

State-of-the-Art Aircraft Gates Unveiled at New Tom Bradley International Terminal

Brandon Tseng



New-generation aircraft (A-380 and B-747-8) parked at two of the three new gates of the New Tom Bradley International Terminal jet bridges that use state-of-the-art, laser-based, visual-guidance-docking systems. These systems automate docking operations and improve efficiency when loading/unloading aircraft.

Travelers bound for Tokyo on Singapore Airlines flight SQ 12 celebrated with Los Angeles Mayor Antonio R. Villaraigosa, airport officials and Singapore Airlines executives to unveil three gates and the north concourse of the New Tom Bradley International Terminal (New TBIT) at LAX on March 6. Gates 130, 132, and 134 are the first of 18 to be built at New TBIT.

Nine of the 18 gates – including two of the three unveiled -- can accommodate the larger, new-generation aircraft, such as the Boeing 747-8 Intercontinental and Airbus A-380 super jumbo jets. The new gates will use state-of-the-art, laser-based, visual-guidance-docking systems. Computerized passenger boarding bridges automate the operations between the terminal and aircraft doors. Los Angeles World Airports (LAWA) is installing three passenger boarding bridges at all of the new A-

380-compatible gates, which will greatly shorten the amount of time to load and unload an aircraft.

For the comfort and convenience of all passengers, the majority of seats at the boarding gates have electrical outlets and USB ports for charging personal electronic equipment, such as cell phones, tablets, and laptops. Free Wi-Fi service – already accessible throughout LAX terminals -- also is available. These features are part of the overall goal of the LAX Modernization Program to dramatically improve the passenger experience with a building designed to capture the spirit of Los Angeles, while establishing new levels of passenger convenience and comfort.

More than 30 airlines operate at the Bradley Terminal, using more than 20 different types of aircraft. All airline gate personnel have to be trained and

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New Tom Bradley International Terminal Receives Real Estate Award for Best Public Project



Walsh-Austin Joint Venture Project Principal Joe Thompson and Fentress Project Architect Chris Rooney receive the Los Angeles Business Journal's 2013 Commercial Real Estate Award for Best Public Project.

The New Tom Bradley International Terminal was recently awarded the Los Angeles Business Journal's Commercial Real Estate Award for Best Public Project of 2013. It is the latest industry award for the LAX Modernization. This recent award was presented to representatives from contractor Walsh-Austin Joint Venture and architect Fentress Architects. Judging criteria was based on:

- **Size and scale of the project:** New TBIT will be 1,179,000 useable square feet, span nearly four football fields, and the L.A. Staples Center can easily fit inside.
- **Architecture and design:** In taking cues from the surrounding environment, Fentress Architects designed and modeled a

building that mimics the rolling waves of the Pacific Ocean.

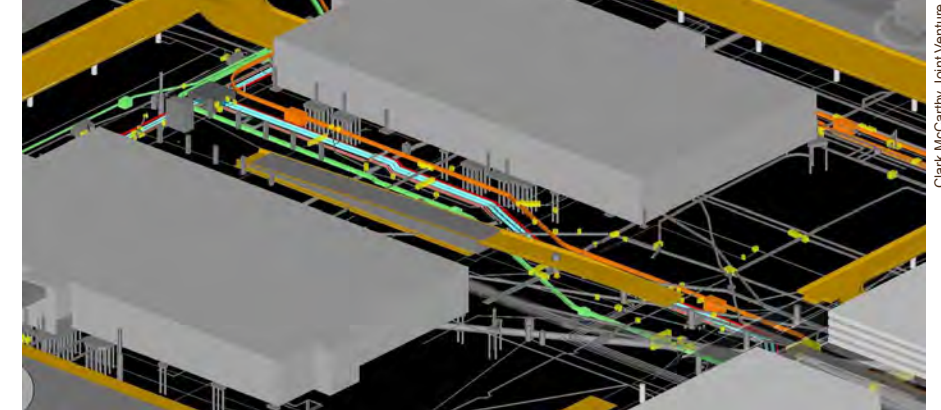
- **Challenges that had to be overcome:** All construction occurs while maintaining full, uninterrupted operations at LAX, which included moving taxi ways and trenching under the existing TBIT facility
- **Environmental impact:** Measure to minimize environmental impacts included recycling of construction materials, minimizing amount of energy used in construction, optimizing energy-efficiency, dust mitigation, and an onsite concrete plant to reduce truck traffic in surrounding communities
- **Special processes:** New TBIT is being built with the use of the most modern computer design techniques, 3-D modeling, and construction practices. The architecture and construction of New TBIT are designed to achieve a LEED (Leadership in Energy and Environmental Design) Silver certification from the U.S. Green Building Council.

