

Reference Guide for the AB Metro[™] Patio Wall System

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This is a modular multi-block system in three sizes: AB Metro 8, AB Metro 16 and AB Metro 24. Used for straight, contemporary-styled walls with sharp, clean corners. This product is well-suited for low height Re-taining Walls, Seating Walls and Patio Surround Walls. Design and build the entire space with one product and create elements such as islands, bars, tables, columns and more. It is easily adaptable to create a wide range of elements to **Bring Your Inside Rooms Outside**. The AB Metro Patio Wall System works to lay the foundation for extraordinary living spaces.

Design/Estimating

AB Metro Design App

Design a custom layout using the predesigned rooms or create your own with Element options. Receive 3D files of layouts instantly. Then export this design into our **Customized Pricing Tool** to build a complete cost analysis based on your local pricing.

AB Estimating Tool

Enter details for your desired patio seating wall, patio surround or retaining wall project into our AB Estimating Tool to see how many sets of block and other materials will be needed to build the project. Input your pricing for a simple, quick total cost estimate.

Installation Tips - Videos

Detailed videos with step-by-step graphics are available for each Element to ensure a fast and efficient installation process.



Specifications (approx.):



Install using our Magic 1-2-3 Pattern to eliminate vertical seams, minimize cutting and utilize whole block sets.

Stack, Glue, Done!

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Free-Standing and Retaining Walls - One System, One Clean Look

The AB Metro Patio Wall System is designed to create more flat land to expand your patio. It can enhance the curb appeal of your home, create a peaceful walled garden, develop a seating wall that combines utility and style, and opens up a world of opportunities. Build the kitchen of your dreams outside, create the destination that your friends and neighbors gather to watch the big game and enjoy getting together, or simply a place to relax and enjoy your piece of paradise.

Following guidelines contained in our documents and tools, you are able to build a low height retaining wall up to 2 ft. (0.6 m) tall, or a free-standing patio wall up to 3 ft. (1 m) tall. Our simple to use sets of blocks allow you to stack and glue them together to create your desired design. General guidelines require all units to be glued together using a flexible masonry adhesive, such as NP1.

Guidelines and Limitations

Low Height Retaining Walls

Low height garden and landscape retaining walls can be built up to 4 courses - 2 ft. (0.6 m) tall on a compacted rock base that is a minimum of 6 in. (150 mm) deep and 16 in. (400 mm) wide. The first course of block is buried 3 in. (75 mm) below grade with the cores filled with rock and all courses / blocks glued together. No surcharges or slopes above the wall. Elements installed near retaining walls must be kept a minimum of 3 ft. (1 m) away from the back of the retaining wall. For taller retaining walls, see the AB Metro Classic retaining wall at allanblock.com.



Seating Walls

In a similar manner to the layout shown above, you can easily add columns and corners to your AB Metro Seating Wall for added stability. The height for a seating wall is 3 courses - 1.5 ft (450 mm) with a cap on an existing surface, or on a compacted rock base that is a minimum of 6 in. (150 mm) deep. Using corners and columns within the wall will breakup long walls and incorporate added stability. All courses / blocks need to be glued together.



Patio Surround Walls

For free-standing walls above 3 courses - 1.5 ft (450 mm), the maximum distance between columns is 22 ft. 8 in. (6.9 m). Columns can be built on an existing surface or on compacted rock base that is a minimum of 6 in. (150 mm) deep and 4 ft. (1.2 m) wide. The maximum panel height is 6 courses – 3 ft. (1 m) on an existing surface, or on a compacted rock base that is a minimum 6 in. (150 mm) deep and 16 in. (400 mm) wide. All courses / blocks need to be glued together. When a combo retaining wall and patio surround wall is desired, see the AB Metro Classic retaining wall at allanblock.com.



Min. 6 in. (150 mm) deep compacted rock base

Retaining Walls



Maximum height 2 ft. (0.6 m) for retaining walls. Maximum height 3 ft. (1 m) for free-standing patio walls with columns every 22 ft. 8 in. (6.9 m) or less. Build Elements 3 ft. (1 m) from back of gravity retaining walls.

