated by Contractor, Contractor shall submit an invoice in an amount not to exceed the list price of such parts

supplied to its most preferred customers. In the event parts and/or equipment manufactured by the Contractor does not appear on a published list, the Contractor shall provide evidence that the charges to SFO are comparable to those given to other preferred customers of the Contractor.

**3.8 Restriction on Certain Maintenance and Repair Activities**

- 3.8.1 All cutting or welding must be in compliance with Airport Commission’s Rules and Regulations and under permit from SFO.
- 3.8.2 Use of cranes, lifts and hoists shall not occur when affected gate and the two adjacent gates are in service unless otherwise approved by SFO. All crane operations must be coordinated with SFO prior to beginning work.
- 3.8.3 Whenever practical, the Contractor will perform maintenance/repair activities when the affected gate is not in service.
- 3.8.4 Contractor’s procurement and storage of fluids (hydraulic, lubricating, etc.) and other materials used for PBBs, Fixed Walkways, Accessories and BHSs maintenance and operation shall be in accordance with State of California and all other applicable regulations for the handling and storage of hazardous materials. Upon request the Contractor shall provide material safety data sheets to SFO in addition to all other required distributions and/or postings.

**4. PERFORMANCE MONITORING AND REPORTS**

- 4.1 The Contractor shall, at its sole cost, use and maintain a computerized Maintenance Management System (MMS) that provides the ability to track and issue work orders, track equipment and repair history, track repair frequencies and part failure modes and perform trend analysis. All assets including spare parts provided by the Airport must be entered, managed, and maintained through the MMS. Performance and Monitoring reports shall be generated using the MMS.
- 4.2 The Contractor shall develop reports in collaboration with and in a format acceptable to the Airport and shall be updated as required, and which shall include complete information concerning PBBs, Fixed Walkways, Accessories and BHS problems, including description of fault/problem, time and date of occurrence, type of corrections performed and assigned responsibility. The reports shall be archived by the Contractor for the duration of this Agreement after submittal and provided to the Airport or its representatives upon request.
- 4.3 The Contractor shall submit weekly performance reports and monthly summaries to SFO’s Project Manager. The format of the weekly and monthly reports shall be coordinated with SFO and, at a minimum, shall provide an indication of actual performance with respect to all performance criteria specified herein. The Contractor shall prepare all documents in the English language and provide them in electronic and/or printed form per SFO direction.
- 4.4 The contractor shall submit to SFO Project Manager the following reports at the time(s) specified:

Interval	Systems	Report Name	Description
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Per each Incident	BHS and PBBs	Accident and/or Injury Report	Report shall include the following information: 1. Date, time and location of accident and/or injury. 2. Accident and/or injury description. 3. Date and time when SFO was notified of accident and/or injury. 4. Any other relevant information.
Daily	BHS	BHS Activity	Report shall include the following information: 1. Total airline baggage processed (Daily Airline Baggage Outbound in Inbound). 2. Total baggage jams (Daily Bag Jams). 3. Total miss sort bags (Daily Miss Sort). 4. Total outbound bags processed (Daily Outbound Processed Baggage). 5. Shift Activity.
Weekly	BHS and PBBs	Quality Control (QC)	Report shall include the following information: 1. A summary of results of all quality control inspections performed. The summary must include, at a minimum, date of QC inspection, description of system inspected, name of technician, name of QC inspector, and result.
Weekly	BHS and PBBs	System Downtime	Report shall include the following information: 1. A summary of all systems downtime experienced during the reporting period. The summary must include, at a minimum, date, start time, end time, system, subsystem, system failure description, resolution, and total downtime.
Monthly	BHS	Sortation and Baggage Tracking (If applicable)	Report shall include: 1. Number and percentage of bags tracked at CBIS. 2. Number and percentage of bags tracked at Sortation.
Monthly	BHS and PBB	Faults and Downtime	Report shall include: 1. Number of faults and downtime events. 2. Response time. 3. Downtime duration. 4. Responsibility.
Monthly	BHS and PBB	Availability Rate	A report of system availability indicating the actual system availability hours; total monthly hours; and scheduled preventative maintenance hours for the month.
Monthly	BHS and PBB	Preventative Maintenance Rate	A summary of the percentage and number of completed Preventative Maintenance tasks and Required Inspections for each month. The report must include: 1. All PM and RI scheduled to be performed that month. 2. PM services accomplished/completed and on-time for that month.

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			<ol style="list-style-type: none"> <li>3. A list of PM services not timely completed together with a schedule of when the Contractor will perform delinquent PM and RI services.</li> <li>4. All non-scheduled maintenance performed that month.</li> </ol>
Monthly	BHS and PBB	Spare Parts	<p>The report must include:</p> <ol style="list-style-type: none"> <li>1. A list of all parts used during the month.</li> <li>2. A list of all parts purchased during the month.</li> <li>3. A list of all parts on-hand and any shortages from planned stocks.</li> </ol>
Monthly	BHS and PBB	Corrective Action	<p>The report must include:</p> <ol style="list-style-type: none"> <li>1. A list of all non-scheduled repairs by system and subsystem.</li> <li>2. A description of each failure, including cause.</li> <li>3. A plan to mitigate said failures.</li> </ol>
Annual	BHS and PBB	Parts Inventory	<p>A report indicating all parts on-hand at SFO. The report must include:</p> <ol style="list-style-type: none"> <li>1. Part number.</li> <li>2. Part ID.</li> <li>3. Location.</li> <li>4. Part Name.</li> <li>5. Actual Quantity.</li> </ol>

#### 4.5 Quality Assurance Monitoring and Reporting

During the term of this Agreement the Contractor shall collect operational data for analysis. These data shall measure actual performance of the PBBs, Fixed Walkways, Accessories and BHS to verify the service availability requirements described in this Agreement. The Contractor shall provide SFO monthly System Quality Assurance Monitoring Reports that include this data for review, commencing at the end of the first month of this Agreement.

#### 4.6 Annual Technology Review and Report

The Contractor shall provide an annual report, no later than October 1st of each year of the Agreement, which identifies system modifications, enhancements, redesigns, and/or replacements of any PBBs, Fixed Walkways, Accessories and BHS components that may be desirable due to technological advancements. At a minimum this report shall contain the following:

- Description of component to be replaced
- Reason for replacement
- Description of new components
- Advantages for replacement
- Cost to replace the component
- Time required to complete replacement

## **ATTACHMENT 1 TO APPENDIX A- BHS INSPECTION CHECKLISTS**

1. A variety of inspections and checklists are required under these requirements. At a minimum, the Contractor must use the Original Equipment Manufacturers (OEM) checklist provided in the BHS and/or component operation and maintenance manuals. In the event OEM checklists are not available, the Contractor may use the inspection checklists provided in this document or submit comparable checklists for approval to SFO.
2. Checklists are to be completed as inspection items are accomplished. Completed checklists are to be retained and available for review by SFO for a duration specified by SFO. Completed checklists may be entered into an automated Maintenance Management System. All information, including responsible inspector's name, must be included, and records maintained for the duration required in this Attachment 1. At the conclusion of this Agreement, all completed checklists retained by the Contractor (electronically and/or in printed form) shall be turned over to and become the property of SFO.
3. The Contractor shall develop a detailed plan, including schedules, of how inspections will be accomplished and include it in the Maintenance Plan developed by the Contractor and approved by SFO.
4. Daily Operator Checklist
  - 4.1 The Contractor must complete the daily checklist. All discrepancies are to be noted on the form for maintenance attention. Individual components of the BHS shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting a safe operation is found or suspected. All operational checks and observations per the operator's training materials and the OEM operator's manuals shall be conducted with each operation of the BHS as required.
  - 4.2 Completed Daily operator Checklists shall be retained for a rolling one year period.
5. Weekly Preventive Maintenance Checklist
  - 5.1 Trained maintenance personnel must complete the weekly checklist. All discrepancies are to be noted on the form. Discrepancies not immediately corrected must be scheduled for further maintenance attention. Individual components of the BHS shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting a safe operation is found or suspected.
  - 5.2 Completed Weekly Preventive Maintenance Checklists shall be retained for a rolling two year period.
6. Bi-Weekly Preventive Maintenance Checklist
  - 6.1 Trained maintenance personnel must complete the bi-weekly (every 2 weeks) checklist. All discrepancies are to be noted on the form. Discrepancies not immediately corrected must be scheduled for further maintenance attention. Individual components of the BHS shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting a safe operation is found or suspected.

