

Nu-Line™ Series

HOW TO BUILD USING NU-LINE

2017

1. Check with your local council

You should consult with your local council for design regulations prior to the construction of your wall. Councils generally require, and we recommend, that walls greater than 1.0m in height and walls located near loading such as a house or a car be designed and certified by a suitably qualified engineer.

Boral shall have no responsibility for walls installed other than in accordance with the specifications and recommendations contained in this brochure.

Each council has different requirements so it is important you check with your local council before starting.

2. Locate your wall

Mark out the ground where your wall will be located (either by marking with stakes and a string line or by marking a line on the ground with spray paint).

3. Calculate how many blocks are required

Measure the proposed wall height and length. Multiply your wall height by the wall length to get a m² measurement.

Lastly multiply your m² measurement by the number of Nu-line units per m².

It is often worth adding some extra blocks to allow for any mishaps (usually adding an extra 5% will cover you).

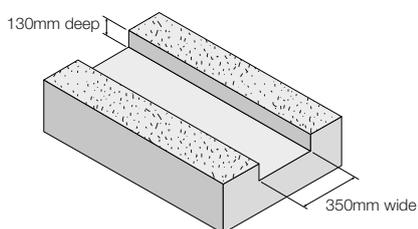
Don't forget when ordering to specify colour and the type of units required.

Please note:

Maximum number of courses is 4.

Backfill is to consist of good soil, including gravels, sandy gravels and crushed sandstone.

4. Prepare the site



Dig a shallow trench approximately 130mm (13cm) deep and 350mm (35cm) wide. (See Diagram A)

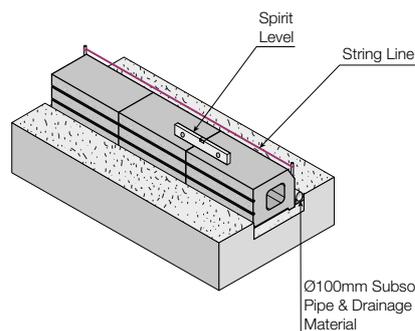
Remove any roots and soft earth.

Fill the trench with coarse sand or road base, compact and level until it forms a 100mm (10cm) levelling pad. (See Typical Wall Cross Section on page 2)

Diagram A

Compact by either manually tamping or using a mechanical plate compactor.

5. Lay the first course



Place blocks side by side on the levelling pad using a string line along the back of the units for alignment.

Level each unit side to side and front to back using your spirit level.

Install the subsoil pipe behind the first course and surround with gravel. (See Diagram B)

Use filter fabric over the subsoil pipe if there are likely to be problems with silt entering the subsoil pipe.

Diagram B

Tip: Spend time on making sure the units are level, otherwise all ensuing courses and ultimately the entire wall will not be level.

6. Backfill and compact

Place drainage material (12-20mm sized gravel) to 150mm (15cm) wide behind your first course. (See Diagram B)

Shovel and compact your backfill (existing site soil) behind the drainage material.

Please note: Backfill should be no higher than the top of the retaining wall (please see Typical Wall Cross Section on page 2).

Backfill consisting of heavy clays or organic soils are not recommended due to water holding properties.

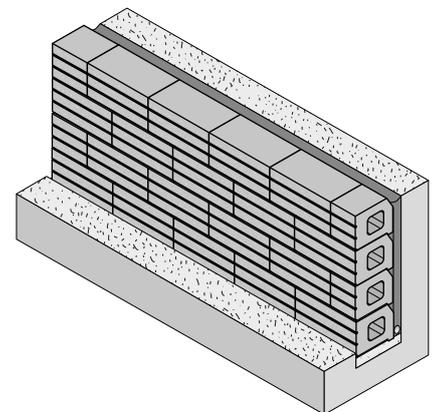
Tip: Do ensure you place drainage material behind the wall and compact the site soil. If you don't you may find water will build up behind your wall and start to push it over.

7. Additional courses

Sweep the top of the previous course clean.

Place the next course of Nu-line units in a running half bond pattern. (See Diagram C)

Diagram C



Shovel the drainage material and the backfill behind the second course of units (as per step 6).

Lay your third course of units and, like previous courses, place drainage material and backfill behind the wall (you don't have to compact the backfill every course but it should be done at least every alternate course (ie. in 150mm (15cm) horizontal layers).

Continue stacking units, placing drainage material and compacting backfill until your wall is complete.

