

Presented to:
Construction Network – Airports LGB, SNA, BUR

John Wayne Airport CIP Program

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JOHN WAYNE AIRPORT
ORANGE COUNTY

Overview

- **John Wayne Airport, Orange County (JWA) has a \$700M+ CIP Plan, and the following are some of the major projects:**
 - Upper Roadway Maintenance Rehabilitation (Methacrylate Road Protection Coating)
 - Taxiways A - D - E Reconstruction
 - Replace BHS Servers/Software
 - Terminal BHS Improvements
 - Airfield Perimeter Security Improvements
 - Vertical Conveyor System Improvements (Escalator and Elevator replacement)
 - Terminal Floor Expansion Joints Improvements
 - Common Use Passenger Processing System (CUPPS) Replacement
 - Terminal A and B Roof and Associated Expansion Joint Replacement
 - Facility Accessibility Improvements
 - Taxiway B Service Road Realignment
 - Airport Power Generation and Distribution Upgrades

Facility Accessibility Improvements

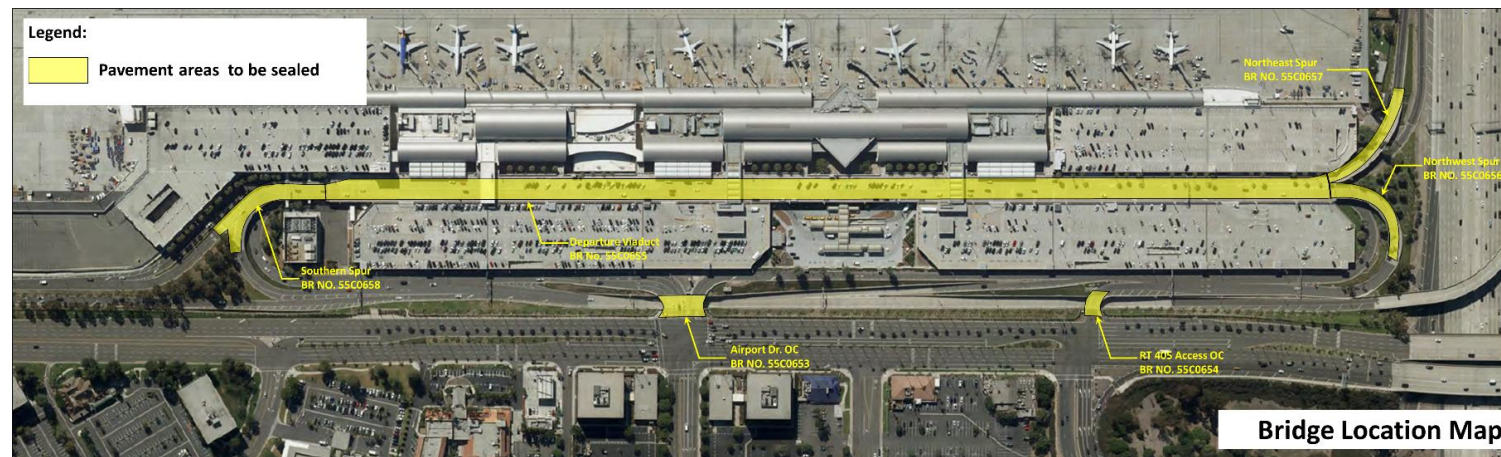
- JWA conducted a detailed accessibility assessment and identified improvements needed to comply with Americans with Disabilities Act (ADA) requirements including, but are not limited to, the path of travels/pavement reconstruction; signage, handrail, and guardrail improvements; elimination of protruding objects and installation of required detection systems; restroom accessibility improvements; and various other adjustments and/or replacements for fixtures around the Airport.
- **Phase I**
- **A&E – FY 23/24 and 24/25**
- **Construction – FY 23/24 and 24/25**

- **Phase II & III**
- **A&E – FY 24/25**
- **Construction – FY 25/26**



Upper Roadway Maintenance Rehabilitation (Methacrylate Road Protection Coating)

- The upper roadway and two on-Airport bridge structures will be treated with crack sealer, repair concrete spalls, remove and reconstruct concrete pavement, and refresh all impacted roadway striping.
- Prevents further moisture intrusion, conducts repairs required by CalTrans, and extends the useful life of the public roadway system.
- **A&E – 23/24 Construction 23/24**



