

CASE STUDY

Residential Development, Whitehall Landing, Whitby



Greenpiling

PROJECT OVERVIEW:

Client:	Harrison Development
Sub-contracted to:	Harrison Construction
Engineer	WSP Group
Sector:	Residential
Value:	£162k
Description of Works:	Installation of piles to form a river edge retaining wall and design, supply and installation of piles for residential development



TECHNICAL DETAILS:

Type of Piling System:	Steel Tubular
Soil Conditions:	Made Ground/Sandy Silt and Weathered Bedrock/Sandstone and Mudstone
Max Load kN:	Up to 950kN
Length of piles:	Up to 23m
Type of testing:	Dynamic
No of piles installed:	363 No.
Diameter of piles:	140, 177 and 244mm.



Green Piling undertook the installation of steel tubular piles to form a river edge retaining wall and design, supply and installation of steel tubular piles to form part of the foundations for a mix of new homes on a derelict waterfront area.

Green Piling proposed an alternative layout for the retaining wall which reduced the weight of steel. In total 50 No. 244mm steel tubular piles were driven up to 20m to support working loads of up to 500kN.

A total of 313 piles were installed for the residential area within 12 days. Steel piles were chosen over other piling methods due to the risk of obstructions, wide variations in pile lengths (minimising waste) with the possibility of very short piles bearing onto rock with little lateral restraint.