Engineered Solutions for an Innovative World

Slope Reinforcement application Murrieta, CA location **Enkagrid® PR040** product

THE CHALLENGE

The western property line of the development borders a natural flood channel. This west and northwest facing slope needed to be stable enough to accommodate an articulated concrete mattress erosion control system. The reinforced steepened slope was constructed to maximize the available area within the property.

THE DESIGN

The Enkagrid PRO 40 was needed to reinforce the twenty foot high 1:1 slope. the geogrid was embedded 16' and placed in three foot intervals. The slope needed to be stable enough to withstand the forces generated by the revetment system and the row of homes at the top of the slope. The bottom elevation of the slope was below the natural water level. The Enkagrid PRO 40 was also used to stabilize the bottom of the slope.

CONSTRUCTION

The contractor excavated the keyway and encountered standing water about one foot deep. One option available to the contractor was to construct an elaborate drain system to drain the water away from the entire slope. This option was deemed far too expensive. The contractor, owner and engineer agreed to experiment with the Enkagrid PRO 40 to stabilize the keyway. The contractor rolled out a roll of the Enkagrid and placed an 8" lift of native material on the Enkagrid. The bottom of the keyway solidified and allowed the grading operation to commence.

PERFORMANCE

The foreman for Kemmis Equipment and the Sr. Field Technician for Petra Geotechnical were amazed at how well the Enkagrid PRO 40 performed. They were particularly impressed at how well it worked to stabilize the wet condition of the keyway. The Enkagrid was easily installed and saved the contractor time and the owner money.





JOB OWNER: Sycamore Ranch J.P. Rhoades Development Petra Geotechnical, Inc. CONTRACTOR: Kemmis Equipment Murrieta, CA







Enkagrid PRO was used to stabilize the slope under the water level.





