

REINFORCED CAVITY RETAINING WALL NOTES

SETTING OUT TO BE IN ACCORDANCE WITH PERSIMMON HOMES DRAWINGS. REFER TO PERSIMMON HOMES DRAWINGS FOR PROPOSED GROUND LEVELS.

1. ALTERNATIVE CAPINGS AND COPINGS : TO PERSIMMON HOMES DETAILS

Provide frost-resistant copings or copings sized to BS 4729 or other copings to be 5642. The copings or copings should incorporate an overhang and drip if the wall is not in a very sheltered location. Before choosing a wall type, make sure that a suitable combination of coping and DPC is available for the site conditions (see BRE Good Building Guide 17).

2. DAMP PROOF COURSES (SEE BS 8215)

See Good Building Guides 14 and 17, and digest 380 for general advice on DPC selection.

HIGH-LEVEL DPC

Use a DPC beneath the coping and coping courses, which has the ability to adhere to the mortar (high bond polymer).

3. BRICKWORK AND BLOCKWORK

Brickwork should have a minimum density of 1800 kg/m³ and minimum compressive strength of 20 N/mm².

All brickwork to face skin and coping to be Frost Resistant (F2) clay.

All brickwork to face skin and coping to be Low Salt Content (S2) clay.

Masonry on the earth face can be, clay or calcium silicate bricks of Class 3 or stronger to BS 187, and/or dense concrete blocks and concrete bricks to BS 6073

Do not use bricks or blocks which do not provide moderate adhesion. See BS 5628:part 3 for advice on adjusting the moisture content of the mortar to achieve the required adhesion. Check after 7 days that using strong hand force only cannot dislodge the units from the wall. Always check with the building supply merchant or the brick or block supplier that the bricks or blocks to be used provide moderate adhesion

4. MORTAR

MORTAR TO BE DESIGNATION (ii) STRENGTH CLASS M8 THROUGHOUT THE WALL.

Sulphate Resisting Cement to be used throughout

5. INFILL CONCRETE

Concrete for infill shall be designated mix RC 35 in accordance with BS8500 & EN 206-1 using 10mm aggregate, Consistency Class S4. Vibrate in accordance with National Building Specification Clause E10 690 using a 25mm Ø needle vibrator.

6. REINFORCING STEEL

All reinforcing steel shall comply with BS 4449 or BS 4483 and cut and bent to BS 8666.

7. WALL TIES

Stainless steel wall ties should be of the vertical twist type, in accordance with BS 1243, class 4(c). Centres 900 Horizontal, 450 Vertical, First tie not more than 300mm above top of base.

8. DRAINAGE

Weepholes should be formed at 125mm max c/c formed with minimum 60mm dia inside diameter class b polythene pipes to BS 1972. Invert to be set 75mm above lower ground level.

Where weepholes can not be used, eg, because discharge would be onto a public footpath, land drainage should be provided behind the wall. This must discharge into a positive drainage system or into soakways remote from the wall

9. WATERPROOFING

Waterproof the back of the wall with either a bituminous membrane or two coats of bituminous emulsion, protect the waterproofing with board protection, or similar, before back-filling. Waterproofing is to be cut at weepholes to give clear opening

10. BACKFILLING

The retaining side of the wall should be back-filled with a minimum width of 450mm drainage layer comprising free-drainage granular material (course aggregate, clean gravel or crushed stone) lightly compacted. general filling should consist of lightly compacted non-cohesive material.

Should the general back fill consist of fine-grained material it should be separated from the drainage layer with a geotextile filter fabric.

NO BACK-FILLING SHALL BE CARRIED OUT UNTIL AT LEAST 14 DAYS AFTER LAYING THE MASONRY OR 7 DAYS AFTER PLACING THE CONCRETE INFILL, WHICHEVER IS LATER

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11. ACCURACY OF WORKMANSHIP

The methods of controlling accuracy and setting out shall be in accordance with BS 5606 and BS 5628:part 3. Care shall be taken to ensure the accuracy and alignment of cavities containing reinforcement.

12. LAYING OF MASONRY

Laying of masonry units shall be in accordance with BS 5628:part 3 or BS 5390 as appropriate. The maximum height of masonry built on any one day shall be 1500 mm with no one portion of any section of masonry more than 1200 mm above the level of the adjacent masonry. clay bricks shall be laid as received except in very warm dry summer conditions when they shall be wetted prior to laying. concrete bricks shall not be wetted.

NO BACK-FILLING SHALL BE CARRIED OUT UNTIL AT LEAST 14 DAYS AFTER LAYING THE BOTTOM COURSE OR 7 DAYS AFTER LAYING THE TOP COURSE OF THE BRICKWORK, (WHICHEVER IS LATER) UNLESS IT IS PROPPED.

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13. FILLING OF CAVITIES

It is important that all cavities, pockets, etc to be filled with concrete are kept clear of mortar droppings and scrapings by the provision of clean-out holes at the base of the cavity or void.

The concrete infill should be placed during laying of the units at maximum vertical intervals of 450mm.

All concrete infill to be compacted in accordance with National Building Specification Clause E10 690 using a 25mm Ø needle vibrator.

14. STABILITY

Precautions shall be taken to ensure the stability of the wall during construction, infilling and backfilling.

15. WEATHER

All newly constructed masonry shall be protected to prevent rain falling on its top surface or water being channelled onto it. fair faced work shall be protected against striking or other damage resulting from the construction operation. The contractor shall be responsible for avoiding harmful effect of adverse weather on masonry and concrete during and immediately after construction. frozen materials shall not be used.

16. MOVEMENT JOINTS

Movement joints shall be formed at a maximum of 12m centres, (except where ground conditions are variable along the length of the wall, where 6m centres should be used), and shall occupy the whole height of the wall (except the concrete base). Care shall be taken to ensure that joints are free from debris and on no account shall any joint be filled with mortar.

17. QUALITY CONTROL

Prior to commencing work the contractor shall submit the information required by BS 5328:PART 3 for the designated concrete mix.

18. EXCAVATIONS

Excavations to be inspected by the local authority bco prior to concreting. Formation assumed to be natural ground, firm to stiff clay or dense sand with an allowable ground bearing pressure of at least 75 kN/m².

Over excavation/softened ground in front of wall to be back-filled with concrete.

19. FOUNDATION

Foundations shall be to the sizes shown on drawing.

Concrete to bases to be designated mix FND32 in accordance with BS 8500 & EN 206-1. (20mm Maximum Aggregate Size)

Blinding concrete to be designated mix GEN 1

Cover to reinforcement in base to be 50 mm all faces.

21. Any excavations in the vicinity of trees or any new planting is to be carried out in accordance with BS 5837 : TREES IN RELATION TO CONSTRUCTION

22. WORKMANSHIP

IT SHOULD BE NOTED THAT RETAINING WALLS CARRY A HIGH RISK OF INJURY TO THE PUBLIC IF INCORRECTLY CONSTRUCTED. WORKMANSHIP SHOULD BE TO A HIGH STANDARD IN ACCORDANCE WITH THE DOCUMENTS NOTED ABOVE AND THE FOLLOWING.

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