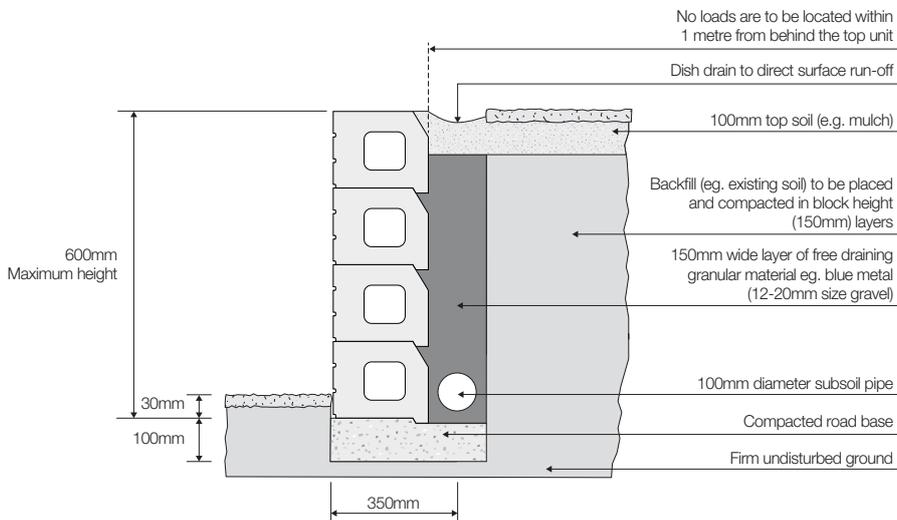
Tip: In areas of vandalism it is recommended that the top units are secured using a construction adhesive. Sealing the constructed Nu-line is recommended to reduce dirt build up and for ease of cleaning.

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Typical Wall Cross Section

Please note: Backfill should be no higher than the top of the retaining wall.



Block Safety Information

Unit	Weight kg	Dimensions (WxHxD) mm
Standard	13.5	300x150x185

Safety tips

1. Check your equipment.
2. Ensure that you read the operating manuals of all equipment including hired equipment such as plate compactors and cutting equipment.
3. Check the condition of hand tools such as hammers etc, to make sure that they are in a safe working order before use.
4. Always operate equipment according to the manufacturer's instructions and wear the appropriate safety clothing listed by the manufacturer.

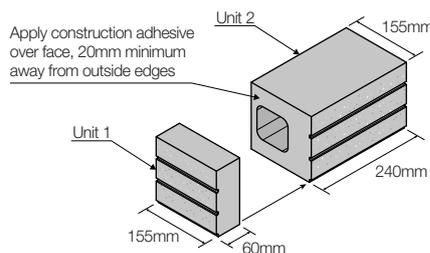
Constructing Corners

Two Nu-Line units are required to create one Nu-Line Corner Unit.

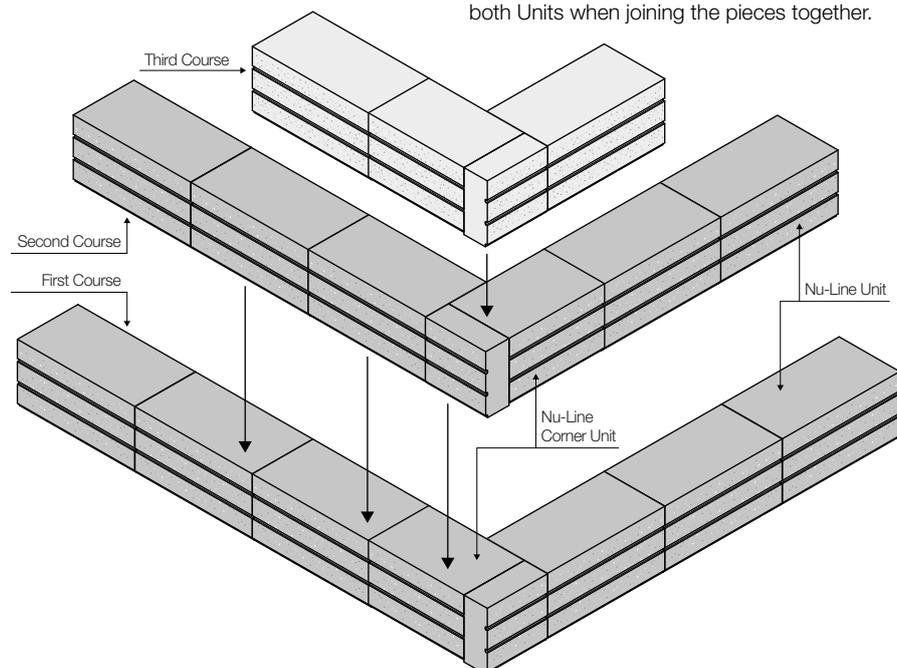
Unit 1 - Scribe a line 60mm back from the front face and 155mm from the end. Cut along the scribed lines. Keep the 60x155x150 piece.

Unit 2 - Scribe a line 155mm back from the front face and 240mm from the end. Cut along the scribed lines. Keep the 155x240x150 piece.

Join Unit 1 and 2 with construction adhesive.



Tip: Ensure the horizontal pattern is aligned on both Units when joining the pieces together.



You will need...

- Gloves to protect your hands
- Shovel
- Eye protection eg. goggles
- A spirit level to lay units level
- Drainage material eg. 12-20mm clean, free draining granular material such as gravel or blue metal
- Stakes and string
- Agricultural drain (eg. 100mm diameter subsoil pipe)
- Nu-line units
- Wheelbarrow
- Coarse sand or road base for the base levelling pad
- Hammer
- Small broom
- Mechanical plate compactor (optional)

For more information contact **1300 134 002** or visit **www.boral.com.au**

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