



DATE OF

MEETING: Sept 22, 2009

Sea-Tac Airport

Renewing Mission Critical Infrastructure



Renewing Critical Infrastructure

- Vertical Circulation
- Electrical
- Mechanical
- Baggage

- Jet Bridges
- Roofs
- Pavement



Vertical Circulation

	Elevators	Escalators
Total	81	79
Accomplished/ Underway	14	48
Remaining	67	31





Electrical/Electronic Infrastructure

- Systems & Equipment Renewed and Replaced
 - Medium Voltage Systems and Equipment (12Kv/4Kv)
 - North & South Main Substations (50MYA)
 - 3 Power Distribution Centers
 - 30 Feeders and Ductbanks
 - 22 Main Power Centers
 - 9 Emergency Generators
 - Airfield Lighting Vault
 - Electronic Systems and Equipment
 - Backbone Communication System (fiber optic)
 - 800 MHz Radio System
 - Access Control System
 - Voice Paging System
 - Lighting Systems
 - Ramp Lighting
 - Terminal Lighting
 - Airfield Lighting (16L & 16R)





Electrical Infrastructure Systems

Remaining Renewal

- Panels/Switchboards (over 1500)
- Motor Control Centers (over 140)
- Conduit and Wiring
- Low Voltage Systems
- Garage Emergency Lighting
- Runway 16C Lights and Cable





Mechanical Infrastructure

- Already Renewed & Replaced
 - Central Mechanical Plant
 - 6 New Chillers
 - 1 New Boiler/ Refurbished 3 Boilers
 - 3 New Control Air Compressors
 - 5 New Cooling Towers
 - 4 Main Air Intakes
 - 8 New Air Handling Units
 - Steam and Chilled WaterDistribution Piping





Mechanical Infrastructure

Remaining for Renewal/Replacement

- Primary Systems
 - Air Handling Units (over 20)
 - Piping Systems
 - Water Isolation Valves (20)
- Secondary Systems
 - Secondary Piping Systems Chilled Water
 - Air Terminal Units (over 500)
 - North and South Satellite: Controls
 - Dual Duct to Variable Air Volume Throughout Facility





Baggage Infrastructure

Overview

- 15 Miles Conveyor
- 29 EDS Machines
- 3000 Motors
- Screening & Sortation Components of Systems
- Remaining for Renewal/Replacement
 - Make-up and Claim Devices
 - Ticket Counter & Decline Conveyors
 - Cruise Ship Improvements
 - Programming to Increase Through-Put
 - TSA Mandated Improvements



Passenger Loading Bridges

- Airport has 74 passenger loading bridges
- 52 are Port owned bridges
- The Airport has been acquiring bridges from airlines incrementally as part of the common use strategy
- Bridges are in various condition states when acquired (usually fair to poor)
- Bridges generally need to be refurbished to ensure dependable and reliable operation



Building Roof Infrastructure

Terminal Roof Area

1.1 Million Square Feet

- ■Last Major Reroof Program Occurred 1991 – 1997
- Concourses B, C, D, and N Sat Occurred in 1991
- ■Typical 10 15 Year Warranties Will Expire Soon



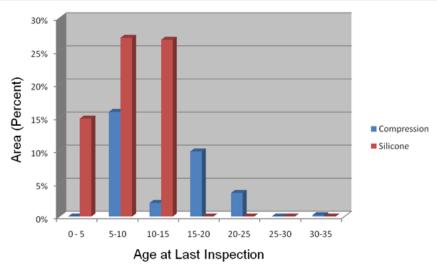


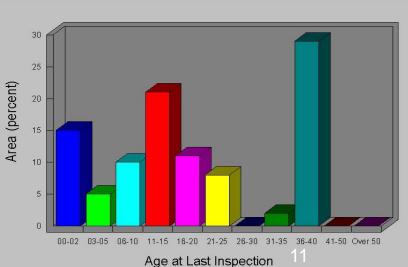
Pavement & Joint Seal Infrastructure



Joint Seal









Summary

- We must maintain functional readiness.
- We must care for our assets to maximize their lives and minimize life cycle costs.
- We must manage our portfolio of assets to provide predictable future airport costs for consumers and workload for staff.
- We must carefully prioritize projects that consume precious capital investment capacity.