Modernstone™

NATIONAL MASONRY
MAKERS OF FINE BLOCKS & PAVERS

Retaining Walls

No-Fines Concrete Wall Construction

Modernstone™ is our flagship retaining wall system. Long and sleek with a sharp picture framed split face finish, Modernstone™ versatile appeal complements the cutting edge architectural designs through to the contemporary and the classic.

Benefits

- Genuine split face with premium exposed aggregate flush face finish with bevelled surrounds
- Unique universal corner block enables 90 degree corners without any fuss
- Can be used for straight and curved walls
- Near vertical installation for maximum land utilisation
- Purpose made cap with genuine split face for premium finish
- Suitable for walls up to 2mtr* (walls over 1mtr require specific engineering & certification)
- Bayferrox® colour pigments provide long lasting finish
- Manufactured locally by National Masonry® to strict Australian Standards

Modernstone® Standard

Modernstone® Corner

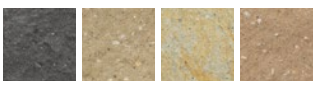
Classic Cap

Where to use

Curved Wall | Straight Wall | Corner Wall | Planter Boxes | Benches & Seats | Stairs | Piers & Entrances

Which colour

Available in 4 unique and contemporary colours



Charcoal | Portstone | Light Sands | Cafe Creme

Special purpose construction such as waterside walls, post fixing, earthquake zones, and terraces will require additional engineer's design.

STEP 1:

Excavation/Preparation of Levelling Pad

- Excavate a trench 600mm wide and sufficiently deep to allow a 150mm levelling base plus 1 course below ground.

STEP 2:

Installing the First Course

Lay the first course of Modernstone™ units side by side over the prepared base. Bolster off the tails so that 'No-Fines' concrete connects backfill to core-fill areas.

STEP 3:

No-Fines Concrete Backfill

- Backfill the first 21⁄2 courses of the wall with 'No Fines' concrete.
- All voids inside and between the units must also be filled. The vertical height of any pour of 'No Fines' concrete is limited to 400mm. Forwalls greater in height, each pourmust be allowed to harden prior to pouring the next lift. Alternatively the wall maybe propped to support the lateral load from the wet concrete.

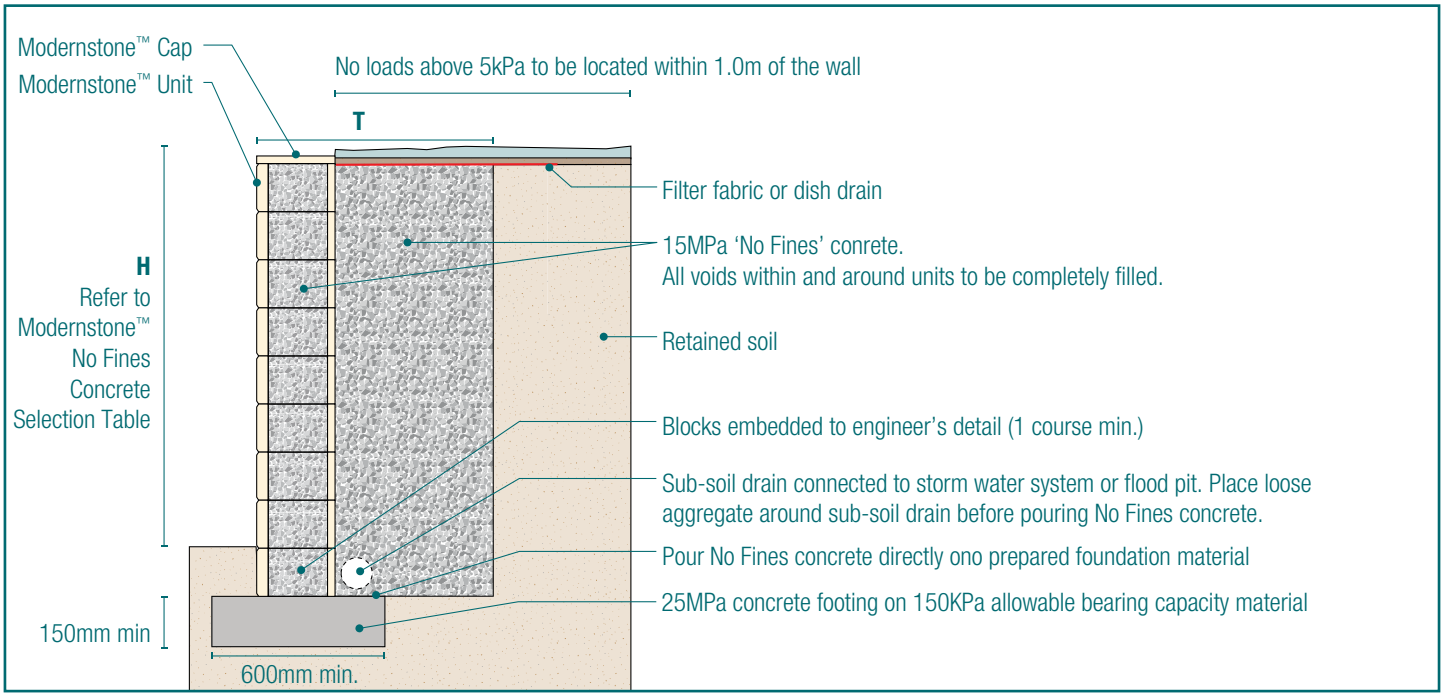
STEP 4:

Installing Capping Units

- Install capping units and fix with construction adhesive.

