Cross-Sectional Diagrams

Windsor

Maximum Height 1040mm (8 courses)

4 : 1

Surface Drain

Impermeable Layer, level or 1 in 8 max

Drainage Gravel

NOT TO SCALE

300

AG Drain

130min

450

Levelling Pad [7]

Eden Wall

Maximum Height 1010mm (6 courses)

2.75 : 1

Surface Drain

Impermeable Layer, level or 1 in 8 max

Drainage Gravel
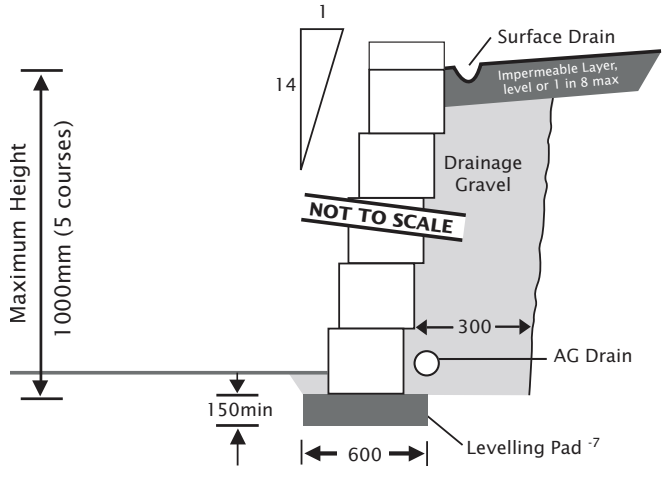
NOT TO SCALE

300

AG Drain

130min

450

Levelling Pad [7]

Diamond

Maximum Height 1200mm (8 courses)

3 : 1

Surface Drain

Impermeable Layer, level or 1 in 8 max

Drainage Gravel

NOT TO SCALE

300

AG Drain

150min

600

Levelling Pad [7]

Vertica

Maximum Height 1000mm (5 courses)

14 : 1

Surface Drain

Impermeable Layer, level or 1 in 8 max

Drainage Gravel

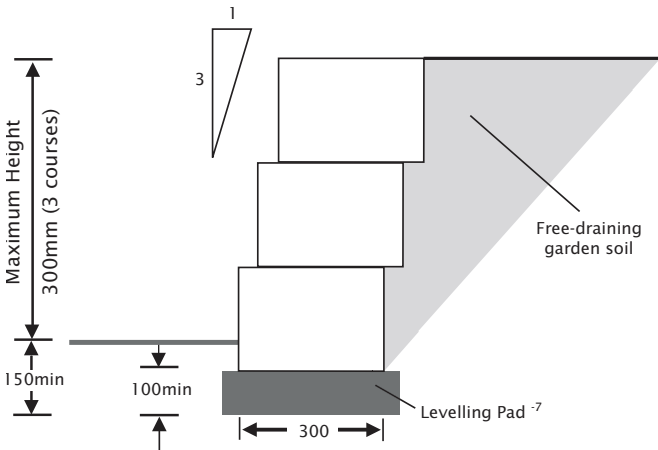**NOT TO SCALE**

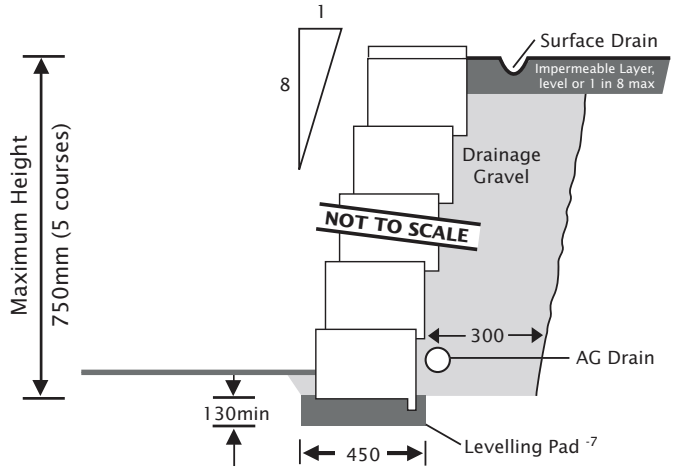300

AG Drain

150min

600

Levelling Pad [7]

Conditions

1. All retaining walls are designed to CMAA document .MA53 (Segmental Concrete Gravity Retaining Walls Design and Construction Guide).

2. All retaining walls shall comply with AS 4678 Structure Classification A.

3. These tables are only applicable to retaining walls that incorporate an impermeable surface membrane and drainage system such that there can be no ingress of any water into the soil behind the retaining wall.

