

K W DORRINGTON ARCHITECTURAL ASSOCIATES

Chartered Architectural Technologist (MCIAT) & Chartered Building Engineer (MCABE C.build.E)

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STRUCTURAL CALCULATIONS FOR **RETAINING WALL AT** **29 Robertson Way, Newport. NP20 6QG.** **JUNE 2026**

K.W. Dorrington Chartered Architectural Technologist and Chartered Building Engineer has 42 years design experience. K.W Dorrington carries necessary professional indemnity insurance & is competent to carry out & inspect structural calculations as per The Building Safety Act 2022.

The proposal is to construct a concrete block mass retaining wall.

The excavations followed initial excavations. The soil and loadings were assessed based on the ground conditions. The soil was found to be undisturbed clay-based stratum. The excavation was firm and remained unsupported for several weeks.

The retaining wall was designed by Wayne Stone BSc, Structural Director at Carreg Design Ltd. The K.W. Dorrington detail at page 2 reflects the 'as built' wall. Some additional details have also been added to the wall section.

The weepholes discharge to ground, which is laid to fall towards main lawn. The backfill bears onto the extended strip foundation, thus increasing the width of the retaining thickness of the wall – wrapped in geo-textile wrap.

During the build Kate Milton of Newport City Council inspected the wall and found the design and construction to be suitable for the designed purpose. The wall was approved.

If you have any queries, please contact me.

Kerin Dorrington

K.W. Dorrington MCIAT MCABE (C.Build E)

COMPANY NUMBER 16140564



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November 14th 2025

Our Ref 25-084

Mike Watkins
Horrocks Close
Malpas
Newport

Dear Mike

Re: Plot to rear of Horrocks Close Malpas

After my recent visit to the above site, I can confirm that the depths of excavation at the time of my inspection was approximately 2.0m from base of excavation up to level of sloping ground at its highest and those depths diminish to nothing.

This area of excavated ground is in a natural undisturbed stratum with no showings of tree root penetration. There are no signs of contaminated fill and above ground there are no mature trees in the vicinity of the proposed build. I am happy for the build to proceed at this level of excavation.

Obviously, the excavated soil will need to be retained and I have recommended at this height a concrete blockwork gravity retaining wall to be the best option in this case. It would however be highly advisable that with the winter weathers and likely storms that occur this time of year that these excavations are not left unretained for too long to avoid any ground slip or collapse.

Yours sincerely

Wayne Stone BSc
Structural Director
Carreg Design Ltd



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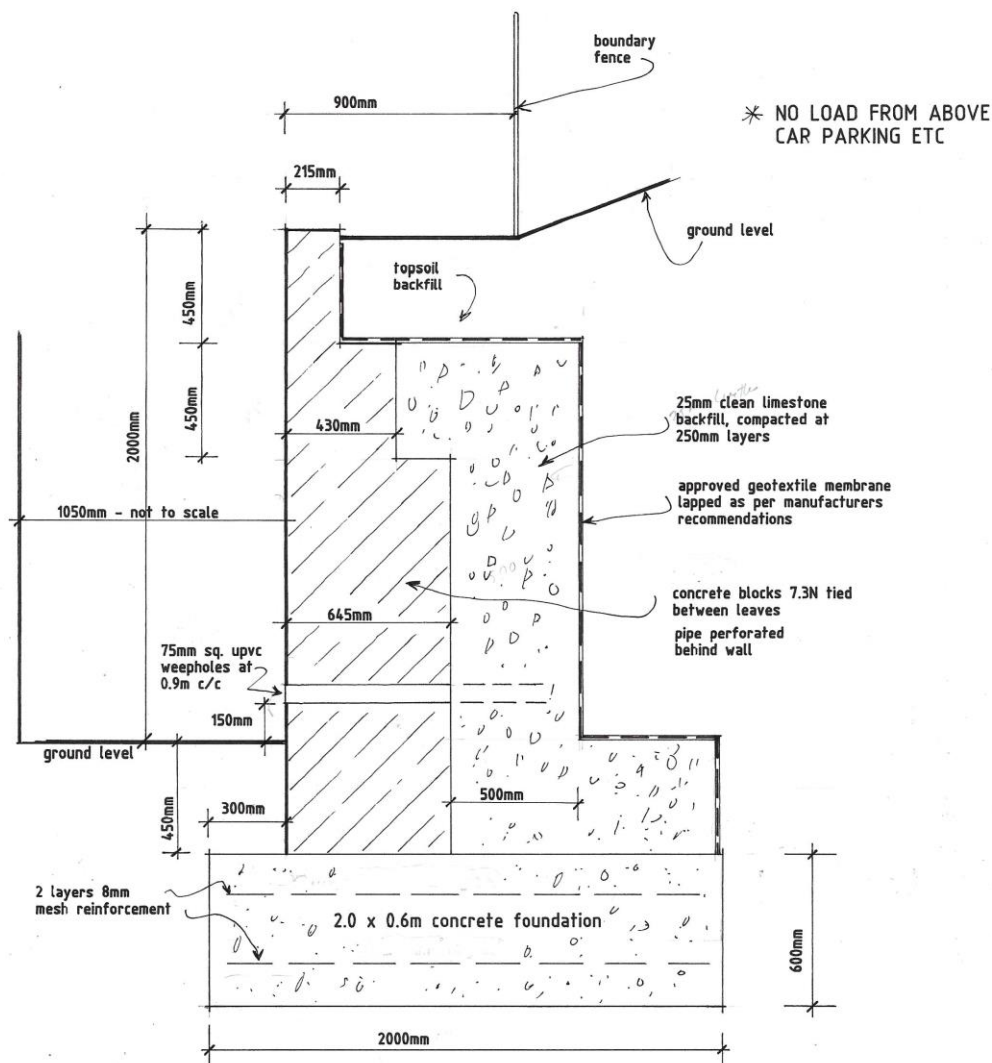
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PROPOSED CONCRETE BLOCK MASS
RETAINING WALL AT –
REAR OF 29, ROBERTSON WAY,
MALPAS, NEWPORT. NP20 6QG.



