



INSTALLATION INSTRUCTIONS FOR MULTI-PIECE SYSTEMS

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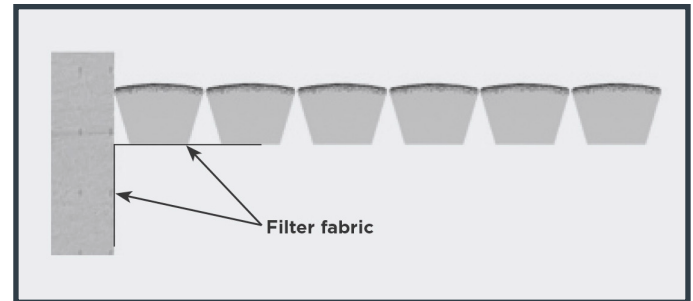
ABUTTING AN EXISTING STRUCTURE

MULTI-PIECE SYSTEM

INSTALLATION GUIDELINES

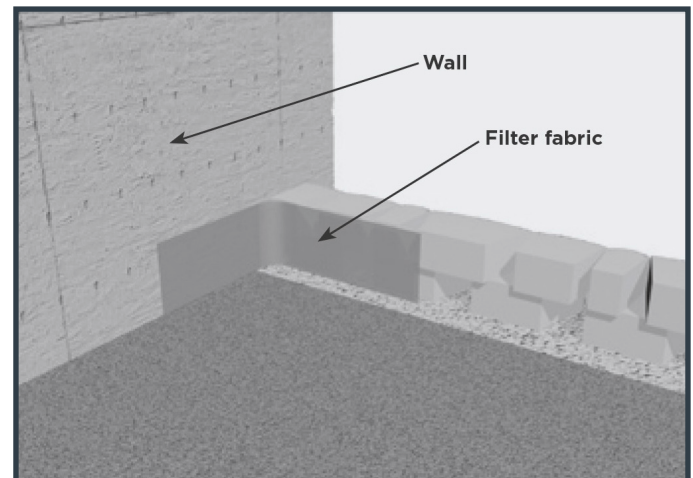
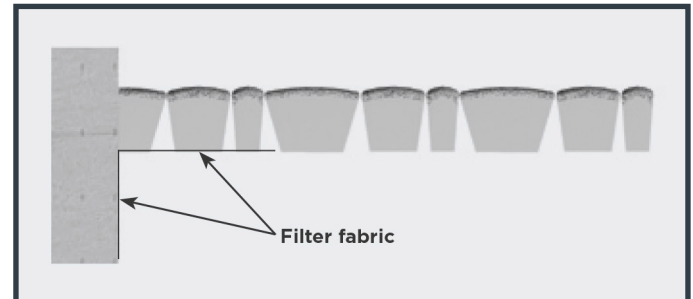
FIRST COURSE

Begin with the first block next to the wall and place the first course. Place filter fabric behind the first two large units and extend it 2 feet along the existing structure.



SECOND COURSE

Build the second course with standard installation techniques. A split unit is shown, but may not be necessary in every installation. Extend filter fabric to the top edge of the final course. A rubber membrane may be placed between the units and a non-concrete wall to prevent moisture damage to the structure.



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BUILDING A FREESTANDING WALL



MULTI-PIECE SYSTEM

PREPARE LEVELING PAD

Excavate for the leveling pad. The trench should be a minimum of 21 inches wide and should be 6 inches deeper than the block. **See Diagram 1.**

Create a leveling pad of compacted base material that extends a minimum of 6 inches in front of and 6 inches behind the wall units. This pad should also be at least 6 inches deep after compaction.

BASE COURSE

Once the pad is compact and level, begin placing the units. Center the units on the pad. The ends of the units should be in contact. The base course must be buried below grade and should be included when calculating total wall height. **See Diagram 2.**

BUILDING THE WALL

Units can be placed in any order to form an aesthetically pleasing layout. The simplest is one that incorporates large, medium and small units. The units should be installed so the ends are in complete contact with each other. Remember to keep the wall on bond by placing units in a staggered relationship to the course beneath. Repeat this process to complete the wall. Remember to glue the top two courses and caps in place with a concrete adhesive.

ENDING A WALL

Split a large unit into pieces sized as needed. Do not use pieces smaller than 6 inches wide. If needed, cut the second-to-last piece and make the last piece the appropriate size. Smaller pieces should be glued into place with a concrete adhesive. After splitting the end piece, use a hammer and chisel to create a rounded appearance to match the manufactured split blocks.

INSTALLATION GUIDELINES

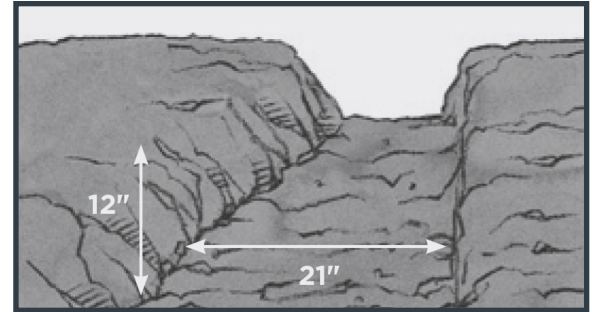
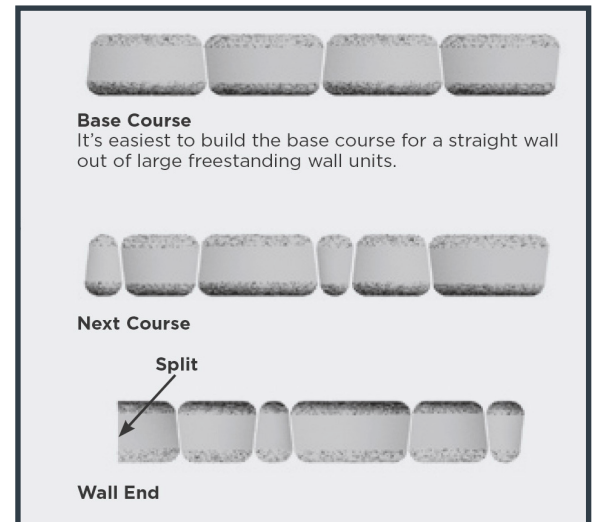


Diagram 1



Diagram 2



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CAPPING A WALL

MULTI-PIECE SYSTEM

STRAIGHT WALL

Trapezoidal caps must be laid alternately short and long faces for a straight line. Rectangular caps should have the finished side out. Always start capping from the lowest elevation.

OUTSIDE CURVES

Lay out the cap units side by side and cut at least every other cap to produce a uniform look. Start with the long side of the cap facing out and adjust to the radius.

INSIDE CURVES

Lay cap units side by side with the short side facing out. In most circumstances, making two cuts on one cap and then not cutting the cap on either side produces the most pleasing look.

CORNERS

On a 90° corner wall, the corner caps need to be saw-cut to achieve a 45° mitered corner.

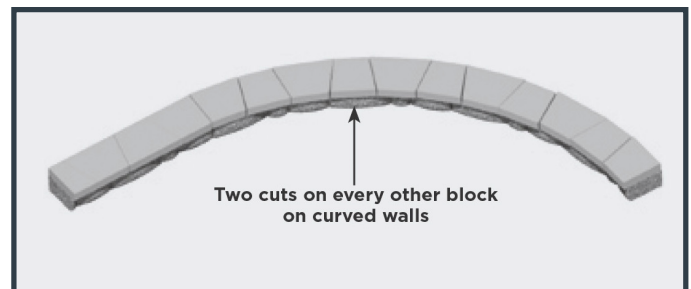
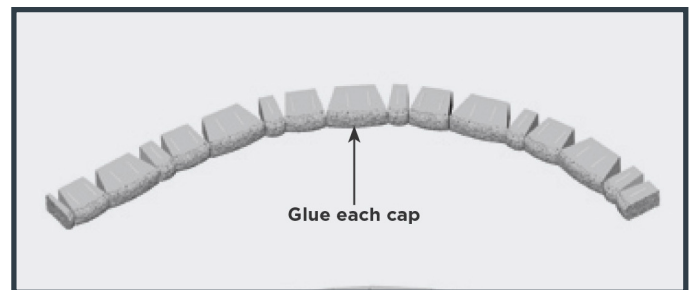
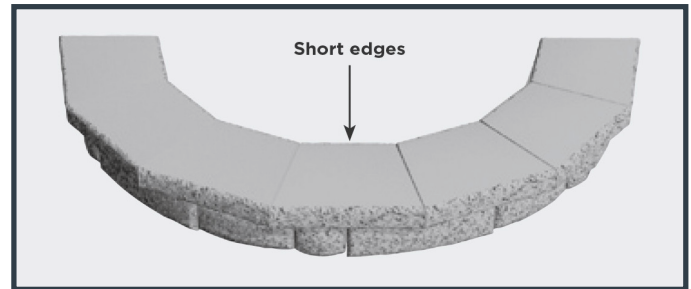
STEPPING UP CAPS

If a wall elevation changes, caps can be stacked where the wall steps up. Begin laying caps at the lowest elevation change and work your way back toward the previous step up. Split* or cut a cap unit to fit. Place the split unit directly on top of the capped portion of the wall with all three split faces exposed.

