



T-REX Retaining Walls - Interstate 25 Denver, Colorado

The Transportation Expansion Project (T-REX) is an Interstate and Light Rail improvement project being constructed in Denver, Colorado. The Design-Build project will add 19 miles of double-track light rail and 17 miles of one lane of vehicular traffic in both directions. The expansion of the existing interstate corridor required retaining walls to be constructed along a significant portion of the alignment.

Schnabel Foundation Company's involvement in the project was to design and construct a total of 10 permanent soldier beam and lagging tieback walls finished with a 10-inch permanent shotcrete facing. The finished walls amounted to over 82,000 square feet (4000 linear feet).

The walls consisted of single and double tier tieback systems which varied in height from 15 feet up to 28 feet and were designed to take the additional loads of sound walls and crash barriers attached to the top of the walls. In some cases surcharge loads from up to 12-feet sloped backfill were accommodated. The general contractor finished these walls by placing architectural precast panels in front of the tieback walls for aesthetic purposes.

In addition to the tieback walls, Schnabel Foundation Company also installed over 117 permanent tieback anchors for bridge abutments at three locations. The tiebacks were both pressure injected and open hole rock tiebacks and measured up to 85 feet in length.

Owner: Colorado Department of Transportation

General Contractor: Southeast Corridor Constructors (A joint venture between Peter Kiewit and Sons and Parsons Transportation)

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