6.2 Completed Bi-Weekly Preventive Maintenance Checklists shall be retained for a rolling two year period.

7. Monthly Preventive Maintenance Checklist

7.1 Trained maintenance personnel must complete the monthly checklist. All discrepancies are to be noted on the form. Discrepancies not immediately corrected must be scheduled for further maintenance attention. Individual components of the BHS shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting a safe operation is found or suspected.

7.2 Completed Monthly Preventive Maintenance Checklists shall be retained for a rolling two year period.

8. Quarterly Preventive Maintenance Checklist

8.1 Trained maintenance personnel must complete the quarterly checklist. All discrepancies are to be noted on the form. Discrepancies not immediately corrected must be scheduled for further maintenance attention. Individual components of the BHS shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting a safe operation is found or suspected.

8.2 Completed Quarterly Preventive Maintenance Checklists shall be retained for a rolling two year period.

9. Semi-Annual Preventive Maintenance Checklist

9.1 Trained maintenance personnel must complete the semi-annual checklist. All discrepancies are to be noted on the form. Discrepancies not immediately corrected must be scheduled for further maintenance attention. Individual components of the BHS shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting a safe operation is found or suspected.

9.2 Completed Semi-Annual Preventive Maintenance Checklists shall be retained for a rolling two year period.

10. Annual Preventive Maintenance Checklist

10.1 Trained maintenance personnel must complete the annual checklist. All discrepancies are to be noted on the form. Discrepancies not immediately corrected must be scheduled for further maintenance attention. Individual components of the BHS shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting a safe operation is found or suspected.

10.2 Completed Annual Preventive Maintenance Checklists shall be retained for the duration of this Agreement.



<b>DAILY BHS OPERATOR CHECKLIST</b>	<b>BHS – ALL</b>	<b>DATE/TIME</b>	
<b>COMPLETED BY</b>			
This checklist is to be completed at the beginning of each shift/day.			
<i>Page 1 of 1</i>			
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>OK</b>	<b>REPAIR REQUIRED</b>
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.		
8	Check fire door operation and sills		
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>			

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<b>WEEKLY PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS – VERTICAL SORTATION UNIT II</b>		<b>DATE/TIME</b>		
<b>COMPLETED BY</b>						
<i>Page 1 of 1</i>						
<b>ITEM</b>	<b>DESCRIPTION</b>				<b>OK</b>	<b>REPAIR REQUIRED</b>
1	Inspect clutch/break for loose or damaged hardware and any evidence of external damage or excessive noise.					
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>						

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BI-WEEKLY PREVENTIVE MAINTENANCE CHECKLIST		BHS – VERTICAL SORTATION UNIT II	DATE/TIME	
COMPLETED BY				
<i>Page 1 of 1</i>				
ITEM	DESCRIPTION	OK	REPAIR REQUIRED	
1	Belt should be checked to ensure that is tracking properly.			
2	Inspect all belting surfaces for tears, frays or exposed cord, and the accumulation of dirt or other foreign matter.			
3	Clean belt surfaces as required to ensure that belting will not slip around drive pulley			
4	Remove all tears to ensure that belting will not slip around drive pulley.			
5	Trim and seal with lacquer paint frayed edges.			
6	Remove and replace any belt lacing hooks that pulled from the belt.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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MONTHLY PREVENTIVE MAINTENANCE CHECKLIST		BHS – BELT CONVEYOR	DATE/TIME	
COMPLETED BY				
<i>Page 1 of 1</i>				
ITEM	DESCRIPTION	OK	REPAIR REQUIRED	
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.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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MONTHLY PREVENTIVE MAINTENANCE CHECKLIST		BHS – POWER TURN CONVEYOR	DATE/TIME	
COMPLETED BY				
	<i>Page 1 of 1</i>			
ITEM	DESCRIPTION	OK	REPAIR REQUIRED	
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.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

MONTHLY PREVENTIVE MAINTENANCE CHECKLIST		BHS - SLOPE PLATE MAKE-UP UNITS (INBOUND AND OUTBOUND)	DATE/TIME	
COMPLETED BY				
<i>Page 1 of 1</i>				
ITEM	DESCRIPTION	OK	REPAIR REQUIRED	
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.			
14	Inspect and adjust drive v-belts.			
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.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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MONTHLY PREVENTIVE MAINTENANCE CHECKLIST		BHS – VERTICAL SORTATION UNIT II	DATE/TIME	
COMPLETED BY				
<i>Page 1 of 1</i>				
ITEM	DESCRIPTION	OK	REPAIR REQUIRED	
1	Inspect bearing to ensure proper attachment to hardware.			
2	Inspect bearing are properly bolted in place.			
3	Inspect condition of grease seal for damage.			
4	Check bearings are running cool and quietly.			
5	Check pulleys' and end pulley's setscrews and keyway are firmly locked in place.			
6	Check pulley's and end pulley's bearings, securing hardware, and locking collars are tight and not damaged.			
7	Check all guards to ensure they are securely mounted and in good condition.			
8	Check sensors, pushbuttons and photoelectric sensors for normal operations.			
9	Inspect timing pulley and timing belt to ensure attachment to shaft is secure and grooves are in good condition.			
10	Inspect timing belt for teeth wear. Replace as needed.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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QUARTERLY PREVENTIVE MAINTENANCE CHECKLIST		BHS – CONVEYOR CONTROLS	DATE/TIME	
COMPLETED BY				
<i>Page 1 of 1</i>				
ITEM	DESCRIPTION	OK	REPAIR REQUIRED	
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.			
11	Clean and grease all bearings, pivots, dogs and chains			
12	Check for loose hardware			
13	Check gearbox fluid level			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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<b>QUARTERLY PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS – POWER TURN CONVEYOR</b>	<b>DATE/TIME</b>	
<b>COMPLETED BY</b>				
<i>Page 1 of 1</i>				
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>OK</b>	<b>REPAIR REQUIRED</b>	
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.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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<b>QUARTERLY PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS – SLOPE PLATE CARROUSELS (INBOUND &amp; OUTBOUND)</b>	<b>DATE/TIME</b>	
<b>COMPLETED BY</b>				
<i>Page 1 of 1</i>				
<b>ITEM</b>	<b>DESCRIPTION</b>		<b>OK</b>	<b>REPAIR REQUIRED</b>
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.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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<b>QUARTERLY PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS – BELT CONVEYOR</b>	<b>DATE/TIME</b>
<b>COMPLETED BY</b>			
	<i>Page 1 of 1</i>		
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>OK</b>	<b>REPAIR REQUIRED</b>
1	Clean all old grease from around the seals on all bearings.		
2	Grease all bearings that are equipped with zerck 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.		
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>			

