



Rhode Island Airport Corporation

March 20, 2024

ADDENDUM NO. 2
Invitation for Bids No. 34756
BHS Improvements – Phase I – Controls Replacement
Rhode Island T. F. Green International Airport

Prospective Bidders and all concerned are hereby notified of the following changes in the Invitation for Bids (IFB) No. 34756. These changes shall be incorporated in and shall become an integral part of the contract documents.

1. **The deadline to submit sealed bids has been extended to 4:00 P.M. local time on March 28, 2024.** Replace Section 00010-1 (Page 1) of the “Advertisement for Bid” Section with the revised Section 00010-1 attached to this Addendum.
2. Replace Section 00100-8 (Page 8) of the “Information to Bidders” Section with the revised Section 00100-8 attached to this Addendum.
3. A Conveyor Manifest has been included and is attached to this Addendum.
4. Responses to Questions:
 - a. **Question:** Specification 347716-8, Section 1.5.C.2 “TSA Remediation Project”: *Is the BSD functionality being upgraded or changed through this project? If so, what revision of PGDS are the BSD's being changed to.*
Response: It is our understanding that the BSD's will be replaced as part of the “TSA Remediation Project”. This will be based on the latest/current version of the PGDS.
 - b. **Question:** Specification 347716-10, Section 1.6.D.1.h.1 “Photoeye Replacement List”: *Photoeye replacement list shows replace PE and add PE checked for TC1-02. What is the functionality that is expected of the additional PE?*
Response: The additional PEs for conveyors TC1-02, TC2-02, and CS2-DR are for over height detection. The PEs to be added to conveyors ML1-06, SP3-02, and ML3-02 are standard head-end jam PEs that will be added to existing power turns without PEs.
 - c. **Question:** Specification 347716-18, Section 1.7 - L1 “Latest PGDS Reporting Requirements”: *PGDS 8 reports are not feasible if the code is not completely updated to accommodate the new reports. Our understanding of the intent of this project is not to replace PLC code / keep it as close to*

existing as possible. Please confirm this intent or whether a PLC code upgrade is required.

Response: The intent of this project is to upgrade the system to meet PGDS V8 requirements as much as possible within the limitations of the existing mechanical configuration. PLC code changes will be required to provide these updates. An addendum will be issued for further clarification.

- d. **Question:** Specification 347716-40, Section 1.14.D.6 “EDS Machine Communication”: *Please confirm that the EDS manufacturer will be responsible for replacing their own ControlNet Interface Modules with new Ethernet/IP modules for BHS communication.*

Response: Yes, EDS manufacturer will be responsible for replacing Interface Modules to accommodate project.

- e. **Question:** Specification 347716-8, Section 1.5.C.1 “TSA Remediation Project”: *Who is responsible for integrating these new ATR's to the existing PLC's?*

Response: The TSA has not yet awarded the CBIS Remediation Controls project.

- f. **Question:** Specification 347716-8, Section 1.5.C “TSA Remediation Project”: *Which BHS contractor is performing the TSA remediation work? May contact information for this contractor please be provided for further coordination?*

Response: No contract has been awarded by TSA yet.

- g. **Question:** Specification 347716-8, Section 1.5.C.1 “TSA Remediation Project”: *Please provide a schedule for this TSA remediation work so that bidders may properly understand any overlap in activities that would occur between projects.*

Response: No schedule is currently available from TSA, but TSA has expressed their willingness to work with our Team for the work to be completed concurrently.

- h. **Question:** Advertisement for bid, 6, 148, 382, 397 “Servers”: *The scope of work calls for 2 fault monitoring servers and 2 database servers; 4 physical servers. The current standard protocol for BHS systems is 2 physical servers with virtual machines. Please confirm that 2 physical servers are acceptable in lieu of 4 physical servers.*

Response: At this moment, the BHSC will provide physical servers. A virtual may be proposed as a cost savings after contract award.

- i. **Question:** Advertisement for bid,31, Bid Form “VFD Quantity”: *Please confirm that the number of VFDs to be replaced as part of this project is 24, per the bid form.*

Response: Yes, the number of VFDs is 24 based on the attached addendum.

- j. **Question:** Advertisement for bid,31, Bid Form “VFD Quantity”: *Please confirm the model of new VFD that will be used for the TSA remediation project.*
Response: As TSA has not finalized their scope, TSA will work with this Project for continuity. Proposed VFD’s should be compatible with existing system with minimal interface requirements.
- k. **Question:** Advertisement for bid, Section 20, XI. Contractor Qualifications “List of Equipment”: *Please confirm the intent of this request; is this to quantify programming computers to be used or to confirm that old spare parts stock will not be used for this project?*
Response: Requirement was removed as part of this addendum. See attached.
- l. **Question:** Specification 347716-16, Section 1.7.E “Emulation”: *Please confirm this is intended to be a Factory Acceptance Test with fully functioning PLC code and Server’s tested against live operational emulation model.*
Response: Confirmed.
- m. **Question:** Specification 347716-22, Section 1.14.B Performance Requirements”: *Considering this project does not involve any code updates or mechanical scope of work, please remove this list of requirements. Performance requirements should be to match existing conditions. If owner would like to uphold these requirements, consider adding an allowance for these types of enhancements.*
Response: As noted in section 2.2 of the specifications, the BHS contractor is responsible for performing a baseline test to establish the existing performance benchmark. The TRR and ISAT test results must meet or exceed the benchmark performance.
- n. **Question:** Specification 347716-9, Section 1.6.D.1.E “The existing two (2) Automatic Tag Readers (ATRs) for baggage sortation shall be replaced with two (2) new ATRs.”: *Please confirm the current ATR diagnostic software is required.*
Response: The new ATR diagnostic software is required per BHS Specification Section 1.15.J.
- o. **Question:** Specification 347716-9, Section 1.6.D.1.E “The existing two (2) Automatic Tag Readers (ATRs) for baggage sortation shall be replaced with two (2) new ATRs.”: *Please confirm a new workstation for the ATR diagnostic software is required.*
Response: The new ATR diagnostic software shall reside within the Operator Interface Computer.
- p. **Question:** Specification 347716-9, Section 1.6.D.1.C “The BHSC shall

