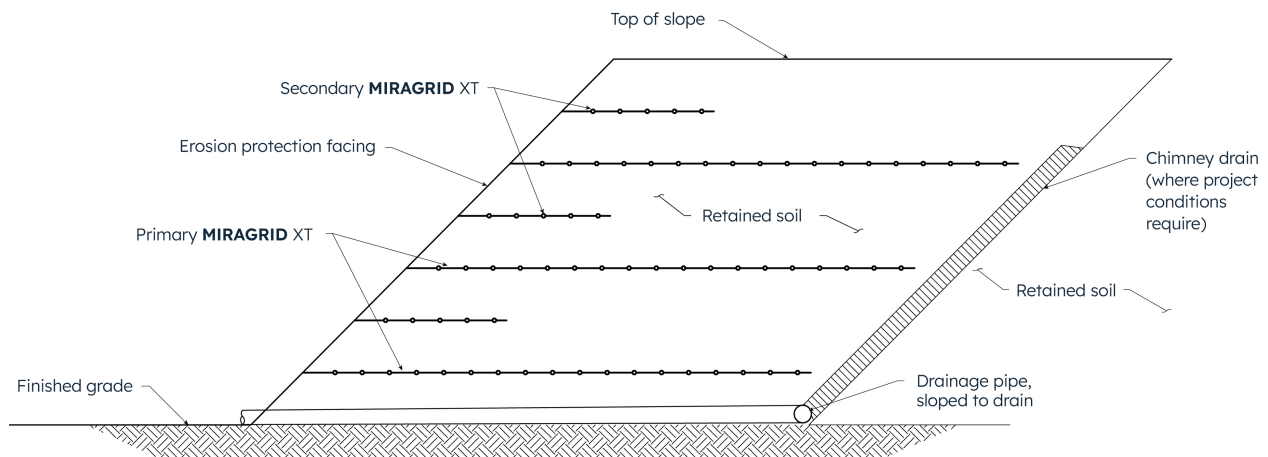
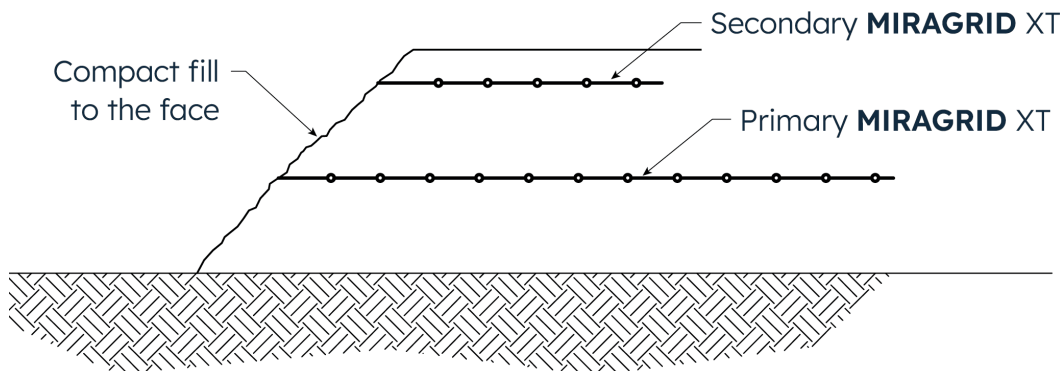


