adbri MASONRY

Landscape Solutions

South East QLD Paving and Retaining Wall

Effective May 1, 2010

New Product!

QUADRO 40™

ALL NEW COLOURS

Quadro™ 40 Oatmeal

New
Product!

Quadro™ 40 Pavers

Spend time entertaining, not maintaining, with Adbri Masonry Quadro™ 40 pavers.

Quadro™ 40 Oatmeal

Quadro™ 40 Oatmeal Smooth and Honed

paving paving paving paving paving paving paving

Quadro™ 40 pavers are the perfect choice for most home landscaping projects. This 400x400x40mm paver is great for DIY projects including paved courtyards and entertaining areas, pathways, pool surrounds and patio's. Quadro™ 40 pavers are great value for money and lighter than other large format pavers making them easier to lay. This exciting new product comes in seven natural colours and two surface finishes with the honed finish great for header courses or feature areas. These earthy tones will ensure Quadro™ pavers blend effortlessly with any existing environment.

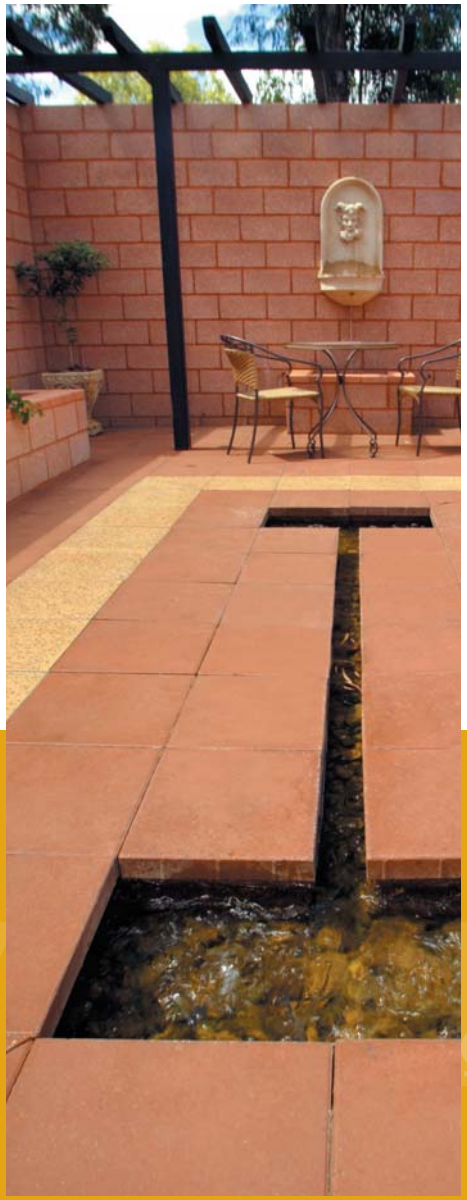
Renovate and reinvigorate your tired backyard or lawn now with Quadro™ 40 pavers and be the envy of your friends at barbeque time! Replacing an old lawn with modern pavers will also reduce your water consumption and take time out of your garden chores! Ask your landscape expert about what colour Quadro™ 40 paver is right for your backyard.

Paving - Entertaining Areas

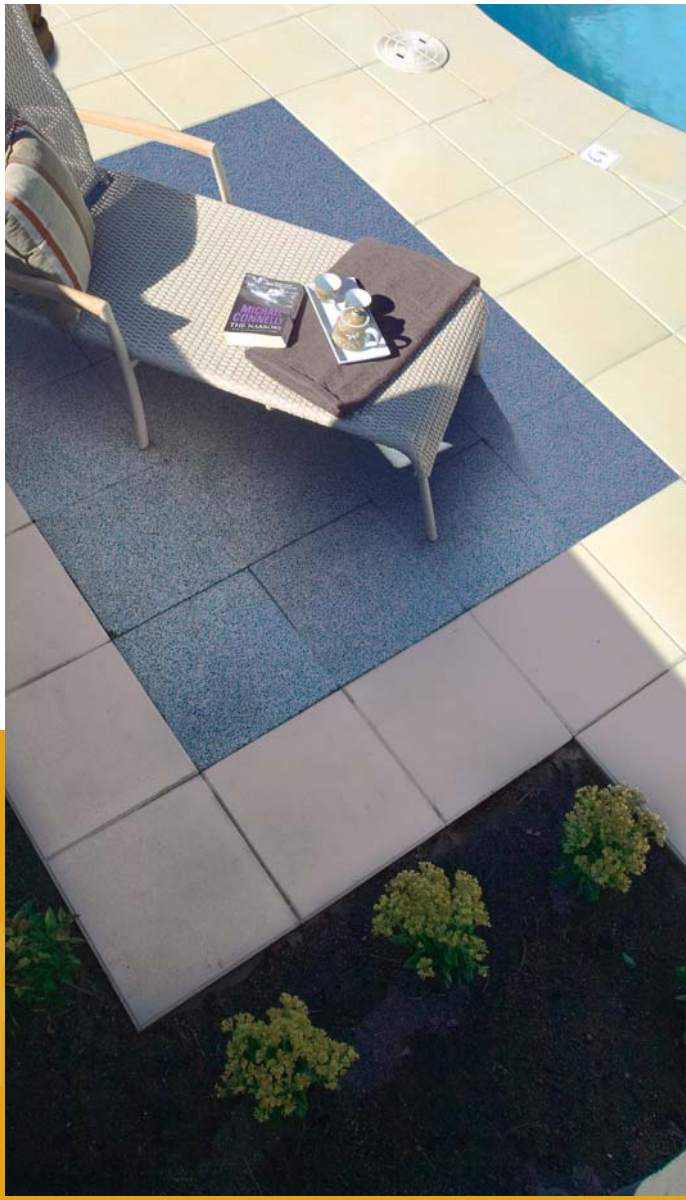
Can't get the grass to grow under your pergola? Need something solid underfoot when you have a bbq? The stylish solution is Adbri Masonry paving. It doesn't rot or attract nasty termites, and there's a great range of paver sizes, colours and surface textures to choose from.

Havenbrick®

Quadro™ 40



Euro® Classic and Euro® Granite



Havenpave® are a very cost effective yet super stylish solution to all basic paving needs. Easily laid anywhere around the home, they bring driveways, courtyards and garden paths to life with their three popular colours.

Just add water - Use contrasting colours to border feature elements in your garden, it looks great, is ideal for entertaining and you get to hear the soothing sound of water.

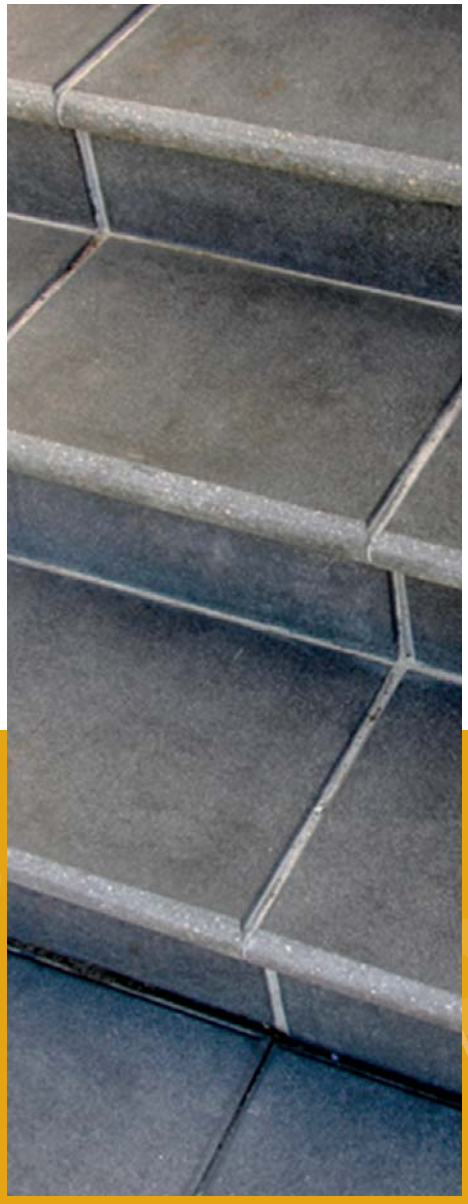
Added sophistication - New Euro® granite pavers are ideal for all backyard applications, including pool surrounds. Hard wearing and a great range of colours.

Paving - Driveways and Pathways

Your old driveway ready for a restoration? Got a goat track leading to your clothesline? Adbri Masonry pavers are the simple and stylish solution to all sorts of landscaping problems around the house.