4. These tables are applicable to cuts in insitu soils. The Tables are not applicable to cohesive fill.
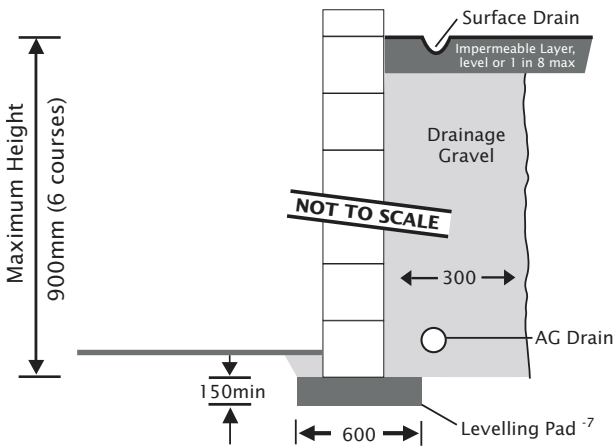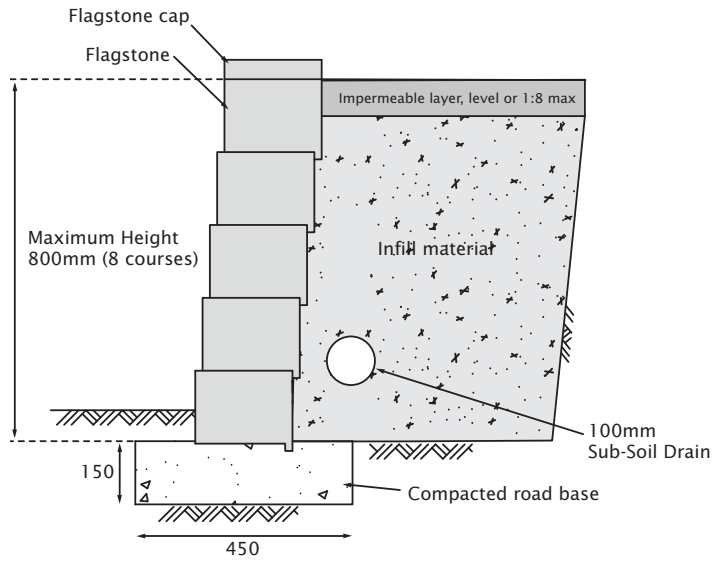
Border Stone

Maximum Height 300mm (3 courses)

1
3

Free-draining garden soil

150min

100min

300

Levelling Pad -7

Meadow Stone

Maximum Height 750mm (5 courses)

1
8

Surface Drain

Impermeable Layer, level or 1 in 8 max

Drainage Gravel

NOT TO SCALE

300

AG Drain

130min

450

Levelling Pad -7

Canterbury

Maximum Height 900mm (6 courses)

Surface Drain

Impermeable Layer, level or 1 in 8 max

Drainage Gravel

NOT TO SCALE

300

AG Drain

150min

600

Levelling Pad -7

Natural Impressions™

Flagstone cap

Flagstone

Impermeable layer, level or 1:8 max

Maximum Height 800mm (8 courses)

Infill material

100mm Sub-Soil Drain

150

Compacted road base

450

5. All retaining walls are designed for an imposed surcharge load of 2.5 kPa. If imposed loads greater than 2.5 kPa are expected, these designs will not be appropriate.

6. Levelling pad: a levelling pad may consist of compacted material (5% cement stabilised crushed rock) for wall heights up to 800mm. Walls over 800mm high must use 20MPa concrete for the leveling pad.

7. This design information is a guide only. For walls exceeding the nominated heights as above, please refer to the Retaining Wall Systems Technical Brochure. Walls exceeding maximum heights shown will need to be designed and certified by a qualified engineer. Please consult your local council to confirm if you require council approval for your proposed retaining wall.

The Components to a Retaining Wall

Rear Lips
Make sure your block
rear lips lock together.

The first course of
blocks will dictate how
the final wall looks,
so lay them square and
true. Make sure you
level them side to side
and front to back.
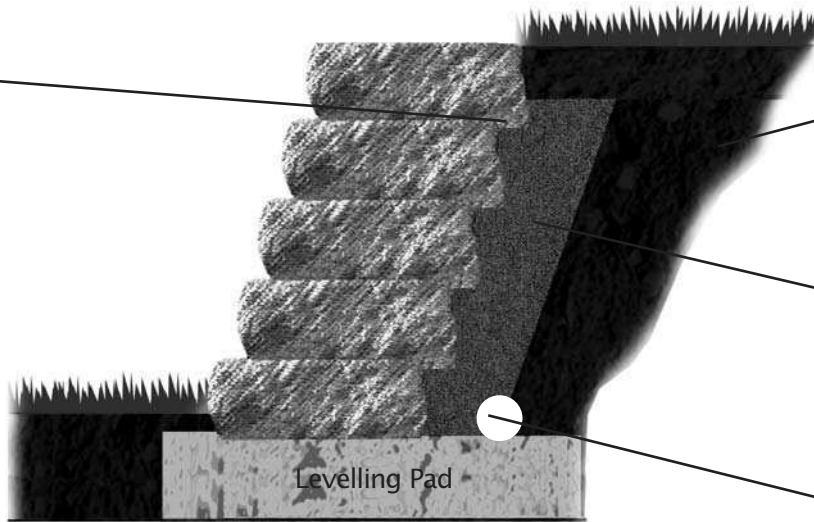
Back Fill
Back fill as you go to
make sure your wall
doesn't fall over.

Drainage Gravel
Blue metal is perfect.

