Consultants & Suppliers Receive Special Treatment in AirportImprovement

SFO

San Francisco Int'l Installs First Tote-Based Baggage System in U.S.

NIDI RICHARDS

FACTS&FIGURES

Project: New Baggage Handling System

Location: San Francisco Int'l Airport

Site: Harvey Milk Terminal 1

Cost: $180 million (including interim system used during construction)

System Provider: BEUMER Group

High Level Controls: Brock Solutions

Tote System: CrisBag, by BEUMER Group

Baggage Mezzanine: KPFF

Seismic Engineering: Huntington Design Associates

Electric Designer: Redwood Electric

Terminal 1 Center Design-Builder: Hensel Phelps/Gensler/Kuth Ranieri

Boarding Area B Design-Builders: Austin Commercial & Webcor Builders Joint Venture HKS/WoodsBagot/EDZ International/KVA

Noteworthy Detail: First installation of a tote-based baggage handling system in the U.S.

San Francisco International Airport (SFO) is turning heads with the architecture and art in Harvey Milk Terminal 1, but the rebuilt facility also includes some important less visible features. The new baggage handling system is one of its hardest-working hidden gems.

Airport officials report the $180 million investment is already helping meet several of SFO's overarching goals, including increased functionality, greater flexibility, reduced cost of ownership and revolutionizing the passenger experience. The project is also putting SFO on the map as the first U.S. airport to install a baggage handling system that carries each bag in a separate tote that can be tracked through the entire system.

When SFO began planning its Terminal 1 redevelopment program, updating the baggage system was a given, explains Project Manager Greg McCarthy. What *wasn't* immediately apparent, however, was the type of system that would best meet the busy facility's needs. That required considerable research.

GREG MCCARTHY

At the time, the 1960s-era terminal had several airline-owned systems dotting its landscape. With six independent systems and 15 CTX checked baggage screening machines, the operation lacked function and was expensive to operate and maintain, notes McCarthy.

"The idea was to consolidate it into one centralized screening system that is airport-owned and have the airlines drive off of that, as opposed to having the airlines handle the project and take the risk of it not working with

September 2020 AirportImprovement.com

FACTS&FIGURES

Project: New Baggage Handling System

Location: San Francisco Int'l Airport

Site: Harvey Milk Terminal 1

Cost: $180 million (including interim system used during construction)

System Provider: BEUMER Group

High Level Controls: Brock Solutions

Tote System: CrisBag, by BEUMER Group

Baggage Mezzanine: KPFF

Project Consultants/Suppliers are Listed in Every Story

Advertiser's Index is up Front in TOC

Others hide the ad index in back of issue

59% More Stories, 70% More Pages than Next Closest Airport Publication

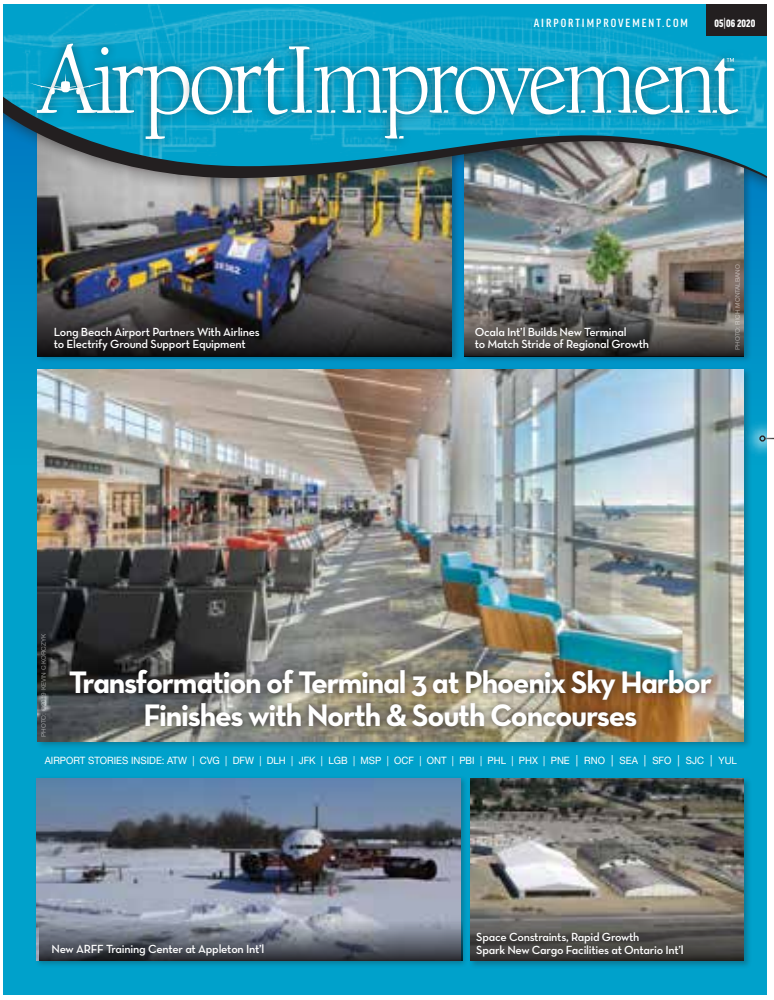
(Jan – Sept 2020)

