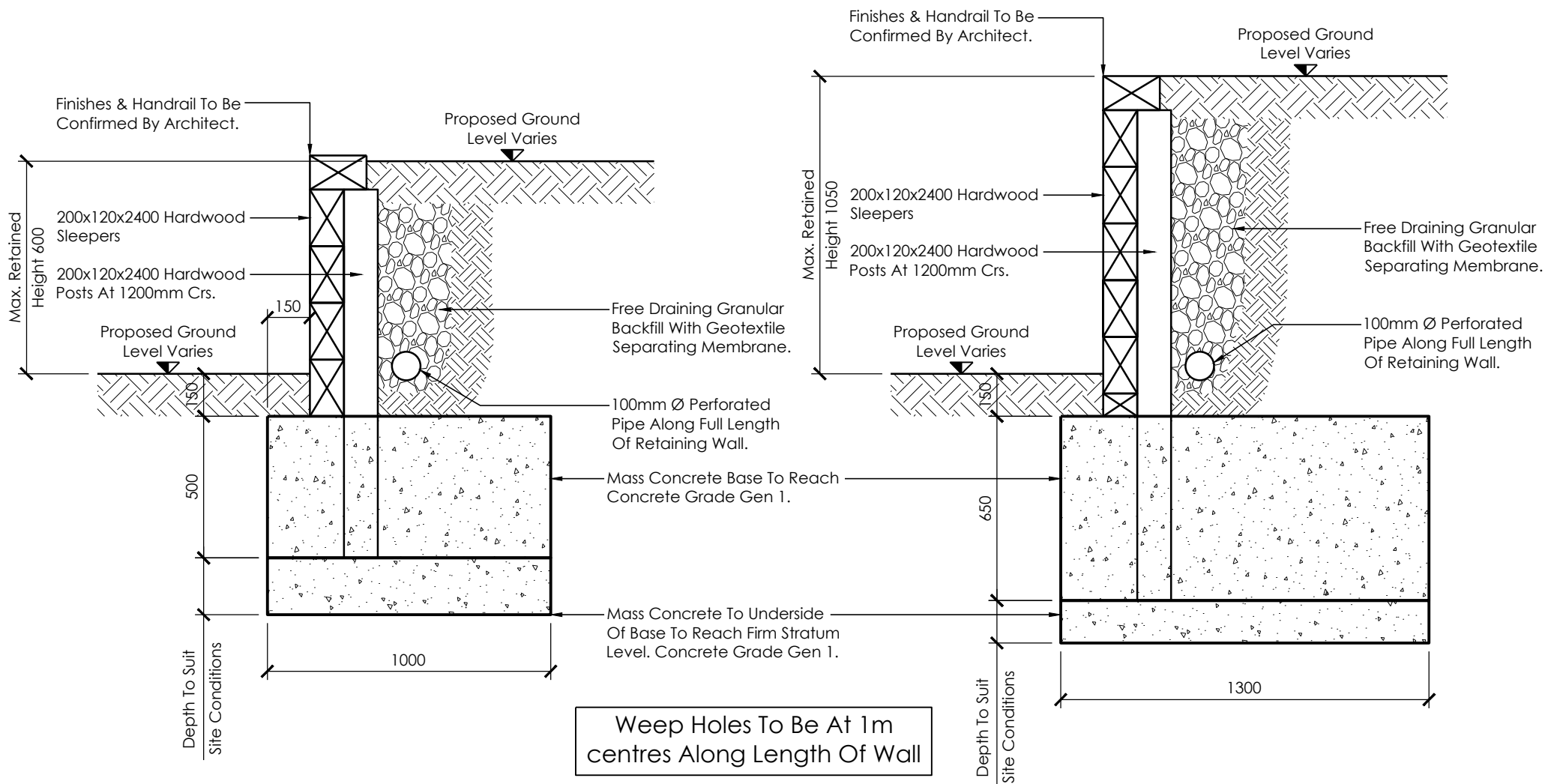




RETAINING WALL TYPE 1
(MAX. RETAINED HEIGHT 600mm)
(Scale 1:20)

RETAINING WALL TYPE 2
(MAX. RETAINED HEIGHT 1050mm)
(Scale 1:20)