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<b>SEMI-ANNUAL PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS – VERTICAL SORTATION UNIT II</b>	<b>DATE/TIME</b>	
<b>COMPLETED BY</b>				
<i>Page 1 of 1</i>				
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>OK</b>	<b>REPAIR REQUIRED</b>	
1	Inspect SEW gearmotor for general overall condition.			
2	Inspect SEW gearmotor oil condition and correct oil level and needed.			
3	Inspect SEW gearmotor seal leakage.			
4	Inspect SEW gearmotor for torque arm (if applicable), and rubber bushing and change it if necessary.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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<b>ANNUAL PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS – BELT CONVEYOR</b>	<b>DATE/TIME</b>	
<b>COMPLETED BY</b>				
<i>Page 1 of 1</i>				
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>OK</b>	<b>REPAIR REQUIRED</b>	
1	Change gear box oil			
2	Tighten all electrical connections			
3	Clean clutch brakes with brake cleaner			
4	Grease motors (1/2 pump of grease)			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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<b>ANNUAL PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS - POWER TURN CONVEYOR</b>	<b>DATE/TIME</b>	
<b>COMPLETED BY</b>				
<i>Page 1 of 1</i>				
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>OK</b>	<b>REPAIR REQUIRED</b>	
1	Change gear box oil			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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<b>ANNUAL PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS – SLOPE PLATE MAKE-UP UNITS (INBOUND AND OUTBOUND)</b>	<b>DATE/TIME</b>	
<b>COMPLETED BY</b>				
<i>Page 1 of 1</i>				
<b>ITEM</b>	<b>DESCRIPTION</b>		<b>OK</b>	<b>REPAIR REQUIRED</b>
1	Change gear box oil			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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<b>ANNUAL PREVENTIVE MAINTENANCE CHECKLIST</b>		<b>BHS – VERTICAL SORTATION UNIT II</b>		<b>DATE/TIME</b>		
<b>COMPLETED BY</b>						
<i>Page 1 of 1</i>						
<b>ITEM</b>	<b>DESCRIPTION</b>				<b>OK</b>	<b>REPAIR REQUIRED</b>
1	Clean outer surface of gear motor with clean cloth and degreaser.					
2	Clean outer surface of motors with clean cloth and degreaser.					
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>						

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## ATTACHMENT 2 TO APPENDIX A – PASSENGER BOARDING BRIDGES

1. Preventive maintenance and inspections in accordance with the OEM's manuals are required under this Agreement. This attachment provides an overview of required checklists and inspections and sample checklists. The sample checklists may be used if OEM checklists for certain PBB are unavailable, or, they may be used in conjunction with OEM provided checklists. The sample checklists provide minimum requirements. If differences exist with OEM provided checklists, the OEM checklist requirements shall be applied.
2. Checklists are to be completed as inspection items are accomplished. Completed checklists are to be retained and available for review by SFO for specified duration specified by SFO. Completed checklists may be entered in to the automated Maintenance Management System. All information, including responsible inspector's name, must be included, and records maintained for the duration required in this Attachment 1. At the conclusion of this Agreement, all completed checklists retained by the Contractor (electronically and/or in printed form) shall be turned over to and become the property of SFO.
3. The Contractor shall develop a detailed plan, including schedules, of how inspections will be accomplished and include it in the Maintenance Plan developed by the Contractor and approved by SFO.
4. Daily Operator Checklist
  - 4.1 The PBB operator must complete the Daily Checklist daily and prior to placing the PBB in service for the day. The PBB operator, unless also trained and qualified to perform maintenance on the PBB, shall not perform any maintenance or repair. All discrepancies are to be noted on the form for maintenance attention. The PBB shall be removed from service for repair or maintenance inspection immediately if any defect or condition affecting safe operation is found or suspected. Where multiple airlines use the PBB during the day, the operator must complete this checklist whenever use of the PBB transfers between airlines (airline taking over the PBB accomplishes the checklist) unless a written agreement to accept the condition of the PBB "as is" from the preceding user airline is in place. All operational checks and observations per the operator's training materials and the OEM operator's manuals shall be conducted with each operation of the PBB as required.
  - 4.2 Completed Daily Operator Checklists shall be retained for a rolling one year period.
5. Weekly Preventive Maintenance Checklist
  - 5.1 Trained maintenance personnel must complete the Weekly Checklist. All discrepancies are to be noted on the form. Discrepancies not corrected on the spot must be scheduled for further maintenance attention. The PBB shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting safe operation is found or suspected.
  - 5.2 Completed Weekly Preventive Maintenance Checklists shall be retained for a rolling one year period.

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6. Monthly Preventive Maintenance Checklist

- 6.1. Trained maintenance personnel must complete the Monthly Checklist. All discrepancies are to be noted on the form. Discrepancies not corrected on the spot must be scheduled for further maintenance attention. The PBB shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting safe operation is found or suspected.
- 6.2. Completed Monthly Preventive Maintenance Checklists shall be retained for a rolling two year period.

7. Quarterly Preventive Maintenance Checklist

- 7.1. Trained maintenance personnel must complete the Quarterly Checklist. Discrepancies not corrected on the spot must be scheduled for further maintenance attention. The PBB shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting safe operation is found or suspected.
- 7.2. Completed Quarterly Preventive Maintenance Checklists shall be retained for a rolling two year period.

8. Semi Annual Preventive Maintenance Checklist

- 8.1. Trained maintenance personnel must complete the Semi Annual Checklist. All discrepancies are to be noted on the form. Discrepancies not corrected on the spot must be scheduled for further maintenance attention. The PBB shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting safe operation is found or suspected.

Completed Semi-Annual Preventive Maintenance Checklists shall be retained for a rolling two year period.

9. Annual Preventive Maintenance Checklist

- 9.1. Trained maintenance personnel must complete the Annual Checklist. All discrepancies are to be noted on the form. Discrepancies not corrected on the spot must be scheduled for further maintenance attention. The PBB shall be removed from service for repair and/or further maintenance inspection immediately if any defect or condition affecting safe operation is found or suspected.
- 9.2. Completed Annual Preventive Maintenance Checklists shall be retained for the duration of this Agreement.

DAILY PBB OPERATOR CHECKLIST		GATE/PBB	DATE/TIME
<b>COMPLETED BY</b>			
This checklist is to be completed at the beginning of each shift and/or prior to first use by a different airline.			
<i>Page 1 of 1</i>			
ITEM	DESCRIPTION	OK	REPAIR REQUIRED
1	Check operation of terminal entrance door and lock.		
2	Visually check ceiling panels, flooring in rotunda, tunnels and cab for cleanliness and damage.		
3	Verify that all interior lighting works and fixtures are intact.		
4	Visually check gutters and drain(s) for standing water or obstructions.		
5	Visually inspect tunnel ramps for tripping hazards or obstructions.		
6	Check windows for damage.		
7	Check that the cabin safety chain, if provided, is properly installed.		
8	Check the operation and condition of the cab weather door.		
9	Visually check the ramp area (outside of the PBB) for any obstacles that would affect movement of the PBB.		
10	Check operation of the exterior floodlights.		
11	Operate and check controls and indicators at control panel. Operate all test features to verify that all indicators and warning systems are functioning properly. Verify operation and field of view of CCTV camera system if installed.		
12	Partially extend and retract PBB. Listen for abnormal noise(s) that could indicate improper tunnel roller alignment or other issues.		
13	Briefly operate and check canopy curtains, drive systems (up and down/forward and back) and cab rotation system for proper operation.		
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED DO NOT OPERATE PBB IN UNSAFE CONDITION – CONTACT MAINTENANCE IMMEDIATELY</b>			

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WEEKLY PREVENTIVE MAINTENANCE CHECKLIST		GATE/PBB	DATE/TIME
COMPLETED BY			
<i>Page 1 of 2</i>			
ITEM	DESCRIPTION	OK	REPAIR REQUIRED
1	Check seals and flashing at connection of rotunda and terminal building and/or walkway.		
2	Inspect auto level wheel switch.		
3	Check rotunda and rotating cab curtain tension. Apply force from inside PBB approximately 1 meter from the base of the curtain. Curtain should not displace out of guide rail.		
4	Check electrical cables and equipment.		
5	Inspect lift cylinders for leakage.		
6	Inspect hydraulic system, including all connections and fittings, for leaks. Check fluid level in hydraulic reservoir.		
7	Check operation of emergency lighting system.		
8	Check all lights and replace as necessary.		
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>			

