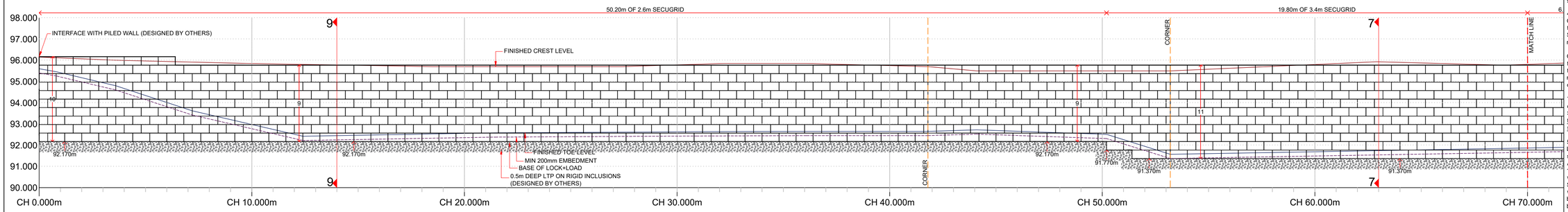
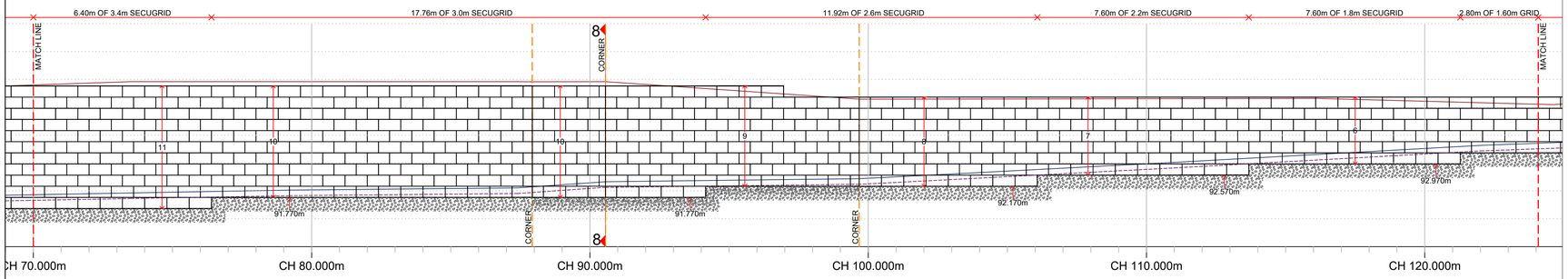
A1

