

PROJECT PROFILE / **ON-CALL ENVIRONMENTAL SERVICES**

DEDICATED ON-CALL TEAM ACCELERATES PROJECT TIMELINE

To confidently complete a massive infrastructure update, Los Angeles International Airport (LAX) and Delta Air Lines needed an on-call partner to handle environmental impact and permitting concerns during construction. Our team's solutions keep the program moving forward.



SERVICES AT THE READY

Through environmental impact studies, the development of various plans and coordination of permit applications, Delta Air Lines and Los Angeles International Airport (LAX) have a clear flight path.

PROJECT STATS

CLIENT

Delta Air Lines

LOCATION

Los Angeles, California

ANTICIPATED COMPLETION

Summer 2023

NEARLY

\$4.5M

IN SAVINGS ESTIMATED

DURATION OF

57

MONTHS ESTIMATED

830K

SQUARE FEET IN EXPANSION

The Los Angeles International Airport (LAX) Delta Sky Way terminal modernization is a \$1.9 billion accelerated program to modernize, upgrade and connect LAX Terminals 2 and 3 and the International Terminal B that will be ready in mid-2023. The project will also provide an additional 830,000 square feet of terminal space, for a total of 1.62 million square feet. This will make it possible to add up to seven gates, bringing the total to 27 gates.

Our team is the program's on-call environmental consultant, serving as the single point of contact for coordination between the numerous stakeholders for compliance with hazardous materials management, oil spill prevention preparedness, stormwater pollution prevention, environmental oversight, permitting and compliance, various meetings, field work and sampling.

We began by reviewing all historical environmental information available on the site three months before construction would begin. We identified data gaps and completed a comprehensive soil and groundwater investigation within the footprint of the proposed

construction area. Combining the use of geographic information systems, global positioning systems and our in-house database of historical investigations, we mapped historical and current environmental impacts. This eliminated the need to conduct borings across the construction site, saving Delta an estimated \$250,000 and a month of work.

Compressed schedules, night work, job-specific safety certification and stringent airside security approvals threatened to complicate work efforts; however, early delivery of these environmental impact studies — alongside planning designed to emphasize collaboration and reliability of scheduling — consumed fewer resources and will keep construction on schedule.

Beyond construction support, we also provided services in emergency response, mass excavation support, permitting, leak detection and construction operational safety and phasing.

EMERGENCY RESPONSE

During construction in 2020, a jet fuel release to a footing excavation put the construction schedule at risk. Our badged professionals responded within 30

minutes to command incident response. We led negotiation of emergency response requirements with stakeholders, regulatory agencies and Los Angeles World Airports (LAWA). We helped contain released fuel, then excavated, transported and disposed of the affected soil, remaining on the job until all impacted soil was removed. We aggressively negotiated contaminants of concern (COC) cleanup goals with Regional Water Quality Control Boards (RWQCB), meeting soil screening levels for each COC and obtaining verbal case closure within two weeks and written closure in two months. This proactive and collaborative approach saved Delta an estimated \$2 million in hard cleanup costs and reduced interference with construction activities, keeping the accelerated schedule on track.

MASS EXCAVATION SUPPORT

For the area below the future headhouse, our team used knowledge of complex, conflicting regulations to recommend an alternative method for mass grading and disposal. This saved an estimated \$1.5 million and helped shave more than a week off the schedule. The California Department of Toxic Substances Control (DTSC) approved this approach in record time.

PERMITTING

Using our relationships with the Los Angeles Department of Building and Safety (LADBS), our team helped get the program Ready to Issue (RTI) permits. The program's Engineer of Record (EOR) was trying to clear RTI for two main permits for the main scope construction. However, LADBS was holding up the permits due to lack of methane testing data. For three months, the EOR attempted to persuade LADBS that methane testing was unnecessary, with no success. Our team engaged the LAWA intergovernmental coordinators and together made a technical presentation

as to why the testing was unnecessary, resulting in LADBS granting the RTI permits in less than 72 hours, eliminating an estimated \$600,000 in testing costs and saving an estimated two months of schedule.

AIR PERMITTING

Terminals 2 and 3, ground support equipment and hangar operations were transferred from LAWA to Delta as part of the program scope. The existing South Coast Air Quality Management District (SCAQMD)-permitted operations at these terminals included hydrant fueling systems, for which applications have been filed for Change of Operator to Delta. We negotiated with SCAQMD for an Environmental Protection Agency Title V exclusion and permitted the construction for modifying and adding several fuel hydrant pits. We also led permitting of additional emergency generators.

STORMWATER DESIGN AND PERMITTING

This program needed to meet all stormwater mitigation measures, such as low-impact design elements, required by the City of Los Angeles. We also conducted an essential step in the preconstruction process by complying early with stormwater regulations and LAWA guidelines in preparing permit documentation, including development of a stormwater pollution prevention plan (SWPPP), which involved conducting risk assessments and interacting closely with the design-builder's superintendents and LAWA. We also conducted construction site inspections and Qualified SWPPP Practitioner services, Stormwater Multiple Application and Report Tracking System filings and annual reports, sampling services and laboratory analysis, and subcontractor stormwater training courses during construction.

FUEL SYSTEM LEAK DETECTION

We determined conduit routing and instrument locations at vaults throughout the hydrant fueling system. To do so, we coordinated communication equipment locations, transmission of leak detection system data to the fuel farm and wiring with the mechanical, electrical and plumbing designs.

AIRFIELD CONSTRUCTION OPERATIONAL SAFETY AND PHASING PLAN

In response to an urgent Delta need, we prepared the Construction Operational Safety and Phasing Plan (CSPP), including a narrative — with supporting exhibits outlining individual phasing layouts for airside work, plus associated work schedule — meeting FAA standards.

Our team's fieldwork has relied heavily on job-specific certifications, stringent airside security approvals, and night and weekend work to minimize operational delays and the ability to adapt to challenging weather conditions. We are working collaboratively to find consistent and cost-effective solutions, contributing to the project's high performance, efficient design and cost savings. We have also established a direct line of communication from the Burns & McDonnell environmental services team to the construction team to address questions and challenges.

Ultimately, the partnership work has led to completion of the central headhouse structure three months ahead of schedule. Such acceleration has the two-phase program on track for final delivery 18 months early, in mid-2023. Through reduced schedule, general site conditions, less phasing/enabling work and fewer financing costs, \$60 million in savings from the comprehensive project team is being used to enhance other areas of the program. And our team continues to provide on-call environmental services to assist with ongoing construction operations.



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