More Stories means More Projects Profiled with Consultants/Suppliers Listed

The Show & Tell of Airport Project Work

Circulation

Airport Improvement is read by all industry players



- AIRPORTS
- AAAE MEMBERS
- ACC/CONSULTANTS
- ACI-NA MEMBERS
- GOV'T OFFICIALS
- SUPPLIERS

BROAD CIRCULATION. Our distribution is tops of all airport publications; we make it easy by including all key groups and decision-makers with just one buy. No need to choose one association or the other, as we reach AAAE, ACI-NA, and ACC members. Plus, we distribute to airport consultants, FAA, TSA, and key suppliers.

Editorial

Airport projects

Stories include interviews with:

AIRPORTS | CONSULTANTS | SUPPLIERS

Salt Lake City Int'l Tests Designs & Components for Redevelopment Program

BY BRIAN SALGADO

When building a new terminal for an airport that serves more than 25 million passengers annually, the plans must be solid from the start. Salt Lake City International (SLC) is using several full-scale mockups to ensure that even minute details of key components for its $3.6 billion redevelopment program yield the best results possible.

Knowing how crucial restrooms are to passengers, SLC had the project team build a life-size, fully functional model of a proposed design for testing. After the broad concept and finer nuances are finalized and approved, the model will be replicated 18 times throughout the new Central Terminal.

"People chuckle, but for a hub airport, the first thing people do if they are reconnecting is go to the restroom. So, we gotta get that right," says SLC Executive Director Bill Wyatt. "A tremendous amount of thought went into those details."

BILL WYATT

Overall, the $3.6 billion redevelopment program is designed to bring the airport into the modern era in terms of technology and passenger capacity. In addition to the new $577 million terminal, major components of the program include:

- a 502,000-square-foot rental car center;
- surface and covered parking facilities that will add 6,600 new spaces;
- two linear concourses;
- two tunnels; and
- an elevated roadway.

The first phase of the project is on track to open in fall 2020, and the second phase is expected to be completed in 2024/25. When all the work is finished, SLC will have a single terminal, A and B concourses connected by a tunnel, and 78 gates. Altogether, the new facilities will occupy 4 million square feet of space.

Readying the Restrooms

The construction team created a life-size mockup of restrooms that will eventually be used in the two new concourses. Key stakeholders such as patrons and employees had the opportunity to put the sample facilities through the rigors. The logic? It is much easier to make modifications to one restroom now than to 18 later.

"Once we have everyone on the same page with what we want in the bathrooms, we will build all of them according to that," says Thomas Walters, interior superintendent for Holder-Big-D Construction, construction manager at risk for the terminal redevelopment. "The whole purpose is to give the visual and life-sized view of the project's intents and drawings. With these, we can walk in and see it in real time."

THOMAS WALTERS

In addition to illuminating kinks in the initial design, the mockups will eventually give construction crews a standard for the quality needed on the final product, adds Walters.

For example, the restroom mockup showed that the trash cans needed to be reconsidered. The size of the container made it difficult for janitorial staff to quickly empty the can, and

July | August 2019 AirportImprovement.com

TERMINALS SLC 49

Salt Lake City International Airport

FACTS&FIGURES

Project: Redevelopment Program

Location: Salt Lake City Int'l Airport

Key Components: New terminal; 2 concourses; rental car facility; additional surface & covered parking; 1 tunnel; elevated road

Total Budget: $3.6 billion

Funding: Airport cash (14.8%); passenger facility charges (11.5%); rental car facility charges (4.9%); 2017 airport revenue bonds (23%); federal grants (4.5%); future bonds (41.3%)

Timeline: Phase 1 is slated to open fall 2020; Phase 2 in 2024/25

Gates: 78 at completion

Footprint of Addition: 296.7 acres

Total Acreage: 7,824

Owner: Salt Lake City Corp.