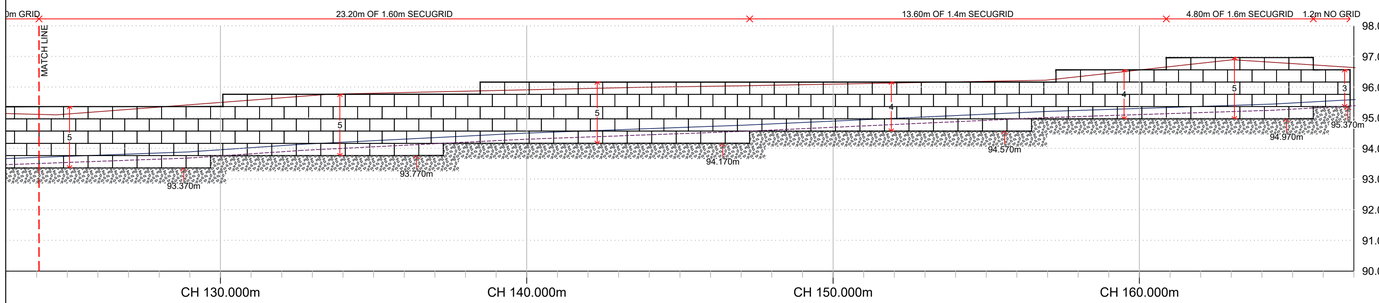
WALL 03 ELEVATION (1/3)
1:100



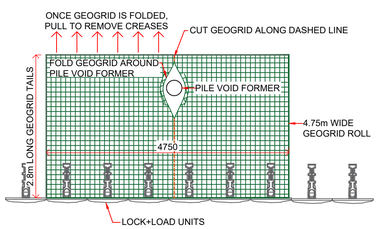
WALL 03 ELEVATION (2/3)
1:100



WALL 03 ELEVATION (3/3)
1:100

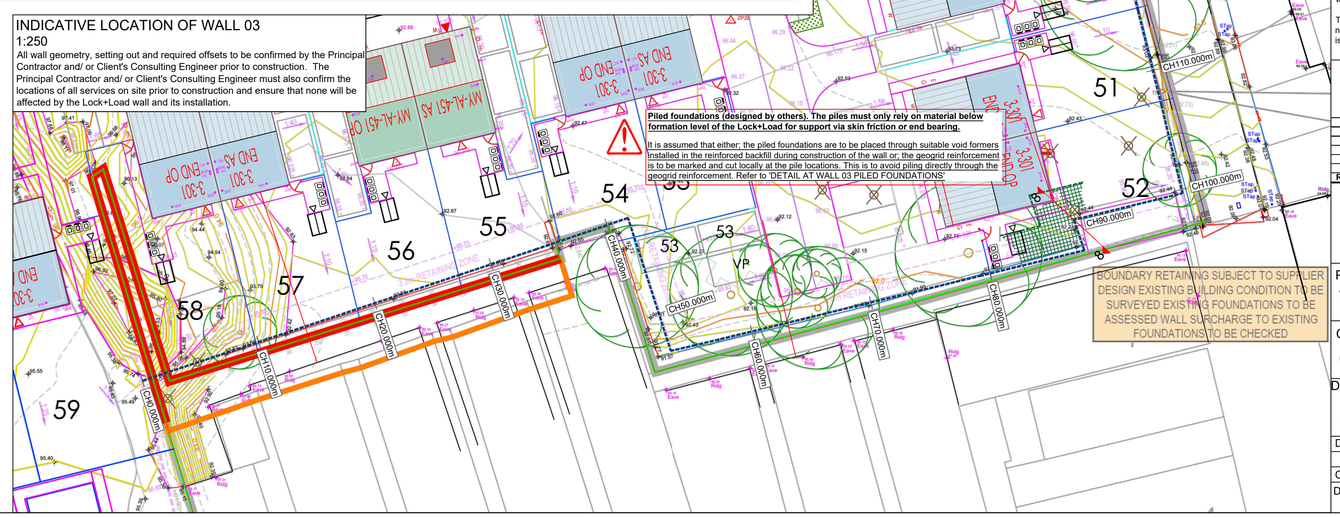


DETAIL AT WALL 03 PILED FOUNDATIONS - TBC (NTS)



INDICATIVE LOCATION OF WALL 03
1:250

All wall geometry, setting out and required offsets to be confirmed by the Principal Contractor and/ or Client's Consulting Engineer prior to construction. The Principal Contractor and/ or Client's Consulting Engineer must also confirm the locations of all services on site *prior* to construction and ensure that none will be affected by the Lock+Load wall and its installation.



NOTES:

1) All dimensions in mms unless otherwise specified.

2) BLOCKS: LOCK+LOAD GEOGRID: SECUGRID 40/40

3) INSTALLATION: Refer to standard Manufacturer's installation guidelines.

4) REINFORCED BACKFILL:
Class 6I granular fill, in accordance with MCHW SHW Series 600. Granular fill to be benched into in-situ soils and compacted in layers in accordance with the Specification for Highway Works, Series 600, Table 6/4. Class 6I fill to be restricted to '30mm down' for first 1m behind face.

Compliance testing must be undertaken on the Class 6I granular fill, both prior to commencement and throughout the works. This must include particle size testing and shear box of representative samples. Class 6I must have a maximum fines (63µm) content of 15% and comply with the limits in Table 6/3 of Series 600.

This material is assumed to have the following characteristics: Phi' = 35 degrees, Gamma = 19 kN/m³ and c' = 0 kPa, compacted to in accordance with SRW Series 600, Table 6/4. The Contractor is responsible for the selection of this material to ensure compliance with the geotechnical characteristics as shown on the relevant drawings and in the design documents/ calculations.

5) FOUNDATION FOR WALL 03:
Logs in Sirius Geotechnical Report C9907/AMG/1039 suggest the presence of significant depths of very loose MADE GROUND & very low strength ALLUVIUM at the location of Wall 03. An undrained shear strength (c_u) of 18kPa was recorded in WS604 at a depth of 2.75m, and SPT 'N' values of 0 were recorded at depths of 3m and 5m in BH601 and BH602 respectively. Such material would not be a suitable foundation material for the Lock+Load wall, and remedial action must therefore be undertaken to provide a competent base from which to construct Lock+Load Wall 03. The maximum applied bearing pressure at the base of Lock+Load Wall 03 will be 140kPa.

We understand that rigid inclusions and a 0.5m deep Load Transfer platform (LTP) are to be installed (both designed by others). It is assumed that the LTP will include high-strength geogrid layer(s) in both the longitudinal and transverse directions, with the geogrid wrapped up the face at both ends of the LTP and anchored sufficiently.