FINISHING

After layout is complete and caps are saw-cut or split to size, carefully glue with a concrete adhesive.

INSTALLATION INSTRUCTIONS



**To split a block, use a hydraulic splitter or split manually by using a hammer and chisel to score the block on all sides. Pound the chisel on the same line until the block splits. If partial unit sides are not exposed, use a circular cut-off saw with a masonry blade to achieve a tighter fit.*

MULTI-PIECE SYSTEM

COLUMNS

When used with a freestanding wall, a column increases wall stability. Placing fixtures on columns is also a great way to incorporate lighting. Columns can be located in the middle or at the end of a wall. The open space in the center of a column permits reinforcement or electrical wiring if desired. The column leveling pad should extend 6 inches beyond each column edge and be at least 6 inches deep after compaction.

WALL THROUGH COLUMN

On the first course, use complete column units to start the column and cut the wall units to fit. On the second course, cut* two column units in half to fill in the corners. Continue construction by alternating courses. Glue all column courses with a concrete adhesive.

COLUMN AT END OF WALL

To build columns at the end of a wall, cut one column unit in half for the second, fourth and additional evennumbered courses. Stack column units in a rotating pattern for each course so that the bond is staggered. One column unit half is used every two courses. Glue each course of column units with a concrete adhesive. Integrate wall into column as shown to increase stability.

90° CORNER AT COLUMN

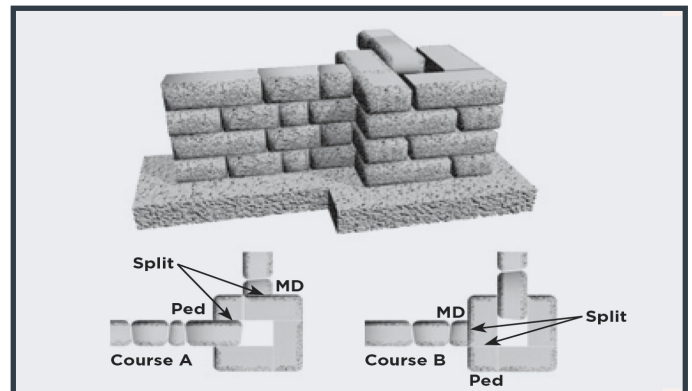
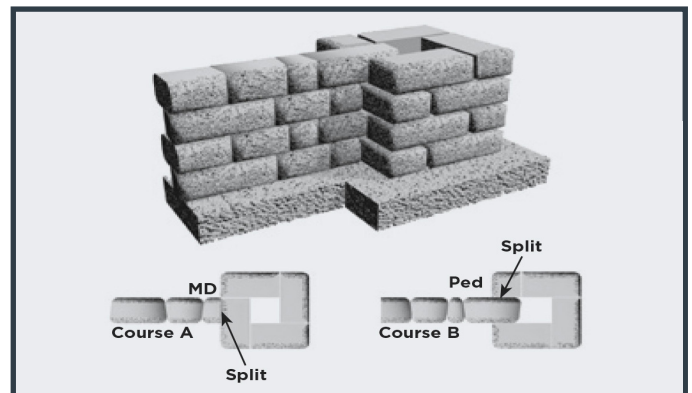
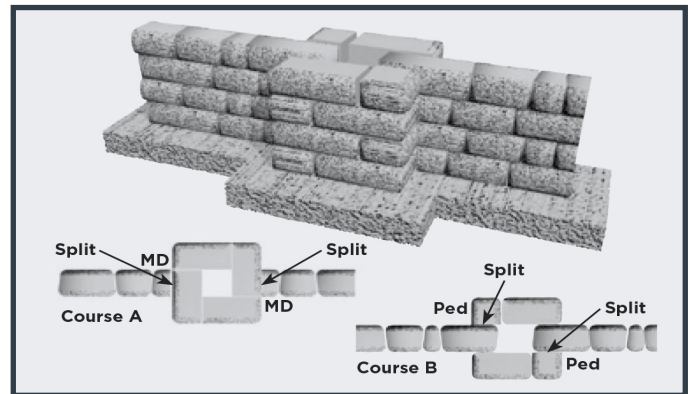
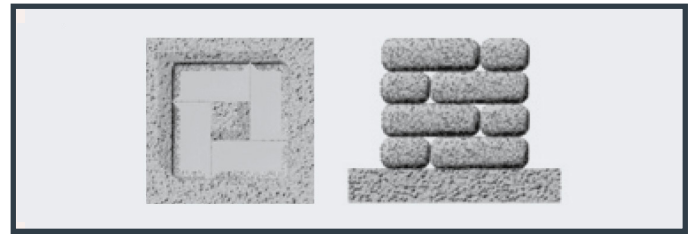
Frequently, a 90° turn is made at a column. To build this column, cut* one column unit per course. Stack column units in a rotating pattern for each course. Glue each course of column units with a concrete adhesive.

**To split a block, use a hydraulic splitter or split manually by using a hammer and chisel to score the block on all sides. Pound the chisel on the same line until the block splits. If partial unit sides are not exposed, use a circular cut-off saw with a masonry blade to achieve a tighter fit.*

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INSTALLATION INSTRUCTIONS



MULTI-PIECE SYSTEM

INSTALLATION GUIDELINES

CALCULATE THE RADIUS

Check the wall plan to determine the radius of the base course. This will be the smallest radius in the wall and must not be less than the minimum for the block system used.

A quick way to determine the base course radius:

1) Add 1/4 inch to the setback of the block used. Multiply that by the number of courses in the finished wall.

2) Subtract the result of step 1 from the radius of the top course. This number equals the approximate radius length of the base course.

3) Determine the radius for the front edge of the trench, subtract 6 inches from the approximate radius length of the base course.

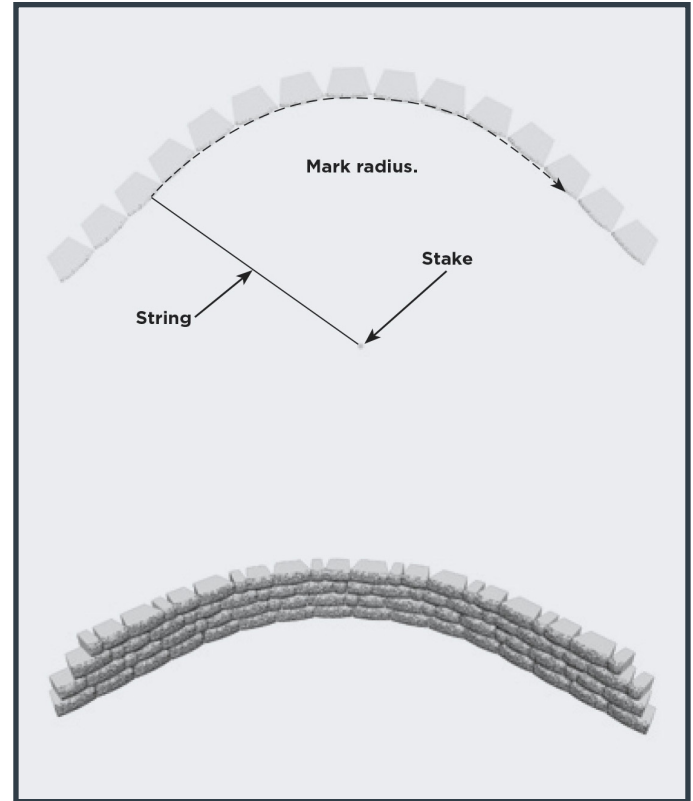
Example: The setback of the Highland Stone® product is 1 3/8 inches. The wall is 8 courses high. The desired radius of the wall measured to the front of the block on the top course is 10 feet.