Developer: Salt Lake City Dept. of Airports

Operational Readiness, Activation & Transition Subcontractor: Chrysalis Global Aviation

CENTRAL TERMINAL

Size: 908,754 sq. ft.

Cost: $577 million

Construction Manager at Risk, Terminal Redevelopment: Holder-Big-D Construction, a joint venture between Holder Construction Co. & Big-D Construction

Master Architect: HOK Architects

Architecture Services: HOK; ArchNexus; MRTN, FFKR, CSB

Civil (Landside & Airside): HNTB

Mechanical/Electrical/Plumbing & Fire Protection: HOK; Envision Engineering; Colvin Engineering

Structural: HOK; Reaveley Engineers + Associates; Dunn Associates

Program Director: Making Projects Work Inc.

Baggage Handling System: Cage

Info Technology/Security: HOK; JWG

Interior Design/Lighting/Signage: HOK

Public Address/Acoustics: CSA

Passenger Conveyance: SHG

Waterproofing: SGH

Hardware: DHC

Code: Jensen Hughes

Central Tunnel: 106,140 sq. ft., 950 ft. long

Cost: $120 million

CONCOURSES

North Concourse: 2,252 linear ft.

Cost: $536 million

Contractor: Austin Oakland Aviation, a joint venture between Austin Commercial & Oakland Construction Co.

South Concourse: 3,691 linear ft.

Cost: $525 million

Passenger Boarding Bridges & Assoc. Equipment: AERO

Hydrant Fueling: HNTB

Airfield Lighting: Lean Engineering

Geotechnical: RB&G

PARKING

Economy Lot: 3,000 spaces

Cost: $12.5 million

Garage: 1.7 million sq. ft.; 3,600 stalls

Cost: $165 million

RENTAL CAR FACILITIES

Total Size: 502,000 sq. ft.

Quick Turnaround Facility: 469,567 sq. ft.

Features: 64 fuel pumps; 75,000 gallons of fuel storage in 3 tanks; 14 car wash units that recycle 85% of water used

ROADWAY IMPROVEMENTS

Total Cost: $91 million

Elevated Roadway: 2.1 miles

At-grade Roadway: 11.9 miles

Engineering: Horrocks

Mid-Concourse Tunnel: 41,454 sq. ft., 950 ft. long

Cost: $19 million

AirportImprovement.com July | August 2019

The editorial content of both the publication and website focuses exclusively on airport projects. All significant areas of construction and renovation are covered, including:

Terminals | *Parking* | *Cargo* | *IT/Communications* | *Security* | *Concessions/Retail*
Runway/Ramp | *Hangars* | *Passenger Transport* | *Ground Support* | *Fuel Storage* | *Baggage*

2021 Editorial Calendar

Issue	Bonus Distribution	Close Date
January/February	ACC/AAAE Airport Planning Design Symposium, SLC, March 3-5	12/18/20
March/April	Buffalo Snow Symposium, BUF, April 16-21, 2021; Airports@Work, FLL, April 19-22	2/19/21
May/June	AAAE Annual, LAS, May 23-26	4/16/21
July/August	Florida Airports Conference, JAX, July 18-20	6/4/21
September	Runway & Ramp Special Edition; SWIFT, YWG, Sept. 26-29	7/23/21
October	ACI-NA Annual, YYZ, Oct. 24-26. IES, TBD, inter airport, MUC, Nov. 9-12	9/10/21
Nov/Dec	ACC Annual, Napa, Nov. 8-10	10/8/21

2021 Advertising

2021 RATES

Net Full Color Rates

(all rates include eMagazine placement)

Full Page	$5,025
Two-Thirds	$3,800
Half Page	$3,080
Third Page	$2,475
Quarter Page	$1,900
Sixth Page	$1,100
Special Positions	To guarantee a special position add 15% to rate.
Cover Positions	add 20% to rate.

PARTNERS' PROGRAM

Run in all 7 issues and receive:

- Rate protection
- One double-up ad per year

INSERTS/OUTSERTS

Half Page False Cover	$4,500
1 Page (2 sides)	$5,000
2 Pages (4 sides)	$6,500
3 Pages (6 sides)	$8,000
4 and 8 Page Inserts available	Call for rates

AD SIZES

Dimensions	Width x Height
Magazine Trim Size	8.375" x 10.875"
Full Page Bleed	8.625" x 11.125"
Full Page Live	7.375" x 9.875"
Full Page Trim	8.375" x 10.875"
2/3 Vertical	4.625" x 9.875"
1/2 Standard	4.625" x 7.188"
1/2 Horizontal	8.125" x 5.375"
1/3 Vertical	2.25" x 9.875"
1/3 Standard	4.625" x 4.625"
1/4 Standard	3.375" x 4.875"
1/6 Standard	2.375" x 4"

CANCELLATION POLICY

Cancellations will not be accepted by the Publisher after the close date.

