

Patterned Walls



Ashlar Blend

Abbey Blend

Excavate and Install Base Course

- Refer to page 17 for a detailed description on how to install the base course. Basic steps include: site prep and excavation, installing base material, base course, wall rock, backfill materials, and compacting.

NOTE: The base course should always use a full course of full-sized blocks. This will speed the leveling and installation of the first course.

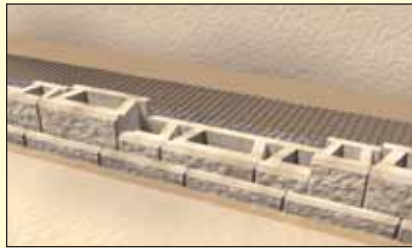
Install Geogrid

- Check your approved plans for exact size and course location for the AB Reinforcement Grid.
- Install the first layer of geogrid by placing the edge of the geogrid against the back of the raised front lip and rolling it out along the wall.

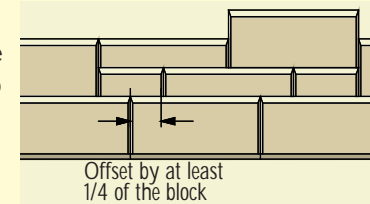


Install the Multiple-Course Pattern

- The example shown here uses a 2 course pattern. See page 23 for more information on pattern options.
- Stack the first course of the pattern on top of the geogrid and the base course.
- Check blocks for level, and make adjustments as needed. Pull on the back of the geogrid to remove any slack. If necessary, stake in place.
- Install wall rock in the block cores and 12 in. (300 mm) behind the blocks.
- Compact inside the block cores using a shovel handle. Check blocks for level. See page 22 for more information on compaction in the block cores.



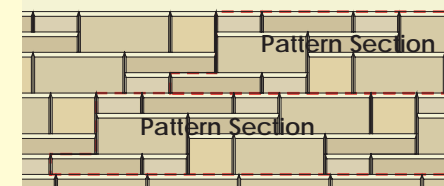
- Use infill or approved on-site soils to backfill behind the wall rock in 8 in. (200 mm) lifts. The top of the blocks will not always match up with each lift of soil. Check blocks for level.
- Using a plate compactor, compact the wall rock and infill materials behind the wall in 8 in. (200 mm) lifts or less. Compact directly behind the blocks in a path parallel to the wall, working from the back of the wall to the back of the excavated area. Always make a minimum of two passes with a plate compactor.
- Install the remainder of the 2 course pattern. Install wall rock in the block cores and behind the blocks as before. Use infill or approved on-soils to backfill behind wall rock. Check blocks for level. If using a custom pattern, remember to offset the vertical seams by at least 1/4 of the block when-ever possible.
- With the first multiple-course pattern completed, use a plate compactor to compact the wall rock in the block cores and directly behind the blocks. The first pass of the plate compactor should be directly over the top of the block cores.
- Compact in a path parallel to the wall, working from the front of the wall to the back of the excavated area. Make a minimum of two passes with a plate compactor. Check blocks for level.



NOTE: Keep all heavy equipment at least 3 ft. (0.9 m) away from the back of the wall.

Install the Second Multiple-Course Pattern

- Refer to your approved plans to determine if reinforcement will be required. If so, repeat the previous process to install geogrid between the patterns.
- Install the next pattern section as done in the previous steps. Each additional pattern will need to be offset from the pattern below to avoid a repetitive look.
- To achieve your desired wall height adjustments can be made by combining the 2 course with the 3 course pattern.



Ending and Topping off the Wall

- Finishing a patterned wall is the same as for a standard wall. See page 39 for finishing wall options. The only requirement is that a multiple course pattern must be completed so that the top course of the blocks forms a level surface.
- Organic soils can be used on the last 8 in. (200 mm) lift to finish off wall.

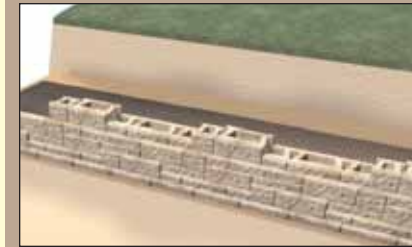
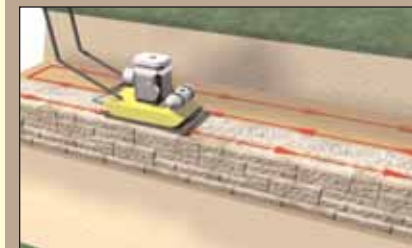
Compacting Patterned Walls

Compaction in the block cores needs to be done regularly when working with patterned walls. This can be done by using the end of a shovel to compact the wall rock, adding additional rock if necessary.