1) Setback multiplied by number of courses
 $1\ 1/8" + 1/4" = 1\ 3/8" \times 8\ \text{courses} = 11"$

2) Desired radius minus setback
 $10' - 11" = 9'1"$

3) Front of trench
 $9'1" - 6" = 8'7"$

Tip: Add the depth of the block if you prefer to mark the curve from the back of the block.



LAY OUT THE TRENCH

Drive a stake into the ground at the desired radius point of the curve. Attach a string and rotate it in an arc at the desired length to mark the curve in the soil. Dig the trench.

BASE COURSE

Using existing radius point stake and string, mark the base course curve on the leveling pad. Align the front of the block with the marked curve and ensure level placement from side to side and front to back.

ADDITIONAL COURSES

On each course, the lip of each block must be in contact with the back of the units below to ensure structural stability.

CURVES — INSIDE with Reinforcement

MULTI-PIECE SYSTEM

Most retaining walls are designed assuming 100 percent coverage of the reinforcement. When building an inside curve, the back edges of the reinforcement will fan out, producing slight gaps. In order to ensure 100 percent coverage, additional lengths of reinforcement are used to fill those gaps on the next course of blocks. To prevent slippage, don't overlap the grid on any given course.

FIRST COURSE WITH REINFORCEMENT

Cut reinforcement to the lengths specified in the wall plan. Lay segments of reinforcement within 1 inch of the face of the wall, making sure that the strength direction of each section is perpendicular to the wall face. Avoid overlapping the reinforcement by separating each section.

SUBSEQUENT COURSES

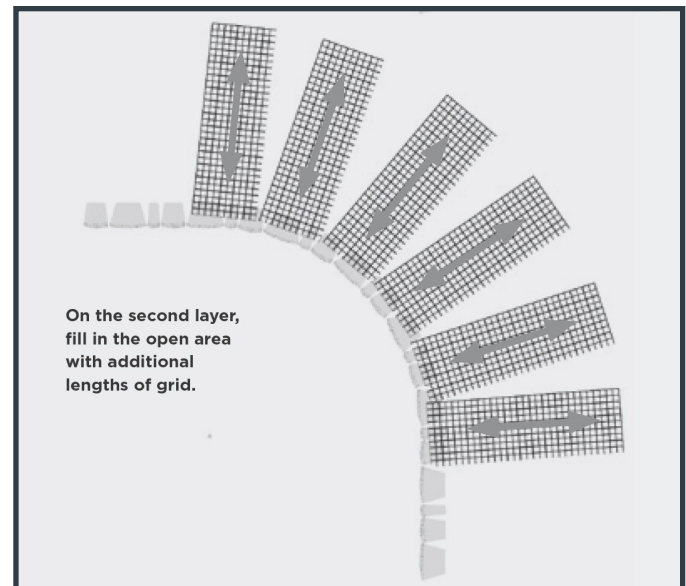
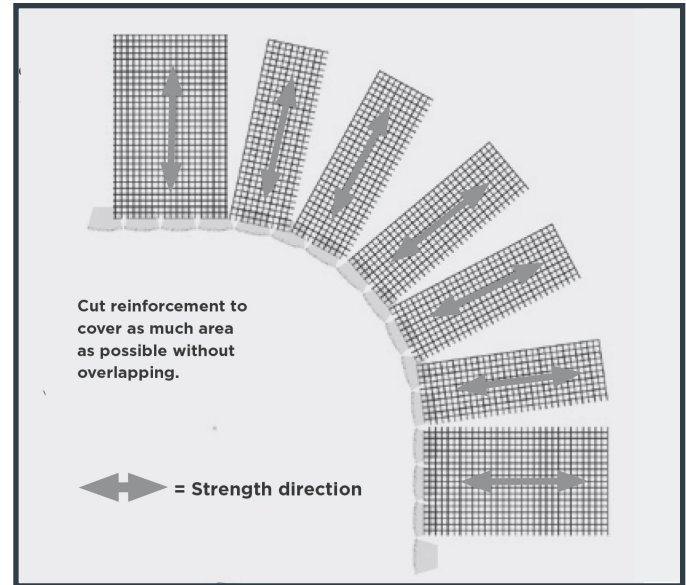
Place the next course of units, marking their backs to identify the middle of unreinforced areas. Backfill and compact. Center subsequent sections of reinforcement on the marked blocks to ensure full reinforcement coverage.

Repeat this procedure throughout the construction of the curve when reinforcement is required.

MINIMUM INSIDE RADIUS

The minimum radius varies by product. Please check Product Information for the product you are using at anchordiamond.com.

INSTALLATION GUIDELINES



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MULTI-PIECE SYSTEM

INSTALLATION GUIDELINES

LAY OUT THE RADIUS

When building an outside curve, begin by determining the desired radius of the top course. This will be the smallest radius in the wall and must not be less than the minimum radius for the block system used.

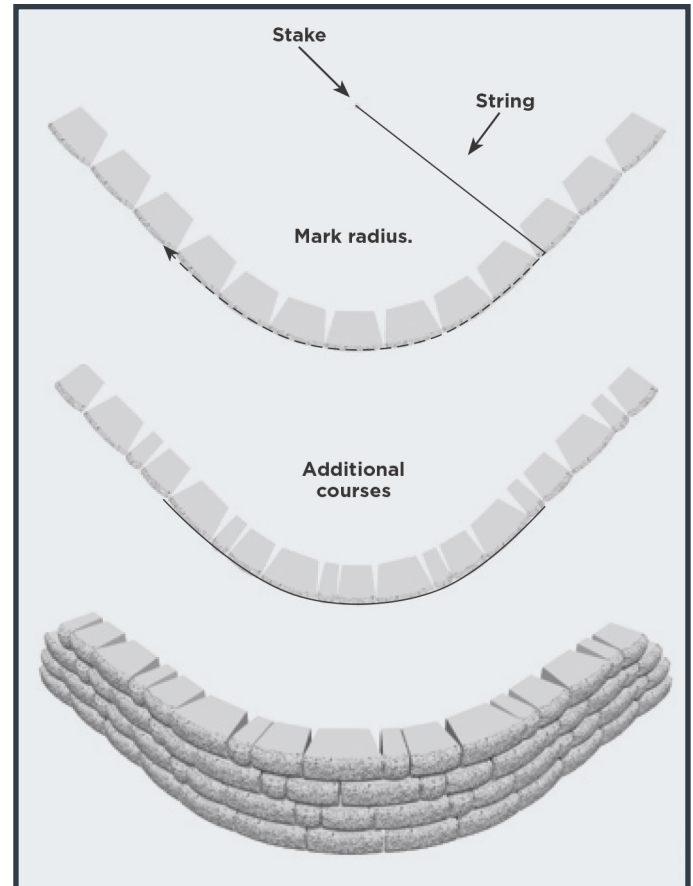
To determine the approximate base course radius

- 1) Add 1/4 inch to the setback of the block used. Multiply that by the number of courses in the finished wall.
- 2) Add desired radius length of the top course to the result of step 1. This number equals the approximate radius length of the base course.
- 3) To determine the radius for the front edge of the trench, subtract 6 inches from the approximate radius length of the base course.

Example: The setback of the Highland Stone® wall system is 1 1/8 inches. The wall is eight courses high. The desired radius of the wall measured to the front of the block on the top course is 6 feet.

- 1) Setback multiplied by number of courses
 $1\ 1/8" + 1/4" = 1\ 3/8" \times 8\ \text{courses} = 11"$
- 2) Desired radius plus setback
 $6' + 11" = 6'11"$
- 3) Front of trench
 $6'11" + 6" = 7'5"$

Tip: Subtract the depth of the block if you prefer to mark the curve from the setback of the block.



LAY OUT THE TRENCH

Drive a stake into the ground at the desired radius point of the curve. Attach a string and rotate it in an arc at the desired length to mark the curve in the soil. Dig the trench.