RATE PROTECTIVE CLAUSE

If and when new rates are announced, advertisers will be protected throughout the duration of their annual schedules, provided the schedule is placed prior to the announcement.

FTP INSTRUCTIONS

Server: ftp.airportimprovement.com
Port: 21
Username: airportupload@airportimprovement.com
Password: Airport1!

TERMS & CONDITIONS

30 days from the invoice date. Production charges may be billed at a rate of $100 per hour if applicable. Interest will be charged if invoice is not paid within 30 days. Changes and cancellations must be made in writing. Changes and cancellations must be made in writing and received prior to issue close date. Publisher is not responsible for either the content or the opinions expressed within paid advertisements, or for any errors they may contain. Publisher reserves the right to reject any advertisement deemed unsuitable for publication. Rates shown are net. Recognized advertising agencies must add commission to billing or bill clients directly.

GENERAL REQUIREMENTS

All banners should be sized at 72 dpi resolution.

We reserve the right to reject advertising based on content, user impact, distraction factors and other situations as determined by the staff.

All banners that are submitted to *AIRPORT IMPROVEMENT* via e-mail must be uncompressed (not zipped).

ALT (Mouseover) text should be no greater than 10 words.

Advertisers must understand that all banners, when clicked, will launch the linked site in a new browser window.

Banners must be designed so that interaction with the users only takes place if the user places the mouse within the advertisement area.

Advertisers may make banner or other creative changes or additions every two weeks, although we prefer advertisers to send us multiple banners at one time and have them scheduled any way you would like throughout your campaign.

Flash banners must be Netscape/IE 4 + compliant as well as published out as Flash version 5.00. All SWF files should include embedded clickthrough URLs.

Each animated GIF frame must display for at least 2 seconds.

AirportImprovement.com

The ONLY industry website dedicated to airport projects

We've got the traffic you're looking for

Monthly Website Visits: 60,137

Pageviews: 380,703

(per publisher's website statistics July 2020)

Connect with us!

Social following: 2,600 and climbing, with thousands of impressions every month

Web and Email

Make a big impression with our industry-leading website which contains current and 935 archived stories…all searchable by keyword or airport code.

- E-mail Blasts
- Custom Online Surveys
- E-Newsletter Sponsorship
- E-Newsletter Banners

LEAD GENERATION PROGRAMS

Whitepaper download channel: Supply an industry white paper (optionally, have us author one for you) and we will turn it into qualified leads. $50/lead. Print advertiser $30/lead. Minimum commitment of 50 leads.

CUSTOM PUBLISHING

Create your own magazine. We'll partner with you.

ADVERTISING SPECIFICATIONS

We accept ads in GIF, JPEG, animated GIF, HTML5 and Flash (SWF) formats. Other formats must be tested and approved on a case-by-case basis.

BANNER ADVERTISING

Ad Unit	Dimensions Pixels (W x H)	Locations	Maximum File Size	Rich Media	Monthly Rate
Leaderboard	728 x 90	ROS	45K	Yes	$1,500. Print Advertiser $750
Rectangular	300 x 250	ROS	45K	Yes	$1,100. Print Advertiser $550
Skyscraper	120 x 600	ROS	45K	Yes	$1,100. Print Advertiser $550

OTHER OPPORTUNITIES

Products	Size	Rate
Video Network	N/A	$1,000 per month
E-Mail Blast	N/A	$1,600 per e-mail
Video Streaming Ads	480 x 300 pixels	$1,500 per month
Eyeblaster Floating Ads		$500 per month
E-Newsletter Sponsor	728 x 90 pixels	$1,500 per issue Print Advertiser $750

How does an airport project become a story?

Newark Liberty International Airport

GROUND SUPPORT EWR 45

Ground Power Upgrades in the Works at Newark Int'l

BY JODI RICHARDS

FACTS&FIGURES

Project: Point-of-use Ground Power

Location: Newark (NJ) Liberty Int'l Airport

Terminal: C

Project Owner: United Airlines

Scope: 54 of 67 total gates completed

Ground Power Units: ITW GSE 2400

Timeline: Phased delivery & installation, beginning in 2015

Of Note: Electrical infrastructure needed to be upgraded to facilitate transition from centralized ground power system

Change is happening on the tarmac at Newark Liberty International Airport (EWR) as United Airlines decentralizes its aging ground power systems in favor of new point-of-use ground power units (GPUs). The move is designed to improve the efficiency of ramp operations by providing more flexibility, reliability and redundancy.

