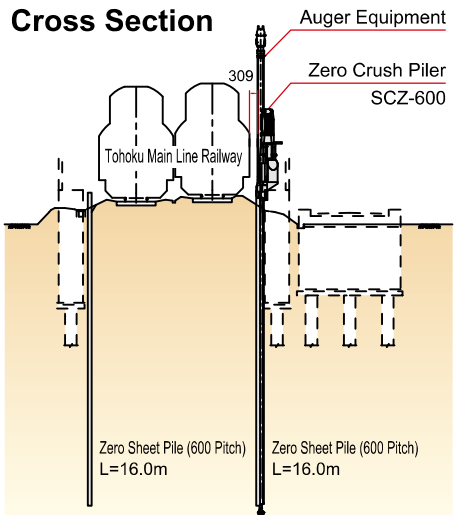


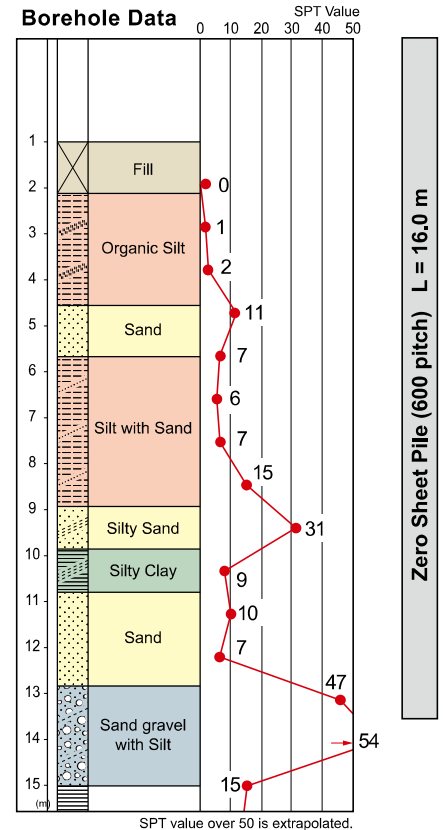
Tohoku Mainline, Aomori



Cross Section



Borehole Data



Type of Project	Renovation of Waterways under-passing Road and Railways
Purpose of Piling	Retaining Wall for Bridge Pier Foundation
Site Location	Yadamae, Aomori-shi, Aomori, Japan
Duration of Work	May to June, 2002
Client	East Japan Railways
Piling Contractor	Giken Seko Co.,Ltd.
Press-in System	Hard Ground Press-in Method (Rail Safe Zero Clearance Method)
Press-in Material	Zero Pile (SM-J Pile) 600mm L=16.0m
Press-in Machinery	Super Crush Zero Piler SCZ-600
Method Description	Penetration into silty sandy Gravel. (Nmax > 50) Gravel (max ϕ 50mm) contained and hume pipe existed. No soil disturbance to railways side (Zero Crush System). Maintaining regular train service during piling operation. Acceptable clearance 309mm.