BASE COURSE

Drive a stake into the ground at the desired center of the curve. Attach a string and rotate it in a circle around the stake to mark the radius in the soil. Align the front of the block with the curve and ensure level placement from side to side and front to back.

ADDITIONAL COURSES

On each course, the lip of each block must be in contact with the back of the units below to ensure structural stability.

CURVES — OUTSIDE with Reinforcement

MULTI-PIECE SYSTEM

Most retaining walls are designed assuming 100 percent coverage of the reinforcement. When building an outside curve, the block edges of the reinforcement will have gaps and the back edges don't overlap. In order to ensure 100 percent coverage, additional lengths of reinforcement are used to fill those gaps on the next course of blocks. To prevent slippage, don't overlap the grid on any given course.

FIRST COURSE WITH REINFORCEMENT

Cut reinforcement to the lengths specified in the wall plan. Lay sections of the reinforcement within 1 inch of the face of the wall with the strength direction perpendicular to the wall face. Avoid overlapping the reinforcement by separating each section.

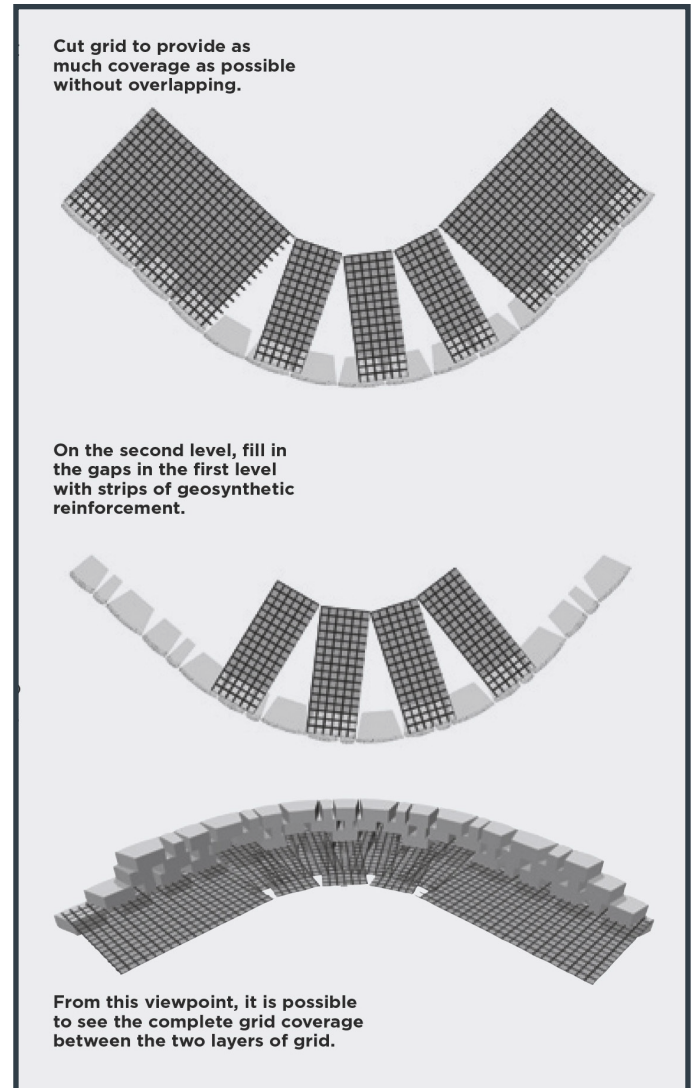
SUBSEQUENT COURSES

Place the next course of blocks, marking their backs to identify unreinforced areas. This step is important because when this course is backfilled, it's impossible to locate the unreinforced areas. Use the marked blocks as a guide, placing subsequent sections of reinforcement to overlap the gaps left on the previous course. This will ensure total reinforcement coverage. Repeat this procedure throughout the construction of the curve when reinforcement is required.

MINIMUM OUTSIDE RADIUS

Each product has a unique outside radius. Check the product information on anchordiamond.com.

INSTALLATION GUIDELINES



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DAYLIGHTING DRAINAGE

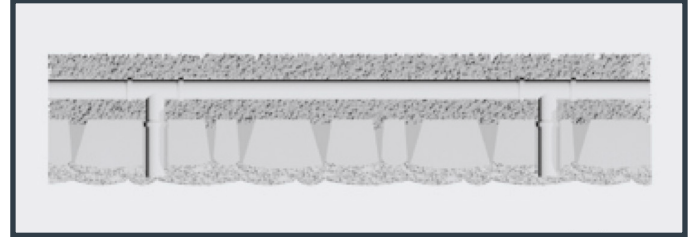
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MULTI-PIECE SYSTEM

INSTALLATION GUIDELINES

FIRST COURSE

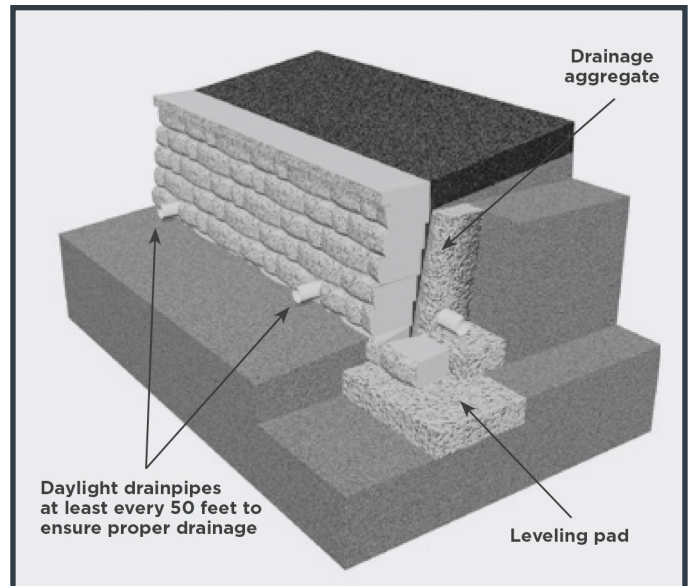
To daylight drainpipes through a wall face, put them on compacted leveling pad aggregate placed behind the first course. Space these drains not more than 50 feet apart. Split 2 inches off the front of two adjacent large units to provide space for the drainpipe to exit through the face.



NEXT COURSE

Build this and remaining courses using standard construction techniques.

Tip: To daylight through slope, see Drainage Swales.



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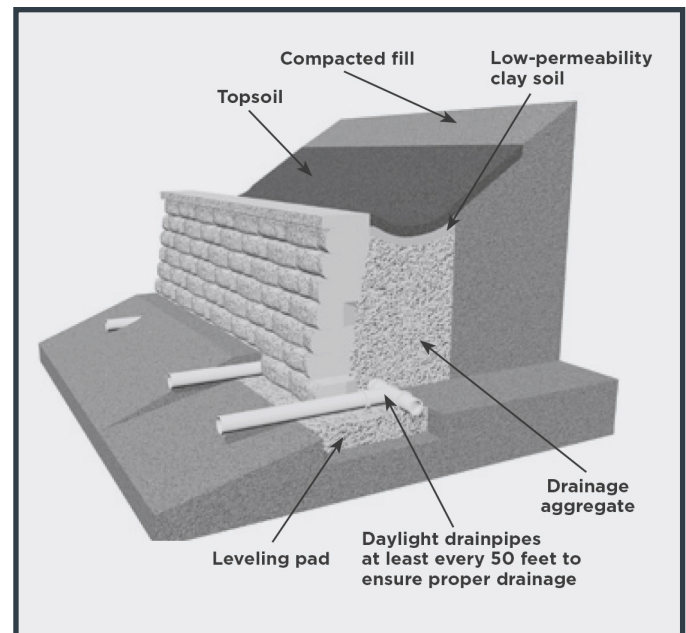
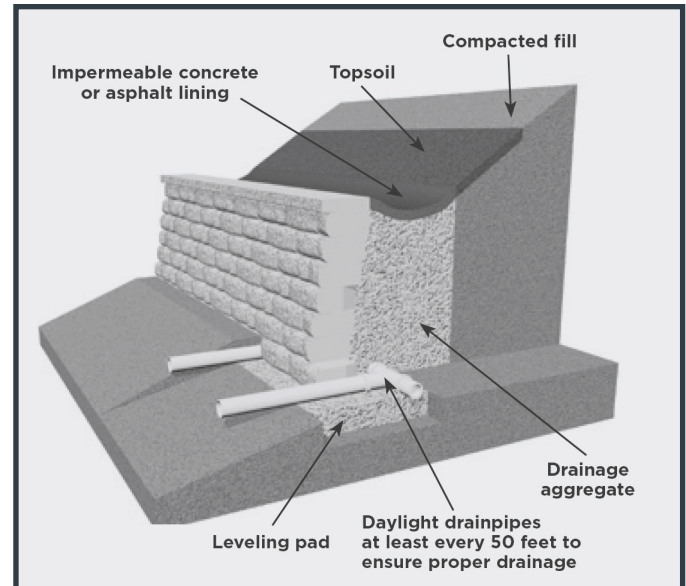
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DRAINAGE SWALES

MULTI-PIECE SYSTEM

Design and performance of most retaining walls are based on keeping the reinforced zone relatively dry. Appropriate drainage swales to help control water should be designed into the wall construction plan.