Turfstone®

Euro® 400 x 400 Bullnose Paver



Euro® Granite 400 x 400

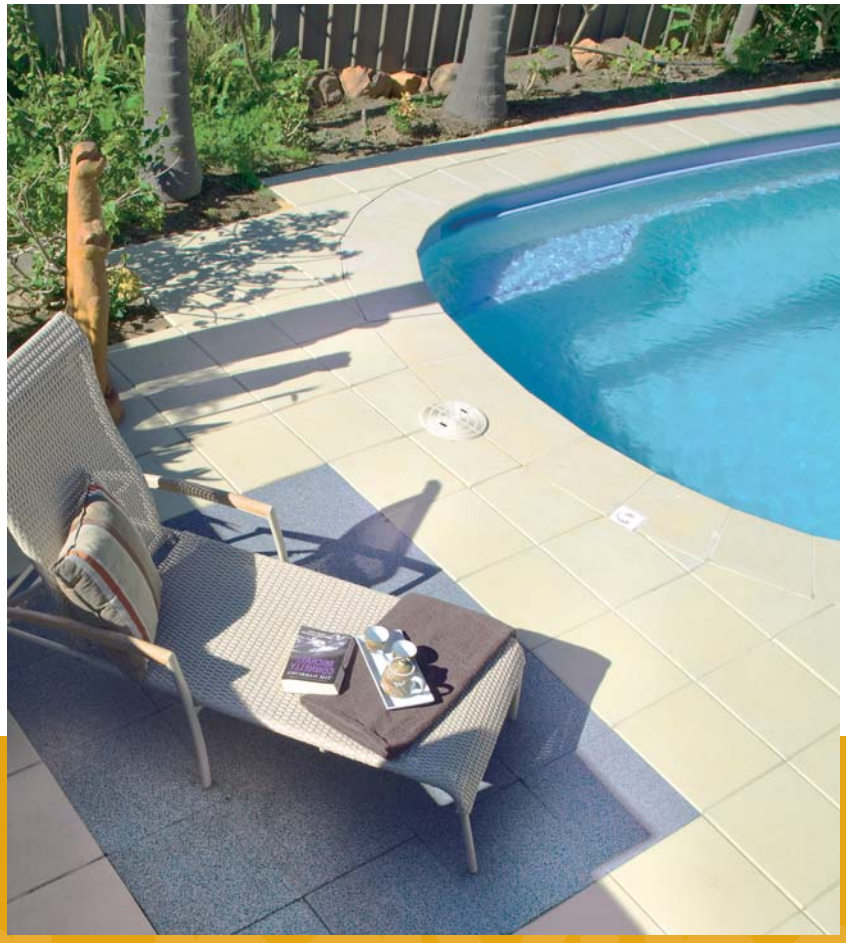
The perfect path - No muddy footprints through the back door when you use Quadro™ or Euro® pavers for pathways around your home and pool. Mix and match colours and consider laying the odd diamond for a contemporary look. Euro® pavers create the perfect finish to pool surroundings with stylish bullnose pavers available in all colours.

Make an entrance - What a great way to make an entrance! Your house will look amazing and maintenance will be a thing of the past.

Go green with Turfstone® - Turfstone® is like a trellis for your lawn. The patchwork pockets allow lawn to grow through while the pale toned grid provides the stability of a fully covered surface. This innovative paver is ideal for outdoor boat and caravan parking areas as well as road-to-garage driveways.

Euro® Classic Bullnose
and Euro® Granite

Euro® Granite



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Add that special something - Spend your time entertaining, not maintaining, beautify your backyard with easy care pavers.

Euro® Granite pavers are stylish and hard wearing, providing the perfect solution when you need a hard working, slip resistant paver with a great look. The exposed aggregate finish meets all slip resistance criteria and creates an elegant, yet natural look that complements outdoor feature areas.

Euro® Granite is available in five stunning colours and is ideally suited to home landscaping projects and high pedestrian traffic areas that call for a high performance, hard wearing paver.

Paving - Courtyards and Pathways

Adbri Masonry pavers are the simple and stylish solution to all sorts of landscaping problems around the house.

Havenpave®

Euro® Classic

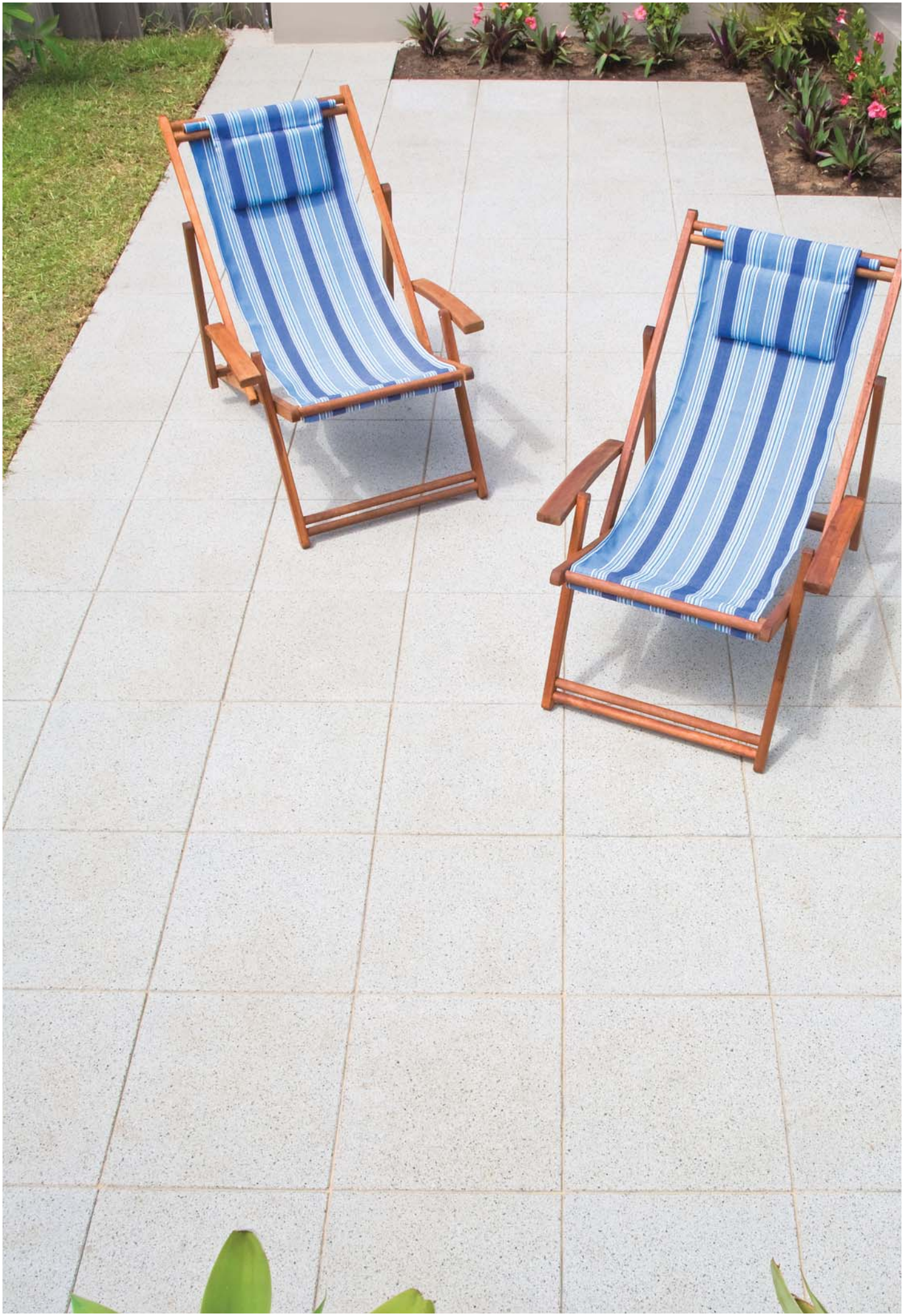
Euro® Classic

paving paving paving paving paving paving pa

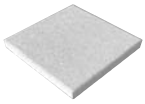
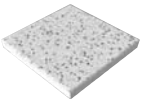
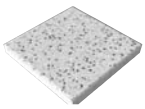
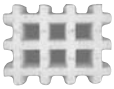
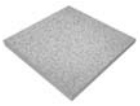
No need to mow - The latest trend in landscaping is low-maintenance outdoor feature areas centred around strong, stylish and sophisticated pavers. The look is cool, clean and contemporary. Perfectly matched to the minimalist rendered wall style of modern homes. Yet fully adaptable to more traditional homes built from brick, steel or timber. Accessorise with mondo grass, white river stones and companion plantings. Add a water feature, include a statue. It's up to you, and easy to do. Hey, you've got better things to do on your weekend than mow the lawn.

Contemporary paving - Use complimentary coloured stones and stylish pavers to create this modern outdoor feature area, guaranteed to keep you ahead of the Jones'.

Keep it simple - Increase the usage of your backyard by laying stylish pavers. You now have a great place to entertain a few friends and you don't have to mow before they come.



