



LANDSCAPE LIFESTYLES

Tips & Tools For Landscape Professionals

Version 3, 2004

Inside:

- Soil Reinforcement Helps Build Stable Walls
- How-To: Using AB Reinforcement Grid
- Cover Story: Build Allan Block Walls With Confidence

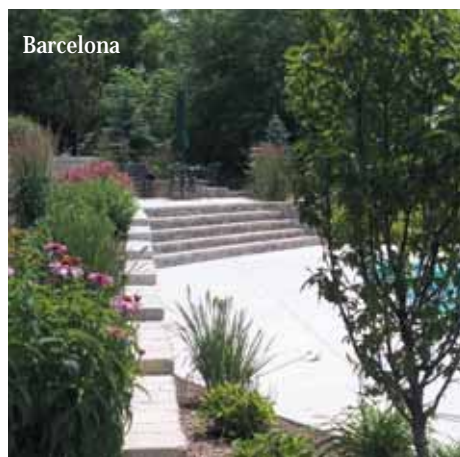
Build Strong Walls and get a great night's sleep!

Building an outdoor pool and entertainment area on a sloping hillside presented a fun challenge for Dan Swartz of Brown/Woods and Associates, a landscape design-build contractor, in Champaign, IL. The homeowners wanted the job done so it would stand the test of time and provide a second return on their investment.

John Brown, co-owner of Brown/Woods and Associates, has seen his share of deteriorating walls. He recalls, "Over the years, I have seen walls built poorly by both homeowners and landscape contractors. Proper construction is the key; walls will last forever if they are built correctly. That's why we like Allan Block's new grid so much. It makes it easy to build strong walls."

For this project, Brown/Woods constructed a series of three walls to create a level surface for the swimming pool deck. A 22-foot wide (7 m) staircase was also installed to provide access from the home to the pool deck. Since the upper wall was quite close to the house, the 3-foot wide (0.9 m) AB Grid roll was the perfect reinforcement choice. Over 750 square feet (229 m) of wall was reinforced, grid installation was quick and simple; AB Grid was rolled out right along the wall face.

Brown was very pleased with his experience using AB Grid. "These small rolls are the greatest thing since sliced bread -



"Over the years, I have seen walls built poorly by both homeowners and landscape contractors. That's why we like Allan Block's new grid so much. It makes it easy to build strong walls."

John Brown, Brown/Woods & Assoc.

we always keep a few rolls in stock. It's like insurance. We throw it in the truck, install it on every wall more than four courses high - and it helps us sleep great at night. The AB Grid is inexpensive and the cost is insignificant when you look at the total project," stated Brown.

The homeowners wanted a backyard "room with a view" to extend

their living space and take advantage of the beautiful lot and stunning views. Block manufacturer Illinois Concrete offered many different AB block options. The homeowner selected a blended color block from the Europa Collection. "It's nice to have color and style options. You can get some unique looks and distinctive designs with Allan Block," added Swartz.

The integrated lighting and the matching staircase were special features that really delighted the homeowners. According to Swartz, "The nicest part of the project is how proud the homeowners are and how excited they are to show off their new outdoor living space. They are going to entertain and enjoy it for years to come, and I know that it will look as good in 20 years as it does today."



How-To: Building walls with AB

Allan Block's advanced soil reinforcement grid is a simple, easy-to-use system for building landscape walls that require soil reinforcement.

Plan:




Determine if reinforcement is required.

To build stable walls that stay in place, some sites will require soil reinforcement. AB's pre-engineered soil reinforcement chart takes the guesswork out of wall design. To determine reinforcement needs, check the following conditions on the wall and match them to the chart: 1) Condition above wall, 2) Wall height, 3) Soil Type, 4) AB block type and setback.