Beneath the Surface: The Complex World of Utility Cabling Occuring Below the Replacement Central Utility Plant

Like an iceberg, the \$438-million Central Utility Plant (CUP) Replacement Project has many more hidden components beneath the surface. The most visible aspect of construction to travelers is the plant building itself and the cooling tower. Yet the bulk of the work is taking place under the U-shaped roadways of the Central Terminal Area. Most motorists coming to and from LAX are unaware that an army of construction workers is underneath them taking, part in one of the most complex projects of the LAX Modernization.

In order to connect the Replacement CUP to all nine airline terminals, including the New TBIT, the contractor must install 100 miles of wire/cable, 25 miles of duct bank electrical conduits, and 35 miles of electrical conduits. Investigation of existing utilities and piping occurred before any major excavation was performed. This surgical digging is called "potholing." Once the locations of utilities are determined, they are mapped using Building Information Modeling (BIM) a process, which involves generating and managing of digital representations of physical and functional characteristics of a facility.

This innovative process is helping LAX save time and effort in the installation of new pipes and



conduits. The use of BIM also greatly limits the impact on motor and pedestrian traffic in the CTA and minimizes the risk of damaging existing lines that may interrupt services to the terminals. The new CUP will provide cooling and heating for all LAX terminals, enhancing passenger comfort while maximizing energy efficiency. Phase 1 of the Central Utility Plant Replacement facility, which includes the central plant and its major systems plus all of the site distribution piping and electricity distribution, becomes operational Fall 2013. The entire project is scheduled to be completed summer 2014.

A digital image of Parking Structures 3 and 4 in the LAX Central Terminal Area (CTA) shows the many layers of electrical conduit and water pipes below the surface of the CTA. The small yellow squares indicate areas where the contractor dug into the roadways to investigate the location of existing utilities

LANeXt Newsletter Reader Survey Results

By Sandra Garcia
The LANExt™ Newsletter survey results are now in and we'd like to thank everyone who took the time to provide us with valuable information on how we can improve. The majority of the 79 respondents requested to go digital with 77.2% of readers indicating a preference for receiving information regarding LAX construction/modernization projects via e-newsletter; while 22.8% stated that a hard-copy newsletter would still be your preferred method. Others preferred new media with 20.3% asking that the newsletter be linked to social media. For sources of information on the LAX Modern-

ization, 73.4% used the LAX website and 21.5% obtained their information from the news media. Another 11.4% learn about the various projects through word of mouth, and 12.7% use the newsletter as their sole source for information on construction.

Because our newsletter is issued quarterly, we asked readers if they preferred to receive news/updates on a weekly, quarterly or monthly basis. About 45.6% prefer monthly, 41.8% prefer weekly, and 20.3% said they prefer quarterly. With respect to content, 100% of survey participants stated that the newsletter was just the right

length. A great majority, 87.3% said they would like to see more feature articles, 75.9% want more status reports, and 44.3% want more people profiles. For the mechanically/technically inclined, 38% said they'd like to see more in-depth technical information and 31.6% would like to see traffic alerts.