Where to Start

Using the Magic Pattern, it is as simple as 1 2 3!

Utilizing the modular block sets with the **Magic 1–2–3 Pattern** makes this a dream product to work with. This pattern will maximize the use of all the block shapes, eliminate seams and allows you to turn corners with nothing new to learn. The length of one set of blocks is 4 ft. (1.2 m) with increments of 8 in. (200 mm), 16 in. (400 mm), and 24 in. (600 mm).

3 Core 2 Core 1 Core 4 ft. (1.2 m)

Just stack them in order! Then reverse order on next course.

Start each wall by placing a 3 core block on the bottom left as shown. This helps develop a level benchmark for your project.

Always build your first course completely - including columns and corners before starting additional courses.



Building Corners with the Magic 1-2-3 Pattern

By using the **Magic 1–2–3 Pattern**, easily transition to a corner at any point where a 2 and 3 core block meet. Do not use a 1 core block as the corner block. At the corner, rotate the 3 or 2 core block at 90 degrees and continue on with the pattern – nothing new to learn. You can create the corner with 2 options; see the different positioning with Option 1 and 2 below. This adjusts the length of the wall by 8 in. (200 mm). It is that simple!



Column Layouts

The AB Metro Patio Wall System offers a great way to create a look with dramatic style, accents and depth by integrating columns into your design. Placing a decorative column within the wall, at a corner, at the ends of the wall or as a free-standing element – that may offer lighting – are great additions and help define your space. By building the entire first course of the wall, you can then come back and easily add columns where needed for increased stability and style. For a castellated style, build your columns one or two courses taller than the wall.

Corner Column

Columns at the corners of the wall are easy to add in with no change to how the wall is built. When your first course is built and you have a corner in the layout, it now can be turned into a corner column. By simply using one set of blocks per course, this is built by bordering the 3 and 2 core blocks on the outside and the 1 core on the inside of the corner as shown in the layout at right. Use the AB Post Cap or a natural stone option to complete the column. All courses / blocks need to be glued together on the top and sides that meet up with the wall.





Columns are built using one set of blocks per course by placing against both sides of corner, alternating the 3 and 2 core blocks on every course.



In-Wall Columns

For longer patios, it is nice to break up a wall by adding columns to create an elegant and majestic feel to the space. This is also a great place to add in lighting for night time entertaining. By building the wall in the 3-2-1 layout for the entire first course, you then go back and build the columns as designed.

Using one set of blocks for each course, a column can be constructed, and with a few adjustments will be interlocked into the wall panel for stability. The best location to insert a column will be where the 2 and 1 core blocks are together within the wall panel. By moving the 2 core adjacent to the 1 core and placing the new set of blocks, as shown at the right, will quickly create the column's first course.

It is recommended to interlock the column and blocks on every odd course as shown. Use the AB Post Cap or a natural stone option to complete the column. All courses / blocks need to be glued together on the top and sides that meet up with the wall.



Incorporating Columns in the Magic 1-2-3 Pattern



2nd column course - add a set of blocks on top of first course, place blocks to avoid seams with course below.

Ending Wall Panels with a Column

To finish the wall project, place a column to create distinction and a grand entrance to your outdoor room. Using the column patterns and building one course at a time along with the wall panel will ensure stability and maximize the use of the block sets in the project. The walls will interlock with the columns on even courses to allow the best use of the system. Use a AB Post Cap or a natural stone to complete the column. All courses / blocks need to be glued together on the top and sides that meet up with the wall.



Place three 2 core and a one 3 core at the end of the wall panel. This pattern will repeat every other course.



Place two 3 core and two 1 core at the end of the wall panel. This pattern will repeat every other course.

You will use 6 sets of blocks for a 4 course tall column and 10 sets for a 7 course tall column.

If stopping the column height at course 4 with a seating wall application, you will need to use a 1 core block to fill in the space where the wall would interlock. This block is accounted for in the sets needed.