INSTALLATION GUIDELINES



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MULTI-PIECE SYSTEM

INSTALLATION GUIDELINES

The specific dimensions of the fence and fence post spacing are required to accurately determine the placement of the sleeves.

Provide at least 1 inch clearance between the inside of the sleeve and the outside of the post, and allow for mortar and grout. Install the sleeves according to the wall plan during the construction of the wall.

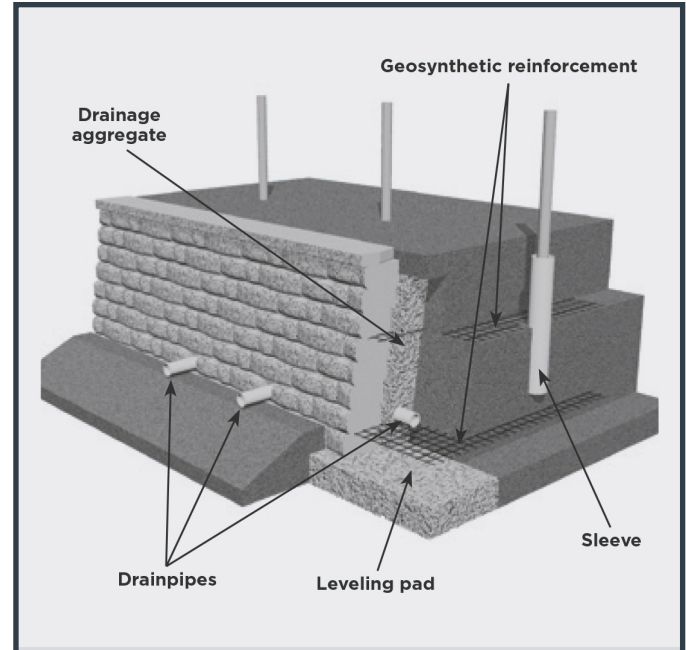
If the fence is at least 3 feet behind the wall face, generally no additional reinforcement is required.

If the fence is installed within 3 feet from the face of the wall, there may be some load transferred to the wall from wind, snow or pedestrians. Additional reinforcement around the fence sleeves may be needed. Consult a suitably qualified engineer before installation takes place.

Walls should not be completed and sleeves then 'punched' through the already installed backfill and reinforcement layers after construction is complete. This may result in damage to the reinforcement grids and lead to subsequent failure of the wall.

Carefully cut the reinforcement cross (weft) straps to allow the reinforcement to fit around the sleeve without distortion or additional tension being introduced to the grid when in its final location.

Grout the fence post into the sleeve after the wall is built.



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INSTALLATION PATTERN

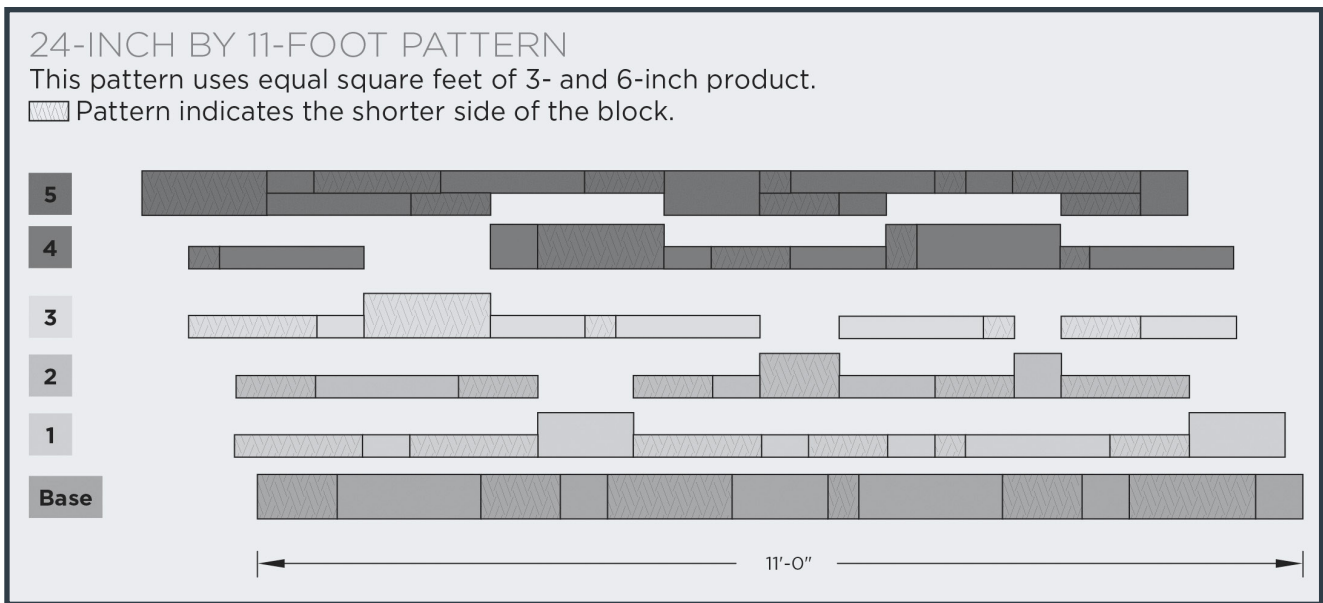
MULTI-HEIGHT

FREESTANDING WALL SYSTEM

24-INCH BY 11-FOOT INSTALLATION PATTERN

This pattern uses equal square feet of 3 and 6 inch product.

 Pattern indicates the shorter side of the block.



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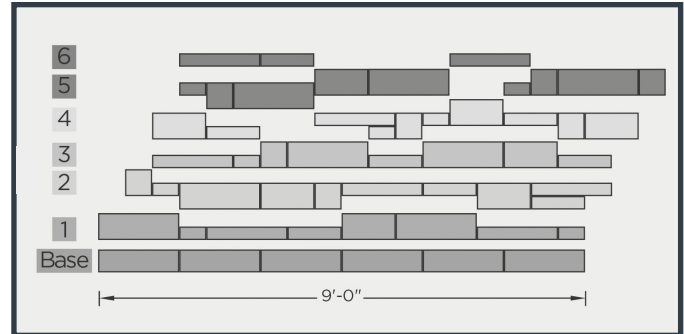
INSTALLATION PATTERNS

RANDOM-LOOK

6"/3" MULTIHEIGHT RETAINING WALL SYSTEM

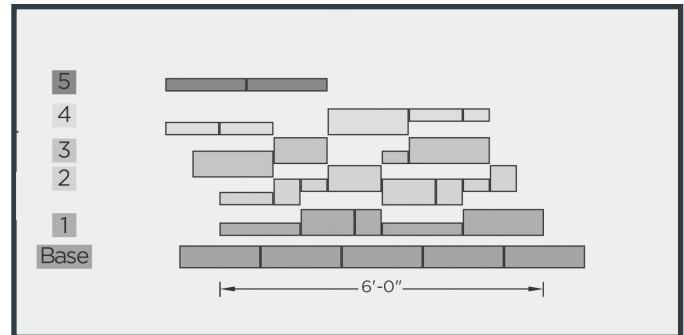
24-INCH BY 9-FOOT INSTALLATION PATTERN

This illustrates a 24-inch-high by 9-foot-long repeating installation pattern. The installation pattern uses an equal number of units of each face size. When your plan requires reinforcement, this installation pattern is ideal because it eliminates cutting if the grid is at 24 inches.