## Reinforced slopes without a geosynthetic wrap face

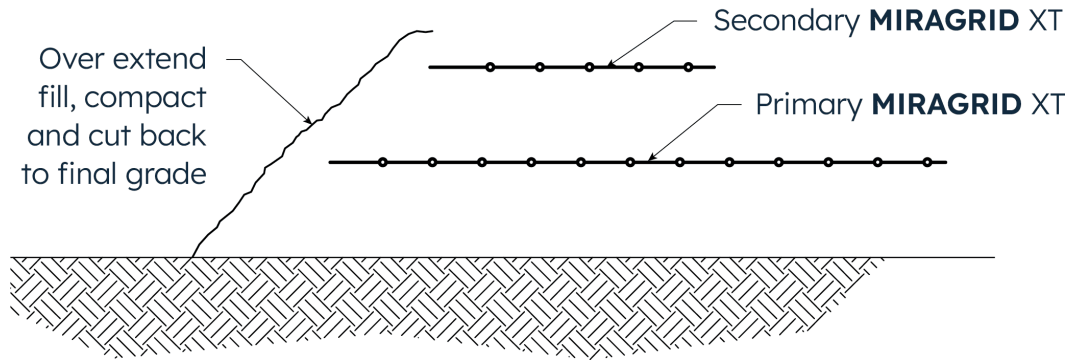
A face wrap is typically unnecessary for slopes that are flatter than 1(H): 1(V), provided that the reinforcement (either secondary or primary) is applied at close vertical intervals (FHWA, 2009b). Under these conditions, the reinforcement may be extended to the slope surface with subsequent installation of erosion protection measures. Alternatively, the slope face may be constructed larger and trimmed back to achieve the desired gradient. It is essential to exercise caution to avoid damaging the reinforcements at the slope face. Figures 2 and 3 illustrate two common methods for shaping the face of a reinforced slope without utilizing a face wrap.



**Figure 1:** Typical Reinforced Soil Slope (RSS) cross section



**Figure 2:** Compact reinforced fill to the finished face

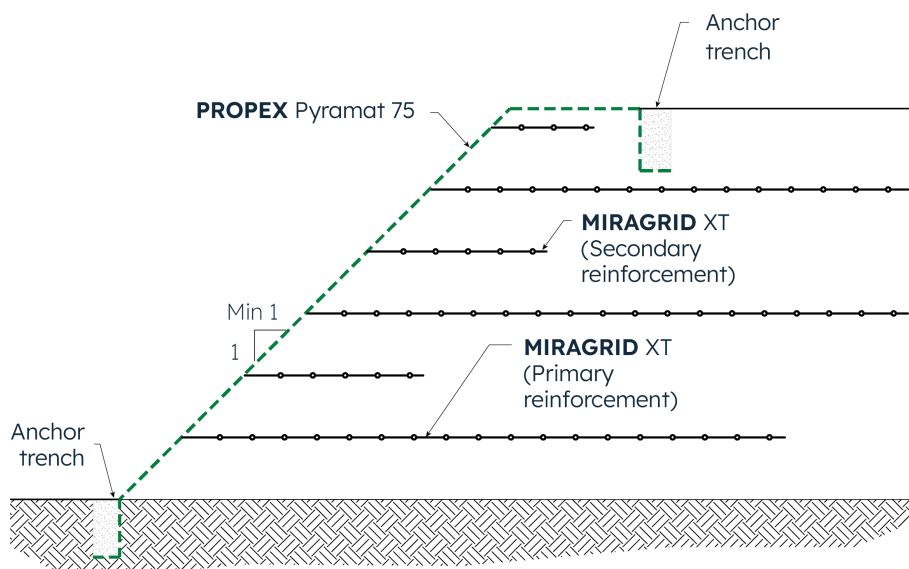


**Figure 3:** Construct reinforced backfill beyond the finished face, compacting lifts and cut back to final grade at end of construction

Reinforced 1(H): 1(V) slopes should be vegetated after construction to prevent erosion. A synthetic erosion control mat, like PROPEX® Pyramat® 75 shown in Figures 4, can be used. This mat has UV stabilization for a design life of up to 75 years.

The erosion control mat (FHWA, 2009b):

- Protects the soil slope face until vegetation is established.
- Decreases runoff velocity for better water absorption, promoting vegetative cover longevity.
- Reinforces the root system of the vegetation.



**Figure 4:** A typical reinforced soil slope with PROPEX Pyramat 75, a high-performance turf reinforcement mat (HPTRM) for UV stable erosion protection

**Notes:**

FHWA. (2009a). Federal Highway Administration FHWA-NHI-10-024 "Design of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes" - Volume I. Washington, D.C.: NHI.