Product Guide - Paving

Products	Type	Size (mm) l x w x h	No. per m^2	No. per tonne	Kg per unit	No. per pallet	Applications	Available Colours
	Havenbrick®	200 x 100 x 50	50	444	2.25	720	Feature Areas/ Courtyards/ Salt Resistant	Charcoal/ Sunstone/ Oatmeal
	Havenpave®	200 x 200 x 50	25	223	4.48	360	Feature Areas/ Courtyards/ Light Commercial/ Salt Resistant	
	Quadro™ 40 Smooth	400 x 400 x 40	6.25	75	13.3	117	Feature Areas/ Courtyards/Pathways/ Salt Resistant/	New Colour Range: Ivory/ Oatmeal/ Sunstone/ Terracotta/ Mocha/ Fossil/ Charcoal
	Quadro™ 40 Honed	400 x 400 x 40	6.25	75	13.3	117	Feature Areas/ Courtyards/Pathways/ Salt Resistant	
	Quadro™ 40 Bullnose Smooth	400 x 400 x 40	2.5L/m	75	13.3	117	Feature Areas/ Courtyards/Pathways/ Salt Resistant	
	Quadro™ 40 Bullnose Honed	400 x 400 x 40	2.5L/m	75	13.3	117	Feature Areas/ Courtyards/Pathways/ Salt Resistant	
	Turfstone®	387 x 290 x 90	8.9	70	14.3	96	Pathways/ Light Commercial	Grey
	Euro® Classic	400 x 400 x 40	6.25	73	14.3	108	Feature Areas/ Courtyards/Pathways/ Salt Resistant/ Steps and Courtyards/ Light Commercial	Athens/ London/ Prague/ Rome/ Cyprus/ Milan
	Euro® Slate	400 x 400 x 40	6.25	73	14.54	108		
	Euro® Grande	400 x 400 x 35	6.25	79	12.69	108		Athens/ London/ Prague/ Rome
	Euro® Granite	400 x 400 x 40	6.25	71	14	108		Nero-Calca/ Riverina/ Padthaway Green/ Harcourt/ Nero
	Bullnose Euro® Classic Euro® Slate Euro® Grande Euro® Granite	400 x 400 x 40	2.5L/m	71 69 80 91	14.08 14.42 12.49 13.90	108	Feature Areas/ Courtyards/Pathways/ Salt Resistant/ Steps and Courtyards	Bullnose available in all Euro Colours

Colour Chart - Paving

Havenbrick/Havenpave
Oatmeal

Havenbrick/Havenpave
Sunstone

Havenbrick/Havenpave
Charcoal

Colour Chart - Euro

Euro® Classic
Athens

Euro® Classic
London

Euro® Classic
Prague

Euro® Classic
Rome

Euro® Classic
Cyprus

Euro® Classic
Milan

Euro® Slate
Athens

Euro® Slate
London

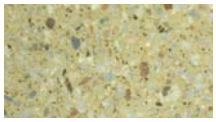
Euro® Slate
Prague

Euro® Slate
Rome

Euro® Slate
Cyprus

Euro® Slate
Milan

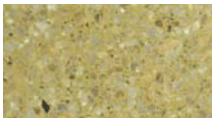
Euro® Grande
Athens



Euro® Grande
London

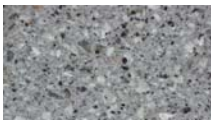
Euro® Grande
Prague

Euro® Grande
Rome

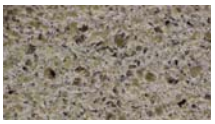


Euro® Granite
Nero-Calca

Euro® Granite
Riverina

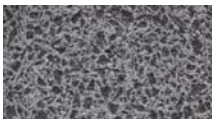


Euro® Granite
Padthaway Green



Euro® Granite
Harcourt

Euro® Granite
Nero



Note: Due to natural aggregate variations, final products may vary slightly in colour.
Note: Cyprus and Milan are not available in the Grande finish.

Colour Chart & Finishes - Quadro™

Ivory Smooth

Oatmeal Smooth

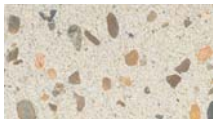
Sunstone Smooth

Terracotta Smooth

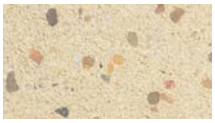
Finishes
Smooth

Smooth Bullnose

Ivory Honed



Oatmeal Honed



Sunstone Honed

Terracotta Honed

Honed

Honed Bullnose

Mocha Smooth

Fossil Smooth

Charcoal Smooth

Mocha Honed

Fossil Honed

Charcoal Honed

Note: As Quadro™ 40 is 40mm thick, it is not suitable for paving driveways unless they are laid on a prepared concrete base. If you are looking to pave a driveway, ask your Adbri Masonry representative for a suitable alternative.

Checklist

1. Check With Your Council

Pavers can usually be laid around your house without council approval. However, if you're doing a driveway or working in an area where water run-off is an issue, you may need to contact your local authority. Some of the newer residential communities have covenants covering the use of driveway materials. If so get authorisation before proceeding.

2. Check Off Your Equipment

- ☐ Garden gloves
- ☐ Wheelbarrow
- ☐ Road base
- ☐ Spade
- ☐ Rubber mallet
- ☐ Course sand

To lay courtyard/pathway pavers, you will also need:

- ☐ Fine sand
- ☐ Ear muffs
- ☐ Spirit level
- ☐ String line
- ☐ Cement
- ☐ Wacker packer
- ☐ Bricksaw
- ☐ Straight edge
- ☐ Broom
- ☐ Small trowel

To lay a driveway, you may also need:

- ☐ Concrete
- ☐ Steel reinforcement

3. Work Out How Many Pavers You Need

1. Grab a pencil, paper and tape measure. Measure the length and the width of the area to be paved. Then multiply one by the other to determine the total area in square metres. Make an appropriate allowance for irregular shaped areas or curved edges.
2. Multiply the number required per m2 by the area to be covered to determine total number of pavers required. Add 2% to this figure to allow for mishaps and cut pavers. Here's a guide to how many of each type you'll need to lay one square metre.

4. Safety

- ☐ Always wear eye protection when you're splitting or cutting Adbri Masonry pavers. Wear ear protection if you use a wacker packer.
- ☐ Bend your knees when lifting heavy pavers.
- ☐ Wear work boots to protect your feet and gardening gloves to protect your hands.
- ☐ Slip, Slop, Slap if you're working in the sun and keep your fluids up.

Paver Size (L x W)	Number Required Per m^2
600 x 600mm	2.8
500 x 500mm	4.0
400 x 400mm	6.25
390 x 190mm	13.5
387 x 290mm	8.9
300 x 300mm	11.1
250 x 500mm	8.0
200 x 400mm	12.5
200 x 100mm	50.0
200 x 200mm	25

Installation Procedures - Paving

1. Clear Your Site

Mark out the area to be paved. Dig out the existing lawn and loose earth to a depth of around 150mm below the required finished height of your pavers. Remove all plant matter including roots, as any vegetation you leave in the ground will break down and cause your paving to sink in the near future. Scrape the bottom of your work area flat with your shovel.

Handy Tips: Dig and shovel straight into your wheelbarrow. No point double handling.

2. Lay a Foundation

Tip in your foundation material(s) to the minimum required depth as indicated on the back page. Fire up your wacker packer and compact 2 or 3 times until you have a nice firm surface. If you're foundation is concrete, make sure it is at lease 20 MPa in strength and is screeded to a smooth and level pad.

Handy Tips: Use ear muffs when you use a wacker packer.

3. Add Your Bedding Type

The most common bedding type used for paving is washed coarse sand. A minimum 25mm layer on top of your foundation should do the trick. Tip in the sand and rake it around until you have an even level distribution of sand. If you are using concrete, you have the option of bedding your pavers in sand, mortar or a suitable propriety adhesive.

Handy Tips: Please refer to manufacturers instructions for the correct use of mortar or adhesives as an alternate bedding type.

4. If Bedding Sand, Screed Smooth

Working from the far end, screen your sand smooth with a long straight float. Timber edge rails half a paver depth below the existing ground level might help here. Use a spirit level to make sure your compacted sand slopes away from your house and towards your lawn or garden for rainwater run off.

Handy Tips: You can't be too smooth. Make sure your sand bed is nice and flat before you lay any pavers.

5. Start Paving

Set up a string line and carefully place your first row of pavers in position. Make sure your line is dead straight. Space your pavers a few millimeters apart using the blade of a trowel to get a consistent gap. If you are using mortar or an adhesive as a bed, you can butt your pavers together to achieve that contemporary look you have always wanted. However, if you are going for this option then expansion joints are required. Expansion joints need to be provided at intervals of no more than 4 meters and must mirror all concrete base control joints.

Handy Tips: Keep close to the ground (not arched over) when laying pavers to protect your back.

6. Cut Corners

If you're paving out into an area bounded by grass (or a movable garden bed edge) you might get away without needing to cut any pavers. But if you want to in-lay a pattern, do a curved edge or fit your paving snugly around things like down pipes, it's time you went to your local hire place and get yourself an electric brick saw. While you're there, ask them about the correct procedures for cutting concrete pavers.

