



**Tensar Case Study** Ref 247

## Road Improvement, Chula Vista, California, USA, 2009



### BENEFITS TO CLIENT

Reduced disruption, excavation, materials and their transportation. Project costs were approximately \$35,000 lower than traditional methods.

### THE PROBLEM

The engineers in the city wanted to improve the roadway while maintaining a relatively shallow base and asphalt pavement section. Improving performance with traditional design methods would have required deeper excavation and the relocation of many existing utility lines.

### THE SOLUTION

A mechanically stabilised layer incorporating Tensar TriAx™ geogrid was built. This comprised 130mm of crushed aggregate sub-base reinforced with a single layer of TriAx™ geogrid.

## PROJECT DESCRIPTION

The City of Chula Vista selected the Tensar solution to improve a section of First Avenue. Kirk Ammerman, the city's Principal Civil Engineer says 'Our older streets have much thinner profiles. To improve their performance, we have to go thicker or find a way to improve the foundation of the pavement.'

The solution chosen used a mechanically stabilised layer which incorporated one layer of TriAx™ geogrid and 130mm of crushed aggregate. This then provided a structural sub-base for 127mm of asphalt upper layers. Maintaining the profile of the road in this way allowed for a reduction in excavations, reduction of 113 truckloads of materials and reduced removal / replacement costs.

"Installation was pretty cut and dry," says Jimenez Construction Vice President Javier Jimenez, Jr. "There were tons of shallow utilities. With deeper excavation, we would have needed to take up 60 percent of the lines and that would have probably doubled our time on the job. With Tensar TriAx™ geogrid, we were able to finish in just a week and a half."



## CONTRACT DETAILS

**Contractor:**

Jimenex Construction Inc

**Client:**

City of Chula Vista Department of Public Works, Engineering Division



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