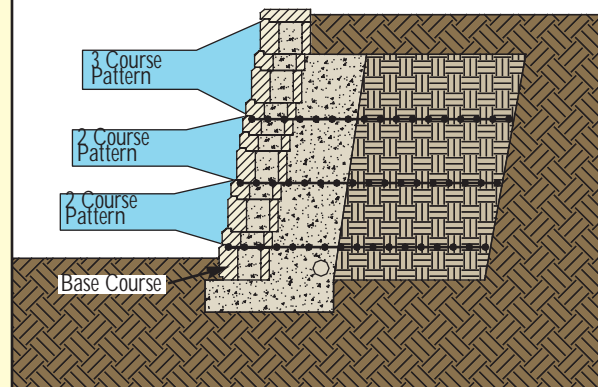


At each 8 in. (200 mm) lift, compact the block cores with the end of a shovel, and the area directly behind the block with a plate compactor per the procedures described in this installation guide.

At the conclusion of each pattern, the top of the wall will be level. Run the plate compactor over the top of the blocks to consolidate the wall rock. Place geogrid if required, and begin the next pattern.



Combining Patterns



Tips for Building Patterned Walls

Patterned walls resemble hand-laid stone walls, and like these old-world structures, they require a certain level of detail and craftsmanship to construct. Some custom fitting of blocks will be required. Plan on taking a little extra time to build patterned walls, particularly when building one for the first time.

Ending Patterned Walls

Patterned walls may be ended with step ups or turn-ins. When ending a patterned wall you will need to modify the pattern and randomly adjust as necessary to create the look desired.



Ending Patterned Walls

Curves

When building curves, the 2 course pattern is easier to work with than the 3 course pattern.

Inside curved walls To build inside curves keep the front of the blocks tight together. For tighter curves it may be necessary to cut out parts of the bottom notch in order to fit the blocks tight together. See page 26.

Outside curved walls When building outside curves keep in mind that wall will "tighten" as the height increases creating a coning effect. Here are two methods to adjust for this effect:

- Reduce the lengths of the blocks by shortening them, using a saw with a diamond blade.
- Remove parts of the bottom notch for the blocks to fit tightly together. See page 26.

Additional Construction Tips

- When building an Ashlar Blend wall, AB Lite Stones must be cut to produce 2 AB Half Lites. Pre-cut the desired number of blocks to help speed installation.
- Offset each new pattern from the pattern below to maintain the "random" appearance.
- With walls that have numerous inside and outside curves, use a 2 course pattern to ease the installation process.



Cutting A Block In Half

Wall Patterns

Both the Ashlar and Europa Collections can be used to create a variety of pre-set and random patterns. A pre-set pattern is repeated every two or three courses of block. A single course consists of a full size block, approx 8 in. (200 mm) tall. Random patterns used on a reinforced wall require a level surface every 2 courses for proper installation of geogrid. See your approved plans for which layers the geogrid reinforcement will be required.

Note: Walls with curves should always use the 2 course pattern to minimize cutting and fitting.

For walls requiring geogrid use the 2 course pattern to allow for proper geogrid placement.

Standard Patterns - Uses all blocks in the collection. Patterns are 10 ft. sections