SCALE – 1:20 AT A4
JUNE 2026

DRAWING NUMBER – KD1989/R

K.W. DORRINGTON ARCHITECTURAL ASSOCIATES

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**CARREG
DESIGN**

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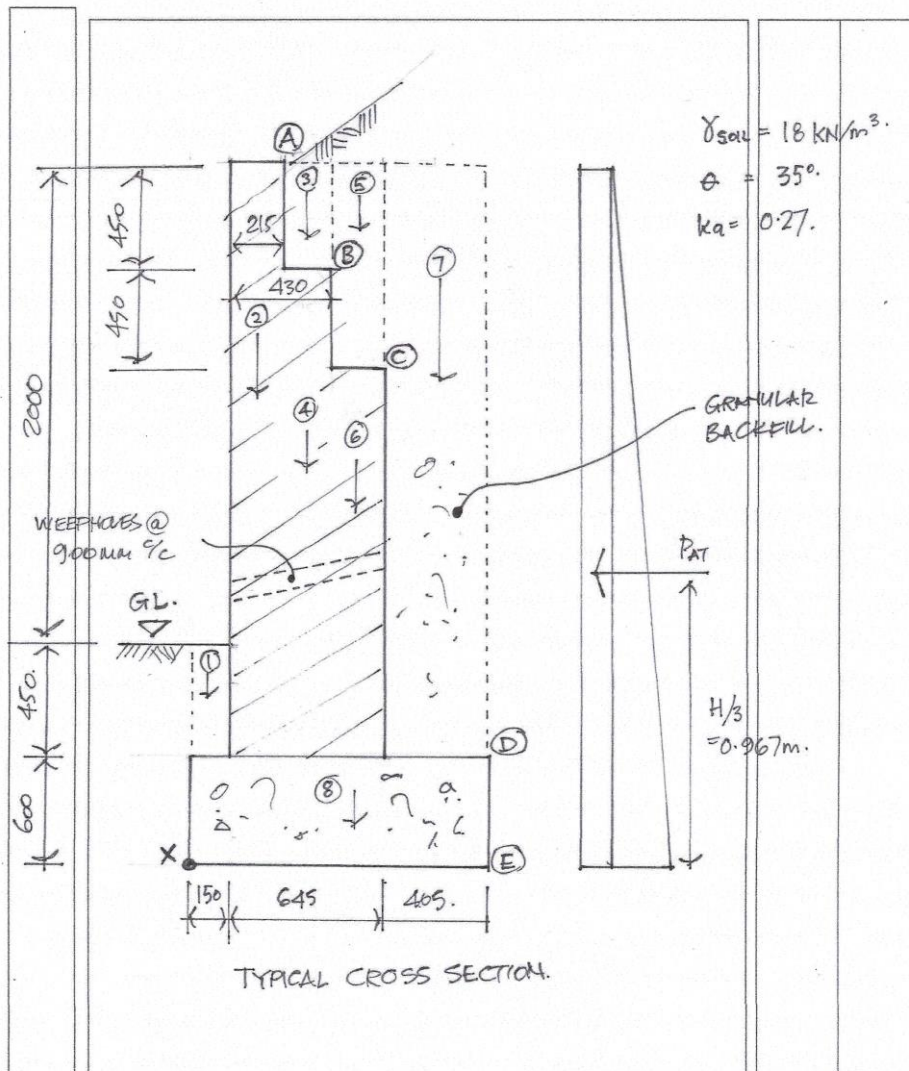
Date: NOV 2025

Job No: 25-084

Job Title:
HORROCKS CLOSE MALPAS

Sheet No:

01-01



$$\gamma_{\text{soil}} = 18 \text{ kN/m}^3.$$

$$\phi = 35^\circ.$$

$$k_a = 0.27.$$

GRANULAR
BACKFILL.

PAT

$$H/3 = 0.967 \text{ m.}$$

TYPICAL CROSS SECTION.