Handy Tips: Choosing the right sized paver for certain jobs can eliminate the need to get in a brick saw.

7. Set Square

With the first line of pavers laid, it's time to head off in a different direction. Grab a big right angle square to set a course at exactly 90 degrees to the first row and off you go. As you work forward, use a rubber mallet to tap your pavers down for a nice flush surface.

Handy Tips: Don't walk on your screeded bed of sand.

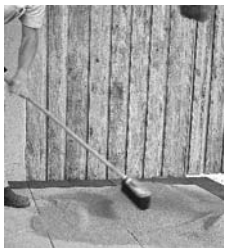
8. Edging

Unless your pavers are being laid up against a wall they should be secured at every edge with pre-mixed concrete (add water only) or a mixture of coarse sand and cement at a 4:1 ratio. The finished edge of your paved area should be raised a little bit above any surrounding lawn.

Handy Tips: For a neat job, trowel the excess concrete up against the paver at a 45 degree angle.

9. Sweep in Sand

This is the easy bit. With all your pavers now in position, it's time to tip a load of fine sand (joint filling sand) on top and sweep it into all the little crevices. Note: All expansion joints shall be filled with an appropriate flexible material.



Handy Tips: For ease of filling the joints, the joint filling sand and pavement surface should be dry.

10. Pack it in

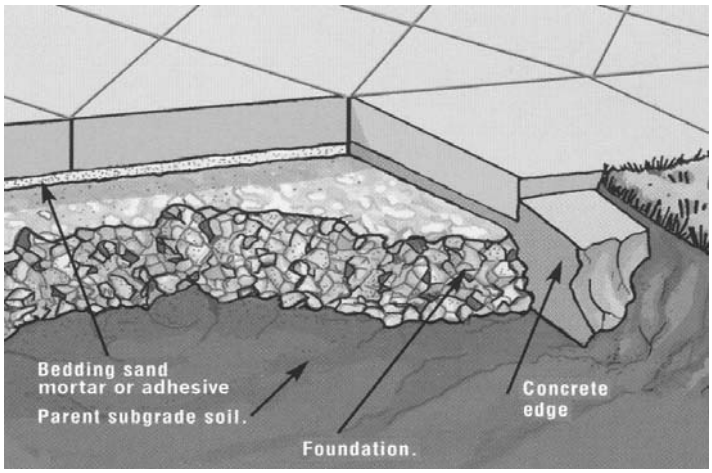
Drag the whacker plate (see handy tip) on to the paved areas and begin compacting the pavers. Once or twice will do the job. If you have returned the compactor to the hire yard, don't panica piece of solid timber used in conjunction with a rubber mallet will do the job. Note: this is ONLY to be done if your bedding type is sand.

Handy Tips: An old piece of carpet under the compacting plate will avoid chipping any pavers.

11. Seal Your Pavers

It is not compulsory to seal your pavers; however doing so will assist in reducing the chances of permanent staining and water penetration. It will also improve the aesthetic appeal of the finished pavement. Speak to your distributor for an appropriate sealer for your project.

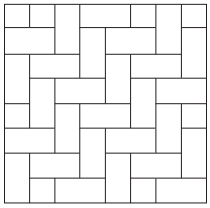
Cross-Sectional Diagram



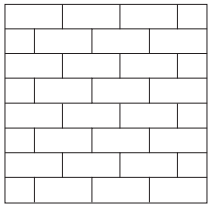
Please refer to the table on opposite page for the appropriate foundation and bedding type.

Patterns of Laying

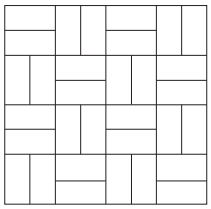
90˚ Herringbone



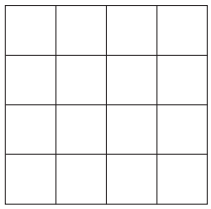
Stretcher Bond



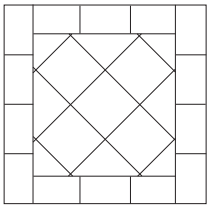
Basketweave



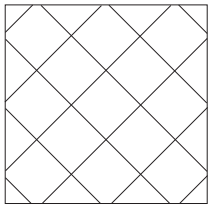
Stackbond



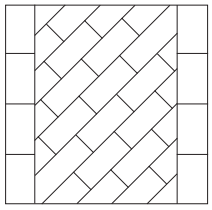
Diamond
with flat header course



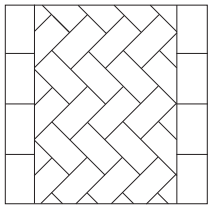
Diamond



45˚ Stretcher Bond
with flat header course



45˚ Herringbone
with flat header course



Installation Considerations - Paving

Beyond the pavers themselves is the installation process. There are two basic types of pavements for residential use: Pedestrian areas and Domestic driveways. Pedestrian areas consist of pathways, courtyards, entertaining areas, features areas etc. Basically areas where there is pedestrian access only. Domestic Driveways refers to driveways subject to traffic loadings by vehicles which when fully-loaded have a gross weight less than three tonnes; such as cars, utilities, delivery vans and some light 2-axel trucks.

The next step is to consider the base course materials, known otherwise as the foundation, which the pavers are to be laid on. The two options we recommend laying your pavers on are a road base or on a concrete slab.

A road base includes a compacted crushed rock base, cement stabilised or not, with a sand bed overlay. This method of installation, whilst maintaining a traditional paving aesthetic appeal, is a faster and more affordable installation option. However, as site conditions vary, there may be locations where there is inferior soil and it may be prudent to use a concrete slab as a base.

A concrete slab will give you extra durability and stability that you may need, however it can be more expensive to prepare. The concrete slab must be reinforced with steel mesh and have and a minimum strength of 20MPa, and be level to within a tolerance of 3mm in 3m. This option is flexible enough to offer you three alternate bedding options including sand,mortar or proprietary adhesives.

As Adbri Masonry pavers are manufactured differently, they can perform differently under the same situation. Please refer to the below table for details on the recommended installation requirements. We always recommend that you seek the advice of a qualified engineer to assess and design your paved area, including selection of the base to be used.

Pavement Type	Basecourse / Foundation	Bedding Type	Pavers
Pedestrian Areas ▪ Pathways ▪ Courtyards ▪ Entertaining ▪ Feature Areas ▪ No vehicle access	75mm compacted crushed rock	Sand*	Euro® Santa Fe
	75mm cement stabilised crushed rock	Sand*	Euro® Santa Fe
	75mm concrete (20MPa)	Sand* Mortar Adhesive**	Euro® Santa Fe
Domestic Driveways ▪ Traffic loadings by vehicles which when fully-loaded have a gross weight less than 3 tonnes such as cars, utilities, delivery vans and some light 2-axel trucks.	Min. 100mm concrete (20MPa)	Adhesive**	Euro®*** Santa Fe***

* Sand as a bedding type refers to a minimum of 25mm washed course sand.
** Adhesive refers to bedding your pavers on a suitable proprietary adhesive.
*** You can use any size in the range up to 450 x 450mm as specified by the CMAA Design and Construction Guide for Concrete Flag Pavements MA44.

Retaining Walls - Garden Edges

Grass getting into your garden bed? Mulch spilling onto your lawn? The simple solution is an Adbri Masonry Border Stone, Meadow Stone or Windsor Wall block. Pick your style. Dig a trench. Tip in some road base. Then lay a course or two. It's that easy.

Meadow Stone

Border Stone

Windsor Wall

Border Stone is the cost effective, easy way to separate garden beds from your lawn. These small attractive blocks are ideal for simple tree circles, cottage garden edging and a ring around your rose bushes.

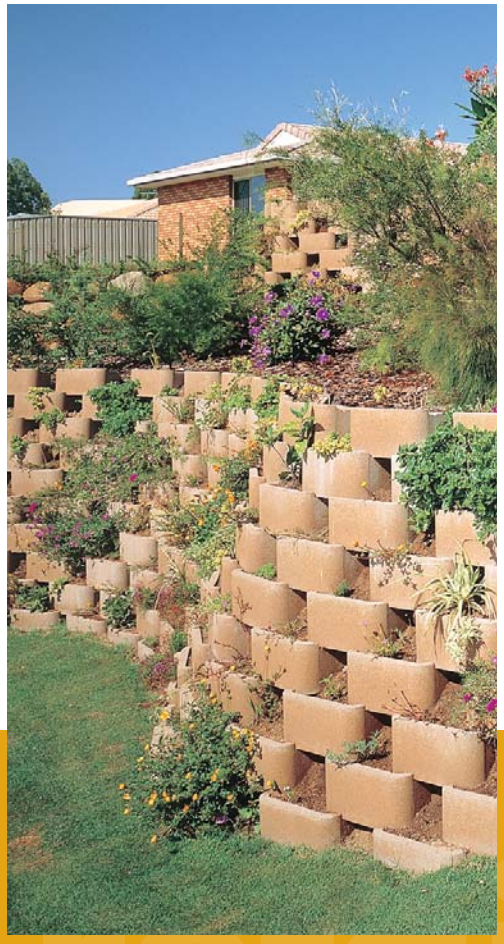
Meadow Stone blocks come in three different facing widths. Lay them in a random pattern to create a natural rock-like edge one or more courses high. Then cap it off with the special capping stone.