See reverse for how it's laid

Modernstone™ - No Fines Concrete Cross Section



Typical Construction Detail – Modernstone™ No-Fines Concrete Wall

Product Name	Size (mm)	Available Colours	Weight per unit (kg)	Units per m²	Units per pallet
Modernstone™ Standard	440x280x165	Charcoal, Portstone, Light Sands, Café Crème	26.5	13.77	40
Modernstone™ Corner Unit	440x220x165	Charcoal, Portstone, Light Sands, Café Crème	20	n/a	48
Modernstone™ Classic Cap	440x280x60	Charcoal, Portstone, Light Sands, Café Crème	16.5	2.27 l/m	100

No-Fines Concrete shall consist of cement,water and coarse aggregate. Cement will comply with the definitions for cement per AS3972-1991 – 'Portland and Blended Cements'. The quantity of cement is specified as 210kg/m^3 with a total water/cement ratio of between 0.45 and 0.55.

The particle size distribution of the aggregate shall comply with the limitations for the nominal single sized 20mm aggregate specified in AS2758.1.

Notes:

- Table D2 is based on AS4678 : 2002, Earth Retaining Structures. The code assumes a surcharge of 5kPa is applied to all retaining wall structures
- Global stability and all design considerations should be checked by an engineer in poor clay conditions.
- Design assumes a dry excavation (i.e. water table is below bottom of footing level). If ground water exists in the excavation the wall is to be re-designed by a suitably qualified engineer.
- These tables are supplied free of charge and do not form any part of any contract with the user.
- 15MPa No-Fines concrete with a 6:1ratio (Gravel : Cement).
- Remove tail fins to allow "no fines" to connect block fill to back fill.
- The density of this product will vary with the density of the aggregate used. The density range may be from 1650kg/m^3 to 2100kg/m^3.
- The void ratio of the mix is expected to be between 20% and 30% and should be free draining.
- The compressive strength should generally exceed 10MPa for design purposes.
- This product has no slump and exerts similar pressures on the soil and formwork, as does loosely poured aggregate.

Modernstone™ Maximum Wall Heights – No-Fines Concrete Construction

Wall Height 'H' (mm)	Retained Soil CLAY ϕ = 26° (POOR) 'T' (mm)	Retaind Soil SAND ϕ = 30° (AVERAGE) 'T' (mm)	Retained Soil GRAVEL ϕ = 34° (GOOD) 'T' (mm)
972	670	570	570
1296	730	770	670
1620	1170	970	770

To find your closest National Masonry® stockist, to receive brochures or to learn more about our products, call us or visit our website at **www.nationalmasonry.com.au**

South Queensland
62 Industrial Avenue,
Wacol
Brisbane QLD 4076
Phone: (07) 3271 9292
Fax: (07) 3271 1815
brisbane.sales@nationalmasonry.com.au

Gold Coast
663 Pine Ridge Road,
Biggera Waters
Gold Coast QLD 4216
Phone: (07) 5552 3300
Fax: (07) 5552 3399
labrador.sales@nationalmasonry.com.au

North Queensland
6 David Muir Street,
Slade Point
Mackay QLD 4740
Phone: (07) 4955 1155
Fax: (07) 4955 4130
mackay@nationalmasonry.com.au

New South Wales
65 Burleigh Street,
Toronto
Lake Macquarie NSW 2283
Phone: (02) 4088 1888
Fax: (02) 4088 1899
toronto.sales@nationalmasonry.com.au

Victoria
Riding Boundary Road,
Deer Park
Melbourne VIC 3023
Phone: (03) 9361 6400
Fax: (03) 9363 6008
melbourne.sales@nationalmasonry.com.au

Colour variations occur from batch to batch. Colours shown are indicative only and should not be used for final selection. Products ordered should be chosen from actual samples current at the time of order and are subject to availability. Photographs in this brochure are only representative of National Masonry® products and the appearance and effect that may be achieved by their use. Samples, brochures and displays should be viewed as a guide only. Customers should ensure all delivered products are acceptable, and any concerns about products are made prior to laying. All prices are subject to availability and can be withdrawn or varied without notice. © Copyright National Masonry Pty Ltd– all rights reserved 2013. Gardenwall® & Keystone Elite133® are registered trademarks of Keystone® Retaining Wall Systems Inc, use under licence by National Masonry®. National Masonry®, the National Masonry® logo, nationalmasonry.com.au, If these and other National Masonry Pty Ltd trade marked terms are marked on their first occurrence in this information with a trade mark symbol (® or ™), these symbols indicate Australian registered or common law trade marks owned by National Masonry® Pty Ltd at the time this information was published. Such trade marks may also be registered or common law trade marks in other countries. Other product, company or service names may be trade marks or service marks of others. National Masonry Pty Ltd ABN 94 155 064 136. Correct as at 30/10/2018. NAT0190 Modernstone No Fines Wall Brochure v2.