

DANBRO CASE HISTORY: HIGHLAND AVENUE SEPTA STATION WILMINGTON LINE PLATFORM REPAIRS PHILADELPHIA, PA



Southeastern Pennsylvania Transportation Authority Serving Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties



## OBJECTIVE:

TO CONSTRUCT A NEW FOUNDATION SYSTEM FOR THE PLATFORM TIMBER BEAMS TO BEAR ON. THE OUTSIDE STEEL COLUMNS ARE SUPPORTED ON SONOTUBES FOUNDATIONS. THEY WERE SETTLING AND CAUSING THE PLATFORM TO FAIL.







## **REPAIR:**

INSTALL CHANCE HELICAL PULLDOWN MICROPILES TO AN ACCEPTABLE BEARING STRATUM. THEN ATTACHED A TIMBER BEAM SEAT BRACKET TO THE PILE. THE BEAM BEARING ON THE PILE WILL SUPPORT A SISTERED BEAM WHICH SUPPORTS THE PLATFORM.

## CHANCE HELICAL PILE:

- # OF PILES = 13
- SS5 WITH 8", 10" & 12"
- 6" PVC CASED GROUT COLUMNS
- DESIGN LOAD = 10 KIPS
- Max Spacing = 10'
- TORQUE REQ'D = 2000 FT-LBS
- LENGTH = 19' 24'

## INSTALLER:

CHUCK LED THE AUDUBON INSTALLATION TEAM AND COMPLETED THE PROJECT IN ONE DAY! THE ISSUES FACED WERE COMPLYING WITH SEPTA AND AMTRAK'S SAFETY TRAINING AND OVER HEAD POWER LINES. ALSO, THE GRADIENT OF THE HILL ADDED A BIT MORE OF A CHALLENGE. CHUCK STATED THAT THE PROJECT OVERALL WAS GREAT SUCCESS AND GAINED AUDUBON EXPERIENCE WORKING NEAR VIBRATION SENSITIVE RAILROAD TRACKS.

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