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WEEKLY PREVENTIVE MAINTENANCE CHECKLIST		GATE/PBB	DATE/TIME
COMPLETED BY			
<i>Page 2 of 2</i>			
ITEM	DESCRIPTION	OK	REPAIR REQUIRED
9	Check torque of wheel bolts using torque wrench and ensure torque to OEM specifications.		
10	Accomplish complete operational check. Raise, lower, extend and retract, rotate cab to limit switch setting and check operation of all visual and audible alarms.		
11	<i>Not applicable for solid or foam-filled tires.</i> Check tire pressure and ensure pressure to OEM specifications.		
12	<i>Not applicable for solid or foam-filled tires.</i> Inspect tires for damage. Remove tire from service if weather checking, cracking, cuts and snags extend down to the casing ply in the sidewall or bead areas. Cuts and cracks deeper than one ply require the tire to be scrapped.		
13	<i>Not applicable for solid or foam-filled tires.</i> Inspect tires for bulges. Remove tire from service if bulges in any part of the tire tread, sidewall, or bead area are present as they indicate a separation or tire damage.		
14	<i>Not applicable for solid or foam-filled tires.</i> Inspect tires for fabric fraying or groove cracking. Remove tires from service if groove cracking exposes fabric or if cracking undercuts tread ribs.		
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>			

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MONTHLY PREVENTIVE MAINTENANCE CHECKLIST		GATE/PBB	DATE/TIME	
<b>COMPLETED BY</b>				
<i>Page 1 of 1</i>				
ITEM	DESCRIPTION	OK	REPAIR REQUIRED	
1	Perform daily and weekly checklists.			
2	<i>Not applicable for 2-tunnel PBBs.</i> Inspect both equalizer cables for cracks and excessive wear. Adjust cable tension as required.			
3	Check lubrication levels in all gearboxes and add proper seasonal lubricant as required.			
4	Check all carpets and rubber mats for damage and/or wear.			
5	Inspect the condition of interior and exterior paint (including powder coat or other coatings). Clean off loose scale, rust, etc. and repair (re-coat) as necessary. Check all glass and glass fasteners.			
6	Inspect tension of rotunda and cab curtain chains.			
7	Inspect cab rotation drive motor sprocket and chain.			
8	Inspect canopy retract straps for wear and fraying.			
9	Inspect wheel drive sprocket and chain.			
10	Inspect control console and panels for loose connections and operation of switches.			
11	Replace water filters.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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QUARTERLY PREVENTIVE MAINTENANCE CHECKLIST		GATE/PBB	DATE/TIME
COMPLETED BY			
<i>Page 1 of 1</i>			
ITEM	DESCRIPTION	OK	REPAIR REQUIRED
1	Perform daily, weekly and monthly checklists.		
2	Inspect auto level assembly components for signs of wear, missing parts, and security of mounting.		
3	Inspect rotunda to tunnel seals, hinge pins, and floor alignment.		
4	Inspect the height indicator encoder for security of mounting, cleanliness, or damage.		
5	Check connections to hydraulic reservoir for leaks.		
6	Observe and check mechanical connections. Tighten loose bolts as necessary.		
7	Lubricate service door hinges.		
8	Check operation of service door lock mechanism.		
9	Lubricate external tunnel roller rails.		
10	Lubricate cab support rollers.		
11	Lubricate lift column guides.		
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>			

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SEMI-ANNUAL PREVENTIVE MAINTENANCE CHECKLIST		GATE/PBB	DATE/TIME
COMPLETED BY			
<i>Page 1 of 2</i>			
ITEM	DESCRIPTION	OK	REPAIR REQUIRED
1	Perform daily, weekly, monthly and quarterly checklists.		
2	Lubricate canopy frame pivot points.		
3	Check operating current on hydraulic pump drive motor and wheel drive motors. Record reading and compare with motor nameplate specifications.		
4	Check brake release lever on wheel drive for proper operation.		
5	Check wheel drive gearboxes. Flush and replace lubricant as needed.		
6	Check inner lift column tube for presence of lubricating grease. Lubricate if necessary.		
7	Lubricate rotunda and cabin chains.		
8	Lubricate wheel bogie bearing. Refer to OEM manual for instructions.		
9	Lubricate the rotunda and cab curtain chains and cab drive chain.		
10	Clean all light fixtures. Re-lamp as necessary.		
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>			

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SEMI-ANNUAL PREVENTIVE MAINTENANCE CHECKLIST		GATE/PBB	DATE/TIME	
<b>COMPLETED BY</b>				
<i>Page 2 of 2</i>				
ITEM	DESCRIPTION	OK	REPAIR REQUIRED	
11	Inspect tunnel and cab rollers, tracks, and stops.			
12	<i>Not applicable for 2-tunnel PBBs.</i> Lubricate sheave pins on the cable equalizing system.			
13	Replace return line hydraulic filter. See OEM maintenance manual for specific replacement intervals.			
14	Inspect all hydraulic hoses and fittings for leaks or damage.			
15	Check hydraulic pump for leaks and proper operation.			
16	Lubricate hydraulic drive motor.			
17	Lubricate cab rotate gear motor.			
18	Check all hydraulic cylinders for leaks, damage, and proper operation.			
19	Lubricate upper and lower cabin bearings.			
20	Lubricate wheel hub gear boxes.			
21	Check all electrical control and power cables for clearance from obstruction, freedom of movement, and secure mating of connector plugs.			
22	Check electrical motor for hydraulic pump for unusual noise, plugged drain holes, loose electrical connection, or damage.			
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>				

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ANNUAL PREVENTIVE MAINTENANCE CHECKLIST		GATE/PBB	DATE/TIME
COMPLETED BY			
<i>Page 1 of 1</i>			
ITEM	DESCRIPTION	OK	REPAIR REQUIRED
1	Perform daily, weekly, monthly and quarterly and semi-annual checklists.		
2	Clean all drive chains thoroughly, lubricate, and adjust.		
3	Clean exterior of PBB using high pressure/superheated steam. Note – canopy must be hand cleaned, do not use steam. See OEM maintenance manual for recommended cleaners.		
4	Clean interior carpet using professional carpet cleaner (shampooing/spray extractor).		
5	Repair any damaged paint areas.		
6	Inspect upper and lower lift column pads for wear.		
7	Lubricate wheel bogie bearings.		
8	Lubricate rotunda bearing.		
9	Lubricate cab limit mechanical stops.		
10	Submit sample of hydraulic fluid for testing per OEM manual. Drain hydraulic fluid if analysis indicates new fluid required. Check hydraulic reservoir tank strainer for debris. Re-fill system with OEM recommended fluid. Replace filter(s) with OEM recommended filter(s).		
<b>DESCRIBE ALL ITEMS REQUIRING REPAIR OR OTHER DISCREPANCIES OBSERVED</b>			