Weep Holes To Be At 1m
centres Along Length Of Wall

RETAINING WALLS

General Retaining Wall Notes

- General backfill to be lightly compacted non-cohesive material.
- Granular backfill to be well compacted free-draining coarse aggregate, clean gravel or crushed stone. Minimum width 450mm. Where general backfill includes fine-grained material (e.g. silt) a geo-textile felt filter/seperator shall be positioned between general backfill and granular backfill. Also between topsoil and top of granular backfill.
- Backfill to be compacted in maximum 225mm layers.
- Mass concrete infill to be used behind wall up to level of weep holes, with nominal 50mm fall towards back of wall. Concrete to be Designated Mix GEN 1 or a designed mix to achieve grade C8/10 in accordance with BS EN 206-1 / BS 8500-1.
- Weep-holes to be installed through wall to connect with granular backfill. Weep-holes to be 75mm diameter at 975mm centers positioned nominal 150mm to soffit above finished ground level, sloping up to the front of wall.
- Safety barrier to be provided to rear / top of wall to architect's specification.

Retaining Wall Foundation

- For details of ground conditions refer to ground investigation report. The Engineer shall be immediately notified of any variations to the reported ground conditions.
- Formation depths and condition are dependant on ground conditions encountered on the site at the time of excavation and are subject to inspection and approval of the Building Control Officer, prior to concreting.
- Engineer is to be informed immediately if formation depths substantially exceed the minimum depths indicated upon the drawings.
- Retaining wall base to be cast on firm and level formation in undisturbed natural soils free of soft material, water and roots.
- Front edge of concrete base (and of any shear key under) to be cast directly against undisturbed soil.
- Allowable bearing capacity of 50kN/sq m to be achieved at formation in accordance with the assumptions in the retaining wall design calculations.
- Any obstructions found, shall be removed for the extent of the formation and back filled to the approval of the Engineer.
- No service or drain to pass through or under a footing.
- All mass concrete unless noted otherwise to be Designated Mix FND4 or a designed mix to achieve grade C16/20 in accordance with BS EN 206-1 / BS 8500-1. Nominal maximum size of aggregate 20mm. Concrete to be slump class S3.
- All concrete in ground to be ACEC Class AC-TBC, DS-TBC in accordance with Table A2 to BS8500-1.
- Cement to be ordinary Portland Cement to BS EN 197-1 (or approved equivalent). No additives or admixtures unless approved by the Engineer.
- For all general levels refer to Architects and Topographical survey drawings.

Plain and Reinforced Masonry Retaining Walls

- All masonry units to be Category I to BS EN 771-1 to 6, Group 1 to BS EN 1996-1-1 and to be laid under Execution Control Class 2 to BS EN 1996-2 unless noted otherwise.
- All brickwork below ground to be designation F2 as required by BS EN 771-1.
- Concrete blocks for use below ground to comply with BS EN 771-3 with min. 7N/sq mm characteristic compressive strength and weight <20kg per block.
- Facing bricks to be minimum class 3 to BS EN 1996-1-1.
- DPC band of class B engineering bricks to be provided minimum 300mm high centered on finished ground level to low side of wall.
- Mortar to be prescribed mix M12 to masonry hidden below ground and up to DPC, M6 to masonry exposed above ground above DPC, refer to BS EN 1996-1-1 and BS EN 998-2.
- No retardants or additives to be added to the mortar mix without the written permission of the Engineer.
- All frogs to be facing up and fully filled. All joints to be fully filled.
- For limitations on height of masonry to be built per day and other safe construction lift procedures refer to PD 6697.
- All chases and holes to be agreed by the Engineer prior to construction in accordance with the requirements of NA to BS EN 1996-1-1 Tables NA.11 & 12.
- Cavity ties to be at 900mm centers horizontally x 450mm centers vertically and at a minimum of 225mm from all openings and joints, etc unless noted otherwise in accordance with the recommendations in BS EN 1996-2. Ties to also be staggered at 450mm c/c with a min. embedment of 50mm and of suitable strength to meet the proposed construction lift.
- Metal fixings (including metal wall ties, etc.) in contact with either leaf of external cavity retaining wall to be in accordance with BS EN 845-1 and fabricated in stainless steel grade 304.
- Movement joints shall be provided over the full height of the outer brickwork leaf only and are to be at no more than 6.0m from corners or at 12.0m centers along runs and at each step in foundations. Joint filler to architect's specification.

DESIGNERS CDM NOTES ON RESIDUAL RISKS

THE SAFETY, HEALTH AND ENVIRONMENTAL ISSUES NOTED BELOW ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.