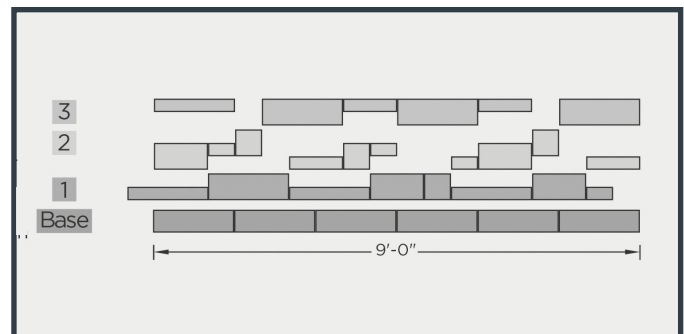
18-INCH BY 6-FOOT INSTALLATION PATTERN

This illustrates a 18-inch-high by 6-foot-long repeating installation pattern. The installation pattern uses an equal number of units of each face size. When your plan requires reinforcement, this installation pattern is ideal because it eliminates cutting if the grid is at 18 inches.



12-INCH BY 9-FOOT INSTALLATION PATTERN

This illustrates a 12-inch-high by 9-foot-long repeating installation pattern. The installation pattern uses an equal number of units of each face size. When your plan requires reinforcement, this installation pattern is ideal because it eliminates cutting if the grid is at 12 inches.



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INSTALLATION PATTERNS

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SEQUENT

6"/3" MULTIHEIGHT RETAINING WALL SYSTEM

Combine the Highland Stone® 6" and 3" wall systems to construct a multiple-height wall with the easy-to-use Sequent™ panel installation pattern. This panel approach breaks up the horizontal lines of a typical single-height product. The repeating Sequent installation pattern is easy for contractors to install on a large scale in order to create a random, rough-textured look.

27-INCH BY 6-FOOT PANEL INSTALLATION PATTERN

This 27-inch-high by 6-foot-long installation pattern uses an equal number of units of each face size to make a panel. This installation pattern is one of many possible options. Others can be used for different appearances.

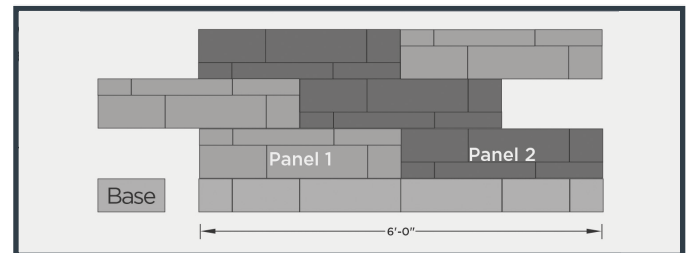
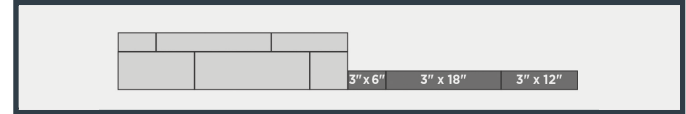
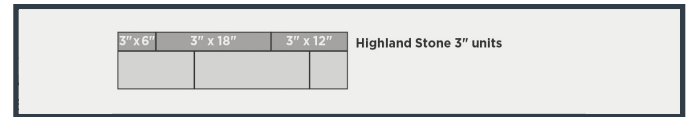
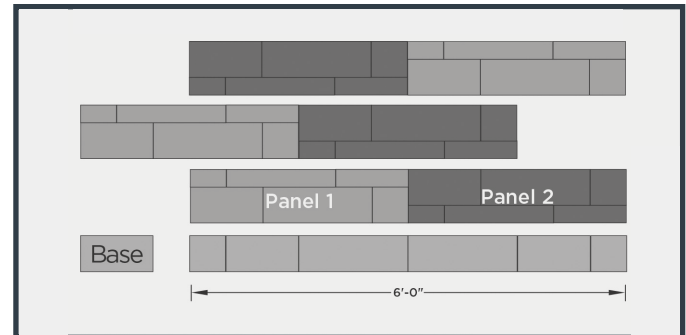
INSTALLATION GUIDELINES

Install the base course using best practices. The wall is built with a series of panels in a repeating installation pattern. Install filter fabric behind wall.

Follow these steps to build panels.

- 1 Start by using all three units of 6-inch product.
- 2 Next, use all three units of the 3-inch product and stack them on the first three units, staggering the bond. This completes panel one.
- 3 Working along the wall, next use all three units of the alternate sized product.
- 4 Use alternate product and stack units on the course described in step 3, staggering the bond. This completes the second panel. Repeat panel installations across the base course.
- 5 Backfill, compact and install grid or structural backfill, if needed.
- 6 Start the next set of panels by staggering the first unit 18 inches to the right or left of lower panels and repeat step 1.

Continue to install panels to complete the wall.



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COLUMNS

Including Offset

MULTI-PIECE SYSTEM

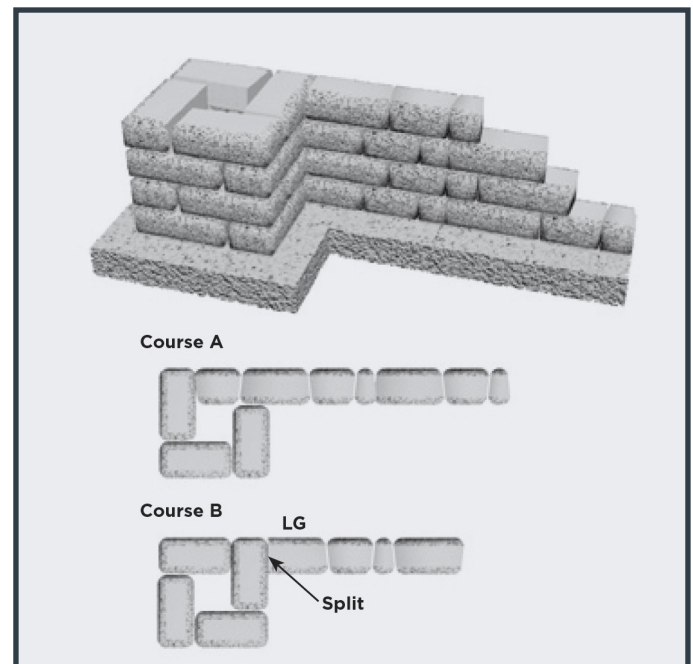
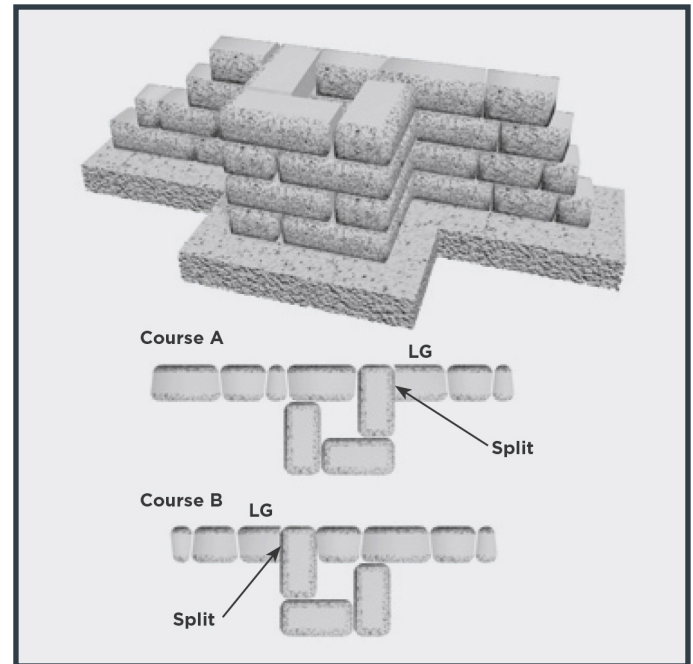
COLUMN IN RUNNING WALL

Columns add stability and elegance to a wall. They are located on one side of a wall. To build a column, stack column units in a rotating pattern for each course. Cut wall units as indicated. Glue each course of units in the column with a concrete adhesive.

