



1.1 GOALS

- A. The goal of this section is to provide LAX requirements to the designers of Baggage Handling Systems when installing any type, size or value BHS within the LAX community of terminals.

1.2 GENERAL

A. Structural Considerations

1. When installing hanging conveyor from existing structure or attached header steel supports, an overall structural evaluation in compliance with local, state and federal regulations, specification and/or requirements must be provided to ensure proper weight distribution and/or allowance.
2. BHS attachments to the building shall be approved by LADBS. LARR may be required.
3. LADBS permits are required for electrical work and structural attachments.
4. Do not attach other the utilities to the BHS. (i.e., fire sprinklers, lighting, FLS)

B. Mechanical Considerations

1. Most ceiling spaces in the existing terminals are mechanical plenums. Where BHS systems run through ceiling plenums, all components shall comply with the flame spread index, smoke-developed ratings, etc. per the Code.
2. Rated enclosures around BHS systems in mechanical plenums are not allowed due to maintenance and access requirements.
3. Define BHS right-of-way. No obstructions or other utilities are allowed to be within this right-of-way. Any conflicting obstruction or utility during construction shall be relocated by contractor.
4. Provide 36 inches above conveyor belt for baggage – Allow for access to bearing or motors – Allow for full depth of baggage equipment.
5. Motor shall not be in front of load belts.
6. Maintain a minimum clearance for access to bearings, typically 10 inches.
7. Catwalk shall have solid metal not expanded metal walking surface.
8. Submit drawing showing the location of E-Stops and motor control stations, noting the belt it controls.

C. Electrical Considerations

1. UL or other LADBS approved third-party labeling shall be required for all electrical and controls equipment including CTX or EDS machines.

D. Safety and Security Considerations

1. Undergarding required per OSHA shall be of solid type. (no expanded metal or mesh)
2. Security and fire doors must be coordinated with LAWA Police, LAWA IT, LAWA and Operations and Los Angeles Fire Department four-door location and interface requirements with ACAMS and fire alarm system.



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3. When security measures are to be installed (cameras, etc.), please coordinate with LAWA PD, LAWA IT, CBP (TBIT and MSC) and TSA, to ensure their respective requirements are met.
 4. Where BHS maintenance, egress or ingress crossovers are provided, required height shall be maintained, where possible. Head knocker protection and proper signage shall be provided, where not possible.
- E. Additional Considerations
1. Commissioning shall be required to demonstrate to the owner LAWA the functionality of the system is meeting design requirements. The commissioning plan shall be reviewed and approved by LAWA prior to any commissioning activities. Third party commissioning agents shall be approved by LAWA.
 2. BHS Designer shall be part of commissioning activities. BHS Designer shall submit in writing that the system meets all aspects of the design including but not limited to electrical/controls/mechanical/structural/maintenance/monitoring.
 3. Trash trays shall be provided in personnel area or walking areas.

1.3 Submission Requirements

- A. For any projects with a Checked Baggage Inspections System (CBIS), please refer to the Planning Guidelines and Design Standards for Checked Baggage Inspection Systems (PGDS), latest version.
- B. For any other projects, the below information are typical submission requirements for any normal BHS system including ICS.
- C. These items are not all inclusive and additional submissions may be required based on the project.
 1. Typical 30% Design Submittal should include the following:
 - a. Updated Basis of Design Report
 - b. Preliminary Plans for all disciplines
 - (1) Plan views of outlines conveyors (and right of ways), mechanical elements.
 - (2) Location of quick disconnect conveyors as well as O&M related access.
 - (3) Inclines/declines.
 - (4) Conveyor delineations.
 - (5) Conveyor identification (ID) labels.
 - (6) Elevations of significant areas (floor/wall penetrations, steep gradients, congested areas).
 - (7) Top of bed (TOB) approximate elevations.
 - (8) Master Control Panel (MCP) and Power Distribution Panel (PDP) locations.
 - c. Concept of Operations
 - d. Baggage and Data Flow Charts
 - e. Preliminary Phasing Plan and Schedule
 - f. Conveyor Manifest showing:
 - (1) Conveyor Identifications.
 - (2) Approximate conveyor lengths.
 - (3) Approximate conveyor speeds.



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2. Typical 60% Design Submittal should include the following:
 - a. Updated Basis of Design Report
 - b. Refined detail design drawings based on the comments provide on the 30% design review.
 - c. Mechanical Drawings including;
 - (1) Motor/Drive package locations.
 - (2) Catwalk/platforms/ladder and stairways.
 - (3) Dimensions of points of intersection.
 - (4) Realistic elevations and TOB identifiers, including areas of interest.
 - (5) Egress paths for Maintenance personnel.
 - (6) Notable interference concerns.
 - d. Electrical
 - (1) Control station locations.
 - (2) E-stop zone layout.
 - (3) Device locations (photo-eyes, shaft encoders, audio/visual alarms).
 - (4) Intended locations (and sizes) of MCP's and PDP's (if not finalized in the 30% submission).
 - (5) Locations of all BHS rooms (control room, maintenance storage areas, etc.).
 - (6) Preliminary Contingency Plan
 - e. Conveyance equipment failure.
 - f. Loss of utility power.
 - g. Unplanned surges in system demand.
 - h. Access to the sump pump location.
 - (1) Updated phasing plan and schedule
 - (2) Conveyor Manifest showing:
 - i. Motor sizing.
 - j. Total amperage requirements.
 - k. Conveyor speeds (refined)
 - l. Preliminary Camera layout
3. Typical 90% Design Submittal should include the following:
 - a. Update Basis of Design Report
 - b. Refined detail design drawings based on the comments provide on the 60% design review.
 - c. Updated phasing plan and schedule including testing, commissioning and close-out
 - d. Delivery schedule showing all equipment deliveries
 - e. All additional information not submitted to this point including:
 - (1) All testing and commissioning documentation.
 - (2) Completed conveyor manifest.
 - (3) Completed mechanical and electrical drawings.
 - (4) All required phasing drawings.
 - (5) Completed control station and E-stop layouts.
 - (6) Finalized Description of Operations.



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4. Typical 100% Design Submittal should include the following:
 - (1) Refined documentation based on the comments provided on the 90% design review.
 - (2) Anything required that has not been submitted to this point.

END OF SECTION