

civil + structural ENGINEER

December 2015

Sustainable bus facility earns honors

Los Angeles — The South Bay Bus Maintenance Facility in Chula Vista, Calif., received a distinguished Honor Award from the American Council of Engineering Companies of California's (ACEC-CA) Engineering Excellence Awards program in the Building/Technology Systems category. STV, a part of the STV/Whiting-Turner Contracting Company design-build team, provided architectural and engineering design services for the newly expanded bus maintenance facility which is used by the San Diego Metropolitan Transportation System (MTS) and owned by the San Diego Association of Governments (SANDAG).



Receipt of the Honor Award qualifies the project for ACEC-CA's highest honor, the Golden State Award, which will be announced in January, as well as ACEC National's 2016 Engineering Excellence Awards.

"We are proud of this design, which integrates into the surrounding community and features a number of sustainable elements that are unique to a bus maintenance facility," said Mark Peterson, AIA, STV vice president and project manager. "This initiative was only possible due to the collaborative efforts of SANDAG, MTS, Whiting-Turner and all of the other subconsultants and stakeholders involved in the design and construction process."

As part of this \$50 million program, a new 49,000-square-foot high-bay maintenance facility, a 12,000-square-foot operations and administration building, and a two-bay bus wash building were added to the existing facility complex.

The expanded facility also allows MTS to meet rising demand for its bus service, which has recently reached record highs for ridership. The facility now houses 250 buses, up from 170 prior to its expansion.

During the design phase, STV implemented a virtual desktop infrastructure system – a private cloud that allows project team members from different offices and organizations to work on the same building information modeling (BIM) files and other data in real-time. All of the project's drawings were centrally located and could be easily accessed by the firm's architects and engineers, as well as the contractor and other outside subconsultants and subcontractors who helped support the maintenance facility.

The facility earned LEED Silver certification. The LEED design strategy included natural daylighting, photovoltaic electricity generation, and a high-performance building envelope. To meet local water discharge standards, a complex bus washer with a highly efficient water reclamation system was designed and built. The bus wash exceeded expectations by discharging less water than the previous system, despite the fact that it services three times as many vehicles.