COLUMN AT END OF WALL – OFFSET

To build a column at the end of a wall, stack three column units as shown for the base course. For the next courses, use column units, stacking in a rotating pattern. Glue each course of units in the column with concrete adhesive.

INSTALLATION GUIDELINES



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RUNNING BOND

MULTI-PIECE SYSTEM

INSTALLATION GUIDELINES

STRAIGHT WALL

Proper installation of an Anchor™ retaining wall requires that running bond be maintained. Running bond occurs when the blocks are centered over the vertical joints of the previous course. This adds to wall stability and makes your wall system aesthetically beautiful.



OUTSIDE CURVED WALL

Any wall that is not perfectly straight will eventually run off bond due to the batter of the wall. When this happens, skip a block position and place the next block into the next place where it is back on bond. Measure the remaining gap and cut or split* a block to fit.



Once the partial unit is in place, glue it with a concrete adhesive. Partial units must not be less than 5 inches, and should not be placed directly on top of each other. If the gap is larger than the length of one block, divide the measurement by two and put two partial units in place.

**To split a block, use a hydraulic splitter or split manually by using a hammer and chisel to score the block on all sides. Pound the chisel on the same line until the block splits. If partial unit sides are not exposed, use a circular cut-off saw with a masonry blade to achieve a tighter fit.*

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SMALL COLUMNS

MULTI-PIECE SYSTEM

SMALL COLUMNS IN WALL

There are times when a column of a different size is needed. To build a smaller column in the running wall, you will need to split* a medium stretcher unit for the first course. Split the unit so that the pieces, combined with another medium unit, equal 18 inches. Place the units parallel to the wall on the prepared leveling pad. For the next courses, split a large stretcher unit and a medium stretcher unit so that they equal 18 inches. Split a second set of large and medium units to make a second 18-inch section. Insert these units perpendicular to the wall as shown. Glue all courses. Round the split ends with a hammer and chisel.

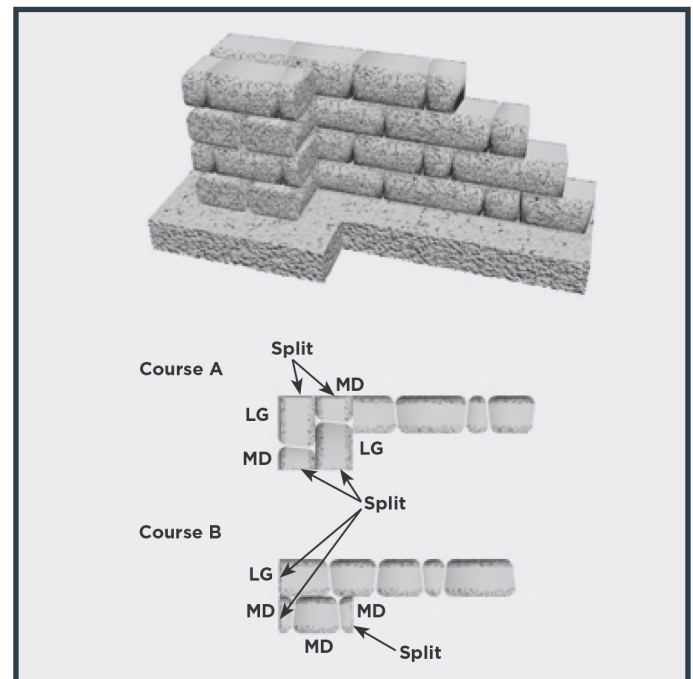
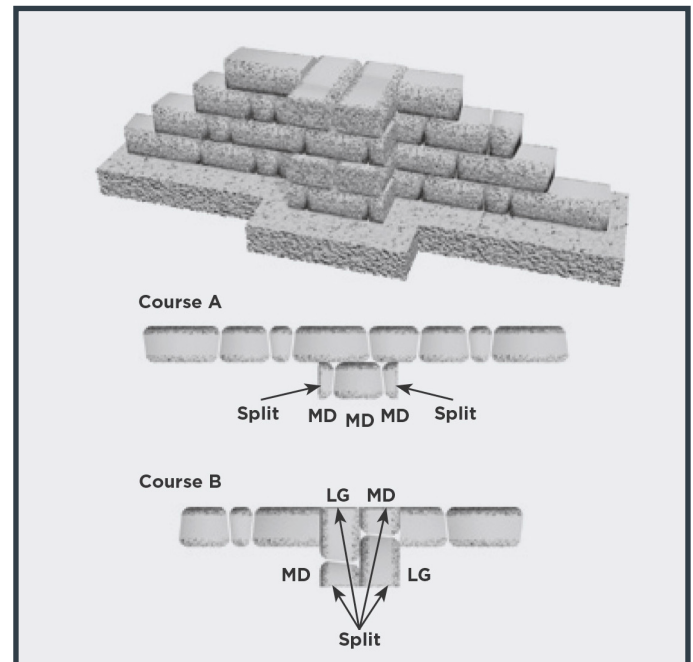
SMALL COLUMN AT END OF WALL

To build a smaller column at the end of a running freestanding wall, you will need to split* four stretcher units for the first course. Split a large and medium unit so they equal 18 inches. Split a second set of units to make a second 18-inch section. Insert the unit sets perpendicular to the wall on the prepared leveling pad.

For the next course, center a medium stretcher unit over the base units as shown. Split another unit to maintain a staggered bond. Round the split ends with a hammer and chisel. Glue all units in the column with a concrete adhesive.

**To split a block, use a hydraulic splitter or split manually by using a hammer and chisel to score the block on all sides. Pound the chisel on the same line until the block splits. If partial unit sides are not exposed, use a circular cut-off saw with a masonry blade to achieve a tighter fit.*

INSTALLATION GUIDELINES



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STEPPING UP THE BASE

MULTI-PIECE SYSTEM

INSTALLATION GUIDELINES

Walls built on a sloping grade must always be constructed with leveled, horizontal courses. Courses should not be sloped to match the slope of the surrounding ground levels. Walls built on a sloping grade require a stepped base (footing or leveling pad) which steps up the slope in 6-inch increments as often as required.

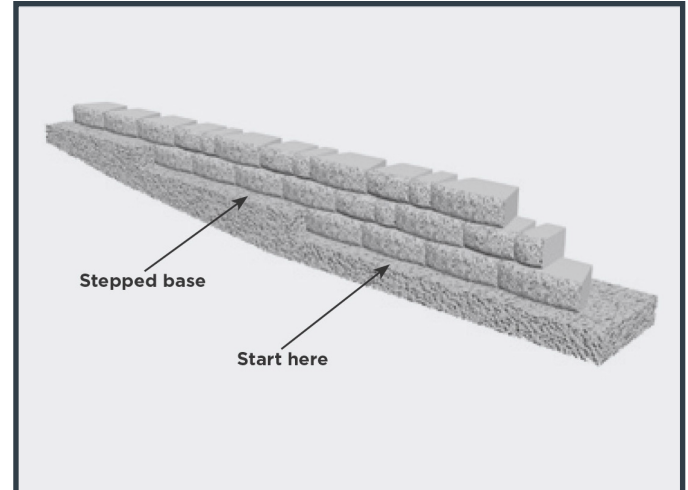
LOWEST POINT

Begin excavation at the lowest point and dig a level trench into the slope until it is deep enough to accommodate the base material and one entire block. Form the base and lay the first course of blocks starting at the bottom of the slope, working upwards.

STEP UP

At this point, step up the height of one block and begin a new section of base trench. Once compacted, the base must be exactly level with the top of the course of blocks previously installed. At each step-up point, the trench should also step back towards the rear of the wall to allow for the setback of each new base course and to ensure the wall remains centered on the leveling pad as it progresses up the slope.

Continue to step up as needed to top of slope. Always bury at least one full unit at each step.



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STEPS IN A 90° WALL

MULTI-PIECE SYSTEM

INSTALLATION GUIDELINES

These drawings feature step units. Caps or pavers may be used for treads. Check local building codes for any tread depth standards.

BASE COURSE

Thoroughly compact the leveling pad. Lay out the base course according to the wall design. Place step units first, working from the center to each side. It is very important to backfill and compact behind and along the sides of each course of step units.

