

STRUCTURES

DIVISION



GEOTECHNICAL CONSTRUCTION SERVICES

Pennsylvania Turnpike Commission A-037.50T001-3-02

Location:

Montgomery & Bucks Counties –
Milepost 37.39 to Milepost 43.33

H&K Company:

Haines & Kibblehouse, Inc.

Client:

Trumbull Corporation



Owner:

Pennsylvania Turnpike Commission

Services Included:

- Soil Nails and Shotcrete
- Micropiles / H-piles & Wood Lagging
- Tiebacks
- Sheet Piles
- Permanent Bridge Bearing Piles
- Permanent Soldier Pile Retaining Wall



Additional Project Features:

- 343 EA (7,810 SF) Soil Nails: T40/20 Hollow Bar
- 6,929 SF of Shotcrete Wall
- 276 EA (11,540 LF) Tieback Anchors: T40/16 & T40/20 Hollow Bar
- 106 EA (3,770 LF) 9.625" O.D. Stage line Shoring Micropiles
- 38 EA (899 LF) HP12x74 Stage line Shoring H-Piles
- 14,377 SF Mixed Hardwood Lagging
- 14,784 SF Sheet Piles: PZC 18 & PZ 27
- 400 EA (15,696 LF) HP12x74 Permanent Bearing Piles
- 42 EA (714 LF) Caissons – 36" Diameter
- 198,320 LB W16x67 Steel Beam Soldier Piles, Galvanized
- 66 EA (3,664 LF) Three Strand Tieback Anchors
- 8,000 Tons – AASHTO #57 Aggregate Backfill

Project Description:

This project was the final section of the Pennsylvania Turnpike Commission's road widening between the Lansdale and Quakertown interchanges. The project was staged construction for the full-depth reconstruction and widening from two lanes to three lanes in each direction. Our scope provided design of all temporary support of excavation, all labor, material, equipment and work necessary to perform the temporary stage line shoring at five mainline bridges, permanent bearing piles at three mainline bridges, in-water coffer dams at one bridge location and the construction of a permanent anchored soldier pile retaining wall with precast lagging. Four different methods of temporary shoring were utilized on this project: Soil Nails and Shotcrete, Micropiles and Wood Lagging, H-piles and Wood Lagging and Sheet piles.