

Product Evaluation

PRODUCT INFORMATION

PRODUCT NAME: Sierra Slope Soil Retention System **MANUFACTURER:** Tensar, Alpharetta, Georgia, USA
WEBSITE: <https://www.tensarcorp.com/> **SUPPLIER:** Whitecap, Edmonton, AB

DESCRIPTION:

The Sierra Slope Retention System is an alternative to retaining walls for unstable slopes. Its major components are Tensar Uniaxial (UX) Geogrids for primary soil reinforcement, Tensar Biaxial (BX) Geogrids for secondary reinforcement, and Site-Specific Facing forms such as Welded Wire Forms or Strut Indicator Forms. Slopes can be created with or without vegetation.

POTENTIAL USAGE:

The Sierra Slope Retention System is used for highways or any other locations where soil retention systems are required.

DISCLAIMER: The product descriptions and potential usage outlined in this section are based solely on the manufacturer's claims. Transportation and Economic Corridors does not verify or endorse these claims.

ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS COMMENTS

EXPERIENCE

Transportation and Economic Corridors has no experience with this product.

APPLICABLE STANDARDS

Design governed by design criteria in AASHTO Standard Specifications for Highway Bridges and FHWA Mechanically Stabilized Earth Structures and Reinforced Soil Slopes – Design and Construction Guidelines. Alberta Transportation and Economic Corridors Standard Specifications for Bridge Construction Section 25 - Mechanically Stabilized Earth Walls

RECOMMENDATIONS

Sierra Slope Soil Retention System be listed as a Potential Product under Transportation and Economic Corridors Products List, Earth Retaining Systems – Reinforced Soil System (Wall) – Proprietary, based on the information provided. Final acceptance as a proven product will be based on field performance.

RESTRICTIONS ON USE

Caveat:

1. For use on Alberta highway projects, this product must be properly designed for site specific conditions and sealed by a Professional Engineer licensed with APEGA.
2. Any application involving extensible reinforcement in MSE bridge abutments or wing walls must meet the requirements specified in Section 25 (Mechanically Stabilized Earth Walls) of the Alberta Transportation and Economic Corridors Standard Specifications for Bridge Construction.
3. The maximum allowable design height shall be 5 m.
4. The design must account for exposure to drainage, runoff, and spray containing de-icing salts and chemicals to ensure long-term corrosion resistance.
5. Installation slope angle should be limited to 70 degrees maximum unless separately reviewed/ designed as a retaining wall system.
6. The design life shall be a minimum of 75 years

TRIAL PROJECTS

Rishi Adhikari
cc New Products Evaluation Group – Kristen Tappenden,
Rocky Wang