This Lock + Load element design only considers the design of the wall from the upper surface of the LTP. The Lock+Load analyses include checks on external stability (wall sliding & overturning) and internal stability (geogrid tensile strength, pullout, etc.). **Global stability, bearing capacity of the LTP & rigid inclusions, and settlement are outside the scope of the Lock+Load element design.** Any issues relating to the LTP and rigid inclusions (for example, differential settlement of the geogrid-reinforced fill spanning between the rigid inclusions, etc.) are also outside the scope of this design.

6) SITE / IN-SITU SOILS :
Retained: MADE GROUND (ashy gravelly SAND [ASH & CLINKER]) & compacted Class 1/2 upfill. These materials are assumed to have the following minimum properties:
MADE GROUND ϕ' = 28°, γ = 18kN/m³ and c' = 0 kPa.
CLASS 1/2 FILL ϕ' = 28°, γ = 19kN/m³ and c' = 0 kPa.

Foundation solution for Wall 03: LTP on rigid inclusions (designed by others)

The Contractor & Client's Consulting Engineer are responsible for ensuring the in-situ soils comply with the geotechnical characteristics as shown on the relevant drawings and in the design calculations.

7) DRAINAGE:
Adequate permanent, maintained surface water drainage must be included to collect any water from hardstanding areas, parking bays and the access road in the crest area of the wall. This should be connected to an outlet away from the wall (site drainage is outside the scope of the wall design).

Any water entering the retained ground must therefore be limited to rainfall infiltrating into the Plot 44 - 58 gardens. As the heel drain has been omitted from the wall as requested, some seepage through the mortarless facing panels may occur, particularly following heavy rainfall.

8) FACE ANGLE = 5.7°.

9) TEMPORARY EXCAVATIONS/ SETTING OUT
This solution is for the permanent works only, and is issued on the basis that a safe system of works is provided for construction. Temporary excavations have the potential to fail rapidly and without warning, particularly in granular material. The Principal Contractor/ Wall installer must produce a method statement and risk assessment for the works to be approved by the Client's Consulting Engineer. Temporary stability and design of any temporary works are outside our scope and should be confirmed by others.

All wall geometry, setting out and required offsets to be confirmed by the Principal Contractor and/ or Client's Consulting Engineer prior to construction.

10) BUILDING FOUNDATIONS
It is assumed that any building foundations in the vicinity of the wall will be taken to such a level that no loads will be transferred to the Lock+Load wall and reinforced backfill. Building foundations must not rely on the flexible Lock+Load wall and reinforced backfill for support (including lateral support), and are outside the scope of this design. Please advise us if a piling/ vibro rig and/ or large plant is to be used on the retained side of the Lock+Load wall, as well as their required minimum offsets and maximum operational surcharges, as the design will need to be checked for the rig loads.

11) SETTLEMENT
The Client's Consulting Engineer must assess the risk of settlement of ~4m of upfill over significant depths of very loose MADE GROUND & very low strength ALLUVIUM to the rear of the wall. Ground improvement (designed by others) such as deep soil mixing, vibro stone columns, etc. may be required to limit differential and total settlement (to be confirmed by specialist ground improvement contractor).

12) NOTES ON CALCULATIONS/DRAWINGS:
These plans and the accompanying design documentation should be thoroughly checked by the Client's Consulting Engineer. Any apparent errors, omissions or variations should be reported immediately to Geoman Ltd. Construction of this wall shall not commence unless and until the Client/ Client's Consulting Engineer has considered the Geoman Design Submission Document (QP06 Ref 24-5558) to ensure that there are no errors, omissions or conflict with the scheme design.

Geoman Ltd. will not be liable for any loss or damage resulting from or arising out of the use of this drawing where it has been used other than in accordance with Geoman's advice and specifications. Unless advice is specifically requested in respect of parts of the site not within the area where the works are undertaken, Geoman shall not be liable for any loss or damage resulting from or arising out of any weakness or other problem in the ground outside the area where the works are undertaken.

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FOR APPROVAL

Rev.	Issue / Revision:	Drawn:	Date:
D		WM	24.09.25
C		WM	17.09.25
B		WM	25.03.25
A		WM	04.03.25
0		WM	27.09.24

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Project Title:
WESTGATE, CLECKHEATON

Client:
GILLCON GROUP

Drawing Title:
LOCK+LOAD WALL 03 ELEVATION

Designed:		Date:		Project No:	24-5558
Drawn:	WM	Date:	24.09.25	Scale: AS INDICATED AT A1	
Checked:		Date:			

Drawing No: SK24-5558-F1-04 Revision: D