"The existing centralized systems weren't working well for us, and we felt the point-of-use was a much better support structure," says Andrew Alexander, the airline's senior manager of facilities engineering and fleet strategy.

The transition is occurring in concourses 1 and 2 of Terminal C, where most of United's EWR flights arrive/depart. Overall, the New Jersey airport is one of the carrier's most compact hub operations. COVID-19 dip aside, it's also usually very busy. Last year, the airport served more than 46 million total passengers, breaking its previous record.

"It's a very small area and there's a lot of activity in the region with Newark, JFK and LaGuardia," explains Alexander. "We pack them in there from early morning to late at night."

ANDREW ALEXANDER

Ongoing fleet changes and updates prompted the legacy carrier to rethink its ground power arrangements at EWR. The addition of Boeing 787s, which require a specific type of ground power, was a particular driver; but United also needed a system that could serve its diverse fleet, which ranges from Embraer 145s up to Boeing 787s.

Alexander notes that flexibility is critical at all the airports United serves, not just EWR. As a result, he and his team work closely with the carrier's corporate real estate group to determine what type of ground power is needed at various locations.

Central System Challenges

United initially explored the possibility of installing a new centralized system at EWR, but that strategy did not prove to be cost effective. "It would require a great deal of upgrading," Alexander explains. "And by the time you upgrade it, the aircraft fleet may change again, and then the system is obsolete."

One of the major challenges with centralized power is that if the system goes down, it simultaneously affects multiple gates. At EWR, United would sometimes lose ground power at half of its Terminal C gates. Not surprisingly, redundancy and reliability were huge factors when the project team explored other options. The new ground power arrangement also needed to integrate with the airline's building management system that monitors the equipment.

DORON MILBAUM

Ultimately, United contracted with ITW GSE to deliver and install 44 of the manufacturer's model 2400 GPUs under an initial contract. Doron Milbaum, a regional sales manager for the company, describes the 400 Hz point-of-use units as compact, user-friendly, reliable and robust. He also highlights their "plug-and-play" ease and notes that airport/airline personnel can update the system or add new capabilities by transferring the company's latest software from a USB stick or flash drive.

Users can also gather service log files and maintenance data for analysis to ensure efficient operation and effective asset management. ITW GSE units include access portals that allow operators to monitor the GPUs from a control center, notes Milbaum.

In addition, he notes that the 2400 model is smaller than conventional GPUs, consumes less power because it only draws what each specific aircraft needs, and includes an intuitive user interface. Despite such features, Milbaum considers 99% reliability the unit's biggest advantage.

Infrastructure Upgrades

The transition from centralized ground power to new point-of-use units began in late 2015 and is expected to continue to year 2021. Due to the age of the existing facilities (about 30 years), electrical infrastructure upgrades were needed to support the new point-of-use equipment. "There's a lot behind it," Alexander comments. "In most cases, the infrastructure costs more than the hardware you're buying."

Phasing the infrastructure upgrades and deployment of new GPUs was especially critical before the current pandemic dramatically slowed flight activity at the busy airport. Milbaum considers the entire effort a partnership with the Port Authority of New York and New Jersey, which owns and operates EWR.

The majority of work is scheduled overnight to minimize the impact on ramp traffic and aircraft operations. Occasionally,

September 2020 AirportImprovement.com

AirportImprovement.com September 2020

Nominations for stories can be made on **www.airportimprovement.com/nominations**. Stories are centered on airport projects, not people, companies or products; although each is a supporting element of any project/story.

Nominations may be submitted by anyone. The following criteria are needed to pursue any story:

- The project is complete
- All major parties involved are willing to discuss the project
- Great photography is available

Want to sell to airports? Join our team.

Paul Bowers
Publisher 262.510.7832
paulbowers@airportimprovement.com

Adrienne Gibson
National Sales Director 262.844.4368
adriennegibson@airportimprovement.com

Vicki Jensen
National Sales Director 414-331-9768
vickijensen@airportimprovement.com

Rebecca Douglas
Editorial Consultant
rebeccadouglas@airportimprovement.com

Kristin Shaw
Social Media Director
kristinshaw@airportimprovement.com

Lisa Monday
Circulation Director | COO
lisamonday@airportimprovement.com

Becker 505, LLC
Creative Direction | Production Services
info@becker505.com

Matt Tews *Webmaster*
matttews@airportimprovement.com

AIRPORTIMPROVEMENT.COM

@AirportImprovementmagazine @airportimprove @AirportImprovement @airportimprovementmagazine