provide four (4) new pairs of hot-backup PLCs with new redundancy modules, and EtherNet/IP devices/switches/components as required to provide a fully functional CBIS/BHS as specified herein.”: *Shall the BHS contractor engineer a solution that enables a migration from the PLC / ControlNET / current loop architecture so that the EDS machines are able to operate in the current production system and be tested/validated during off hours?*

Response: Yes, please refer to BHS Specification Section 1.5 D.

- q. **Question:** Specification 347716-9, Section 1.6.D.1.C “The BHSC shall provide four (4) new pairs of hot-backup PLCs with new redundancy modules, and EtherNet/IP devices/switches/components as required to provide a fully functional CBIS/BHS as specified herein.”: *This project involves migrating ControlNET communications of the MCPs to Ethernet/IP. Shall the BHS contractor engineer hot-backup compatible DLRs (Device Level Rings) so that there is redundancy?*

Response: Yes.

- r. **Question:** Specification 347716-24, Section 1.14.D.1.A “Base Building (480VAC): 1) Source for systems: an existing 480 VAC, 3 Phase, 60 Hz, power is installed to each existing Motor Control Panel (MCP). The BHSC shall verify the service on site.”: *Please confirm the customer is responsible for new power feeders and upstream breakers to MCPs, if required.*

Response: Yes, this will be coordinated with RIAC should additional power be required. No additional power is foreseen at this point for the project.

- s. **Question:** Page 00320-3 “Bid Bond Value”: *Page 00320-3 of the Bid Form asks the bidder to state the sum of their Bid Bond, cashier's check, or certified check. We understand that the Bid Bond is to be 5% of the bid. Are we permitted to fill the blank field as, "The undersigned attaches...in the sum of 5% of the amount bid".*

Response: Confirmed.

- t. **Question:** Page 00320-3 “Fully Executed Statements”: *Bid Form states that "A bid shall be considered unresponsive...if it fails to include fully executed statements" and that "The bidder shall furnish similar statements executed by each of his or her first-tier and second-tier Subcontractors" with subcontracts valued at \$10,000 or more. Please clarify what statements are required of subcontractors and sub-subcontractors with the bid. i.e. Are Bid Forms to be completed by each of the subcontractors and sub-subcontractors and submitted with the bid?*

Response: No.

- u. **Question:** 00750 Disadvantaged Business Enterprise (DBE) Plan: *The DBE Plan states that DBEs must be "certified by the State of Rhode Island Department of Administration and approved by Rhode Island Airport Corporation". We request that other state certifications (e.g. Massachusetts*

DOT) or national certifications (e.g. WBENC) be considered toward DBE participation. Is the 3.2% figure cited in the bid package a goal or a requirement?

Response: Goal.

- v. **Question:** 00010 Advertisement for Bid: *We interpret the language in the Advertisement for Bid to mean that we should mail two copies of the bid, one redacted and one unredacted, if we are to include our confidential financial statement as requested. Is this correct? If so, how should the two copies be prepared (e.g. separate sealed envelopes, label as Redacted for Public vs. Unredacted, etc.?*

Response: Yes, this is correct.

- w. **Question:** 00100 XI. Contractor Qualifications and 00320 Bid Summary Form: *The Contractor Qualification #5 states " Your financial references and an original copy of your current financial statement." p.00320-20 of the Bid Summary Form states the apparent low bidder shall provide a copy of his/her company's financial statement within 5 days of request by RIAC. Should the financial statement be submitted with the bid or upon request post-bid?*

Response: This is upon request, which will go to the successful contractor.

- x. **Question:** Specification 347716-9, Section 1.6.D.1.e The existing two (2) Automatic Tag Readers (ATRs) for baggage sortation shall be replaced with two (2) new ATRs. *What is the communications protocol to the existing ATRs?*

Response: Existing ATRs utilize both serial and ethernet connections. BHSC to verify after award.

- y. **Question:** Specification 347716-9, Section 1.6.D.1.e The existing two (2) Automatic Tag Readers (ATRs) for baggage sortation shall be replaced with two (2) new ATRs. *What is the communications protocol required for the new ATRs?*

Response: Refer to BHS Specification, section 1.15 J.

- z. **Question:** Specification 347716-9, Section 1.6.D.1.f The existing human-machine interface at each existing MCP shall be replaced with a new 13" to 15" human-machine interface. *What size are the existing MCP HMIs?*

Response: Unknown. BHSC will need to verify after award.