Windsor blocks give you a quarried stone look without spending a King's ransom. Windsor blocks are castle-like in appearance with rough-hewn face on all three facing edges.

Retaining Walls

Want to raise your lawn to a new level? Do you have timber or brick retaining wall that's let itself go? Adbri Masonry blocks solve all sorts of landscaping problems. They can't rot or rust and they add substance and value to your home.

Eden Wall



Natural Impressions™

Canterbury

g walls retaining walls retaining wal

Eden Wall is the retaining wall specially designed to become 'invisible' behind a cover of greenery. Each block contains a soil pocket that can be used as a 'planter box' for creepers, ground cover and small bushes.

Natural Impressions™ is one of Adbri Masonry's most popular retaining wall systems. Inspired by the look and feel of architecturally stacked stone, Natural Impressions™ creates its own unique expression of nature, so it's ideal for backyard projects and designer garden edging. Featuring an easy to install rear lip system, Natural Impressions™ comes in five different face styles that are laid randomly to effortlessly create a natural rock wall ambience.

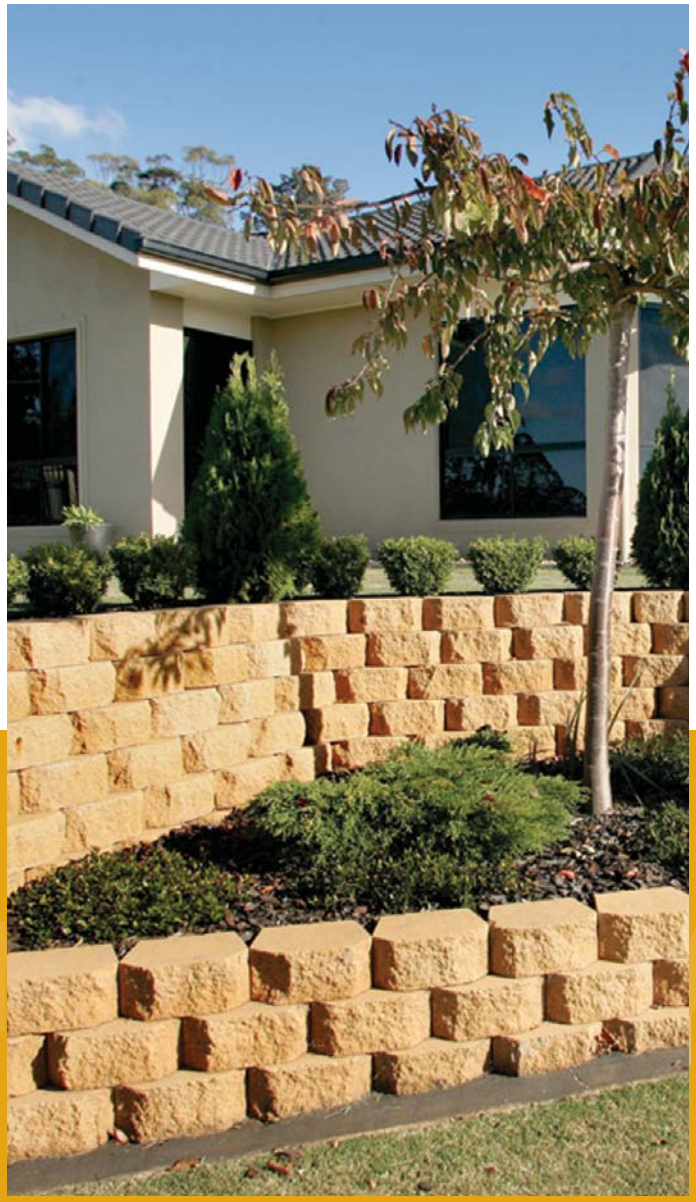
The Canterbury retaining wall system is the most innovative and DIY friendly wall system on the market. Canterbury is a pure vertical system that uses lugs to help you create a professional and elegant finish.

Retaining Walls - Steps and Corners

Got a slippery slope in your backyard? Going round the bend working out how to do a retaining wall corner? Be inspired by these Adbri Masonry products. Solid enough to stand the test of time, yet relatively quick to lay.

Natural Impressions™

Windsor Wall



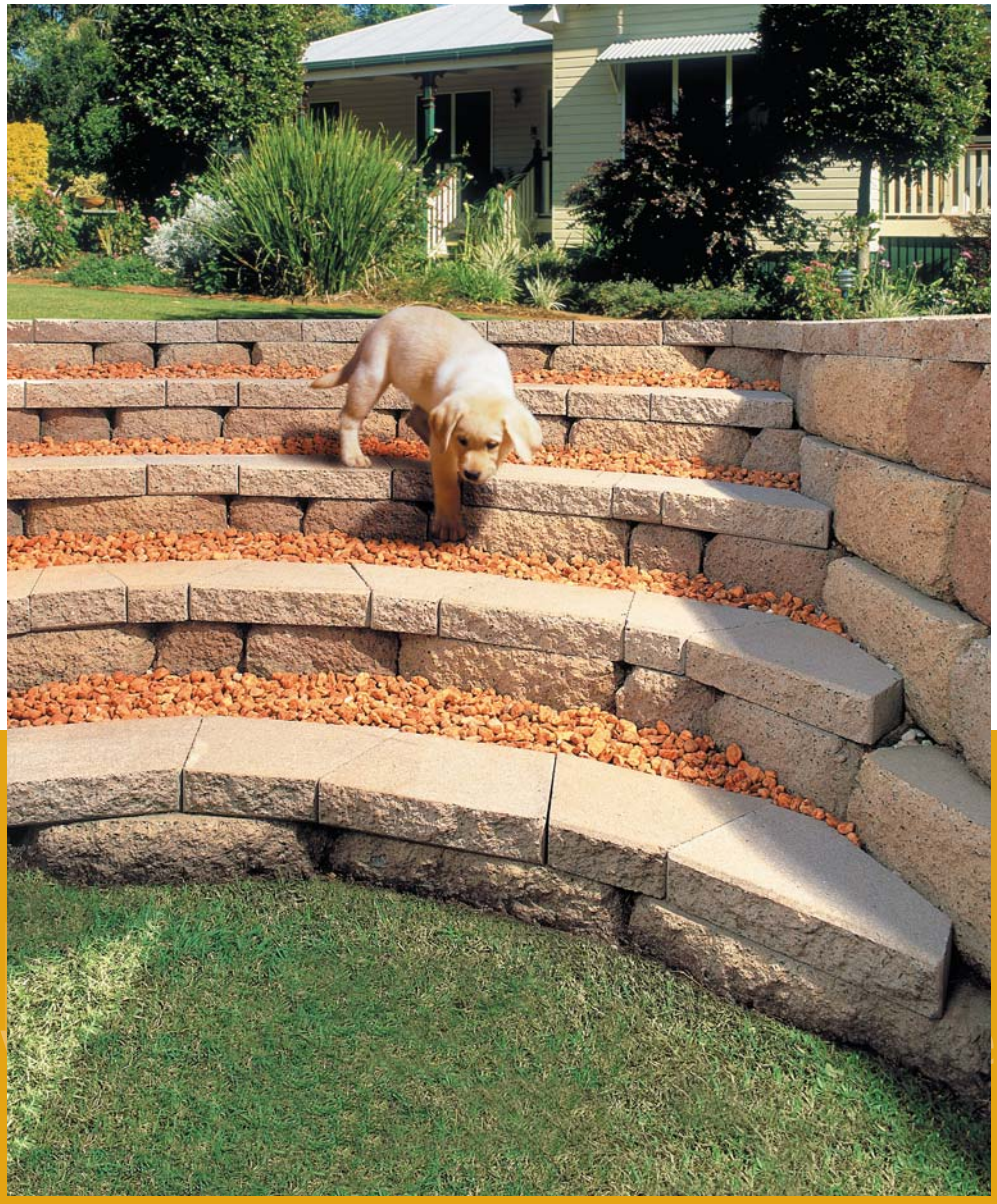
Diamond

Make a powerful impression with the all new Natural Impressions™ range. Natural Impressions™ is inspired by architecturally stacked stone to create a truly unique, natural looking retaining wall or garden edge.

The house, above centre, is now a home with sweeping garden bed walls made with Windsor blocks. For a more natural looking wall, use Windsor blocks with Windsor capping stones.

Diamond blocks make attractive and affordable garden steps requiring no maintenance other than the occasional sweep. They are large enough to be used without capping stones, so installation is quick and simple.

