

Product Evaluation

PRODUCT INFORMATION

PRODUCT NAME: SierraScape Retaining Wall System **MANUFACTURER:** Tensar, Alpharetta, Georgia, USA
WEBSITE: <https://www.tensarcorp.com/> **SUPPLIER:** Whitecap, Edmonton, AB

DESCRIPTION:

The SierraScape Retaining Wall System is a mechanically stabilized earth wall with multiple facing options, including native vegetation and soil-bioengineering, providing natural erosion protection. It can be backfilled with general embankment material or suitable on-site soils. The system uses Tensar Uniaxial (UX) Geogrids for primary reinforcement and SierraScape Wire-Forms for the facing. A Locking Tail Strut connects the geogrid to the basket tail and stiffens the face for proper alignment. A geotextile separation fabric prevents migration between backfill and stone facing. For vegetated faces, Turf Reinforcement Mats (TRMs) may be added for long-term surface protection.

POTENTIAL USAGE:

The SierraScape Retaining Wall 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

SierraScape Retaining Wall 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 9 m.
4. The design shall account for exposure to drainage, runoff, and spray containing de-icing salts and chemicals to ensure long-term corrosion resistance.
5. The design life shall be a minimum of 75 years

TRIAL PROJECTS

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