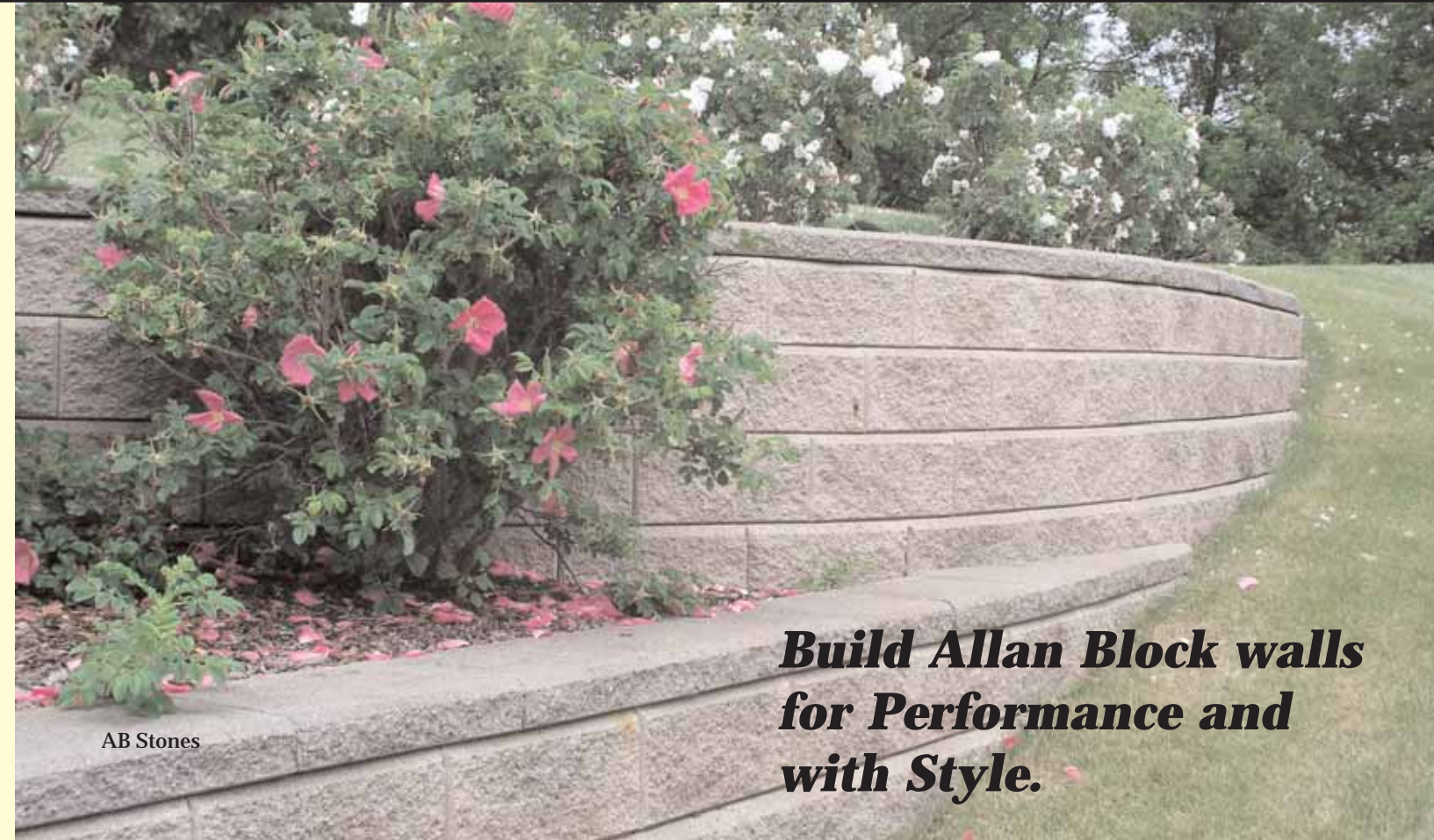
Course	Europa Collection	Ashlar Collection	Notes
2 course	6 AB Dover 4 AB Palermo 8 AB Barcelona 8 AB Bordeaux	6 AB Classic 4 AB Jumbo Junior 8 AB Lite Stone 8 AB Half Lite*	* Use an AB Lite Stone cut in half to create an AB Half Lite.
3 course	10 AB Dover 10 AB Palermo 10 AB Barcelona 4 AB Bordeaux	10 AB Classic 10 AB Jumbo Junior 10 AB Lite Stone 4 AB Half Lite*	For straight walls only or walls with no geogrid

Lite Patterns - Uses the small blocks in the collection. Patterns are 10 ft. sections

Course	Europa Collection	Ashlar Collection	Notes
2 course	7 AB Palermo 15 AB Barcelona 12 AB Bordeaux	7 AB Jumbo Junior 15 AB Lite Stone 12 AB Half Lite*	* Use an AB Lite Stone cut in half to create an AB Half Lite.
3 course	14 AB Palermo 19 AB Barcelona 18 AB Bordeaux	14 AB Jumbo Junior 19 AB Lite Stone 18 AB Half Lite*	

Note: Maximum recommended gravity wall height for Lite Patterns is 3 ft.

Note: A base course of full size blocks (AB Classic or AB Dover) needs to be included. For each 10 ft. (3.0 m) of wall length you will need 7 full size blocks. For 10 ft. (3.0 m) of wall length for AB Capstones, you will need 7 AB Caps.



AB Stones

Build Allan Block walls for Performance and with Style.

Building Step-ups into the Slope

- Begin the base course at the lowest wall elevation.
- Dig a base trench that is 24 in. (600 mm) wide.
- The depth of the trench is determined by allowing for 6 in. (150 mm) of base material plus an additional 1 in. (25 mm) for each 1 ft. (300 mm) of wall height. The trench needs to extend into the slope far enough to bury one full block.
- If a slope is present below the wall, contact a local engineer for assistance.
- Compact and level the base trench making a minimum of 2 passes with a plate compactor.
- Place the drain pipe at the lowest possible point toward the back of the trench.
- Place a minimum of 6 in. (150 mm) of wall rock in the base trench and check for level. Compact the base material, making a minimum of two passes with a plate compactor.
- Then excavate the second step up making sure to accommodate for the base material and buried block. Compact and level the step up area.
- Place the base course of blocks on the base material and check for level.
- Fill the hollow cores and 12 in. (300 mm) behind the block as well as the base area of the next step up with wall rock then backfill with infill or approved on-site soils. **Make sure that the blocks and the base of the next step up are level.**
- Compact the wall rock, directly behind the block and the next step up area a minimum of two passes with a plate compactor.
- Repeat these steps to the top of the grade.
- Keep in mind the block at each step up must be completely buried to maintain the proper base depth and to prevent wall failure due to erosion.