Meadow Stone



Meadow Stone

Meadow Stone is a multi piece retaining wall system comprised of three seperate blocks. When laid randomly throughout a wall, this system achieves a remarkably natural look which will blend effortlessly into any existing environment. Meadow Stone is also available in a capping unit which adds a chic touch to this stylish retaining wall system.

Product Guide - Retaining Wall

Products	Type	Size (mm) l x w x h (Max. height)	No. per m^2	No. per tonne	Kg per unit	No. per pallet	Applications	Available Colours
	Windsor	295 x 203 x 130 (1040mm)*	26	82	12.2	120	Steps and Courtyards/ Low Walls/ Garden Edging	Autumn Brown/ Autumn Gold/ Sandstone/ Santolina/Illiad
	Windsor Cap	230 x 200 x 60	3.8 L/m	147	6.8	168		Autumn Brown/ Sandstone/ Santolina/Illiad
	Diamond	395 x 305 x 150 (1200mm)*	17	34	29.33	54	Steps and Courtyards/ Low Walls/ High Walls/ Garden Edging	Autumn Brown/ Autumn Gold/ Sandstone/ Santolina/Illiad
	Diamond Cap	455 x 264 x 100	2.6 L/m	52	19.2	96		Sandstone/Illiad
	Canterbury Standard**	225 x 300 x 150 (980mm)*	29.63	70	14.2	100	Feature Areas/ Courtyards/Low Walls/ Steps and Courtyards/ Salt Resistant	Sandstone/ Sienna/ Santolina/ Illiad
	Canterbury Corner**	300 x 187 x 150 (980mm)*	-	58	17.2	63		
	Canterbury Cap**	390 x 300 x 80	2.56 L/m	54	18.3	72		
	Vertica	450 x 280 x 200 (1000mm)*	11.1	26	38	32	High Walls/Low Walls/ Salt Resistant/ Steps and Courtyards	Illiad/ Sandstone
	Vertica Cap	455 x 264 x 100	2.7 L/m	52	19.2	96		
	Meadow Stone (The Meadow Stone 150 x 200 x 150 and 250 x 200 x 150 units are sold as a pair).	150 x 200 x 150 (810mm)*	8.3^ pairs	43.5 per pair	23 per pair	60 per pair	Feature Areas/ Steps and Courtyards/ Garden Edging/ Low Walls	Bondi Sand/ Blue Mountain
		250 x 200 x 150 (810mm)*	PLUS					
		400 x 200 x 150 (810mm)*	8.3^ full units	48	20.8	60		
	Meadow Stone Cap	300 x 200 x 60	3.8 L/m	147	6.8	168		
	Diamond Pro Stone Cut™ (The Meadow Stone 150 x 200 x 150 and 250 x 200 x 150 units are sold as a pair).	175 x 300 x 200 (1100mm)*	5.55^ pairs	28.5 per pair	35 per pair	36 per pair	High Walls/ Low Walls/ Feature Areas	Bondi Sand/ Blue Mountain
		275 x 300 x 200 (1100mm)*	PLUS					
		450 x 300 x 200 (1100mm)*	5.55^ full units	28.5	35	36		
	Diamond Pro Stone Cut™ Cap	455 x 264 x 100	2.7 L/m	52	19.2	96		
	Eden Wall	390 x 190 x 168 (1010mm)*	10***	77	13	90	High Walls/Low Walls/ Garden Edging	Autumn Brown/ Autumn Gold/ Illiad
	Natural Impressions™ Block	300 x 175 x 100 (850mm)*	33.33	106	9.42	144	Feature Areas/ Low Walls/ Garden Edging/ Steps and Courtyards	Bluestone/ Sandbank
	Natural Impressions™ Cap	300 x 200 x 50	3.38 L/m	168	5.94	216		

* If engineered with reinforcement these walls can be built higher than maximum heights stated. Please see the technical information on the following pages, or call Adbri Masonry, for more information.

** The approximate amount of aggregate required per square metre of wall is 0.39m^2 of 10 - 20mm blue metal gravel (including backfill of wall and corefill of blocks).

***Using a 200mm gap.

^ We recommend using these products as a system - constructing your wall with both full units and pairs. If you want to construct a wall where you will NOT be using these products as a system, please speak with your local sales representative about the quantities which you will require.

Product Guide - Garden Edging

Products	Type	Size (mm) l x w x h (Max. height)	No. per m^2	No. per tonne	Kg per unit	No. per pallet	Applications	Available Colours
	Border Stone	215 x 140 x 100 (300mm)	4.65 L/m	182	5.5	240	Feature Areas/ Low Walls/ Garden Edging	Autumn Brown/ Sandstone/ Santolina/ Illiad
	Vintage Stone	200 x 145 x 100 (300mm)	5.0 L/m	177	5.65	240	Feature Areas/ Low Walls/ Garden Edging	Bondi Sand/ Blue Mountain

Colour Chart - Garden Edging

Border Stone
Autumn Brown

Border Stone
Sandstone

Border Stone
Santolina

Border Stone
Illiad

Vintage Stone
Bondi Sand

Vintage Stone
Blue Mountain

Colour Chart - Retaining Wall

Windsor/Diamond
Autumn Brown

Windsor/Diamond
Autumn Gold

Windsor/Diamond
Sandstone

Windsor/Diamond
Santolina

Windsor/Diamond
Illiad

Canterbury
Sandstone

Canterbury
Sienna

Canterbury
Santolina

Canterbury
Illiad

Vertica
Sandstone

Vertica
Illiad

Natural Impressions™
Bluestone

Natural Impressions™
Sandbank

Meadow Stone
Bondi Sand

Meadow Stone
Blue Mountain

Diamond Pro Stone Cut™
Bondi Sand

Diamond Pro Stone Cut™
Blue Mountain

Eden Wall
Autumn Brown

Eden Wall
Autumn Gold

Eden Wall
Illiad

Note: Due to natural aggregate variations, final products may vary slightly in colour

Checklist

1. Check With Your Council

Low garden edging can usually be installed without council approval. However, walls over 1m will generally need to be designed and certified by an suitably qualified engineer. Walls in locations close to buildings or driveways, in places where significant ground water or storm water build up can be expected, in steep or unstable terrain, or where there is reactive clay or fine sandy soils, may need special attention. If in doubt, please contact your local council.

2. Check Off Your Equipment

To build a basic wall you will need:

- ☐ Garden gloves
- ☐ Spirit level
- ☐ Stakes & string
- ☐ Pencil & square
- ☐ 10-20mm Blue metal
  (for drainage gravel)
- ☐ Spade
- ☐ Wheelbarrow
- ☐ Small broom
- ☐ Rubber Mallet
- ☐ Road base
  (for levelling pad)

To split blocks you will need:

- ☐ Hammer & bolster
- ☐ Safety glasses

For larger jobs you may also require:

- ☐ Skid loader
- ☐ Circular saw (masonry)
- ☐ Whacker packer
- ☐ Ear muffs
- ☐ Geosyntheic reinforcement mesh

3. Safety

- ☐ Always wear eye protection when you're splitting or cutting Adbri Masonry pavers. Wear ear protection if you use a whacker packer.
- ☐ Bend your knees when lifting heavy blocks.
- ☐ Wear work boots to protect your feet and gardening gloves to protect your hands.
- ☐ Slip, Slop, Slap if you're working in the sun and keep your fluids up.

Tricky Bits

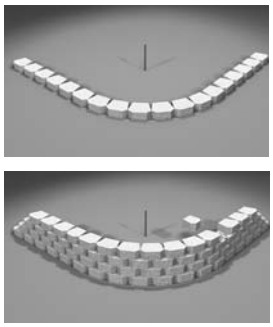
Corners and Curves

Insert a stake at the centre of the desired corner or curve then mark an arc on the ground with a spray can connected by string.

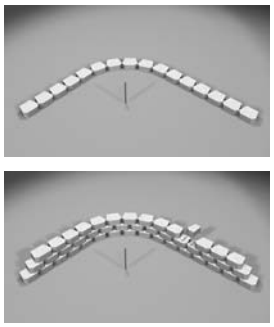
For outside curves, the top course will have the smallest radius so make sure this is not less than the minimum for the block type you are using. Conversely, for inside curves, the wall radius increases with each subsequent course.

For both inside and outside curves, you'll need to include partial blocks to maintain a proper running bond. These partial blocks will need to be fixed in place with concrete adhesive.

Handy Tips: Save on material costs by chiselling partial units from damaged or chipped blocks.



Outside curves decrease in radius towards the top of the wall.



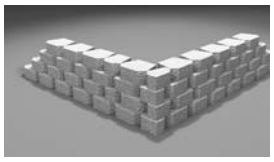
Inside curves increase in radius towards the top of the wall.

Square Corners

To build an outside corner begin by placing a half unit on the corner then lay the rest of the base course working from the corner block out. Begin the second course with another half unit, this time aligned with the alternate wall. Place the second and third blocks on either side of the corner unit and fix with concrete adhesive. Continue to alternate the corner unit orientation with each subsequent course.