CONSTRUCTION HAZARDS AND RISKS

- None relevant to this drawing

MAINTENANCE/ CLEANING HAZARDS AND RISKS

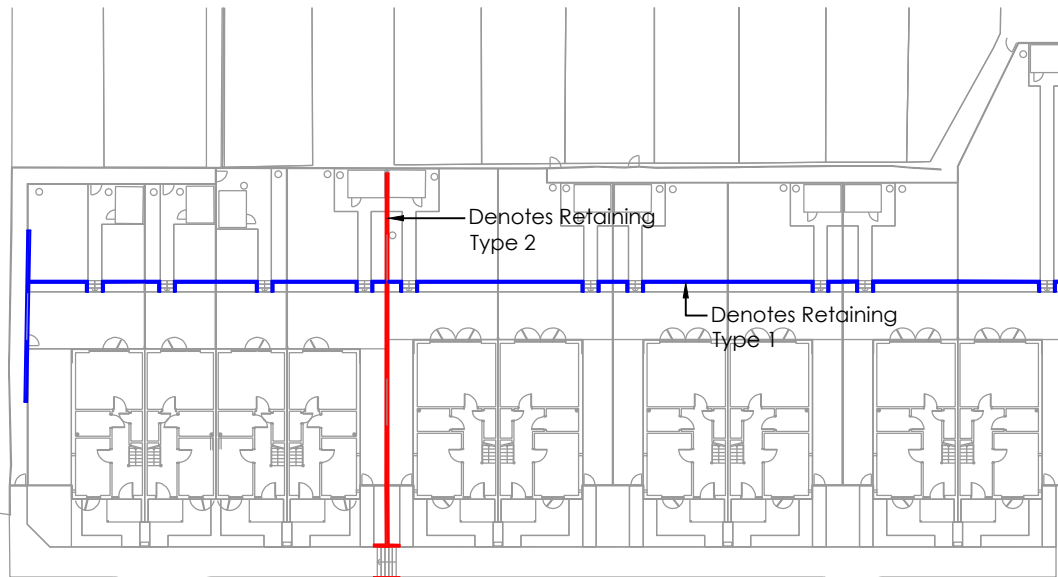
- None relevant to this drawing

DEMOLITION HAZARDS AND RISKS

- None relevant to this drawing

GENERAL NOTES

- This drawing is to be read in conjunction with all relevant Architect's / Engineer's drawings, specifications and CDM documentation.
- This drawings has been produced electronically and may have been photo reduced or enlarged when copied. Work to figured dimensions only. DO NOT All dimensions to be checked on site. Any errors or omissions to be reported to the engineer immediately.
- All dimensions are in millimeters and levels in meters except where shown otherwise.
- Where proprietary products are specified these may be substituted by an equivalent product subject to approval by the Engineer. All products are to be installed strictly in accordance with the manufacturer's recommendations.
- Before commencing construction the Contractor is to ascertain the position and depth of private and utility services and other plant or equipment on and adjacent to the site and report any conflicts with proposed works to the Engineer.
- All work and materials not specified shall be in accordance with the NHBC Standards' technical requirements and guidance (ISBN 0907257 series).
- All construction products to have CE Marking in accordance with the relevant European Technical Standards in force at the time.
- This drawing is copyright and shall not be copied in whole or in part without written permission of Gemma Design Limited.
- Until technical approval has been obtained from the relevant Authorities it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor start site work prior to approval been given, it is entirely at his own risk.
- Should there be any discrepancies between details indicated on this drawing and those indicated on other drawings the Engineer should be informed PRIOR to construction on site.



RETAINING WALL KEY PLAN

C2	Retaining Walls Changed To Timber Sleepers From Brickwork.	07/04/17	RPW			
C1	First Issue. Issued For Construction.	24/03/17	RPW			
REV	REVISION DETAILS	DATE	DRAWN BY			
CLIENT		ORIGINATOR				
						
PROJECT Upper Redlands Road Reading		TITLE Retaining Wall Details				
SCALE 1:20		DRAWN @A3 RPW	CHECKED JRS APPROVED JRS			
PROJECT 4265	ORIGINATOR GDL	ZONE XX	LEVEL XX	TYPE DR	ROLE S	DOC NO 70000
JOB NO. 4265	PURPOSE OF ISSUE CONSTRUCTION			STATUS: A	REVISION: C2	