

Lessons Learned from Retaining Wall Failures

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The Texas Department of Transportation (TxDOT) has traditionally been one of the largest users of retaining walls in the country for transportation facilities. As a result, TxDOT utilizes a variety of retaining wall types that are individually selected based on the different field situations encountered. Some wall types are better suited for fills, while others are better used in cuts or in limited right-of-way situations.

In the last 10 years TxDOT has increased its use of retaining walls. In spite of the increased usage and the diversity of the retaining wall types used, TxDOT has had relatively few retaining wall failures. Those that have occurred are generally categorized into two different types: design deficiencies or omissions and construction/inspection problems. TxDOT has reviewed and analyzed these failures to better understand why they occurred so that possible corrective actions could be taken to prevent the failures from happening again.

This presentation will provide an overview of some of the retaining wall failures that have occurred on TxDOT projects, focusing on why they occurred, the lessons learned from them, and what corrective actions were taken to try to prevent future failures.