Heathstone®
Retaining wall system

October 2016
Heathstone® is ideal for low, vertical landscaping walls in garden and communal areas. It is often used to separate and highlight entertaining areas, BBQ areas, paths, garden beds, hedges, or to create and differentiate levels. Heathstone® is also suitable for constructing steps, planter boxes and for curved walls.

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<th>Recommended for</th>
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<tr>
<td>STRAIGHT WALLS</td>
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<tr>
<td>CURVED WALLS</td>
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<tr>
<td>CORNERS</td>
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<tr>
<td>STEPS</td>
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</table>

Maximum wall height = 708mm
Curved wall construction
Curves as small as 900mm in radius can be constructed with Heathstone Standard Units.

Convex (External) Curves
For convex curves, the tails of the blocks must be trimmed to suit the desired radius. Use a hammer and bolster on the back, top and bottom of the tail. Use light hammer blows first to trace the area to be removed, then a heavier blow on top. Repeat the tracing and final blow if necessary.

![Fig 1. Forming Convex Curve](image)

Concave (Internal) Curves
For concave curves, use Standard Units spaced evenly to a scribed arc butted together to form a 1500mm radius wall face.

![Fig 2. Forming Concave Curve](image)

Corner construction
- Corners are constructed using Standard Units and Corner Units.
- Lay the Corner Units in alternate directions in adjacent courses (see illustrations below).
- Continue this step until the desired height of the wall is achieved (maximum four courses high without fill).
- A construction adhesive can be used to secure corner blocks and caps.

![Fig 3. Heathstone External Corner](image)

![Fig 4. Heathstone Internal Corner](image)
Design considerations

- The range of Heathstone components is designed to optimise space, and includes a ready-to-install corner unit and a series of caps to accommodate single or double sided applications and curved installations.
- Convex curves as tight as 900mm radius can be constructed using the standard unit, as well as concave curves with 1500mm inside radius.
- Depending on the foundation and retained soil characteristics, Heathstone is effective as a gravity structure up to 648mm (four courses high) plus capping unit. Blocks should be embedded a minimum of 100mm into the ground.
- Heathstone should not be used where the base soil or backfill is not firm or is of expansive clay. Nor should it be used where loads (e.g. buildings, driveways) will be located near the retaining wall (within 1 metre).

Step construction

Step Treads and Capping Unit Installation

- The Capping Unit (280mm long) has a recess in the underside to allow for the lug on the Heathstone Standard Unit.
- To allow for installation of the Capping Units as step treads (Fig 5), it may be necessary to bolster locating lugs from the Standard Unit for the Capping Unit to sit flat.

Fig 5. Construction of Heathstone Steps

- Place the Heathstone unit into sand for support. Trace along the back of the lug with a bolster and hammer, increasing the force of hammer blows until the lug splits off. All blows must be from the back of the block, with the bolster blade nearly parallel to the top of the Heathstone unit. Refer to the illustration. Any remaining high spots should be removed with a scutch hammer or a cold chisel and hammer.

Fig 6. Bolstering Lug from Heathstone Unit
Heathstone® construction

Gravel-fill construction

No loads to be located within 1.0m of the wall

Dish drain to direct surface water or filter fabric to stop silt filling drainage layer

Voids in and around Heathstone blocks to be filled (if required) with 12-20mmØ free draining granular material eg. blue metal

Backfill (eg. excavated soil) to be placed and compacted as each course of blocks is laid

Agricultural drainage line 100mmØ

Blocks to be embedded a minimum of 100mm

Refer to Heathstone Gravel-Fill Selection Table for maximum number of courses

Maximum wall heights

<table>
<thead>
<tr>
<th></th>
<th>MAXIMUM COURSES</th>
<th>For walls without gravel fills to all voids and cores</th>
<th>For walls with gravel fills to all voids and cores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor soils – including sands, gravelly clays, sandy clays and silt clays</td>
<td>2 (324mm)</td>
<td>3 (486mm)</td>
<td></td>
</tr>
<tr>
<td>Average soils – including well graded sands and gravelly sands</td>
<td>3 (486mm)</td>
<td>4 (648mm)</td>
<td></td>
</tr>
<tr>
<td>Good soils – including gravels, sandy gravels and crushed sandstone</td>
<td>4 (648mm)</td>
<td>5 (810mm)</td>
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</table>

Notes

• Backfill retained by a retaining wall should be no higher than the top of the retaining wall.

• The gravity wall heights are maximum heights calculated in accordance with CMAA RW03 Appendix D guidelines and a qualified engineer should confirm the suitability of the product for each intended application.

Important

Please consult with the regulating council for local design requirements prior to ordering, designing or constructing retaining walls. Councils in general require that retaining walls be designed and certified by a suitably qualified engineer where the wall is over 0.5m in height and/or where there is surcharge loading such as a roadway, house, or other structure near the wall.
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