To build an inside corner, place a full block at the corner then lay a second block at right angles to the first. Continue laying out the rest of the base course working from the corner out. On the second course lay the blocks on bond (eg. like bricks) on one side of the corner. Once the second course of one wall is established, begin the second course of the adjacent wall. Partial units may be required on this wall to maintain running bond for better strength and appearance. Block placement in the corner should alternate direction with each subsequent course.

Start outside corner with a half unit.



Alternate orientation of corner half units with each subsequent course.

Use full blocks in the corner of inside corners.

Installation Procedures - Retaining Walls

1. Mark Out the Wall

For straight walls use stakes and a string line. For a curved wall set the shape by laying a garden hose on the ground, then mark the curve with spray paint. It's best to use a hose with the tap on and the spray nozzle off, as the water pressure will form a more uniform curve.

Handy Tips: Use brightly coloured string so you don't trip over it.

2. Dig a Trench

Dig a foundation trench 300-600mm wide and 130-150mm deep to fit the levelling pad. Refer to the cross-sectional diagrams for the specific levelling pad requirements per product. Remove any roots and soft earth. Level and firmly compact the soil at the bottom of the trench.

Handy Tips: Gloves make your spade user friendly.

3. Add Levelling Pad

Spread road base or pour concrete along the bottom of your trench (refer to note 7 under the cross-sectional diagrams to determine the appropriate material for your pad). If using road base, level with a straight edge and compact to the required height by tamping with the rear face of a block or a mechanical whacker packer.

Handy Tips: Road base consists of 5% cement-stabilised crushed rock.

4. The First Course

Place blocks side-by-side at the front of the leveled and compacted road base whilst using a string line along the back of the units for alignment. For curved walls, place the blocks against the required shape formed by a garden hose and marked out with spray paint. Make sure the blocks are tightly side-butted together and true to the running edge of the finished wall. Sweep the top of the first course before laying the second.

Handy Tips: Use a rubber mallet to tamp blocks into place – a metal hammer may crack them.

5. Backfill

With the first course in place, backfill behind the blocks with a minimum 300mm wide 10-20mm blue metal drainage aggregate to a level slightly lower than the block height. Lay in the second block course then backfill immediately behind the wall with the drainage aggregate.

Handy Tips: Backfill as you go. Otherwise the wall might fall.

6. Install the Drain

If required, place a 100 mm drainage pipe behind the first course of blocks on the bed of drainage aggregate. Outlet the drain through the wall at every low point, at every 20m of wall length, and around the ends of the wall to your storm water system.

Handy Tips: Use ag pipe with a protective sock on it.

7. Continue to Lay

Simply add your subsequent block courses to a maximum height stated in the cross-sectional diagrams. Remember to backfill with drainage aggregate as you go, and compact it when 300mm deep. Sweep the top of each course before laying the next to remove all foreign particles. Ensure the locking lips (at the back or top of the block) fit snugly together.

Handy Tips: Make sure your block lips lock together.

8. Finishing Off

Backfill to the final wall height whilst being careful not to nudge any blocks out of alignment. For extra strength also glue the top course to the second top course using construction epoxy. Capping units should also be glued to the top course using the same construction epoxy.

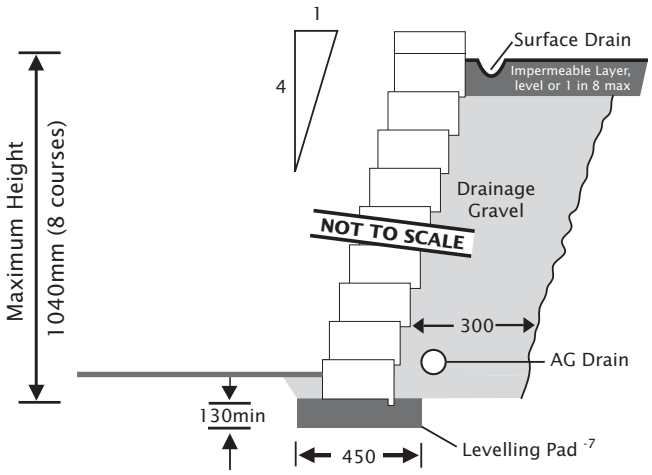
Handy Tips: Make sure you've got a cold one in the fridge for when you're finished!

Some Additional Tips

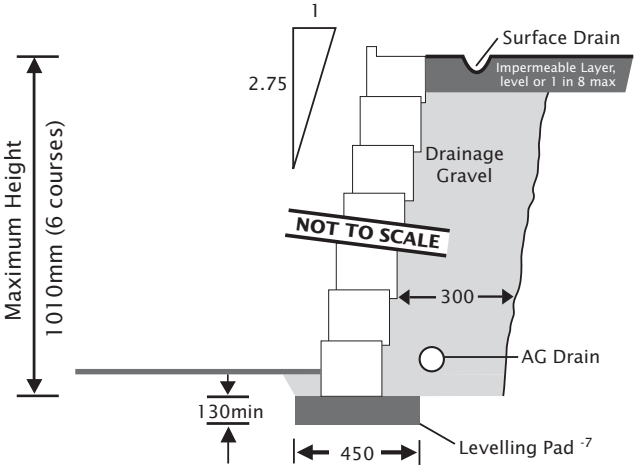
A great retaining wall requires a good foundation, correct backfill and drainage. Pay special attention to getting your leveling pad (or foundation) to an even depth, and if using road base make sure your bed is compacted to the correct size. Drainage gravel should be 10-20mm in size - blue metal is perfect. Remember the first course of blocks will dictate how the final wall looks, so lay them square and true, level side to side and front to back. Use a spirit level across the top of the blocks and tap them down with a rubber mallet. For walls that run down slopes and increase in height relative to the fall of the land, it will be necessary to 'step' the foundation trench down in block height increments. For wall heights over the maximum stated, consult your your local supplier.

Cross-Sectional Diagrams

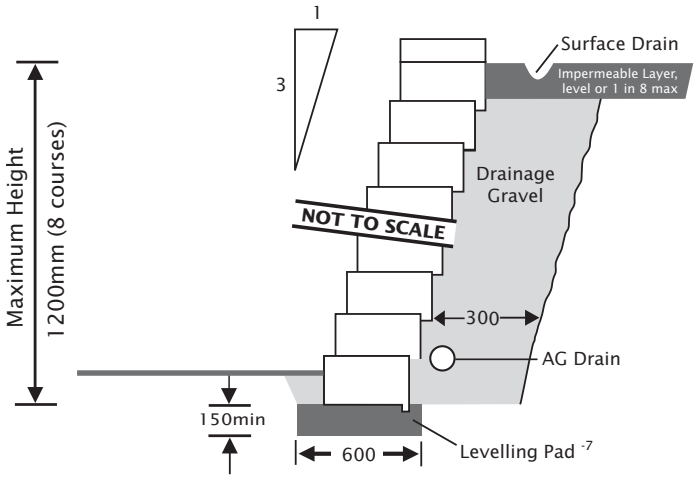
Windsor



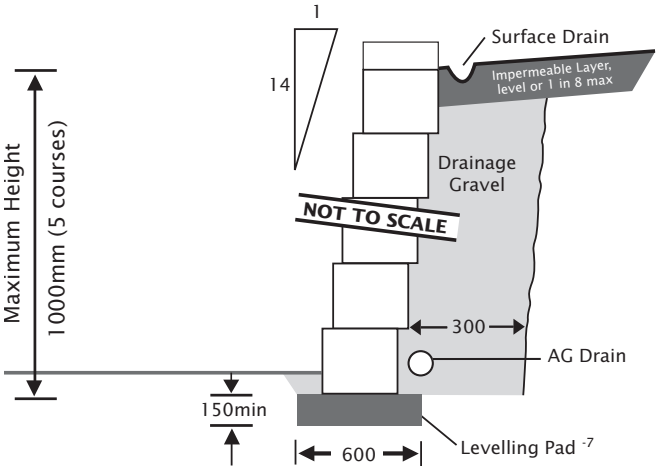
Eden Wall



Diamond



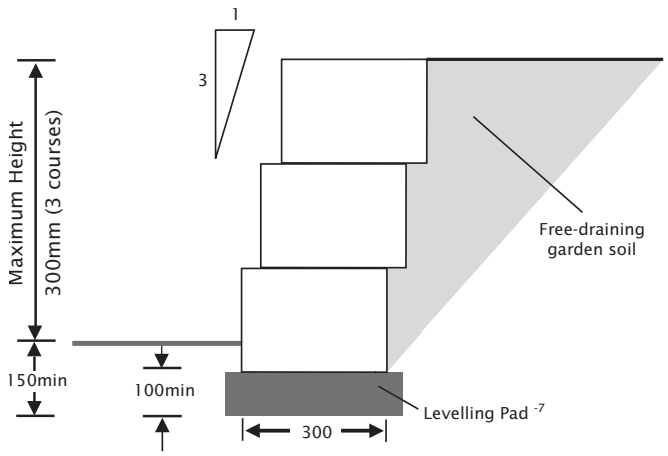
Vertica



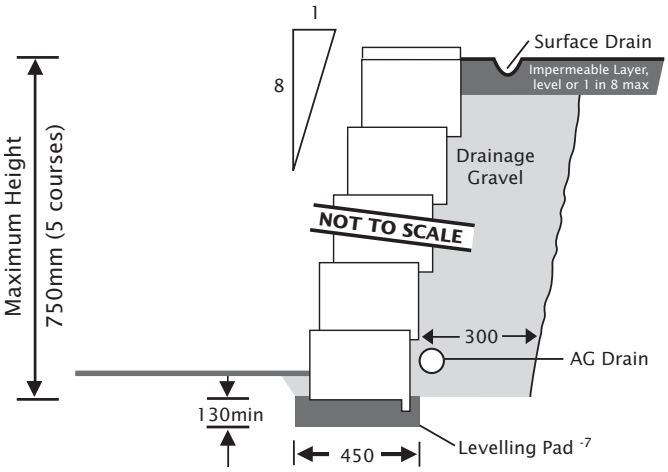
Conditions

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.