100mm Ag Pipe
Use Ag Pipe with a
protective sock on it.

Levelling Pad

How Many Blocks Will You Need

1. Determine the length (L) and height (H) of the wall.

2. For wall units, multiply the L x H x the number of block units per m²

3. For capping units, multiply L by the number of units per lineal metre.

Please refer to product guide on page 20 of this brochure for more helpful information.
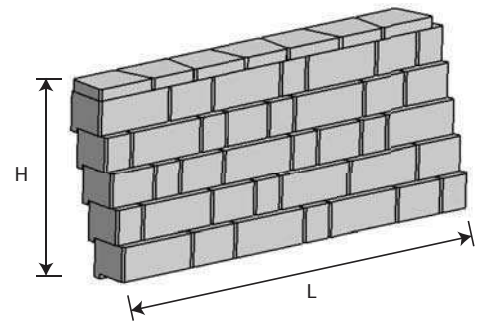
How to Plan for Curves

Minimum Radius at the Base ①

Windsor	880mm + 32mm x No. of courses installed.
Cut Diamond/Diamond	820mm + 50mm x No. of courses to be installed
Border Stone	500mm + 19mm x No. of courses to be installed
Canterbury	1600mm

Curves will cause the pattern to shift.
The required bond pattern should be planned before commencement of placing first units.

Minimum Radius of Top Course ②

Windsor	880mm
Cut Diamond/Diamond	820mm
Border Stone	500mm
Canterbury	1600mm
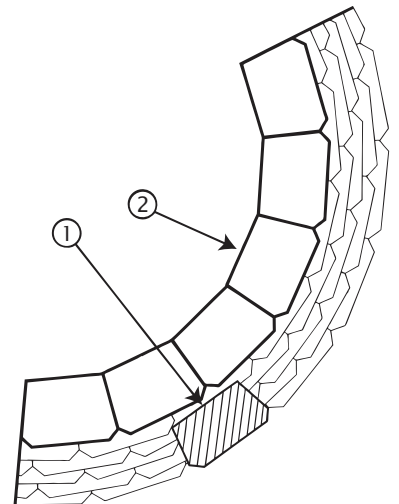
Additional Information For:

Meadow Stone Walls

Meadow Stone differs from other Adbri Masonry retaining walls in that it comes in three different facing widths. These small, medium and large width blocks are laid either in a repeating three pattern - or at random to break up the formal look.

The split faces of the blocks are not bevelled thus preventing the 'picture frame' effect. No mortar means the blocks butt neatly and seamlessly together on all sides. Importantly, as the wall can be built as little as eight degrees back from vertical, the Meadow Stone wall face doesn't look 'stepped' to the passer-by. The effect is of a seemingly continuous wall of natural stone.

Canterbury Walls

The standard wall units in the Canterbury product have locating lugs which must be laid facing up on all courses except for the top course. This will ensure they fit inside the cut-out recesses of the blocks above. Make sure you backfill the cores of each block using 10-20mm blue metal drainage aggregate to give the wall the required stability. Every block needs to have the cores filled. For the top course, lay your blocks upside down so it hides the locating lugs.

The Canterbury system allows you to easily build both 90º internal and external corners as it comes with a purpose built corner unit. This corner unit can be used for both left and right hand corners by simply turning the unit upside down. To lay a corner unit, place the two rough-sides facing out. Then on either side of this corner unit, lay standard units. For each subsequent course of a corner, you need to alternate the direction of the corner unit to achieve bond. As the corner unit does not have locating lugs, each corner unit must be glued down with construction epoxy.

For curved walls, knock off the 'wings' from the back the block using a bolster.
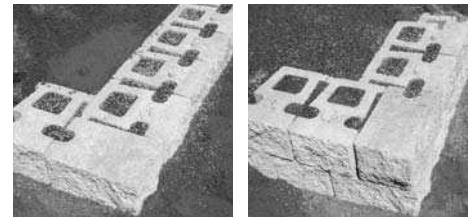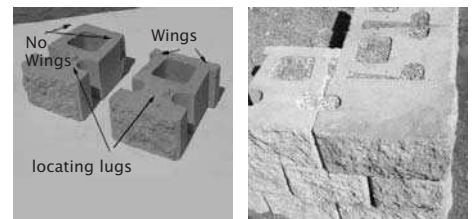
First course of a corner   Second course of a corner

Building Steps

1. Dig out the area to be stepped. The slope should lean back at around 20 - 30˚ to horizontal and allow for the block volume and backfill.

2. Lay the first course of blocks (either one or two rows front-to-back depending on block size) as per the wall instructions.

3. Backfill using road base to the top of this course and compact firmly. Alternatively you can backfill with concrete or simply lay 2 blocks back-to-back. It is important that any material used as your next step foundation is exactly level with the top of the first course of blocks.

4. When using Diamond blocks lay the second course with the blocks lipped over the first course by 35 - 50mm. Secure these in place with concrete adhesive. With Balmoral, Windsor and Meadow Stone, lay two rows front-to-back to make the step or use capping stones or gravel infill to get a front-to-back step dimension of around 250mm.

5. Repeat steps 3 and 4 to reach the required height.