Design:

AB Reinforcement Grid is designed and pre-engineered for landscape walls up to 6 ft high (1.8 m). If the site conditions do not fall within those specified in the table above, consult a qualified local engineer. The following conditions also require a complete engineering analysis to determine soil reinforcement requirements:

- Soft or unstable soils
- Water fronts and shoreline sites
- Excessive water runoff above or below the wall
- Surcharge greater than a driveway
- Terraces or multiple walls

		Soil Reinforcement Chart				For estimating only			
CONDITION ABOVE WALL	WALL HEIGHT	AB Stones 12°				Ashlar and Europa Collection 6°			
		CLAY SOIL		SANDY SOIL		CLAY SOIL		SANDY SOIL	
		No. of Layers	Width (W)	No. of Layers	Width (W)	No. of Layers	Width (W)	No. of Layers	Width (W)
Level 	3ft (0.9 m)	0	0	0	0	0	0	0	0
	4ft (1.2 m)	2	3 ft	0	0	2	3 ft	0	0
	5ft (1.5 m)	3	3 ft	0	0	3	3 ft	3	3 ft
	6ft (1.8 m)	4	4 ft	4	4 ft	4	4 ft	4	4 ft
Surcharge 125 psf 	2ft (0.6 m)	0	0	0	0	0	0	0	0
	3ft (0.9 m)	2	3 ft	0	0	2	3 ft	0	0
	4ft (1.2 m)	2	3 ft	0	0	2	3 ft	2	3 ft
	5ft (1.5 m)	3	3 ft	3	3 ft	3	3 ft	3	3 ft
Slope 3:1 	3ft (0.9 m)	2	3 ft	0	0	2	3 ft	0	0
	4ft (1.2 m)	2	3 ft	0	0	2	3 ft	2	3 ft
	5ft (1.5 m)	3	4 ft	0	0	3	4 ft	3	3 ft
	6ft (1.8 m)	4	4 ft	4	4 ft	4	4 ft	4	4 ft

Example:

Using the *Ashlar Collection 6°* block, a 5 ft high wall (1.5 m) built in *clay soil* with a *sloped surface above the wall* requires three layers of geogrid, 4 ft wide (1.2 m).

Calculate AB Grid quantity for walls up to 6 ft. high (1.8 m)

Match the wall conditions to the chart above to find which width of Reinforcement Grid to use and the number of layers needed.

To determine the number of rolls needed, multiply the length of the wall by the number of layers needed, and then divide by 50 (the length of a roll of grid).



Example From Above:

$$90 \text{ ft (wall length)} \times 3 \text{ grid layers} = 270 \text{ grid feet}$$

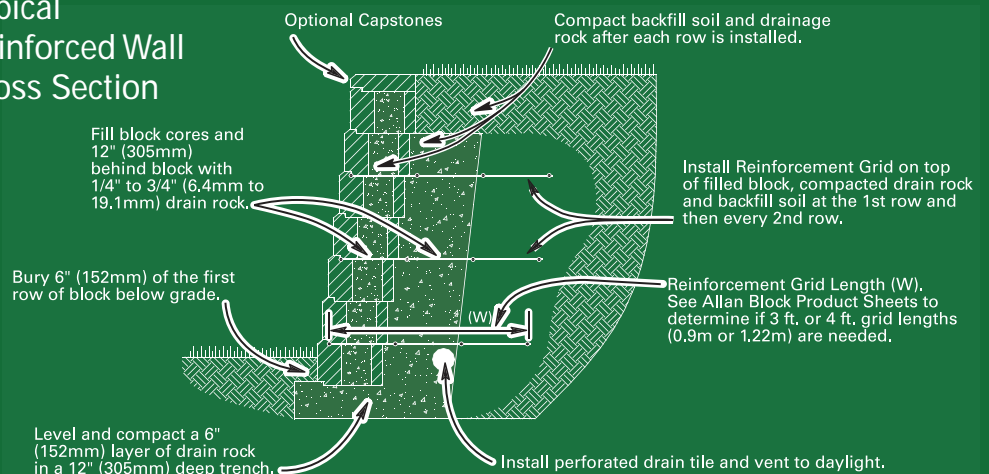
$$270 \text{ grid feet} \div 50 \text{ ft (grid length)} = 5.4 \text{ rolls (6 rolls)}$$

$$27.5 \text{ m (wall length)} \times 3 \text{ grid layers} = 82.5 \text{ grid meters}$$

$$82.5 \text{ grid meters} \div 15.2 \text{ m (grid length)} = 5.4 \text{ rolls (6 rolls)}$$