- aa. **Question:** Specification 347716-9, Section 1.6.D.1.f The existing human-machine interface at each existing MCP shall be replaced with a new 13" to 15" human-machine interface. *How many MCP HMIs are required for the BHS Recontrol project?*

Response: Two. One at MCP-ED3 and one at MCP-ED7.

- bb. **Question:** Specification 347716-9, Section 1.6.D.1.g The BHSC shall replace the existing Variable Frequency Drives (VFDs) with new VFDs. *How*

many new VFDs are required for the BHS Recontrol project?

Response: The quantities match the conveyor manifest that is included as part of this addendum.

cc. **Question:** Specification 347716-9, Section 1.6.D.1.g The BHSC shall replace the existing Variable Frequency Drives (VFDs) with new VFDs. *Please provide a list of VFDs to be replaced.*

Response: See above response.

dd. **Question:** Specification 347716-13, Section 1.6.D.5.m The sideguard at each Fail-Safe conveyor shall be painted in Red. *Please confirm the existing sideguard at each Fail-Safe conveyor is already painted red.*

Response: This cannot be confirmed from available site photos. BHSC will not be required to paint each Fail-Safe.

ee. **Question:** Specification 347716-15, Section 1.6.E.4 The BHS work shall be completed during non-operational hours and shall not impact Airport and Airline Operations. Please confirm the work hours for this project are 9:00 pm to 3:00 am.

Response: This is the worst case scenario, BHSC may have additional hours depending on daily operations.

ff. **Question:** Specification 347716-16, Section 1.7.E Emulation: The BHSC shall provide an emulation demonstration for the entire BHS/CBIS (North and South Systems). *Please confirm an emulation is required for this project (and that this is not a spec requirement left over from an earlier project).*

Response: Emulation is required.

gg. **Question:** Specification 347716-17, Section 1.7.I Shop Drawings, This section lists many requirements for drawings that would apply to a new BHS system. For example, Item 1.7.I.1.a asks for "Location, type, and load of support for each reaction at building connection and lateral bracing; ...". *Please confirm the only shop drawings that are required are drawings that apply to the BHS recontrol project scope of work.*

Response: Confirmed. All applicable shop drawings will be reviewed for compliance to the specifications.

hh. **Question:** Specification 347716-18, Section 1.7.P Operating/Maintenance Manuals, *Please confirm the BHS recontrol project should only include manual inserts for changes related to the BHS recontrol project.*

Response: Confirmed, manual inserts to be provided to supplement existing O&M Manuals.

ii. **Question:** Specification 347716-22, Section 1.14.B Operating/Maintenance

Manuals, *Please confirm the performance requirements will only be applied as they relate to the BHS recontrol project scope of work, and that the BHS contractor for this project is not responsible to correct any deficiencies related to the existing to remain systems.*

Response: As noted in Section 2.2 of the specifications, the BHS contractor is responsible for performing a baseline test to establish the existing performance benchmark. The TRR and ISAT test results must meet or exceed the benchmark performance.

jj. **Question:** Specification 347716-23, Section 1.14.C Mechanical Design, *Please confirm this project does not include mechanical changes and the Mechanical Design requirements do not apply to the BHS recontrol project.*

Response: No mechanical changes to the existing BHS are required under this scope.

kk. **Question:** Specification 347716-41, Section 1.14.F Description of Operations, *Please confirm the system should continue to operate in the same manner as the existing system.*

Response: The BHSC is responsible for ensuring that the system complies with all functional requirements outlined in section 1.6 of the BHS specifications.

ll. **Question:** Specification 347716-53, Section 1.14.K Variable Frequency Drives (VFD), *Please confirm VFDs may be mounted in the MCP (to match the existing system).*

Response: VFDs may be panel mounted if space allows.

mm. **Question:** Specification 347716-56, Section 2.4 Inspection and Testing, This section lists requirements for testing that would apply to a new BHS system. For example, Item 2.4.A.2.g asks for to "... perform a load test on each individual conveyor ..." *Please confirm the only tests that are required are tests that apply to the BHS recontrol project scope of work.*

Response: Confirmed. All test plans will be reviewed for compliance.

nn. **Question:** Specification 347716-61, Section 2.5.B.2 Post-Installation Commissioning - Demonstration and Observation, This section lists requirements for testing that would apply to a new BHS system. For example, Item 2.5.B.2.h asks to "Demonstrate the capability to handle the required sizes and weights of baggage ..." *Please confirm the only tests that are required are tests that apply to the BHS recontrol project scope of work.*

Response: Confirmed. All test plans will be reviewed for compliance.

oo. **Question:** Specification 347716-61, Section 2.5.B.2 Demonstrate "Hand-Off-Auto" operations. *Please confirm that this project does not include "Hand-Off-Auto" operations.*

Response: Existing HOA functionality cannot be verified. BHSC to verify and retain all existing functionality.

pp. **Question:** Specification 347716-61, Section 2.5.B.2.G Demonstrate “Hand-Off-Auto” operations. Please confirm that this project does not include “Hand-Off-Auto” operations.

