



*Secaucus Transfer station, which opened in September 2003, provides a link to 10 of New Jersey Transit's 11 train lines.*



---

## Secaucus Transfer Station

*Secaucus, NJ*

Modifications to the Northeast Corridor (NEC) were recently completed to accommodate the Secaucus Transfer station, which opened in September 2003. The station serves as a way to link 10 of the New Jersey Transit's 11 train lines.

During construction, the improvements include the widening of approximately 10,000 ft. of the NEC embankment to support additional railroad. The site is located in the Hackensack Meadowlands, the majority of which lies within the town of Secaucus, NJ. Foundation supports for the new rail range from piles to earth fill. To utilize the earth fill, the underlying peat soils needed to be consolidated by the use of preloads and wick drains.

Mueser Rutledge Consulting Engineers (MRCE) was retained by AMTRAK after a section of the preload embankment failed. Our task was to:

- determine the cause of embankment failure
- assess the danger to existing tracks
- determine when construction could resume

In order to provide this information, MRCE examined the failure, and ran a "back-analysis" using conventional slope stability procedures to determine what the shear strength of the underlying peat was at failure, based on the failure geometry observed.

MRCE reviewed and commented on proposals for the continuation of work and monitoring of the embankment. We provided field inspection of fill placement once construction was resumed. The preload embankment was completed successfully, without recurrence of movement, or delays. MRCE also reviewed sheeting and bracing for a separate area of the project site at AMTRAK's request.