*CNS*

## B. TERMINAL 2 BAGGAGE HANDLING SYSTEM COMPONENTS AND SUBSYSTEMS

### 1. Conveyor Subsystems:

- 1.1 Outbound Baggage Systems: These systems include transport conveyors originating on Terminal Level 2 (ticket counter and curbside) and terminating at the sort device(s) located on the ramp level. A Checked Baggage Inspection System (CBIS) is located on the ramp level and composed of two sortation lines (clear and suspect). Bags are inspected and then transported to the Checked Baggage Reconciliation Area(s) (CBRA) or the sortation area as applicable.
- 1.1.1 Ticket Counter Baggage System: This system consist of 2 conveyor lines that transport baggage from load conveyors located behind the check in counters on Terminal Level 2 to the CBIS area located on Level 1.
- 1.1.2 Curbside Baggage System: 2 conveyor lines from 2 curbside induction points on Terminal Level 2 that merge with the ticket counter belt system prior to entering the CBIS area.
- 1.1.3 CBIS Area: The Ticket Counter system feeds the CBIS area containing the federally owned and maintained Explosive Detection System (EDS) machines.
- 1) Transport conveyors: Composed of conveyor(s) routing baggage from the EDS machines in the CBIS to the baggage sortation area.
  - 2) Re-introduction System: Consists of re-introduction input(s) that transport baggage from the CBRA back to the CBIS area.
- 1.1.4 Transfer Convey Systems: Two conveyor lines that transport transfer baggage from ramp-level induction points to either the CBIS for bags requiring screening, or to the sortation system for bags already screened.
- 1.1.5 Sortation Area: After scanning by Automated Tag Readers (ATR's) baggage is routed to one of 6 make up units (slope plate carousels). Make up units are separated by diverter(s) in to two individual areas with three independent make up units each fed by the lateral makeup conveyors.
- 1.1.6 Cross-over Lines: 4 lines that allow bags to be transferred between two input lines/paths between the ticket counter and CBIS areas. Cross-over lines are used in the sortation area to route baggage to assigned mark-up units.
- 1.2 INBOUND BAGGAGE SYSTEM: this system includes 4 slope plate baggage claim carousels, 2 over size baggage claim belts, all input conveyors located in the terminal ramp area which feed baggage claim devices and belts inside the terminal and the associated baggage input control (BIC) stations.
- 1.2.1 Ramp Area Input: 4 conveyor systems that transport baggage from the ramp area induction points to the baggage claim carousels in the terminal and 2 Oversize conveyor systems that transport Oversize baggage to the oversize baggage claim belts in the terminal. Each conveyor system feeds only the associated claim device. Each of the six induction points/conveyor systems is equipped with a Baggage Input

Controller (BIC) which controls baggage input by flight assignments and records activity (first bag/last bag).

- 1.2.2 Baggage Claim Carousels: 4 sloped -plate claim devices (carousels) located on Terminal Level 1. Note that belt and claim device numbers shown are in accordance with BHS construction drawings and may not correspond with claim device numbers posted for the public.
- 1.2.3 Over size Baggage Claim Belts: 2 baggage claim conveyors located on Terminal Level 1 for the delivery of oversize baggage to passengers. Note that belt and claim device numbers shown are in accordance with BHS construction drawings and may not correspond with claim device numbers posted for the public.

## 2. **Baggage Handling System Major Components:**

### 2.2 Structural Components

- 2.2.1 Standard Belt Conveyors. Standard slider conveyors are used to transport baggage in public and non-public areas. The conveyor is belt-driven and capable of horizontal and incline/decline transportation.
- 2.2.2 Drive Conveyors. Drive assemblies are constructed in various lengths and use either an end or center drive depending on conveyor layout and load requirements.
- 2.2.3 Transportation Conveyors. Transportation conveyors move the baggage through the system and have side guards on both sides of the conveyor.
- 2.2.4 Load/Unload Conveyors. Used in areas where baggage is to be loaded to or unloaded from the conveyor and have side guards on only one side to allow for baggage loading or unloading.
- 2.2.5 Conveyor Mechanical Components
  - 1) Conveyor Frames. Conveyor frames and side guards are welded steel construction. The bed channels are formed from steel, braced with angle stiffeners welded to the underside.
  - 2) Side Guards. Provided along the full length of both sides of all conveyors except at points where baggage is loaded or removed.
  - 3) Shrouding. Provided for all conveyor equipment exposed to public view.
  - 4) Spill Plates, Transition Plates. Conveyors feeding and inclined plate device are equipped with a spill plate to aid in baggage transfer.
  - 5) Supports, Floor. Floor mounted conveyors are supported on formed channel leg assemblies.
  - 6) Supports, Hanger. Overhead conveyors are supported from building structural steel or by using expandable type anchors in concrete ceilings.

- 7) Seismic Hangers. Elevated conveyors are seismically sway braced in both lateral and longitudinal direction.
  - 8) Belt Lacing. Belt lacing is Clipper or Anchor type with a hook-type of the proper size recommended by the belt manufacturer for the belt being used.
  - 9) Pulleys. The BHS utilizes a variety of pulleys including: End Pulley; Power Pulley; Take-Up Pulley; and Snub Pulley.
  - 10) Take-Up Mechanisms. Each conveyor is equipped with a manual take-up mechanism bolted to the outside of the conveyor bed.
  - 11) Return Rollers. Located on centers not to exceed 10 feet with spacing being reduced in areas where belting may drag against the floor or conveyor structure. All return rollers have internally mounted precision ball bearings that are greased, packed, and sealed for the life of the roller.
  - 12) Belt Conveyor Drives. The drives are sized to operate continuously and meet load specifications.
  - 13) Catwalks. Access ladders provide access to catwalks. Catwalks and walkways are constructed with a heavy gage walking surface.
  - 14) Draft Curtains. Draft curtains are provided at conveyor wall penetrations where installed.
  - 15) Fire/Security Doors. Powered, roll-up fire/security doors are provided at conveyor wall penetrations in specified locations.
- 2.2.6 45 Degree Merge Conveyors. The 45 degree merge is a belt on slider bed conveyor which uses two fixed tubular nose bar elements to achieve the 45 degree change of direction.
- 2.2.7 Queue Conveyors. A self-contained belt conveyor system used primarily for accumulation and spacing of baggage to move baggage quickly and efficiently throughout the conveyor system.
- 2.2.8 Vertical Sortation Unit II (VSUII). The VSUII is an electromechanical conveyor module which is used to sort baggage between two vertically stacked conveyor lines. The divert units divert bags from a single conveyor line to two separate vertically stacked take-away conveyors.
- 2.2.9 High Speed Diverter II (HSDII). The HSDII is a device with two paddles mounted on a horizontal belt conveyor used to divert the flow of one of several bags by moving the paddles into the baggage stream. The activated paddles of the diverter form a 45 degree vertical powered belt wall for the transfer of baggage from a main sort line to a pier chute or take-away conveyor.
- 2.2.10 Power Turns. Power Turns are belt curved conveyors used at locations where there is a change of flow direction in the conveyor system. The turns are made up of a welded steel frame, a circular belt with a special "side bow" roller chain attached, tapered

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end pulleys mounted on steel shafting, roller chain sprockets mounted on the pulley shafts and a motor/reducer drive assembly.

2.2.11 Incline Slope Plate claim or Sortation Devices. These devices are arranged to receive baggage from a feed conveyor(s) at a point on the inside and are automatically fed via belt conveyors.

### 2.3 Other Mechanical Components

2.3.1 Platforms and Walkways. All platforms and walkways are attached to the BHS structure and provide adequate space for operating and maintenance personnel.

2.3.2 Toe boards. Toe boards are provided on both sides of all platforms, walkways and ramps 24" or more above the finished floor except where adjacent equipment or building structure provides the required function.

2.3.3 Handrails. Where installed, top rails consist of a top rail with one intermediate rail positioned halfway between the top of the walking surface and the top of the top rail.

2.3.4 Maintenance Ladders. Maintenance ladders are used to access platforms and walkways.

2.3.5 Fire Doors (Powered and Non-Powered). Consist of rolling shutters, slat-type, and interior-face-mounted fire doors with up and down limit switches connected to PLC input. Fire/heat/smoke detectors are located to sense approaching fire, heat or smoke source on the conveyor.