Response: Existing HOA functionality cannot be verified. BHSC to verify and retain all existing functionality.

qq. **Question:** Specification 347716-62, Section 2.7.A Start-up Support, ... During hours of operation, the engineers/technicians shall be on site. *How many hours per day is required for start-up support?*

Response: Reference section 2.7.A of the BHS specification.

rr. **Question:** Specification 347716-63, Section 2.8.A.2 Maintenance training, *Please confirm that since this is a BHS recontrol project, maintenance training is not required.*

Response: Maintenance training for upper-level and lower-level controls is required.

ss. **Question:** Specification 347716-63, Section 2.9.B During installation, the BHSC shall perform the housekeeping of its related work. *Please confirm the owner will provide dumpsters.*

Response: BHSC shall provide the dumpsters.

tt. **Question:** General – Project Schedule. *Please provide a schedule for this project. If you do not have a schedule, provide dates for award of contract, begin work in the field, and completion date.*

Response: Per Specifications Section FAA General Provision 80-02 Notice to Proceed, a limited administrative NTP is anticipated for June 2024. A Construction NTP is anticipated for September 2024. The total contract duration may not exceed 365 calendar days (from administrative NTP), per section FAA General Provision 80-08).

RIAC would like to remind all prospective bidders/offerors that additional Addendums may be issued by RIAC until the deadline for bid submissions. As such, RIAC encourages prospective bidders/offerors to visit www.flyri.com/riac/procurement on a frequent basis.

####END OF ADDENDUM####

SECTION 00010 - ADVERTISEMENT FOR BID

Sealed bids will be received by the Rhode Island Airport Corporation (RIAC) (the Owner) at **Rhode Island T. F. Green International Airport, 2000 Post Road, Warwick, RI 02886** until March 28, 2024, at **2:00 P.M. 4:00 P.M.** local time, at which time and place all bids will be publicly opened and read for the following project:

**BHS Improvements – Phase I – Controls Replacement
Rhode Island T. F. Green International Airport
Warwick, RI
RIAC Construction Contract No. 34756**

RIAC accepts deliveries during normal business hours Monday through Friday 8:30am to 4:00pm EDT excluding national and local state holidays. It is the sole responsibility of the responding firm to ensure delivery of its bid on or before the due date/time, RIAC will not accept any bid that is received after the due date/time with NO EXCEPTIONS. RIAC will not accept electronic bid submissions (email, web, fax, etc.). RIAC accepts no financial responsibility for any costs incurred by a firm in responding to this IFB, participating in oral presentations, or meeting with RIAC prior to being awarded the contract. The proposals in response to this IFB become the property of RIAC and may be used by RIAC in any way it deems appropriate. All information submitted in response to this IFB is deemed public and subject to disclosure unless a separate redacted public copy is submitted, regardless of whether the information is marked confidential/proprietary. Firm's may redact in the public copy any trade secrets or commercial or financial information which is of a privileged or confidential nature pursuant to the Access to Public Records Act (R.I. Gen. Laws § 38-2 et. seq.). If Firm does not submit a redacted public copy, RIAC assumes that firm is not seeking confidential treatment for any of its information and thus, all information is subject to public disclosure. By submitting a proposal, the firm certifies that it has fully read and understands the IFB, has full knowledge of the scope of work to be provided, and accepts the terms and conditions under which the services are to be performed. RIAC will be the sole judge in determining as equivalent products (if applicable).

Project Scope:

The scope of work for the Outbound BHS shall be as described below and as outlined in detail in Division 34 77 16.

1. Introduction:

- a. This project will replace the existing upper level controls and lower level controls of Baggage Handling System (BHS) and TSA baggage screening function in the existing bagroom of Rhode Island T. F. Green International Airport (PVD).
- b. The existing upper level controls including servers, workstations, and network switches shall be removed and replaced. New upper level servers including two (2) fully redundant fault monitoring servers, two (2) fully redundant database servers and network switches shall be provided in the existing control/server room. Two (2) new workstations shall be provided in the existing control room; each new work-station shall be provided with two (2) new 20" monitors and one

labor or materials for the work. Further, the Contractor agrees to indemnify, defend and hold the Owner, and their officers, agents and employees harmless from any such loss, theft or disappearance.

The Owner and the Contractor shall waive all rights against each other, and any of their respective agents, employees, sub-Contractors and consultants, the Owner, VRX Inc. and their sub-consultants for damages caused by fire or other perils to the extent covered by property insurance obtained or other property insurance applicable to the work as defined in the Agreement. The Contractor, as appropriate, shall require from its sub-Contractors and consultants of all tiers, agents and employees of any of them, by appropriate agreements, similar waivers each in favor of the other parties enumerated herein.

XI. CONTRACTOR QUALIFICATIONS

- A. In order to establish satisfactory responsibility to meet Corporation requirements prior to award of **Rhode Island Airport Corporation Construction Contract No. 34756** all Contractors are required to submit the “Contractor Qualification Form” in the Bid Proposal Section of this Contract Manual in addition to the following information.
1. Evidence of competency consisting of statements covering the Bidder's past experience on similar work for a minimum of five (5) years of demonstrable experience as a turnkey BHS Contractor for ULC and LLC Controls Replacement for systems with; high speed automated baggage sortation systems with the completion of a minimum project value of \$5,000,000 (per project) that utilized laser bar code scanning for the automatic processing of baggage, direct interfacing with the airline industry reservation systems for IATA License Plate bag tag information processing, CBIS, CBRA, high speed baggage diverters capable of operating at a minimum throughput rate of 60 bags per minute, computerized sortation control systems controlling PLC systems, baggage tracking and computerized report generation for operational as well as maintenance status and graphic fault annunciation for the automated baggage system.
 - ~~2. A list of equipment now in your possession and which you propose to use on this contract if awarded to you.~~
 3. Evidence of competency consisting of statements covering the Bidder's past experience on similar work.
 4. The name and qualifications of your superintendent(s) or supervisory personnel to be assigned to the major features of this work.
 5. Your financial references and an original copy of your current financial statement. In addition, each Bidder shall furnish the owner satisfactory evidence of his/her financial responsibility. Such evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the Contractor's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether his/her financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect his/her (Bidder's) true financial condition at the time such qualified statement or report is submitted to the owner.

