Reference Details:

Owner Californian Transportation Department, District No. 8, CA, USA +++ **General Contractor** JV Washington Group / Obayashi, Highland, CA, USA +++ **Sub-Contractor** Drill Tech Drilling & Shoring, CA, USA

DSI Unit DSI USA, BU Post-Tensioning, Long Beach, USA; DSI USA, BU Geotechnics, USA
DSI Scope Supply and installation of 1,300 tons of DYWIDAG Strand Tendons, 320 pcs. 27x0.6" tendons type MA, supply of permanent and temporary DYWIDAG Soil Nails, rock bolts and 182 pcs. 3x0.6" double-corrosion protected tie backs

Interchange secured with DYWIDAG Strand Post-Tensioning Systems

Rebuilding the interchange of I 215 / SR 60 / SR 91 in Riverside, CA, USA

Three major freeways meet in Riverside, California east of Los Angeles. Interstate 215 serves as a section of highway 15 on the north-south route as the eastern bypass of Los Angeles, whereas state routes 60 and 91 connect the residential areas in the east of Los Angeles with the city center and the northern quarters.

Traffic on these three freeways has significantly increased in the past 20 years. To facilitate the smooth flow of increased traffic in the future, the Californian Transportation Department decided to significantly expand the interchange in Riverside.

This complex major project, which involved working around the clock for nearly 4 years while maintaining high traffic flows, mainly involved adding HOV (high occupancy vehicle) lanes - lanes that may only be used by vehicles with at least two passengers. In addition, various approach ramps and bridges were rebuilt.

Widening the existing freeways required the construction of retaining walls and noise abatement walls at certain locations. To anchor them safely, DYWIDAG Soil Nails, rock bolts and double-corrosion protected tie backs were delivered just in time by DSI USA from their nearby plant in Long Beach, CA.

The ramp and bridge structures are a combination of cast-in-place and precast concrete construction, representing 60,000 m³ of concrete, 10,000 tons of rebar and 4,100 m of precast girders. Since the traffic interchange is located near the San Andreas fault and hence in a seismic zone, the owner attached great importance to the ramps' stability. A total of 29 individual bridges with span lengths of up to 300 m were prestressed using DYWIDAG Strand Post-Tensioning Systems. DSI supplied, installed, stressed and grouted the entire post-tensioning systems.

A major structural feature of this project are two connector ramps built with concrete cast-inplace on pipe false work rising above the urban surroundings. The upper north-west connector, over 1.6 km in length and 30 m tall, consists of 27 spans. The south-east connector of similar construction is 17 spans, with five frames at 1,060 m built under the north-west connector. From late 2007 on, traffic is once again to flow smoothly through this much improved interchange in Riverside.

for more information please call: + 49 89 - 30 90 50 - 200 or fax: + 49 89 - 30 90 50 - 252 or e-mail: info@dywidag-systems.com