Taxiways A - D - E Reconstruction

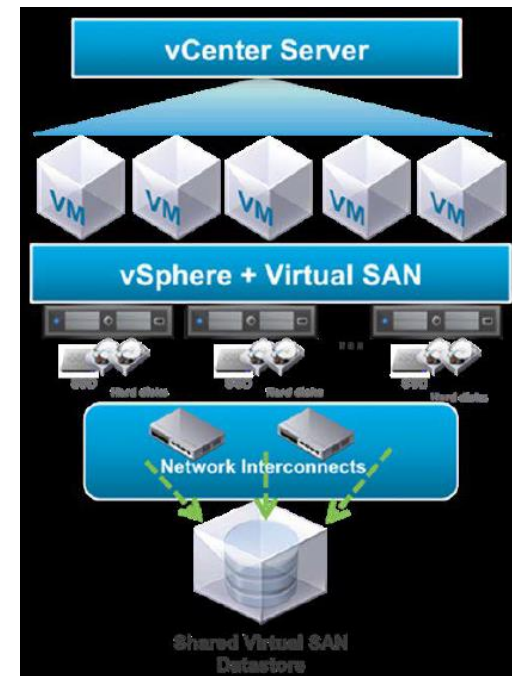
- Reconstructs the pavement of Taxiway A, a portion of Taxiway D, and a portion of E and associated improvements to markings, lighting, signage, and drainage. Taxiway A will be slightly realigned, requiring a relocation of the vehicle service road and reconstruction of the adjacent impacted runup.
- The new alignment of Taxiway A improves the geometry of the airfield and clarifies turns to connecting taxiways.
- **A&E – FY 23/24 Construction – FY 23/24**



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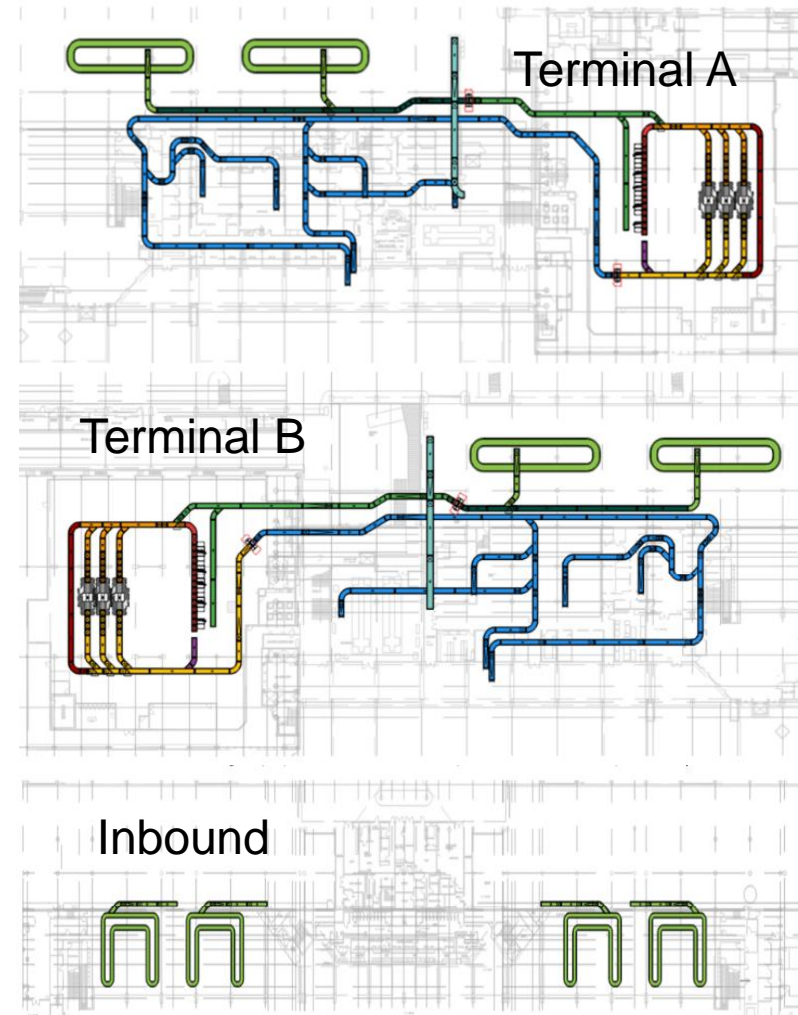
Replace Baggage Handling System (BHS) Servers/Software

- Upgrades BHS upper-level control system software and hardware in all Terminals to improve functionality and enhancing to current standards. Work includes installation of new hardware, software including operating systems, virtualized geo-redundant servers, virus scan, and associated patches.
- The existing servers and software were installed in 2011 and are in need of replacement, nearing the end of their useful life. Consolidated, modern hardware and software will provide JWA with the ability to have centralized data reporting for all three terminals.
- **Phase I – In Progress**



Terminals A and B BHS Improvements

- The outbound baggage systems will be replaced in its current location.
 - All existing conveyors will either be refurbished (i.e., drives, rollers, belting, and bearings replaced) or replaced with new conveyors.
 - A sortation system will be implemented to allow for the use of one mainline into screening from ticketing and one mainline exiting screening to makeup.
 - Each terminal will have one screening pod (CBIS) containing three EDS machines and one TSA inspection area (CBRA).
- The inbound baggage systems will be replaced and expanded.
 - The loading belts will be relocated closer to the terminal.
 - New 190 linear foot flat-plate claim devices will replace the existing 150 linear foot slope-plate claim devices.

