



CASE STUDY

WHITMORE SLOPE REPAIR

Slope Stabilization
NEVADA CITY, CA

PROJECT SUMMARY

Caltrans needed to stabilize a steep slope that separates I-80 eastbound lanes and the Caltrans Whitmore maintenance station. The existing slope was 70 feet high with a gradient of 1.7 Horizontal: 1 Vertical (1.7H: 1V) and in some locations 1H: 1V.

A 20-foot section at the top of the slope had previously been reinforced with geosynthetic materials. However, due to overland flows, snow loads and poor soil conditions, the unprotected section of the slope developed shallow plane failures that were approximately 3.5 feet deep. Caltrans was concerned that the slope would slough, affecting both I-80 and an access road to the Whitmore Maintenance Station.

ARMORMAX® Engineered Earth Armoring System was used to stabilize the slope. ARMORMAX consists of PYRAMAT® 75 High Performance Turf Reinforcement Mat (HPTRM) secured with Engineered Earth Anchors to lock soil in place and provide immediate and permanent erosion protection for up to 75 years. The EEAs are corrosion resistant and designed to provide resistance to shear and lateral forces. For this project, B2 six foot and nine foot anchors were used.

After installed, the slope was vegetated, and trees were planted within the HPTRM. ARMORMAX is engineered to promote root development, yielding a vegetated solution that aesthetically pleasing and helps improve ground water quality.



PROBLEM

Shallow plane failures on a steep roadway slope threatened I-80 and an access road for a Caltrans maintenance station



SOLUTION

ARMORMAX was selected to stabilize the slope because it provided significant time and cost savings compared to hard armoring solutions

ARMORMAX[®]
Engineered Earth Armoring System

PropexGlobal.com/Armormax

FEATURES & BENEFITS

- Provides permanent erosion protection for up to 75 years
- Withstands hydraulic and non-hydraulic stresses
- Ease of installation reduces time and labor costs
- Reinforces vegetation
- Promotes infiltration of surface water
- Outlasts other slope reinforcement methods yielding significant cost savings
- Highly UV stabilized for applications with little or no vegetation
- Lightweight and easily transported into areas with access challenges



PERFORMANCE

ARMORMAX outlasts other slope reinforcement methods and promotes vegetation for an aesthetically pleasing solution



Propex[®]
GEOSOLUTIONS

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Visit our website for more information, Product Samples, or other inquiries, or call Customer Service at 800 624 1273

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