Free-Standing Column

This feature is great for accents in the landscaping or to mark an entrance to a driveway. Lighting can easily be added with wires running up the center of the column. All courses/blocks need to be glued together. Note – you will have 2 seams on the bottom 2 courses on one panel. Positon the column appropriately or increase your sets to change the first course.

You will use 6 sets of blocks for a 4 course tall column.





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Maximum height 2 ft. (0.6 m) for retaining walls. Maximum height 3 ft. (1 m) for free-standing patio walls with columns every 22 ft. 8 in. (6.9 m) or less. Build Elements 3 ft. (1 m) from back of gravity retaining walls.

Building Basics

The AB Metro Patio Wall is a versatile system that provides unlimited possibilities. Using the Magic Pattern, it is as easy as 1-2-3. The Magic Pattern: 1 - Eliminates vertical seams, 2 - Allows you to easily incorporate 90 degree corners into your design, and 3 – It uses the blocks in the three piece sets to minimize waste and cutting. Now let's get going on understanding the construction steps for **bringing your indoor living spaces outdoors**. The first section of the AB Metro Patio Wall Reference Guide has highlighted the system and the limitations of what can be built, so what else do you need to start building?

1. Laying Out Wall or Element - Allan Block offers a wide range of pre-designed rooms and elements for your use in our **AB Metro Design App**. You can also create your own dream project. Review the details of what you are building to ensure you are getting the most out of the AB Metro Patio Wall three piece set, to eliminate cutting and fit the needs of your project. Starting with the 3 core block will provide the best way to start your project. If possible, layout your first course to make sure that it works for your plan. Incorporate some of the following for added stability.



End column adds

ft. (0.6 m)

- End Columns add an additional 24 in. (600 mm) to the length of the wall at each end use. Ending on a 1 or 3 core block on the first column offers the best results for sets.
- **In-Wall Columns** can be located where the 2 and 1 core blocks meet. A wall starting on 3 core block, in the Magic 1-2-3 Pattern ensures that the column and wall interlock

together on the first course and then on every odd course. From the start of a wall a column can be placed at 6 ft. (1.8 m) then additional columns can be place at 4 ft. (1.2 m) increments which is the length of a set (e.q. 6 ft., 10 ft., 14 ft., 18 ft. 22 ft. (1.8 m, 3 m, 4.25 m, 5.5 m, 6.7 m)).

- **Corners** may be inserted at 2 ft. (0.6 m) or 2.7 ft. (0.8 m) from the end of the wall, or any where a 3 and 2 core meet.
- Corner Columns add an additional 8 in. (200 mm) to the length of the wall at each end use.
- End column adds Corner Placement 1 2 ft. (0.6 m) 4.7 ft. (1.4 m) (0.6 m)

End/Start of wall.



placement





2. Create a Solid Foundation - AB Metro Patio Wall provides you the opportunity to build both retaining walls and free-standing walls. Both applications require a compacted rock base that is a minimum of 6 in. (150 mm) deep, or 8 in. (200 mm) deep if clay or fill soils. Always start on a compacted, solid foundation below the compacted rock base.

2 ft.

The width of the base should be twice the depth of the block. For the wall panels this equates to 16 in. (400 mm). For a typical column this would require a 4 ft. (1.2 m) square base.

For projects built on existing hard surfaces, such as a paver patio, including the pavers, the total base required is still 6 in. (150 mm) minimum.

<u>RETAINING WALLS</u> – When building a retaining wall, you will need to bury a minimum of 3 in. (75 mm) of the base block. This will mean the trench for the base of a retaining wall will be at least 3 in. (75 mm) deeper than for a free-standing wall application. Trench must be compacted prior to filling with rock.



3. Build the First Course - You start the first course by placing and leveling a 3 core block in the center of the base. This starts the Magic 1-2-3 Pattern and makes it is easier to level the longer block to set your benchmark for level in both directions. Up to 0.5 in. (15 mm) of sand may be placed to help with leveling when building directly on a compacted rock base. When building on a concrete surface it is acceptable to use asphalt shingles or other non-degradable pliable materials to obtain a level surface for the first course of block.

Columns are built after the first course is installed. Refer to Where To Start - for Corner Columns, In-Wall Columns, End Columns, or Free-Standing Columns, to properly lock walls and columns together and to minimize waste of block sets.

