



CLIENT

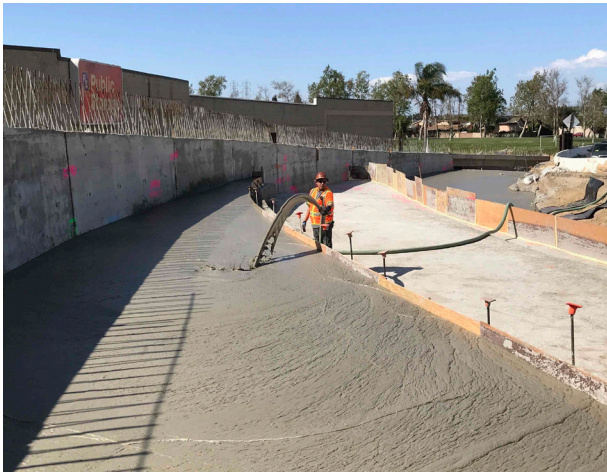
OHL USA

COMPLETION DATE

2021

CATEGORIES

Flowable Fills, Load Reduction, Precast Panels w/ LCC & Value Engineer



ABOUT THE PROJECT

The Orange County Transportation Authority (OCTA), in cooperation with the California Department of Transportation (Caltrans), is widening the I-405 freeway between the SR-73 freeway in Costa Mesa and the I-605 freeway near Long Beach. The roadway pavement design standards being implemented would help produce high-quality pavement. Two new lanes are being created in each direction, with the two inner lanes becoming Express Lanes. The ultimate goal is to provide shorter commute times and improve traffic congestion in these areas.

Project Spotlights: I-405 Improvements



THE SOLUTION

Cell-Crete has been subcontracted to fill approximately 52 retaining walls along the I-405, including sections for on- and off-ramps. Lightweight cellular concrete (LCC) is much lighter than typical soil backfill, so this material was chosen to help reduce or eliminate the anticipated settlement of the large fill areas, especially underneath the roadway approaching new bridges.

Once the area was excavated and cleaned up, we were able to start pumping and pouring the cellular concrete material. These are being done in 3' lifts, with the height of the walls being about 20'-30' high and approximately 525' from wall to wall with a volume of about 200,000 cubic yards (CY) of the material in total. The density of the cellular concrete is Class II material with the last two feet being Class IV. Lanes will be extended (laterally) about 30'-40' and ultimately add an additional two lanes (one on each side) to create a total of 6 lanes to help meet traffic demands.