

# George Bush Tollway Retaining Walls

The \$1 billion President George Bush Tollway Eastern Extension project consists of 10 miles of six-lane toll road, divided into four sections, in northeast Dallas County, Texas. Kleinfelder was selected as wall engineer for the NTTA to provide a link to all parties involved in the design and construction process.

## PROJECT RESULTS

*The primary benefit of Kleinfelder's retaining wall engineer services to the NTTA is mitigating MSE retaining wall issues and the development of a more seamless design and construction approach. This will result in improved retaining wall performance over the service life of these critical infrastructure elements. Kleinfelder is leading the way in establishing a much improved system for designing MSE retaining walls.*



## CHANGING THE STANDARD PRACTICE

Kleinfelder was faced with coordinating the efforts of multiple contractors and subcontractors in separate locations. The overarching challenge for Kleinfelder and the entire design and construction team was a major shift in "Standards of Practice" with respect to the design and subsequent construction of the retaining walls. This was complicated by the fact that the project had already been designed and construction contracts awarded, so all supporting parties to construction were already under contract.

## INNOVATIVE PROJECT COORDINATION

The project involved Kleinfelder staff from four offices in three states. The team reviewed and approved all aspects of design and construction of the mechanically stabilized earth (MSE) walls, including site specific geotechnical engineering reports and recommendations. Review of plans included identification of conflicts that could affect the MSE wall designs, construction, and/or service performance. The team also facilitated an MSE workshop/seminar for engineers and contractors. The Kleinfelder team utilized innovative project coordination tools, such as a web-based project portal, enabling team members to share information and data. This drove more effective collaboration among the various teams.

### Location:

Garland, Texas

### Owner:

North Texas Tollway Authority (NTTA)