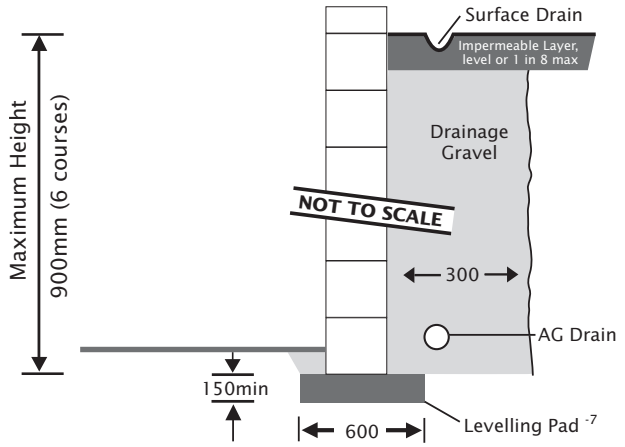
Border Stone



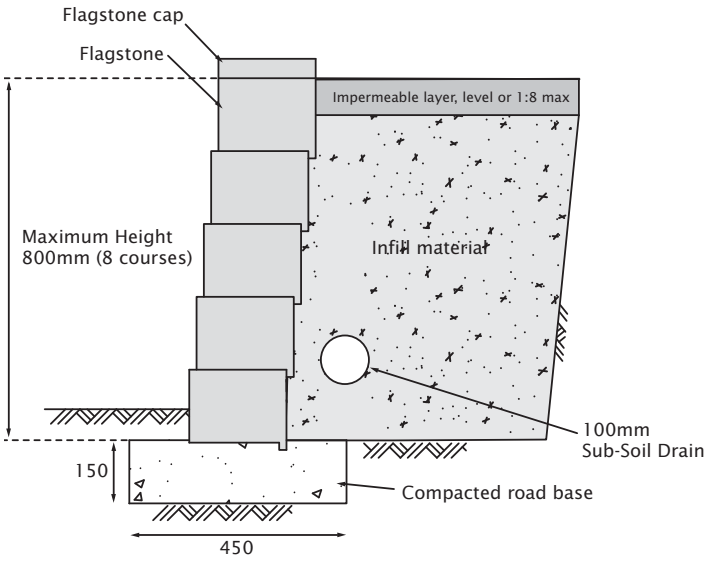
Meadow Stone



Canterbury



Natural Impressions™

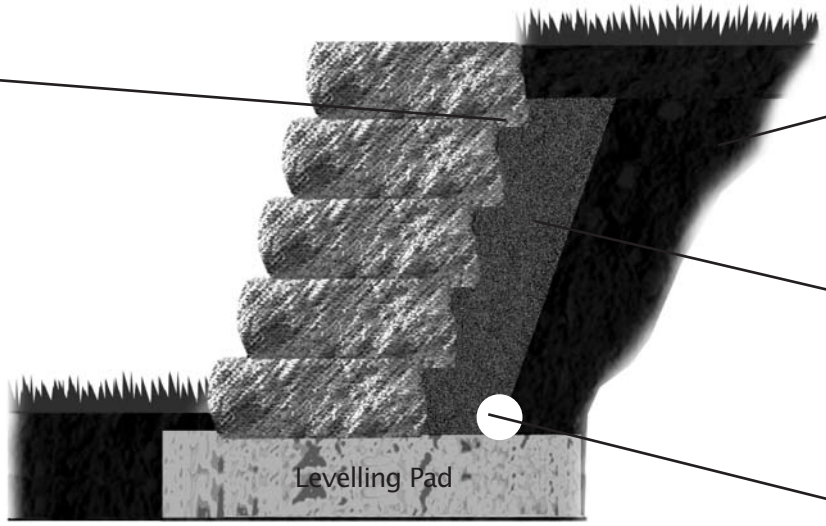


5. All retaining walls are designed for an imposed surcharge load of 2.5 kPa. If imposed loads greater than 2.5 kPa are expected, these designs will not be appropriate.
6. Levelling pad: a levelling pad may consist of compacted material (5% cement stabilised crushed rock) for wall heights up to 800mm. 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.

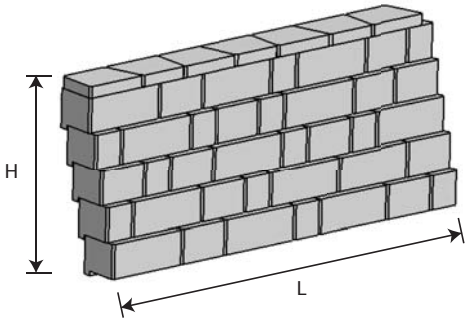
Drainage Gravel
Blue metal is perfect.

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

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 m^2
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

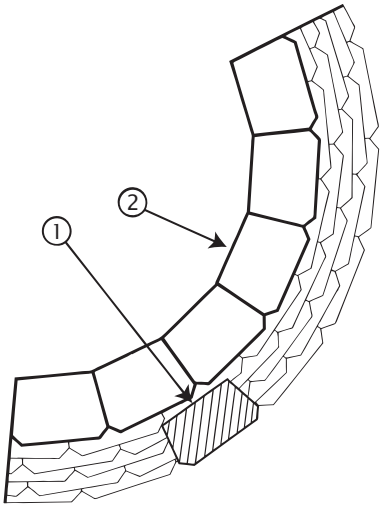
Minimum Radius at the Base ①

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.

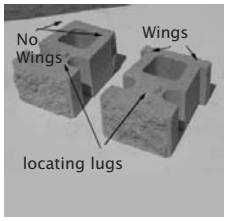
The split faces of the blocks are not bevelled thus preventing the 'picture frame' effect. No mortar means the blocks butt neatly and seamlessly together on all sides. Importantly, as the wall can be built as little as eight degrees back from vertical, the Meadow Stone wall face doesn't look 'stepped'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

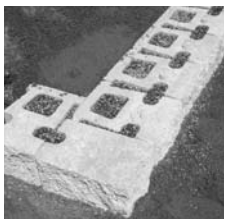
Canterbury Walls

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.

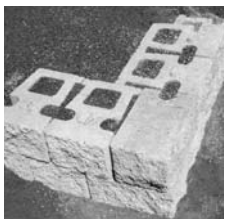
The Canterbury system allows you to easily build both 90º internal and external corners as it comes with a purpose built corner unit. This corner unit can be used for both left and right hand corners by simply turning the unit upside down. To lay a corner unit, place the two rough-sides facing out. Then 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.

adbri MASONRY

Adbri Masonry
Paving and Retaining Wall Landscape Solutions
3rd Edition South East Queensland

Landscape Solutions: AB.LSED0108

Adbri Masonry is Australia's largest supplier of quality masonry products.

Adbri Masonry manufactures a large range of concrete products such as; bricks, block and architectural coloured block, decorative wall claddings, retaining wall systems, concrete and wetcast pavers as well as an exceptional range of environmental products. These products are used in many large scale civil projects as well as in thousands of backyards throughout Australia.

Adbri Masonry is a wholly owned subsidiary of Adelaide Brighton Ltd, a top 200 ASX listed public company.

Adbri Masonry was formed in July 2008, bringing together two reputable brands, C&M Brick and Hanson Building Products. Both Hanson Building Products and C&M brick boast proud histories and both have been foundation companies whose products have helped to build the face of the Australia we now know. From Hanson pavers in Cairns Airport to C&M Brick's paving in the Homebush Olympic Village, many of Australia's iconic projects have utilised the quality products from Adbri Masonry.

Just as housing styles vary from state to state and area to area, the aggregates used in the production of Adbri Masonry pavers are subject to regional variation (Adbri Masonry does not deem these variations as defects). Therefore the colours represented in this brochure are indicative only. We suggest sighting products first hand before ordering.

For further advice, talk to your local Adbri Masonry Landscaping Solutions Specialist.

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