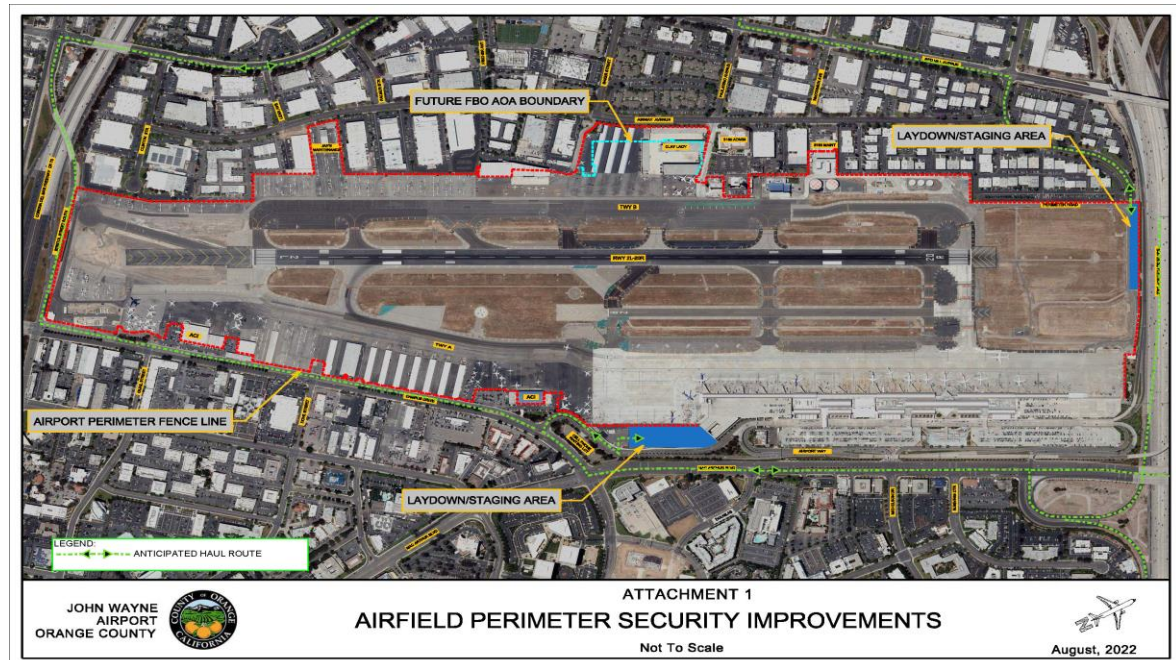


- **A&E – FY 23/24** **Construction – FY 24/25**

Airfield Perimeter Security Improvements

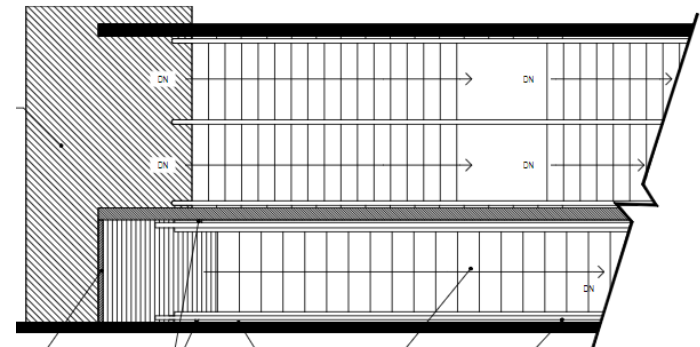
- This project will replace the existing airfield perimeter fence with a taller, non-climbable system, increase lighting, add motion detectors, install an intrusion detection system, and add CCTV cameras. The project also includes the replacement of three existing vehicle perimeter gates and one emergency gate with enhanced gates and guard booths integrated with the access control system.

- Phase II
- A&E – FY 23/24
- Construction – FY 24/25
- Phase III
- A&E – FY 25/26
- Construction – FY 26/27



Vertical Conveyor System Improvements (Escalator and Elevator Replacement)

- Replace and/or rehabilitate all existing elevators and escalators at John Wayne Airport (JWA). Escalators and elevators in Terminals A and B were installed in 1990 and were installed in 2011 in Terminal C. There are 14 elevators in Terminals A, B, and C combined. There are 28 elevators and nine escalators within the Airport complex that will be replaced and/or rehabilitated.
- The project will be performed in phases to reduce impacts on traveling passengers.
- **Phase I**
- **A&E – FY 23/24**
- **Construction – FY 24/25**
- **Phase II, III & IV**
- **A&E – FY 25/26**
- **Construction – FY 26/27 – 28/29**