NORTH MATRIX

Conveyor ID		Mechanical							Belting				Controls				Maintenance Access								Misc.		Notes		
ID	Type	Replace Drive	Replace Reducer	Rust Present	Replace Bearing	Replace Pulley	Replace Roller	Replace Power Turn	Drive Belt Alignment	Paddle Belt	Replace Belting	Belt Tracking	Replace PE	Add PE	Control Station	VFD	VFD (TSA SCOPE)	Head Knocker	Ladder Obstruction	Crossover Obstruction	Jam Removal Obstruction	No Drive Access	Missing UG	Missing End Cap	Reduced Bag Clear	Static Deflector	Filler Brush		
TC1-01	STD																												
TC1-01A	STD									X																			
TC1-02	STD									X			X	X															Add OH PE, HE PE is disconnected
TC1-DR	DOOR																												
TC1-03	DEC																												
TC1-04	PTS							X																X					
TC1-05	QUE																												
TC1-06	PTS							X																					Transition misaligned; bags hit roller
TC1-07	QUE										X																		
TC1-08	PT							X		X																			
TC1-09	MERGE																									X			
TC2-01	STD									X																			
TC2-01A	STD									X																			
TC2-02	STD									X				X										X					Add OH PE
TC2-DR	DOOR																												
TC2-03																							X						
TC2-04	DEC	X																											Drive fan noisy
TC3-01	STD									X																			
TC3-02	PT							X																					
TC3-DR	DOOR																												
TC3-03	STD																												
CS2-01	STD												X																Catwalk needs sway bracing
CS2-DR	DOOR													X															Add OH PE
CS2-02	PT							X					X																Snag point at sideguard transition
CS2-03	STD												X																
CS2-04	PT							X			X		X																
CS2-05	STD			X						X	X		X												X				Reduced drive clearance at catwalk
CS2-06	STD			X									X																
CS2-07	STD												X																
CS2-08	INC									X																			Tracking adjustment chain rubbing drop rod
CS2-09	PT							X																	X				
CS2-10	STD																												
CS2-11	PT							X		X																			
CS2-12	QUE																												
CS2-13	MERGE																	X								X			
ML1-01	PTS							X		X	X						X												Belt dust in debris pan
ML1-02	STD										X																		
ML1-03	STD																	X											
ML1-04	PT							X																					
ML1-05	INC																												
ML1-06	PT							X						X				X											
ML1-07	STD																		X										Motor located at ladder landing
ML1-BMA	BMA																												HMI not connected
ML1-08	STD														X		X												Control station reset button is forced closed
ML1-09	PT							X		X																			
ML1-10	DEC										X																		
ML1-11	STD																												
ML1-12	QUE		X																										Reducer leak
ML1-13	QUE																												

NORTH MATRIX

Conveyor ID		Mechanical							Belting				Controls				Maintenance Access							Misc.		Notes		
ID	Type	Replace Drive	Replace Reducer	Rust Present	Replace Bearing	Replace Pulley	Replace Roller	Replace Power Turn	Drive Belt Alignment	Paddle Belt	Replace Belting	Belt Tracking	Replace PE	Add PE	Control Station	VFD	VFD (TSA SCOPE)	Head Knocker	Ladder Obstruction	Crossover Obstruction	Jam Removal Obstruction	No Drive Access	Missing UG	Missing End Cap	Reduced Bag Clear	Static Deflector	Filler Brush	
ML2-01	QUE																											
ML2-02	PT							X																				
ML2-03	STD										X																	
ML2-04	PT							X																				
ML2-05	STD										X																	No drop from ML1-04, bags hit roller
ML2-BMA	BMA																											HMI not connected
ML2-06	STD						X				X						X											Head return roller knocking
ML2-07	PTS							X									X											
ML2-08	DEC		X						X																			Reducer runout and drive belt vibration
ML2-09	QUE										X																	
ML2-10	QUE		X						X		X																	Reducer runout and drive belt vibration
ML2-11	PT							X																				
ML2-12	MERGE																									X		
ED1-DIV	HSD																											
ED1-01	TA																X	X										No catch pan
ED1-02	PT							X									X											
ED1-03	QUE																X									X		
ED1-04	QUE										X						X									X		
ED1-05	QUE										X						X											
ED1-06	QUE										X						X											
ED1-07	QUE										X	X					X											
ED1-08	EDS																											
ED1-09	QUE	X																										Drive noisy
ED1-10	QUE																											
ED1-11	QUE																											
ED1-12	QUE																											
ED1-13	QUE																											
ED1-14	PT							X																				
ED1-15	STD																								X			29" bag clear under XD1-06
ED1-16	PT							X										X										
ED1-17	MERGE										X	X														X		
ED2-DIV	HSD																											
ED2-01	TA																X											
ED2-02	PT							X									X											
ED2-03	QUE										X						X									X		
ED2-04	QUE										X						X									X		
ED2-05	QUE																X											
ED2-06	QUE																X											
ED2-07	QUE																X											
ED2-08	EDS																											
ED2-09	QUE																											
ED2-10	QUE																											
ED2-11	QUE																											
ED2-12	QUE																											
ED2-13	PT							X			X																	
ED2-14	MERGE											X						X								X		
ED3-DIV	HSD																											
ED3-01	TA																X											
ED3-02	PTS	X						X									X											Drive noisy