Readers also asked for more photos or behind-the-scenes images/content. "A picture is worth a thousand words...more and better photos are always appreciated," said one survey taker. Some suggested making the newsletter appear

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New Inter-Terminal Connector Facility To Greatly Improve Passenger Flow and Convenience

The Los Angeles Board of Airport Commissioners recently approved construction of a connector building between the Tom Bradley International Terminal and Terminal 4. The nearly \$147.5-million facility will enhance security and, save time, facilitate passenger connections between domestic and international flights. Currently, domestic passengers must exit their terminals and undergo re-screening at TBIT to catch a connecting international flight.

The connector will provide a secure connection between the international terminal and Terminals 4, 5, 6, 7 and 8 on the south side of the LAX Central Terminal Area. Other key components include:

- A new behind-the-scenes, In-Line Checked-Baggage-Inspection System
- New security-screening checkpoints for arriving international passengers who have cleared customs and immigration, and need to catch connecting flights at other terminals
- A new passenger bus port for two-way travel between TBIT and Terminals 5 through 8
- A new, open-seating plaza on the Upper/Departures Level. The connector is to be completed by the end of 2015, and is the latest component of the LAX Modernization.



The recently approved Terminal 4/TBIT Connector facility will improve passenger convenience via a secure corridor connecting to Terminals 4 through 8 on the south side of the LAX Central Terminal Area.

State-of-the-Art Aircraft Gates Unveiled at New Tom Bradley International Terminal (continued from page 1)

Tim Inhe



Gates 134 shown, 132 and 130 are now operational at the New Tom Bradley International Terminal. Larger waiting areas provide extensive seating with plenty of charging plugs for personal electronics. The elevated walkway provides views of Los Angeles for arriving international passengers headed to federal customs and immigrations areas.

certified to use the new passenger boarding bridges with their particular types of aircraft. In 2012, LAX served nearly 63.7 million passengers, of which nearly 17.2 million (or 27 percent) were international travelers. The Tom Bradley International Terminal served 8.6 million (or 50 percent) of LAX's total international passengers.

Schedules vary, but on average, 12 to 16 arrivals and departures currently use these new gates each day. Currently five international airlines (Air France, China Southern, Korean, Qantas and Singapore) provide daily A-380 service and Lufthansa Airlines provides Boeing 747-8 daily service. More airlines are scheduled to bring service on the larger, new-generation

aircraft, making LAX the U.S. West Coast's leading airport with such service.

Completion of the three gates and the interior of the north concourse represent a major milestone in the \$1.5-billion New TBIT Project, and the opening of the project's first phase this summer. Phase 1 includes a Great Hall with 150,000 square feet of premium dining and shopping, airline lounges, and other passenger amenities including a play area for children. It also includes eight new boarding gates on the west side of the terminal. Phase 2, which includes the gates on the east side of the terminal and expanded areas for federal passenger security screening and customs and immigration processing, is scheduled to be completed in 2014.

The New Tom Bradley International Terminal Project is the largest public works project in the City's history and is creating 4,000 construction-related jobs during its four-year project schedule and is expected to create thousands of permanent jobs upon completion. Airport officials estimate that 90 percent of the construction workforce is from the Southern California region, and nearly 40 percent of the workers are residents of the City of Los Angeles and other communities near LAX.

Funding for the project comes from LAX's operating revenues, fees from airlines, passenger facility charges, and airport revenue bond proceeds. No money from the City's general fund is being used.

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LAneXt Newsletter Reader Survey Results (continued from page 2)

in HTML form rather than a downloadable PDF. Others suggested having more giveaways as a fun way to engage readers/participants.

We are also happy to announce that 74.7% of the survey takers asked to be added to our newsletter

subscription list, and we have done our utmost to send out the complimentary luggage tags. If you have not received yours, please send an e-mail to la-next@lawa. Thank you for all your feedback and we will work on meeting these requests and changes as best we can.