2.3.6 Security Doors (Powered and Non-powered). Consist of rolling shutter, slat-type, and interior-face-mounted security door equipped with an externally mounted limit switch that senses a "fully open" position.

2.3.7 Draft Curtains. Draft curtains are constructed with of 6" wide by 1/8 thick vinyl strips with a stainless steel fascia in public areas.

2.3.8 Conveyor Impact Protection. Installed at specific locations, impact protection and supports are constructed of steel, heavy walled sections to match specific conveyor shape.

### 2.4 Electrical Components and Controls

2.4.1 Power distribution. All electrical power provided to the BHS is separately metered. Electrical power for the BHS control system is provided from 2 independent load centers. Each provides 480VAC power to Power Distribution Panels (PDP) which have appropriate sized circuit breakers feeding the BHS equipment.

2.4.2 Baggage Area Lighting. All lighting (lamps and fixtures) provided to illuminate the BHS or access to the BHS (illuminating ladders, platforms, and walkways) shall be the responsibility of the Contractor. This lighting is typically present in crawlspaces between levels and/or other areas where the BHS components are the only areas requiring illumination or for example on the baggage claim devices, where lighting is mounted directly on, or in, the baggage system components. General area lighting in

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spaces where there are needs for illumination other than the BHS (exclusive of other utilities) is the responsibility of the permitted user(s) of that space.

2.4.3 Controls Architecture. System architecture is based on Ethernet networks for communication with networks outside the BHS and local devices. ControlNet is used for machine-level communications and DeviceNet is used for device-level communications. Centralized or decentralized architecture is used depending on the subsystem. The BHS control system is divided in to five main subsystems:

- 1-Ticket Counters
- 2-Oversize (inbound and outbound)
- 3-Inbound
- 4-EDS Matrix (CBIS)
- 5-Sortation

- 1) Centralized Architecture. The Ticket Counters, Oversize, Inbound and Sortation subsystems are based on a centralized input/output (I/O) system design with all motors and control elements wired back to centralized Motor Control Panels (MCP).
- 2) Decentralized Architecture. The EDS Matrix (CBIS) subsystem is based on a decentralized I/O system design with all motors and control elements wired to nearby, small control panels referred to as CN2DN panels that contain DeviceNet modules connecting directly to motor-mounted variable frequency drives (VFD) and control equipment on the conveyors.

2.4.4 Upper Level Control Components

- 1) Sortation Allocation Controller (SAC or sort controller). The SAC acts as the central server of the system. The SAC is built on a Windows Server platform and contains the database to store all sortation control information for the system including flight schedules and bag related data. The SAC also hosts multiple applications for airport communication, sortation control, flight scheduling and PLC status images.
- 2) Data Historian System (DHS). The DHS server acts as a central repository of data for the system. It is built on a Windows Server platform and includes a Microsoft SQL Server database. The DHS server communicates directly with the system PLCs and acts as a server for the MIS and Web MIS client applications. It also collects and stores historical statistical data generated by the PLCs for use in searches and reports.
- 3) Human Machine Interface (HMI). The HMI application provides a graphical overview of the conveyor system showing status, and allowing operator control.
- 4) Maintenance Information System (MIS). The MIS application provides access to flight schedule management, data management and set-up facilities necessary to operate the BHS and generate system reports. This application resides on the operator workstations and is also installed on the SAC and DHS servers.
- 5) Baggage Messaging System Servers (BMS). The Baggage Messaging Servers route baggage service messages (BSM) and baggage processed messages (BPM)

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between the airline's host system and the SAC. These servers are part of the Airport's common use system and are supported by the Airport.

- 6) Input/Output (I/O) Gateways. There are 2 I/O gateways. Each I/O gateway has 2 functions; transferring data from the ATRs to the system for sortation and tracking and serving as the HMI server.
- 7) Lower Level Control Components: Programmable Logic Controllers (PLC). The PLCs controls the mechanical system, communicating with the device-level equipment.
- 8) Remote Racks. Contain modules that provide a connection to each field device. These connections allow the PLC to communicate with and control the devices.
- 9) Ethernet Switches. These switches are used to manage the connections between the various components on the Ethernet network.
- 10) Manual Encode Consol (MEC). The MEC is used to manually route baggage to the correct sort destination. Bags are sent to the MEC station if the bar code on the bag tag cannot be read by the ATR, the flight number is invalid, or there is no BSM for the bag.
- 11) Baggage Dimensioning System (BDS). The BDS measures the height, width and length of each bag that passes through the scanning heads. The BDS determines if a bag is in, or out, of "gauge."
- 12) Automatic Tag Reader (ATR). The ATRs read bar code data from the baggage tag affixed prior to induction by scanning every side of each bag that passes through the its scanning head array. The array consists of 12 individual scanning

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heads. The data from the bar code is transmitted to the PLC using serial communications.

- 13) ControlNet to DeviceNet Box. These devices are used to bridge communication between the ControlNet and the DeviceNet networks.
- 14) EDS Equipment. The in-line EDS machines are used as part of the security screening process of the BHS. These machines are maintained by TSA.
- 15) Motor Control Panels (MCP). There are 18 MCPs and approximately 45 smaller control panels. All motors in the EDS Matrix (CBIS) are controlled by VFDs. The main components in the MCP panels are:
  - a) PLC with Ethernet ports
  - b) ControlNet module
  - c) IO modules
  - d) E-Stop relays
  - e) 24VDC power supplies
  - f) Main disconnect switch with lock out
  - g) Circuit Breaker (CB) and fusing
  - h) Motor starters, contactors and relays
  - i) Amber warning beacon
  - j) Red (E-Stop) warning beacon
  - k) Start-up/Fault warning alarm
  - l) Control station
  - m) Hour meter
  - n) Control Transformers
  - o) Utility outlet
  - p) Fluorescent lights

2.5 BHS Control Room T2.1.E119. The BHS Control Room provides 2 control operator workstations and, with the exception of field devices and the SAC, DHS (located in equipment room T2.1.E111) and BMS servers (located in the International Terminal), all of the equipment necessary to operate and monitor the BHS including:

- 2.5.1 Large Screen Display Workstation. This workstation is used to display the graphical overview images from the HMI application. It is designed to provide a dynamic display of BHS status however a mouse is provided to allow navigation to other HMI content.
- 2.5.2 Operator Interface Terminals. Touch-screen workstations that display HMI and MIS applications to allow operators to operate the system, display status, modify system parameters and generate reports. 2 operator Interface Terminals are provided in the

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Control Room 2 are installed in the CBRA area, and 1 is installed in the TSA central system monitoring section of the International Terminal BHS Control Room.

- 2.5.3 LCD Displays. Five 46 inch NEC liquid crystal displays, wall mounting hardware, controllers and cables used to display system status (3 displays) and flight information (2 displays).
- 2.5.4 Closed Circuit Television Equipment (CCTV). Two displays and one controller are installed to provide views of T2 BHS related CCTV cameras.
- 2.5.5 Manual Encode Interface Computer. 1 Manual Encode Interface Computer is installed.
- 2.5.6 HMI Interface Computers. 5 HMI Interface Computers are installed.
- 2.5.7 Uninterruptible Power Supply Units (UPS). 2 UPS are provided to support the installed computer equipment.
- 2.5.8 Furnishings. Desks, tables, racks and shelving used to accommodate equipment and supplies.