NORTH MATRIX

Conveyor ID		Mechanical							Belting				Controls				Maintenance Access								Misc.		Notes		
ID	Type	Replace Drive	Replace Reducer	Rust Present	Replace Bearing	Replace Pulley	Replace Roller	Replace Power Turn	Drive Belt Alignment	Paddle Belt	Replace Belting	Belt Tracking	Replace PE	Add PE	Control Station	VFD	VFD (TSA SCOPE)	Head Knocker	Ladder Obstruction	Crossover Obstruction	Jam Removal Obstruction	No Drive Access	Missing UG	Missing End Cap	Reduced Bag Clear	Static Deflector	Filler Brush		
ED3-03	QUE																X									X			
ED3-04	QUE								X								X										X		
ED3-05	QUE																X												
ED3-06	QUE	X					X										X												Drive noisy
ED3-07	QUE																X												
ED3-08	EDS																												
ED3-09	QUE																												
ED3-10	QUE																												
ED3-11	QUE										X																		
ED3-12	QUE																										X		
ED3-13	PT							X																					
ED3-14	QUE																												
ED3-15	STD										X																		
ED3-16	PT							X																					
ED3-17	STD											X																	
ED3-18	QUE																												
ED3-19	PT							X																					
ED3-20	QUE										X							X											
ED3-21	MERGE											X															X		
ED4-DIV	HSD																												
ED4-01	TA																X												
ED4-02	PT							X									X												
ED4-03	QUE										X						X										X		
ED4-04	QUE																X										X		
ED4-05	QUE																X												
ED4-06	QUE	X															X												Drive noisy
ED4-07	QUE																X												
ED4-08	EDS																												
ED4-09	QUE																												
ED4-10	QUE																												
ED4-11	QUE											X																	
ED4-12	QUE																												
ED4-13	PT							X																					
ED4-14	MERGE																										X		
SB1-01	STD																												
SB1-02	DEC																												
SB1-03	PTS							X	X																				
SB1-04	STD	X																											Drive noisy
SB1-05	QUE	X																				X							Drive noisy
SB1-06	QUE	X																				X							Drive noisy
SB1-07	QUE																					X							
SB1-08	QUE																					X							
SB1-09	QUE																					X							
SB1-10	QUE																					X							
SB1-11	QUE																					X							
OS1-01	STD											X												X					
XO1-DIV	HSD																												
XO1-01	TA																						X						No underguarding
XO1-02	QUE										X																		

NORTH MATRIX

Conveyor ID		Mechanical							Belting				Controls				Maintenance Access								Misc.		Notes		
ID	Type	Replace Drive	Replace Reducer	Rust Present	Replace Bearing	Replace Pulley	Replace Roller	Replace Power Turn	Drive Belt Alignment	Paddle Belt	Replace Belting	Belt Tracking	Replace PE	Add PE	Control Station	VFD	VFD (TSA SCOPE)	Head Knocker	Ladder Obstruction	Crossover Obstruction	Jam Removal Obstruction	No Drive Access	Missing UG	Missing End Cap	Reduced Bag Clear	Static Deflector	Filler Brush		
XO1-03	PTS						X																					Debris	
XO1-04	STD										X																		
XO1-05	INC																												
XO1-06	PT						X																						
XO1-07	STD																	X				X	X					Needs front guard on drive	
XO1-08	PTS						X															X							
XO1-09	DEC																												
XO1-10	QUE																												
XO1-11	QUE																												
XO1-12	MERGE																			X						X			
CB1-DIV	HSD																					X							
CB1-01	TA	X																										Clunking noise at drive	
CB1-02	STD	X					X																					Return roller clicking	
CB1-03	PT							X																					
CB1-04	DEC																					X							
CB1-05	STD					X										X												Drive pulley noisy	
CB1-06	QUE	X								X						X												Drive noisy	
CB1-07	QUE															X													
CB1-ATR	ATR																					X						Far heads no access	
CB1-08	QUE															X													
CB1-09	PT					X		X								X												Tail pulley knocking	
CB1-10	STD										X					X													
CB1-11	PT				X			X								X													
CB1-12	STD				X					X						X												Head-end return roller bearing	
CB1-13	STD									X	X					X													
CB1-14	PTS		X		X		X	X																			X		
CB1-15	DEC										X																		
CB1-C1	CHUTE																												
CB2-01	STD																												
CB2-02	INC																												
CB2-03	PTS							X																		X			
CB2-04	PTS							X																					
CB2-05	INC	X				X			X																			Drive and drive pulley noisy	
CB2-06	PT	X				X		X		X						X												Drive and tail pulley noisy	
CB2-07	QUE															X													
CB2-08	MERGE															X		X								X			
SP2-DIV	HSD																												
SP2-01	TA									X																			
SP2-02	PTS							X		X	X																		
SP2-03	DEC	X								X																			
SP2-C1	CHUTE																												
SP3-DIV	HSD									X																			
SP3-01	TA										X																		
SP3-02	PTS							X						X															
SP3-03	DEC																												
SP3-C1	CHUTE																												
TOTALS		14	4	2	3	4	4	40	5	2	33	22	8	5	1	12	32	9	1	0	1	12	3	2	4	17	3		
																44													