Soil reinforcement increases the strength of the wall by creating a reinforced mass of soil behind the blocks. The weight of the reinforced soil mass combines with the blocks for a heavier, stronger wall.

Typical Reinforced Wall Cross Section



Reinforcement Grid

Build:

A typical reinforced wall has geogrid installed on every other course. This process should be started just after the first row of blocks has been installed, filled, compacted and adjusted for level. For more information on base course installation, see the AB Design Guide.

Install AB Reinforcement Grid:

Step 1. Roll out the grid behind the wall with the edge of the grid against the lip of the base course block.

Step 2. Place next course of block on top of the AB Reinforcement grid. Pull on the back of the grid to remove any slack and stake the grid in place.

Step 3. Fill the hollow cores and drain field with drainage rock. Use on-site soil to fill behind the drain field. Backfill and compact as each new course is laid.

Step 4. Using a plate compactor, compact the drain field and the drainage rock within the block cores, **with the first pass directly over the top of the blocks**. Check for level and alignment, adjusting where necessary.

Step 5. Stack and backfill another course of block. Compact thoroughly. **Repeat steps 1-5 to the top of the wall.**

NOTE:

- Do NOT compact directly over AB Reinforcement Grid.
- Do NOT drive heavy machinery WITHIN 3 ft (0.9m) of the wall. Heavy machinery may cause the wall to rotate forward out of alignment.

Proper installation and soil compaction is critical. For complete installation guidelines, visit your Allan Block dealer or allanblock.com



Available in 3 ft or 4 ft widths



Step 1

Roll out first grid layer on base course.



Step 2

Place block on top of grid.



Step 3

Backfill the blocks and behind the blocks.



Step 4

Backfill and compact, adjust for level as necessary.



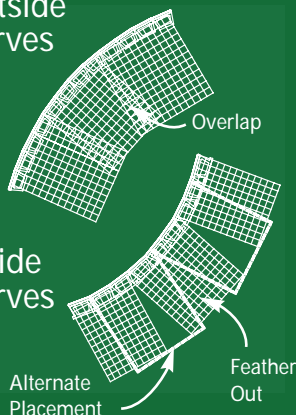
Step 5

Grid installed every other course.

Curves and Corners

Outside Curves

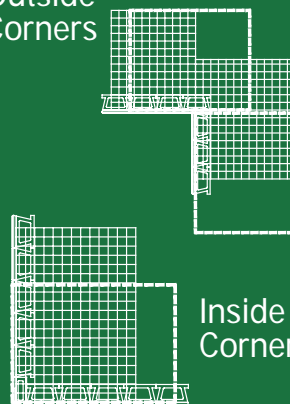
Inside Curves



When placing grid along curved walls, the grid should follow the back of the lip. Simply slit the grid with a utility knife and either feather out or overlap to follow the curve.

Outside Corners

Inside Corners



Building Stable Walls Just Got Easier

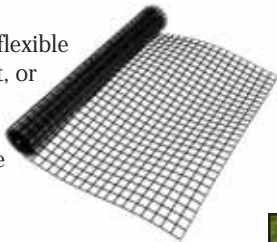
Allan Block's new soil reinforcement geogrid for residential landscape walls solves many problems faced by landscape contractors and homeowners.

The Challenge: Roughly 45% of low-profile landscape walls up to 6 ft high (1.8 m) require engineering and soil reinforcement. Despite the financial and legal risks of improperly built landscape walls, installers sometimes unknowingly build unstable walls. The whole process of soil reinforcement can seem confusing, expensive and time consuming.