<u>RETAINING WALLS</u> - For retaining wall applications, the base course should be placed at least 3 in. (75 mm) below grade to lock the retaining wall in place.

4) Preparing and Building Second Course - Clean off the top of the blocks by sweeping any excess crumbs and/or by sliding a block across the top surface of the wall as installed. Place a generous bead of flexible construction adhesive, such as NP1, on the top of the blocks on both sides of the core. Place second course starting with a 1 core unit centered on a 3 core unit to start the Magic 1-2-3 Pattern to build your wall. Tap, level and ensure the blocks are plumb as you stack vertically. Use the flexible construction adhesive to bond and as a leveling agent.

On the second course and above, continue to integrate your columns into the wall before you apply your construction adhesive.

<u>RETAINING WALLS</u> – For retaining wall applications, each core of the block must then be filled with rock, with a minimum of 12 in. (300 mm) placed behind the wall and compacted to reduce pressure on the wall. Infill soil behind the wall and rock should be placed and compact to the full height of the first course. Compaction should be comparable to what is required on any retaining wall application which is 95% of Standard Proctor. After rock and fill are placed and compacted at each course, sweep the tops clean, check for level. Then place a bead of flexible construction adhesive, such as NP1, on the top of the blocks on both sides of cores. Install second course starting with a 1 core block centered on a 3 core block to start the **Magic 1–2–3 Pattern** to build your wall. Tap and level your blocks in place using the flexible construction adhesive to bond and as a leveling agent.









Maximum height 2 ft. (0.6 m) for retaining walls. Maximum height 3 ft. (1 m) for free-standing patio walls with columns every 22 ft. 8 in. (6.9 m) or less. Build Elements 3 ft. (1 m) from back of gravity retaining walls.

5) **Rinse and Repeat** – Continue using these steps to create your outdoor rooms and elements. Remember to check for level, plumb, place flexible construction adhesive on every course and to incorporate columns and corners for stability.

<u>RETAINING WALLS</u> - For retaining wall applications, the cores of the blocks and behind the wall should be filled with rock and compacted after every course of block is installed.

6) Finishing the Wall – Install AB Metro Patio Wall Cappers or countertops as desired for a clean, finished look. Secure in place with flexible construction adhesive, such as NP1, on the top of the blocks on both sides of the core. The tops of the AB Metro Patio Wall are flat so any countertop, natural stone option or cap will work as you finish up your project.

The AB Metro Patio Wall Cappers deliver a perfect size for creating a nice seating surface, develop architectural details and allows space for under cap lighting.

7) Adding the Touches That Make This Someone's Home – Turn the raised garden area you have just built into a stunning flower garden, or for growing all the spices the cook of the home will need. Pick the counter materials that truly captures the style and personality of the home. Add a grill, tv, fridge, etc... to make this the best outdoor living space on the block.



Use the AB Metro Patio Wall to:

AB Metro Capper

Flush Cap

(to one side)

Centered Cap

- Create and design a new space with ease.
- Install with the Magic 1-2-3 Pattern.
- Enjoy for years to come!

Visit allanblock.com for:

- Complete product and installation details.
- Project ideas.
- Videos.
- App and Estimating Tool downloads.

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Create the Desired Outdoor Space and Receive Detailed Plans

Using the AB Metro Patio Wall App you can create multiple room layouts just as easy as installing the block with the Magic 1-2-3 Pattern. Create your room size and drag and drop from our large library of options. Then with a click of a button you will receive full material details and a 3D file of your project.



Choose from the selection of pre-designed options:

- Kitchens
- Entertaining/Bar Areas
- Living Rooms/Spaces
- Retaining/Garden Walls

Create your own design with our large library of Elements like:

- Open-Air Islands
- Kitchen Counters
- Bars
- Grill Surrounds
- Fire Pits
- Furniture

Pre-Designed Elements To Choose From



Open-Air Islands

Check out allanblock.com!

Estimating Tool Design App

Videos

Installation Instructions





Bars/Entertaining









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