SOUTH MATRIX

Conveyor ID		Mechanical							Belting				Controls				Maintenance Access								Misc.		Notes	
ID	Type	Replace Drive	Replace Reducer	Rust Present	Replace Bearing	Replace Pulley	Replace Roller	Replace Power Turn	Drive Belt Alignment	Paddle Belt	Replace Belting	Belt Tracking	Replace PE	Add PE	Control Station	VFD	VFD (TSA SCOPE)	Head Knocker	Ladder Obstruction	Crossover Obstruction	Jam Removal Obstruction	No Drive Access	Missing UG	Missing End Cap	Reduced Bag Clear	Static Deflector	Filler Brush	
TC4-01	STD									X																		
TC4-01A	STD									X																		
TC4-02	STD									X																		
TC4-03	DEC																					X						
TC4-04	QUE																											
TC4-05	PT							X																				
TC4-06	QUE																											
TC4-07	PT							X																				
TC4-08	STD										X																	
TC4-09	PT							X																				
TC4-10	STD																											
TC4-11	PT							X																				
TC5-01	STD									X																		
TC5-01A	STD									X																		
TC5-02	STD									X																		
TC5-03	DEC																											
TC5-04	PTS							X																				
TC5-05	QUE	X																										Drive fan noisy
TC5-06	STD																											
TC5-07	PTS							X									X											
TC6-01	STD																											
TC6-02	PT							X																				
DR-TC6	DOOR																											
TC6-03	DEC																											
TC6-04	PTS							X																				
TC6-05	PT							X																				
TC6-06	STD																											
TC6-07	PT							X																				
TC6-08	QUE																											
TC6-09	QUE																											
TC6-10	PT							X																				
TC6-11	MERGE																								X			
CS4-01	STD																					X						No access from main catwalk
DR-CS4	DOOR																											
CS4-02	PT							X		X		X										X						No access from main catwalk
CS4-03	QUEUE									X			X									X						No access from main catwalk
CS4-04	PT							X					X									X						No access from main catwalk
CS4-05	STD																					X						No access from main catwalk
CS4-06	QUE																					X						No access from main catwalk
CS4-07	PT							X										X										
CS4-08	QUE																											
CS4-09	PT							X																				
CS4-10	PT							X																				
CS4-11	MERGE																									X		
ML3-01	STD																											
ML3-02	PT							X					X															
ML3-03A	INC					X																						Slave chain hitting cover, slave shaft needs replaced
ML3-03	STD									X							X	X										
BMA-ML3	BMA																											HMI not connected
ML3-04	STD	X															X											Drive noisy

SOUTH MATRIX

Conveyor ID		Mechanical							Belting				Controls					Maintenance Access								Misc.		Notes	
ID	Type	Replace Drive	Replace Reducer	Rust Present	Replace Bearing	Replace Pulley	Replace Roller	Replace Power Turn	Drive Belt Alignment	Paddle Belt	Replace Belting	Belt Tracking	Replace PE	Add PE	Control Station	VFD	VFD (TSA SCOPE)	Head Knocker	Ladder Obstruction	Crossover Obstruction	Jam Removal Obstruction	No Drive Access	Missing UG	Missing End Cap	Reduced Bag Clear	Static Deflector	Filler Brush		
ML3-05	PT	X		X				X																					Drive knocking
ML3-06	DEC																												
ML3-07	STD																												
ML4-01	STD																X												
BMA-ML4	BMA																												HMI not connected
ML4-02	STD								X		X	X					X												Drive belt hitting cover
ML4-03	PTS							X																					
ML4-04	DEC																												Ladder down beacon not working
ML4-05	QUE																												
ML4-06	QUE																												
ML4-07	PT	X	X					X																					Drive fan noisy, reducer knocking
ML4-08	MERGE																									X			
ED5-DIV	HSD									X																			
ED5-01	TA																X	X	X										
ED5-02	PT				X			X									X												Tail bearing damaged
ED5-03	QUE									X							X									X			
ED5-04	QUE									X							X									X			
ED5-05	QUE									X							X												
ED5-06	QUE								X	X							X												
ED5-07	QUE																X												
ED5-08	EDS																												
ED5-09	QUE									X																			
ED5-10	QUE									X																			
ED5-11	QUE	X								X																			Drive overheating
ED5-12	QUE	X								X																			Drive overheating
ED5-13	DEC																												
ED5-14	PT		X					X																					Reducer leak
ED5-15	DEC																			X									
ED5-16	QUE		X																										Reducer noisy
ED5-17	QUE		X																										Reducer noisy
ED5-18	PT							X	X																				
ED5-19	MERGE																									X			
ED6-DIV	HSD									X																			
ED6-01	TA																X												
ED6-02	PT							X									X												
ED6-03	QUE									X							X									X			
ED6-04	QUE								X								X									X			
ED6-05	QUE																X												
ED6-06	QUE																X												
ED6-07	QUE																X												
ED6-08	EDS																												
ED6-09	QUE																												
ED6-10	QUE																												
ED6-11	QUE																												
ED6-12	QUE																												
ED6-13	INC																												
ED6-14	PT							X	X																				
ED6-15	MERGE																									X			
ED7-DIV	HSD																					X							
ED7-01	TA																X						X						
ED7-02	PTS							X									X												

