



PROJECT

Frac Sand & Transload Facility

LOCATION

Okarche, Oklahoma

PRODUCT

Tensar TriAx® TX7 geogrid was used beneath Transload
Tensar TriAx® TX130S was used for rail section

QUANTITY

Tensar TriAx® TX130S 122,457 square yards
Tensar TriAx® TX7 159,220 square yards

ENGINEER

Hinderliter Geotechnical Engineering
Via Rail Engineers

INSTALLATION DATE

September 2017

PROJECT DETAILS

Tensar engineers worked together with the project geotechnical engineer to provide cost effective and structurally competent roadway and rail sections. Aggregate costs were high, and the project had to be constructed quickly.

Transload areas were originally designed with 22 inches of aggregate. By stabilizing the aggregate with TX7 geogrid, the aggregate thickness was reduced to 10 inches without sacrificing performance (traffic capacity, rutting).

Rail areas were originally designed with 12 inches of subballast. By stabilizing the aggregate with TX130S geogrid, the subballast thickness was reduced to 6 inches. The Factor of Safety of the rail design increased from 3.4 to 4.4 with the thinner, geogrid stabilized subballast section. No changes were made to the ballast thickness.

By required less than half the aggregate that was in the original design, the Owner saved in both material costs and time for installation. Tensar was on-site several times during construction and installation proceeded as planned. Owner, engineering firms and contractor all now consider Tensar when looking to add value on new projects.

Okarche, Oklahoma



Tensar International Corporation
2500 Northwinds Parkway
Suite 500
Alpharetta, GA 30009
TensarCorp.com
800-TENSAR-1

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