

Retaining wall design

New dwelling on land
to south of 92 High St,
Chapmanslade



Document Information

Project no.	14738
Project title	New dwelling on land to south of 92 High St, Chapmanslade
Client	Mr John Foster
Document title	Retaining wall design
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Issue Status

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-	28/10/2025	BW	-	First issue

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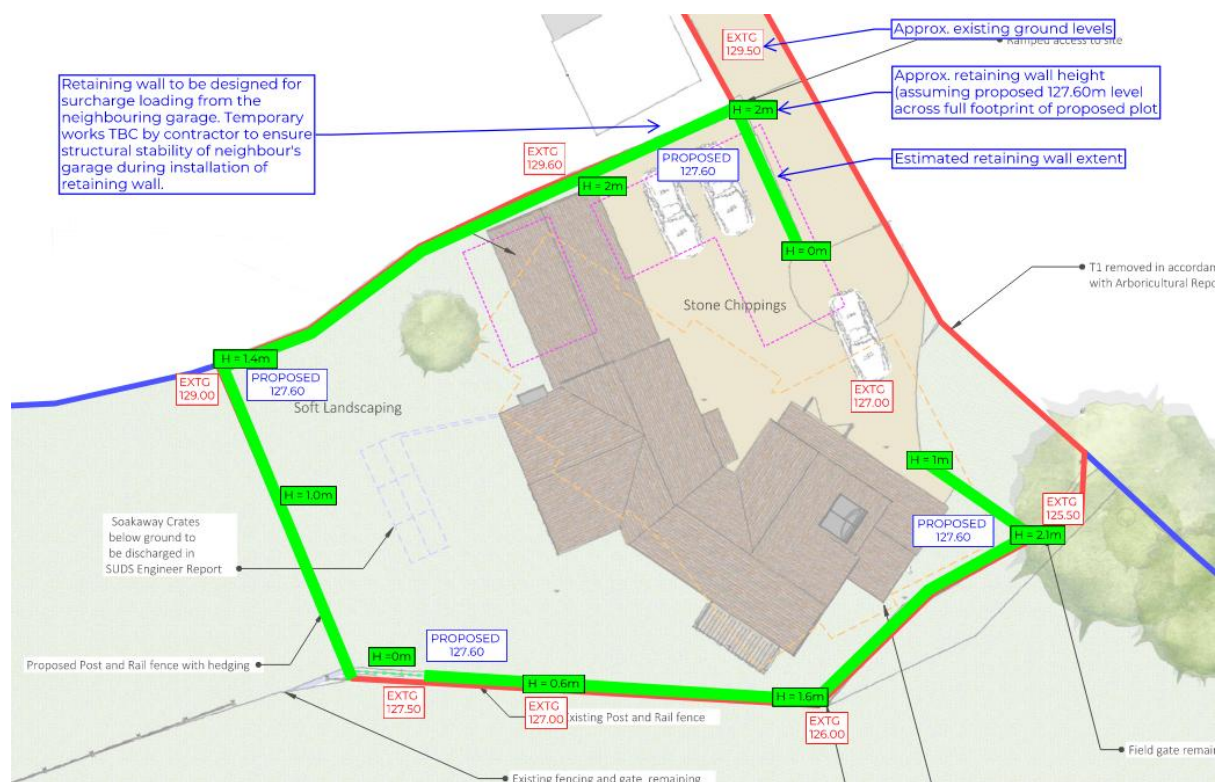
Introduction

AWA have been appointed by Mr John Foster to undertake a preliminary retaining wall analysis and design to support the proposed new dwelling to the south of 92 High St, Chapmanslade.

Proposals

The existing site slopes from north to south, with a level change of approximately 3.75m in total. Oakwrights have performed a cut and fill exercise, seeking to balance the cut and fill volumes by setting the proposed external level of the driveway at 127.6m. This will require a ramp to be formed at the north of the site, and retaining structures around the majority of the site boundary.

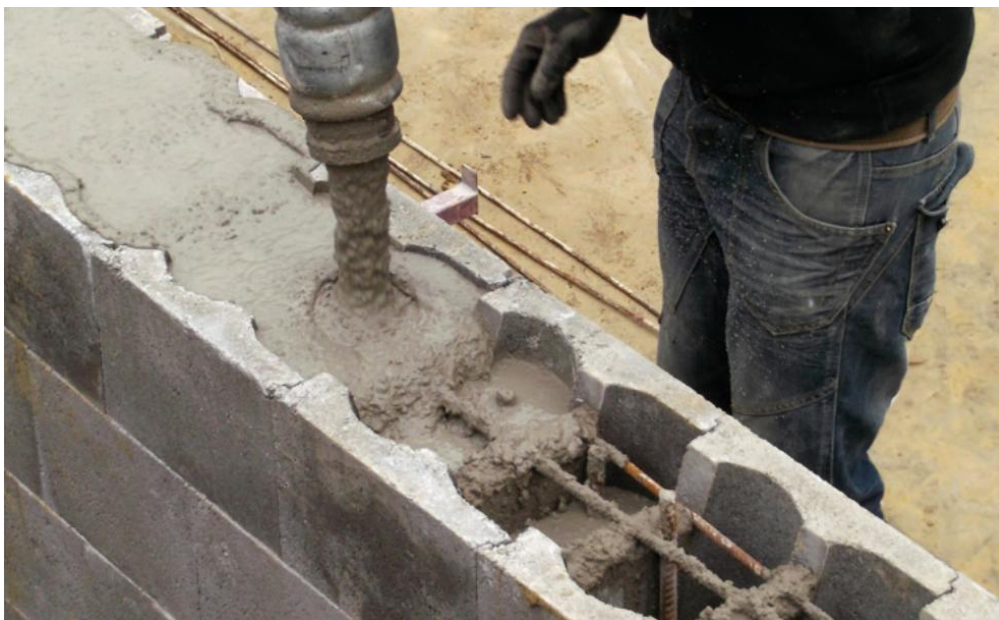
The diagram below depicts the site levels (existing in red, proposed in blue). The green line represents where there is a level change from one side to the other, and calls up an approximate difference in ground level from one side to the other (labelled as height of wall).