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**Appendix B**  
**Calculation of Charges**

**1. METHOD OF PAYMENT**

- 1.1 Unless approved otherwise by the Airport Project Manager, the Contractor shall submit to the Airport Project Manager, within fifteen (15) working days of the last day of each calendar month, an invoice for the services performed under this Agreement for the previous calendar month. As used herein, the term "Monthly Invoice" shall include the Contractor's bill or written request for payment under this Agreement for services performed. All invoices shall be made in writing and in a form prescribed by the Airport's Project Manager. Partial release from all suppliers and subcontractors shall be furnished with all but the first invoice. The Contractor must also supply SFO with all certified payrolls through the invoice period. A monthly Performance Report per **Appendix A – Scope of Work**, for the invoice period must accompany the invoice.
- 1.2 Contractor shall maintain the Weekly Staffing Schedule set forth in **Attachment 1 to Appendix B – Calculation of Charges**. The Monthly Invoice shall be consistent with the "Staffing Level and Allocation Plan" as stated in **Appendix B – Calculation of Charges, Attachment 1**. For any calendar month of this Agreement that the Contractor fails to meet or exceed the minimum Performance Requirements as specified in **Appendix A – Scope of Work**, the appropriate Liquidated Damages shall be deducted from the Contractor's Monthly Invoice amount for the following month. The Monthly Invoice provided in the Staffing Level and Allocation Plan is based on Contractor's stated staffing plan. Should the Contractor fail to provide the staffing levels defined in the Staffing Level and Allocation Plan, a reduction in the Monthly Invoice will be taken for those vacant positions.
- 1.3 Unless approved otherwise by the Airport Project Manager, the Contractor shall, within ten (10) days after receipt of payment by the Airport specified in this Agreement pay to all of its immediate subcontractors, if any, the amounts to which they are entitled, after deducting any prior payments and any amounts due and payable to the Contractor by those subcontractors.
- 1.4 The Contractor's monthly invoice shall include:
- 1.4.1 The actual labor hours expended during the prior month, as supported by timesheets, based upon the hourly rates (Hourly Wage with Burden) for the various classes of employees, as set forth in the Detailed Pricing Breakdown on pages B4 through B6. The labor hours shall be based on the staffing levels identified in the Staffing Level and Allocation Plan – Weekly Staffing Schedule.
- 1.4.2 In the event overtime is requested or required by the Airport, the overtime rates for the various classes of approved employees shall be consistent with the rates set forth in the Staffing Level and Allocation Plan. Overtime charges must be clearly documented on weekly time sheets and identified separately on each monthly billing and shall include a calculation to show how the overtime charges were determined for each class of employee and the reason for their use.
- 1.4.3 The actual costs of materials, components, technical supplies, and replacement parts where such payment is within the parameters of Section 1 of this Appendix B. All actual costs shall be supported with copies of the actual invoices. All cash discounts for material, supplies, and other items purchased as part of the cost of the work shall accrue to the Airport. In order to minimize the actual costs to be paid by the Airport, the

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Contractor will make all reasonable efforts to research appropriate vendors in order to secure price comparisons, taking into account such things as shipping charges and discounts available. The Contractor shall assume responsibility for tracking the warranties available from the vendors on all purchased parts and exercise those warranties when required.

- 1.5 Notwithstanding the above, in no case shall the Contractor invoice include costs which the Airport Project Manager has disallowed or otherwise indicated that will not be recognized.

## **2. ADJUSTMENT OF MONTHLY INVOICE FOR SYSTEM CHANGES**

From time to time, the Airport may issue a written order increasing or decreasing the level of service, additions, or deletions, in which event the Contractor shall comply with such orders and perform its operation and maintenance services in accordance with all provisions of this Agreement and the orders of the Airport. In the event of changes in BHS system operation and maintenance due to additions, deletions, changes, increases or decreases, the Monthly Invoice for BHS operations and maintenance of the system shall be adjusted in accordance with the applicable unit prices shown in the Staffing Level and Allocation Plan submitted by the Contractor.

## **3. OTHER DIRECT COSTS**

### **3.1 MISCELLANEOUS EXPENSES**

Miscellaneous expenses are not reimbursable unless Contractor has obtained the prior written approval of the Airport's Project Manager before expenses are incurred. Reimbursement shall be for actual expenses incurred by Contractor or Contractor's independent professional associates or sub-consultants with receipts.

### **3.2 AS-NEEDED MECHANICAL AND ELECTRICAL COMPONENT REPLACEMENT**

As-Needed mechanical and electrical component replacement may be authorized by the City only upon written task order issued in advance of any work to be performed. City will not pay for any as-needed work whatsoever except by written task order. Task orders shall state the time, quantity and price of the work. All work shall be compensated at the prevailing wage in effect at the time the task order is approved, plus Contractor's 40.5% burden and 7.8% profit margin. Burden includes the worker's compensation, company overhead and employer Federal Insurance Contributions Act (FICA) which include Medicare and Social Security taxes.

### **3.3 TRAVEL EXPENSES**

Travel expenses and cost for vehicle rentals, contractor meals, and per diem are not reimbursable expenses unless Contractor has obtained the prior written approval of the Airport's Project Manager before the expenses are incurred. Contractor must obtain Airport agreement and availability of funding prior to scheduling travel. Direct and reasonable travel expenses shall be reimbursed at the actual cost when supported by appropriate receipts. Contractor shall submit all requests for reimbursement to the Airport via invoice. If per diem is approved by the Airport, Contractor travel expense must meet the federal per diem General Services Administration Continental United States rates ("GSA CONUS Rates") for San Mateo County. Current federal per diem rates can be confirmed on the Internet at <http://www.gsa.gov/portal/category/21287>.

The mileage charge for vehicles will be the then current mileage rate established by the Internal Revenue Service. No mileage reimbursement shall be provided for automobile trips within the San Francisco Bay Area, less than fifty (50) miles from SFO. Contractor will use commercially reasonable efforts to minimize expenses.

**Appendix B – Calculation of Charges  
ATTACHMENT 1:**

**Staffing Level and Allocation Plan**

<b>WEEKLY STAFFING SCHEDULE</b>								
<b>JOB CLASSIFICATION</b>	<b>Sun</b>	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thu</b>	<b>Fri</b>	<b>Sat</b>	<b>Total Weekly</b>
	<b>Start - End</b>	<b>Start - End</b>	<b>Start - End</b>	<b>Start - End</b>	<b>Start - End</b>	<b>Start - End</b>	<b>Start - End</b>	<b>Hrs</b>
Site Manager	OFF	8:00am - 5:00pm	8:00am - 5:00pm	8:00am - 5:00pm	8:00am - 5:00pm	8:00am - 5:00pm	OFF	40 hrs
Maintenance Technician	4:30am - 1:00pm	4:30am - 1:00pm	4:30am - 1:00pm	4:30am - 1:00pm	4:30am - 1:00pm	OFF	OFF	40 hrs
Maintenance Technician	12:30pm - 8:30pm	12:30pm - 8:30pm	OFF	OFF	OFF	4:30am - 1:00pm	4:30am - 1:00pm	32 hrs
Maintenance Technician	OFF	OFF	12:30pm - 8:30pm	12:30pm - 8:30pm	12:30pm - 8:30pm	12:30pm - 8:30pm	12:30pm - 8:30pm	40 hrs
Maintenance Technician	8:30pm - 4:30am	8:30pm - 4:30am	8:30pm - 4:30am	8:30pm - 4:30am	8:30pm - 4:30am	OFF	OFF	40 hrs
Maintenance Technician	8:30pm - 4:30am	8:30pm - 4:30am	8:30pm - 4:30am	OFF	OFF	8:30pm - 4:30am	8:30pm - 4:30am	40 hrs
Maintenance Technician	OFF	OFF	OFF	8:30pm - 4:30am	8:30pm - 4:30am	8:30pm - 4:30am	8:30pm - 4:30am	32 hrs
Control Room Operator	4:30am - 2:30pm	4:30am - 2:30pm	4:30am - 2:30pm	4:30am - 9:30am	OFF	OFF	OFF	35 hrs
Control Room Operator	OFF	OFF	OFF	9:30am - 2:30pm	4:30am - 2:30pm	4:30am - 2:30pm	4:30am - 2:30pm	35 hrs
Control Room Operator	2:30pm - 12:30am	2:30pm - 12:30am	2:30pm - 12:30am	2:30pm - 7:30pm	OFF	OFF	OFF	35 hrs
Control Room Operator	OFF	OFF	OFF	7:30pm - 12:30am	2:30pm - 12:30am	2:30pm - 12:30am	2:30pm - 12:30am	35 hrs
Unjammer / Manual Encoder	4:30am - 2:30pm	4:30am - 2:30pm	4:30am - 2:30pm	4:30am - 9:30am	OFF	OFF	OFF	35 hrs
Unjammer / Manual Encoder	OFF	OFF	OFF	9:30am - 2:30pm	4:30am - 2:30pm	4:30am - 2:30pm	4:30am - 2:30pm	35 hrs
Unjammer / Manual Encoder	2:30pm - 12:30am	2:30pm - 12:30am	2:30pm - 12:30am	2:30pm - 7:30pm	OFF	OFF	OFF	35 hrs
Unjammer / Manual Encoder	OFF	OFF	OFF	7:30pm - 12:30am	2:30pm - 12:30am	2:30pm - 12:30am	2:30pm - 12:30am	35 hrs
<b>TOTAL HOURS</b>	<b>72 hrs</b>	<b>80 hrs</b>	<b>80 hrs</b>	<b>80 hrs</b>	<b>80 hrs</b>	<b>80 hrs</b>	<b>72 hrs</b>	<b>544 hrs</b>