SOUTH MATRIX

Conveyor ID		Mechanical							Belting				Controls				Maintenance Access								Misc.		Notes	
ID	Type	Replace Drive	Replace Reducer	Rust Present	Replace Bearing	Replace Pulley	Replace Roller	Replace Power Turn	Drive Belt Alignment	Paddle Belt	Replace Belting	Belt Tracking	Replace PE	Add PE	Control Station	VFD	VFD (TSA SCOPE)	Head Knocker	Ladder Obstruction	Crossover Obstruction	Jam Removal Obstruction	No Drive Access	Missing UG	Missing End Cap	Reduced Bag Clear	Static Deflector	Filler Brush	
ED7-03	QUE																X									X		Drive access unsafe, needs extended catwalk
ED7-04	QUE																X									X		
ED7-05	QUE																X											
ED7-06	QUE																X											
ED7-07	QUE										X						X											
ED7-08	EDS							X																				
ED7-09	QUE	X																										Drive noisy
ED7-10	QUE																											
ED7-11	QUE							X																				
ED7-12	QUE																											
ED7-13	PTS							X																				
ED7-14	DEC	X								X	X																	Drive noisy
ED7-15	QUE																											
ED7-16	QUE																											
ED7-17	PT							X																				
ED7-18	MERGE							X												X						X		Drive belt hitting guard
ED8-DIV	HSD																					X						
ED8-01	TA																X											
ED8-02	PTS							X									X											
ED8-03	QUE																X									X		
ED8-04	QUE																X									X		
ED8-05	QUE																X											
ED8-06	QUE																X											
ED8-07	QUE																X											
ED8-08	EDS																											
ED8-09	QUE																											
ED8-10	QUE	X																										Drive noisy
ED8-11	QUE																											
ED8-12	PT							X																				refurb and turn noise
ED8-13	MERGE																									X		
SB2-01	STD																											
SB2-02	DEC																					X						No drive access without ladder
SB2-03	PTS							X																				
SB2-04	DEC																											
SB2-05	QUE		X																			X						Drive noisy
SB2-06	QUE		X																			X						Drive noisy
SB2-07	QUE		X																			X						Drive noisy
SB2-08	QUE																					X						
SB2-09	QUE																					X						
SB2-10	QUE																					X						
SB2-11	QUE																					X						
OS2-01	STD																							X				
CB3-DIV	HSD																					X						
CB3-01	TA																											
CB3-02	STD																											
CB3-03	PT							X																				
CB3-04	DEC										X											X						
CB3-05	STD										X																	
CB3-06	QUE	X																										Drive bearing bad
CB3-07	QUE					X																						Head-end pulley bearing bad
ATR-CB3	ATR																											No access to far heads

SOUTH MATRIX

Conveyor ID		Mechanical							Belting				Controls				Maintenance Access								Misc.		Notes		
ID	Type	Replace Drive	Replace Reducer	Rust Present	Replace Bearing	Replace Pulley	Replace Roller	Replace Power Turn	Drive Belt Alignment	Paddle Belt	Replace Belting	Belt Tracking	Replace PE	Add PE	Control Station	VFD	VFD (TSA SCOPE)	Head Knocker	Ladder Obstruction	Crossover Obstruction	Jam Removal Obstruction	No Drive Access	Missing UG	Missing End Cap	Reduced Bag Clear	Static Deflector	Filler Brush		
CB3-08	STD								X							X						X							Drive outside of catwalk
CB3-09	PT							X								X													Rollers need lubricated
CB3-10	STD								X							X													
CB3-11	STD									X						X													
CB3-12	PT							X																					
CB3-13	STD																												
CB3-14	PT							X																					
CB3-15	DEC																												
CB3-C1	CHUTE																												
CB4-01	STD															X							X						
CB4-02	QUE															X													
CB4-03	PTS							X																					
CB4-04	PTS							X																					
CB4-05	INC																												
CB4-06	PT							X								X													
CB4-07	QUE															X													
CB4-08	MERGE															X										X			
SP5-DIV	HSD																												
SP5-01	TA																												
SP5-02	STD																												
SP5-03	PT							X																					
SP5-04	DEC																												
SP5-C1	CHUTE																												
SP6-DIV	HSD									X																			Transition roller bearings need replaced
SP6-01	TA			X																									
SP6-02	STD		X								X																		Reducer leaking, burning oil smell
SP6-03	PT							X																					
SP6-04	DEC																												
SP6-C1	CHUTE																												
MU-04	MU																												
MU-05	MU																												
MU-06	MU																												Turn noisy, need to investigate and repair
TOTALS		10	8	2	1	2	0	40	10	3	21	7	3	1	0	12	32	4	2	1	1	20	2	1	0	16	0		
																44													