Retaining wall

A preliminary design has been developed based on some assumptions regarding the ground conditions. This shows the approximate form and nature of the retaining wall, allowing the principles of the design to be understood at this stage. The final design of the retaining walls will be subject to confirmation following an intrusive ground investigation with interpretive report.

A reinforced concrete base will be cast, with reinforcing bars projecting up into a reinforced Stepoc wall. Stepoc offers an economical alternative to traditional reinforced concrete retaining walls, as the blocks can be dry-stacked and the pockets then filled with reinforcing bars and concrete. The wall can then be faced in an almost unlimited number of materials, making it very versatile.



Stepoc hollow block wall with concrete being pumped into pockets

Refer to drawing overleaf for more detailed section showing retaining wall principles.

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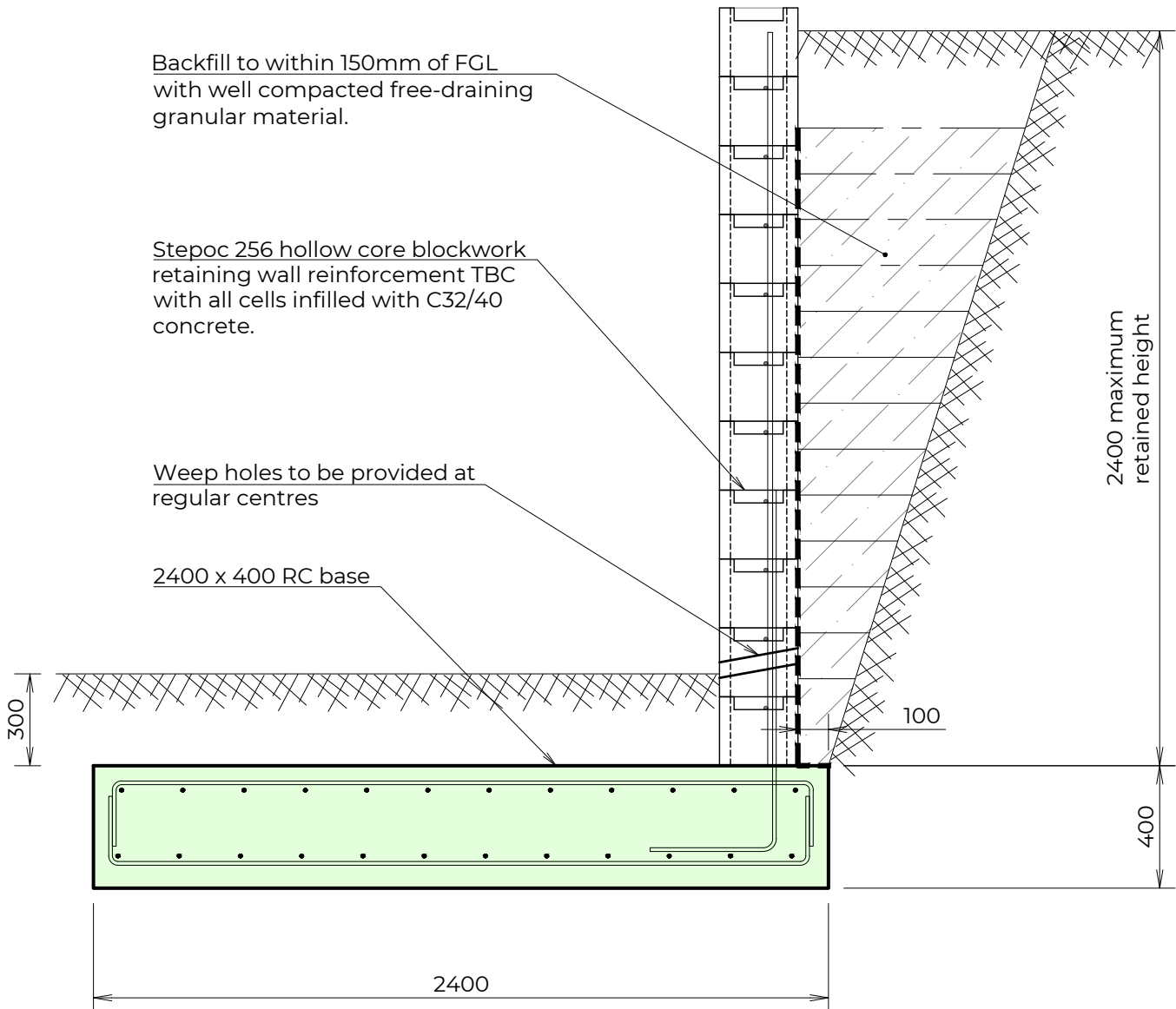
Preliminary design - subject to confirmation following ground investigation.

Backfill to within 150mm of FGL with well compacted free-draining granular material.

Stepoc 256 hollow core blockwork retaining wall reinforcement TBC with all cells infilled with C32/40 concrete.

Weep holes to be provided at regular centres

2400 x 400 RC base



**SECTION THROUGH
RETAINING WALL**

1:20

PRELIMINARY

SCALE 1:20 at A4 uno	DATE Oct 25	BY LK
DRG NO 14738-001	REV P1	

P1	28/10/25	Preliminary	BW
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