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Detailed Pricing Breakdown  
Year 1: October 1, 2016 through September 30, 2017

Detailed Pricing Breakdown							
1. Labor Costs (First twelve (12) months of Fully Staffed Service) Year Period							Year 1
Position Title	No. Full-Time Positions	Hourly Wage	Burden % *	Hourly Wage with Burden	Annual Full Time Labor Hours 1FT yr = 2,080 hrs X No. Positions	Annual Total Hours (Excluding PTO)	Annual Labor Cost with Burden
Site Manager	1	\$ 43.00	105.04%	\$ 88.17	2080	1856.00	\$163,639.24
Maintenance technicians	5.6	\$ 38.35	68.12%	\$ 64.47	11648	10160.00	\$655,054.42
Control Room Operator	3.5	\$ 22.00	114.00%	\$ 47.08	7280	6288.00	\$296,039.85
Unjammer / Manual Encoder	3.5	\$ 18.74	121.96%	\$ 41.60	7280	6288.00	\$261,552.21
* Burden % includes all costs associated with Contractor's Labor costs including, but not limited to: paid time off, payroll taxes, pension costs health insurance, dental insurance, unemployment insurance, workers comp insurance, and any other benefits and indirect labor costs.							\$1,376,285.71
2. All Other Costs for Service (Monthly)							
Includes all other costs of performing the work identified in Appendix A, Services to be Provided by the Contractor, such as: use of tools and equipment; uniforms; parking and badging; data, cell phones, landlines, fax; corporate insurance; office supplies, fuel and consumables; arranging for purchase and delivery of spare parts; training; licenses and permits associated with work; travel							
All Other Monthly Costs for Service						\$ 8,568.00	\$102,816.00
3. Profit Margin. Expressed as a percentage of the Total Labor Cost							
Expressed as a percentage of the Total Labor Cost						7.80%	\$107,350.29
SUBTOTAL COST WITH PROFIT							\$1,586,452.00
4. Lump Sum Cost for Mobilization - Year 1 Only							
Mobilization cost							\$27,428.00
<b>TOTAL ANNUAL CONTRACT COST</b>							<b>\$1,613,880.00</b>
Monthly Invoice Value Not to Exceed							\$134,490.00

CAS

Detailed Pricing Breakdown  
 Year 2: October 1, 2017 through September 30, 2018

Detailed Pricing Breakdown							
1. Labor Costs (First twelve (12) months of Fully Staffed Service) Year Period				Year 2			
Position Title	No. Full-Time Positions	Hourly Wage	Burden % *	Hourly Wage with Burden	Annual Full Time Labor Hours 1FT yr = 2,080 hrs X No. Positions	Annual Total Hours (Excluding PTO)	Annual Labor Cost with Burden
Site Manager	1	\$ 43.00	105.04%	\$ 88.17	2080	1856.00	\$163,639.24
Maintenance technicians	5.6	\$ 38.35	68.12%	\$ 64.47	11648	10160.00	\$655,054.42
Control Room Operator	3.5	\$ 22.00	114.00%	\$ 47.08	7280	6288.00	\$296,039.85
Unjammer / Manual Encoder	3.5	\$ 18.74	121.96%	\$ 41.60	7280	6288.00	\$261,552.21
* Burden % Includes all costs associated with Contractor's Labor costs including, but not limited to: paid time off, payroll taxes, pension costs health insurance, dental insurance, unemployment insurance, workers comp insurance, and any other benefits and indirect labor costs.							\$1,376,285.71
2. All Other Costs for Service (Monthly)							
Includes all other costs of performing the work identified in Appendix A, Services to be Provided by the Contractor, such as: use of tools and equipment; uniforms; parking and badging; data, cell phones, landlines, fax; corporate insurance; office supplies, fuel and consumables; arranging for purchase and delivery of spare parts; training; licenses and permits associated with work; travel							
All Other Monthly Costs for Service						\$ 8,568.00	\$102,816.00
3. Profit Margin. Expressed as a percentage of the Total Labor Cost							
Expressed as a percentage of the Total Labor Cost						7.80%	\$107,350.29
SUBTOTAL COST WITH PROFIT							\$1,586,452.00
TOTAL ANNUAL CONTRACT COST							\$1,586,452.00
Monthly Invoice Value Not to Exceed							\$132,204.33

CMS

Detailed Pricing Breakdown  
 Year 3: October 1, 2018 through September 30, 2019

Detailed Pricing Breakdown							
1. Labor Costs (First twelve (12) months of Fully Staffed Service) Year Period				Year 3			
Position Title	No. Full-Time Positions	Hourly Wage	Burden % *	Hourly Wage with Burden	Annual Full Time Labor Hours 1FT yr = 2,080 hrs X No. Positions	Annual Total Hours (Excluding PTO)	Annual Labor Cost with Burden
Site Manager	1	\$ 43.00	105.04%	\$ 88.17	2080	1856.00	\$163,639.24
Maintenance technicians	5.6	\$ 38.35	68.12%	\$ 64.47	11648	10160.00	\$655,054.42
Control Room Operator	3.5	\$ 22.00	114.00%	\$ 47.08	7280	6288.00	\$296,039.85
Unjammer / Manual Encoder	3.5	\$ 18.74	121.96%	\$ 41.60	7280	6288.00	\$261,552.21
* Burden % Includes all costs associated with Contractor's Labor costs including, but not limited to: paid time off, payroll taxes, pension costs health insurance, dental insurance, unemployment insurance, workers comp insurance, and any other benefits and indirect labor costs.							\$1,376,285.71
2. All Other Costs for Service (Monthly)							
Includes all other costs of performing the work identified in Appendix A, Services to be Provided by the Contractor, such as: use of tools and equipment; uniforms; parking and badging; data, cell phones, landlines, fax; corporate insurance; office supplies, fuel and consumables; arranging for purchase and delivery of spare parts; training; licenses and permits associated with work; travel							
All Other Monthly Costs for Service						\$ 8,568.00	\$102,816.00
3. Profit Margin. Expressed as a percentage of the Total Labor Cost							
Expressed as a percentage of the Total Labor Cost						7.80%	\$107,350.29
SUBTOTAL COST WITH PROFIT							\$1,586,452.00
TOTAL ANNUAL CONTRACT COST							\$1,586,452.00
Monthly Invoice Value Not to Exceed							\$132,204.33

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