The Answer: AB Reinforcement Geogrid. This simple, easy-to-use program includes pre-engineered wall designs, reinforcement geogrid, estimating tools and installation guidelines. It takes the guesswork and confusion out of soil reinforcement for small to mid-size residential landscape walls.

The pre-engineered wall designs can be used by landscape contractors and homeowners to speed the process of

Geogrid is a flexible synthetic mat, or mesh, which is used to stabilize large areas of soil.



construction permits. Allan Block developed the soil reinforcement chart (shown under "How-To") using a proven engineering methodology that takes into account key project factors including wall height, soil type and job site conditions.

"Allan Block's new geogrid is perfect for small to medium-sized landscape walls. The pre-cut three and four foot rolls allow us to easily roll out the grid right along the blocks. Installation is simple, smooth and fast".

Dan Swartz, Brown/Woods & Assoc.

The Payoff: Saves Time and Money.

Designed for performance and easy installation, AB "biaxial" Geogrid was developed specifically for residential landscape walls up to 6 feet high (1.8 m). While most other geogrids must be cut a section at a time and pieced together, the AB Grid quickly rolls out along the wall. And with a standard construction process for every reinforced wall, there's no guesswork during construction. The

first layer of geogrid is always installed on top of the first course of blocks; then installed on every other course after that. Each roll of easy-to-handle AB Grid is packaged with simple installation instructions.

Estimating and Ordering are a Snap!

Estimating AB block and grid materials couldn't be easier. Allan Block offers both an estimating software program and a laminated calculator wheel for quickly estimating all the materials needed to build a landscape retaining wall up to 6 feet high (1.8 m). Block, AB Reinforcement

Grid, base rock and backfill materials, drain tile and capstones are all easily calculated.



The result is a turn-key solution for landscape contractors and homeowners that includes wall designs, reinforcement geogrid, estimating tools, installation guidelines and simplified ordering through your AB dealer. One resource and one delivery of block and grid simplifies job site planning. Ask your Allan Block dealer about the AB geogrid program today.



Dover



AB Classic & Ashlar Blend

Sign up to get **LANDSCAPE LIFESTYLES** through e-mail.

To receive the AB Landscape Lifestyles Newsletter directly in your e-mail box each quarter, sign up online at www.allanblock.com.



The Latest in Professional Landscaping Solutions

Introducing The Courtyard Collection



Old Country Courtyard

Now you can easily create elegant and stylish courtyard walls and architectural accents for residential and commercial applications. This mortarless, two-sided vertical wall system includes two handsome finishes: **Courtyard** with the look of classic cut-stone, and the **Old Country Courtyard** with a tumbled texture that looks like weathered stone. Blend the timeless elegance of traditional stone walls with the style and beauty of the new Courtyard Collection. With your imagination and this vertical system, you can create stunning elements including:

- Patio enclosures
- Seating walls
- Mail box and light posts
- Entry monuments
- Fountains and planters
- Landscape accents



Courtyard

For further information and resources to help design and build beautiful and permanent Courtyard walls, visit www.allanblock.com. The Courtyard Collection is being introduced into the AB dealer network throughout the 2004 season. Check with your local AB dealer for availability and color selection.

Tools of the Trade - Help To Grow Your Business

Allan Block offers a vast array of resources to help with all aspects of your next project. From design ideas to guidelines for estimating material, see your Allan Block dealer for a selection of CDs, specification books and literature. All materials, literature and dealer information are also available at www.allanblock.com.



Landscape Design CD - Complete Design & Installation Information

For professional landscape ideas and inspiration, sign up to receive Allan Block's Landscape Design CD at www.allanblock.com. Packed with information to help you plan, design and build landscape walls up to six feet high, this CD includes product specifications, installation guidelines and a valuable material estimating program.

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