

Soil Mixing for Very Large Shafts In Dune Sands

The under-construction State Route 4 Interchange Improvement Project near San Francisco, Calif., will improve traffic flow through Contra Costa County's major transportation corridor. Vital to the project is the construction of three new fly-over structures.

Malcolm, under contract with RGW, is currently helping the Contra Costa Transportation Authority (CCTA) in its freeway widening effort by installing a series of 8-ft and 13-ft-dia, over 110-ft-deep drilled shafts that will serve as the foundation for the fly-over structures. A few of the foundation shafts are precariously close to active traffic requiring complex project coordination with the CCTA.

Before shaft drilling could commence, Malcolm mobilized a 300-ton Liebherr Crane to install the large rebar cages and corrugated metal pipe (CMP) casings



Crews use a Hain Crane Mount on a Liebherr HS 895 Crane to drill 13-ft-dia foundation shafts for a fly-over structure.

to a depth of 60 ft—an impressive sight for commuters. The location of all three bridge foundations involves working with very dry and loose overburden material and the implementation of a uniquely designed 15-ft-dia support ring to stabilize the 13-ft-dia drilled foundation shafts. In addition, single point soil mixing to a depth of 40 ft was used to stabilize dune sand material and

minimize the potential for catastrophic ground failure close to active traffic.

“The SR4 widening project is not a typical project and requires complex solutions in respect to safety and ground control,” comments David Walker, Malcolm's project manager.

The project is expected to be finished and operational by either late 2015 or early 2016. ■

PIPEPLUS



CONCEPT, MEET REALITY.

Our polyethylene (HDPE) craftsmen can turn even the most complex ideas, drawings and specs into efficient, operational piping systems. We provide engineers and design/build contractors with quality, industry-leading customized fabrication across many applications – delivering complete systems to the field that require fewer welds, saving time and budget. Incorporate ISCO's creative approach to HDPE fabrication into your planning, as an integral part of our Total Piping Solutions.

More at www.isco-pipe.com

Make the call.
1-800-345-ISCO

ISO 9001:2008-certified quality management system



N-3822



N-3680

ISCO
INDUSTRIES
Coming through.