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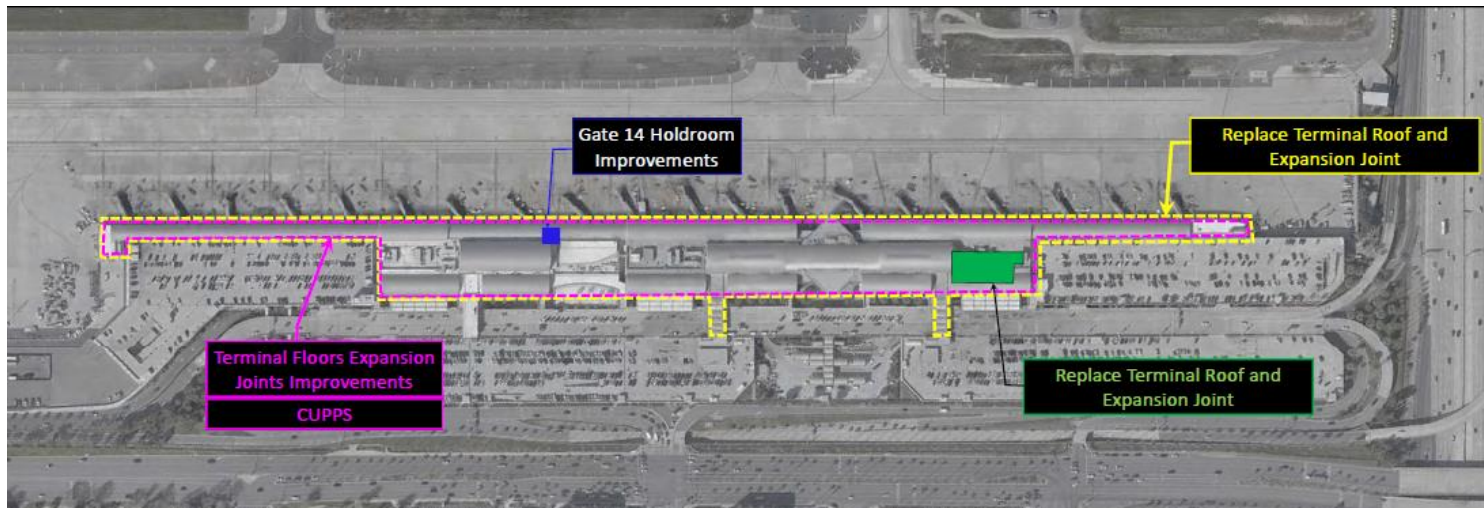
Common Use Passenger Processing System (CUPPS) Replacement



- Common Use Passenger Processing System (CUPPS) Replacement throughout the terminals will include the replacement of existing common use self-service equipment, Flight Information Display System, signage/wayfinding and video wall systems, audio/video paging, installation of self-bag drop in each terminal, and associated architectural, structural, mechanical, electrical, and telecommunications work.
- **A&E – FY 23/24 – 24/25**
- **Construction – FY 24/25 thru 25/26**

Terminal A and B Roof and Expansion Joint Replacement

- The project includes the replacement of the whole roof system of Terminals A and B as well as the covered walkways. The roof replacement requires the associated removal, replacement, and relocation of various accessory structures, such as antennas and any other systems attached to the existing roof.
- **Construction 23/24**



Taxiway B Service Road Realignment

- The existing vehicle service road running adjacent to Taxiway B will be relocated to provide the needed 121.5 feet of clearance from the center of the Taxiway.
- The existing service road has around 118 feet of clearance at points and is slightly within the Taxiway Object Free Area. Relocation is required to ensure that the service road meets FAA clearances.

- **A&E – 24/25** **Construction 25/26**



Airport Power Generation and Distribution Upgrades

- The overall program, including all phases, will improve power system reliability and resiliency, mitigate electrical interruptions, reduce outages and dependence on Southern California Edison (SCE), develop prioritized work packages (PDP), and develop an asset database to assist management, maintenance, and future capital needs.
 - Phase 1 - Electrical Distribution Modernization consists of re-feeding 12 kV distribution, replacement of the medium voltage switchgear and substations and upgrade the emergency system.
 - Phase 2 – Central Utility Plant (CUP) co-generation plant system improvements, including SCADA, blackstart, battery storage, load shedding capabilities, and water treatment system upgrades.
 - Phase 3 – Replacement of aging electrical equipment in the terminal complex and at other airport facilities.
 - **Phase I, II & III**
 - **A&E – FY 24- 27**
- Construction FY24-27**



Other Projects

- Airfield Runway 2L/20R Rehab
- Ramp Electric Vehicle Upgrades
- Parking Structure Repair and Assessment
- Terminal Apron Improvements
- Taxiway B Widening
- Facilities Security Improvements

For more information:

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