



BROXWOOD VIEW, 29 ST. EDMUND'S TERRACE LONDON NW8 7QH
450mm Dia. Secant Pile Retaining Wall
Wall Schedule - 450mm Dia. Male & Female Piles, with Male Piles Spaced @ 600mm c/c
Rev 00

SHEET NO.:
ENQUIRY NO.:
CREATED BY:
DATE:

AR
13/10/2022

of
JOB NO.:
CHECKED BY: AA
DATE:13/10/22

| Wall Section | Wall Type | Piling Technique | Temporary Condition | Permanent Condition | Wall Length | Asumed PPL | Lowest Excavation Level | Design Retained Level for Secant Wall | P/H | Min excavation level inc. Overdig | Retained Height | Male Pile Dia | Female Pile Dia | Maximum Male Pile Spacing c/c | Required Male Pile Toe Level | Required Female Pile Toe Level | No. of Male Piles | Male Bored/ Concrete Length | Female Bored/Concrete Length | Estimated Maximum Pile Lateral Deflection | Anticipated Maximum Pile Lateral Deflection | Steel | Steel Top | Steel Reinforcement Cage Toe Level | Steel Reinforcement Cage Length |
|-----------------|---------------------------------------|-------------------------------------|--|---|-------------|------------|-------------------------|---------------------------------------|------|-----------------------------------|-----------------|---------------|-----------------|-------------------------------|------------------------------|--------------------------------|-------------------|-----------------------------|------------------------------|---|---|--------------------------------------|-----------|------------------------------------|---------------------------------|
| | | | | | (m run) | (mOD) | (mOD) | (mOD) | | (mOD) | (m) | (mm) | (mm) | (mm) | (mOD) | | | (m) | (m) | (mm) | (mm) | | (mOD) | (mOD) | (m) |
| TYPICAL SECTION | 450mm Dia. Perimeter Secant Pile Wall | CFA Drilling with Heavy Duty Augers | Temporarily Restrained with Structural Steel Struts @ Capping Beam Level | Restrained by the Lower Ground Floor Slab and the Ground Floor Slab | 63.0 | 45.500 | 40.050 | 45.500 | 0.65 | 40.150 | 4.85 | 450 | 450 | 600 | 37.500 | 39.650 | 105 | 8.0 | 6.0 | 3 | 5 | 6 - B20 x 8m & B10 links @ 175mm c/c | 45.500 | 37.500 | 8.0 |

63.0
m run

Total

105 Male Piles
106 Female Piles

Design Notes:

RC Capping Beam
It is imperative that the Project Structural Engineer Designs the RC Capping Beam on the Pile Wall to Safely Span over a Minimum Length of 8m under 50 kN/m Service Horizontal Loading in the Proposed Lightwell Areas at Ground Floor Level.

Support to Vertical Axial Loading

Based on the 8m Recommended Pile Length for the Male Piles in the Above Table, the Pile Wall can Safely Support Service Vertical Compressive and Tension Loading of up to 175 kN/m & -70 kN/m Run of Wall Respectively. The Project Structural Engineer must Advise, if Actual Loading Conditions could be more Onerous in Service.

Groundwater Cut-off
Install Female Piles to 6m Depth, as Specified in the Above Table; Minimum Embedment of 1m in the Stiff to Very Stiff London Clay Layer below Basement Formation Level is Required.

Concrete Grade C28/35 for Male Piles. For Female Piles, Provide 10 N/mm2 Concrete (56 day-strength) for Permanent Groundwater Cut-off. Applicable Design Sulphate & Aggressive Chemical Classes to be Confirmed by the Project Structural Engineer.

50mm cover to pile reinforcement

Revision Notes:

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