

# CST COVERS SOLUTIONS

## Water Reservoir Cover for Laguna Beach, CA

by CST Industries, Inc.

**Gardena, CA — CST Covers has completed the third in a series of large water reservoir cover replacements in southern California with the erection of a 162' x 262' column-supported CST Covers Aluminum Roof.**



This most recent roof was built over an existing potable water reservoir at the Laguna Beach County Water District, a nonprofit, local government agency that provides retail water service to 25,000 people in an 8.5 square-mile area.

CST Covers is the world's largest Aluminum dome and cover system builder.

The CST cover at Laguna replaced a floating liner/cover system that had reached the end of its effectiveness after 15 years in service. The new cover is an all-aluminum "strut and panel" fixed cover system supported by 36 stainless steel interior columns (provided by CST Covers). The cover's low profile — a rise of only eight feet at its highest point — adds to the aesthetic aspect of the cover and helps it to blend in with its surroundings.

The aluminum cover system provides Laguna Beach Water with

a maintenance-free, long-lasting (minimum 50-year design life), secure, and environmentally friendly fixed cover to protect its valuable potable water. Not only can the aluminum cover system be recycled after its service life, but now more than 50% of the aluminum used in these cover systems is made of recycled aluminum.

The light weight of the all-aluminum construction combined with CST Covers' engineering and design means a large reservoir can be securely covered in a low-profile manner without intruding on the neighborhood,

CST Covers' contract was directly with the Laguna Beach Water District. In addition to the design, fabrication and erection of the cover, the contract also included the design and construction of the new concrete footings and shear walls required to support the cover.

CST Covers subcontracted this work out to a local engineering company and a construction company. The reservoir as a whole was updated for current CBC seismic requirements during the design and construction phase.

A common problem facing cities across the U.S. is the deterioration of water and wastewater infrastructure.

CST covers reservoirs and tanks of virtually any size or shape cost-effectively. Each cover system is custom designed for its specific location.

It was extremely important for Laguna Beach Water to minimize the amount of time the reservoir was out of service. Construction of the footings and shear walls started in November 2009 and the roof completion ended in March 2010.

CST Covers' proven erection method and precise prefabrication of all parts insured that the reservoir would be out of service for a minimal amount of time. The Laguna Beach roof was completed in a quick 10 weeks with a crew of only 6-8 ironworkers.

CST Covers' experience is not limited to the water/wastewater industry. The company's reputation extends to other industrial applications such as bulk storage and petroleum storage. Domes and roof systems for architectural applications are in place as sports arenas, cruise terminals, planetariums, churches, and more. CST Covers has been building aluminum domes and other structures for more than 40 years and has more than 16,000 installations throughout the world.

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