FIRST STEP COURSE

Place the first course of step units directly on top of the base course so there is no setback. Stagger them from the previous course and glue in place.

SECOND STEP COURSE

Add the second course of steps, staggering them over the previous course to maintain running bond. Overlap the previous course by 2 inches and glue to the lower course. Place and compact soil fill prior to installing the next course.

SECOND WALL COURSE

Build the second course of the wall.

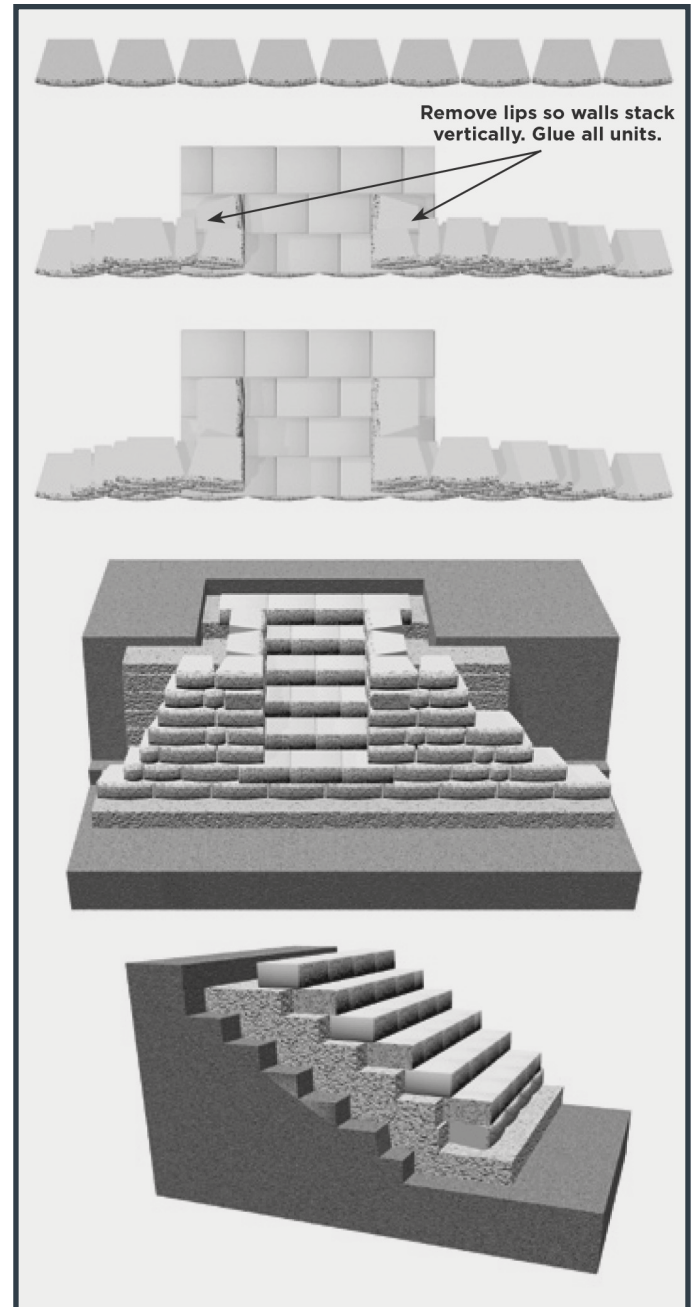
THIRD STEP COURSE

Beginning in the center, add the third course of steps, lining up the units with the first course. Overlap 2 inches and glue in place.

ADDITIONAL COURSES

Build the third course of the wall. Repeat wall and step courses until the wall is finished.

Drainage Tip: Drainpipe can be placed behind the lowest step units at grade or behind each wall adjacent to the steps.



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STEPS IN A CURVED WALL

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MULTI-PIECE SYSTEM

These drawings feature step units. Caps or pavers may be used for treads. Check local building codes for any tread depth standards.

BASE COURSE

Thoroughly compact the leveling pad. Lay out the base course according to the wall design. Place step units first, working from the center to each side. It is very important to backfill and compact behind and along the sides of each course of step units.

FIRST STEP COURSE

Place the first course of step units directly on top of the base course so there is no setback. Stagger them from the previous course and glue in place.

SECOND STEP COURSE

Add the second course of steps, staggering them over the previous course to maintain running bond. Overlap the previous course by 2 inches and glue to that previous course. Place and compact soil fill prior to installing the next course.

SECOND WALL COURSE

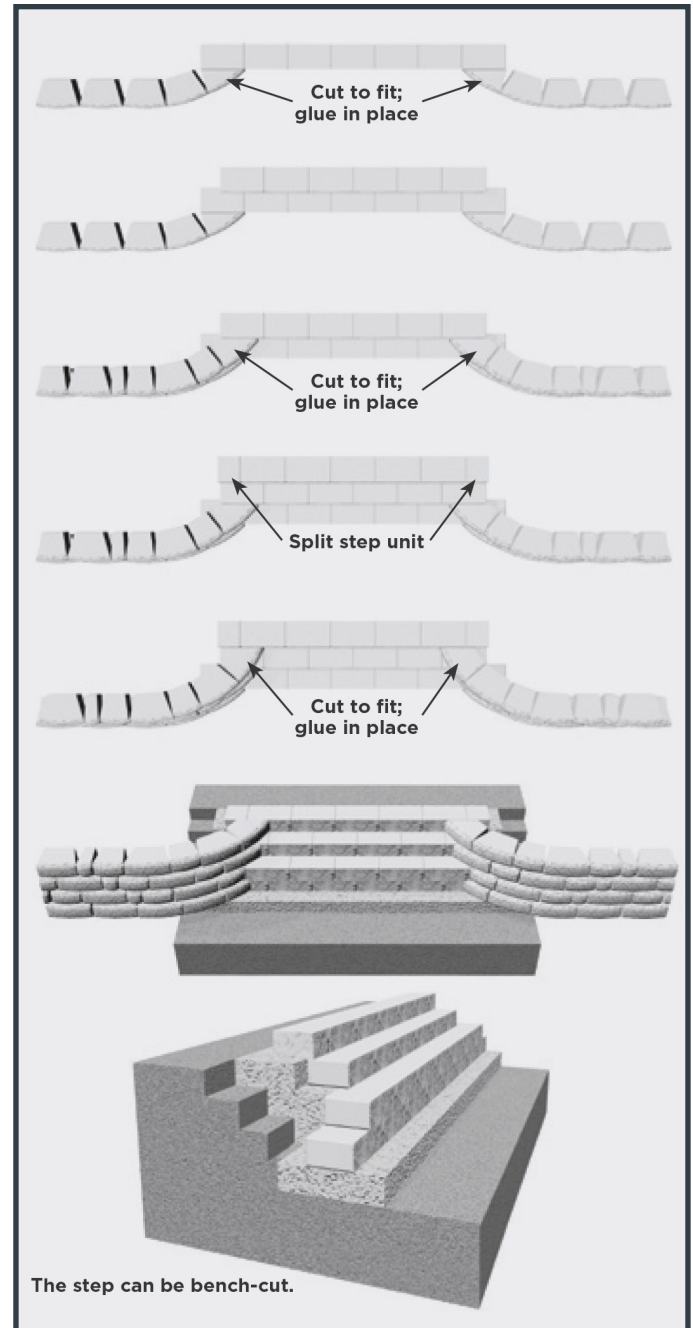
Place a block near the second course of steps, maintaining running bond with the base course. Measure and cut a block to fit the space remaining between the step unit and the next course of the wall. Place the unit in the wall, making sure that both vertical edges fit tightly against both the step and standard unit. Remove the rear lip on the blocks when necessary, and angle the blocks flush with the face of the previous course. Glue in place with a concrete adhesive.

ADDITIONAL COURSES

Beginning in the center, add the third course of steps, lining up the units with the first course. Overlap 2 inches and glue in place. Repeat step and wall courses until the wall is finished.

Drainage Tip: Drainpipe can be placed behind the lowest step units at grade or behind each wall adjacent to the steps.

INSTALLATION GUIDELINES



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STRUCTURAL DESIGN ELEMENTS

90° Corner



MULTI-PIECE SYSTEM

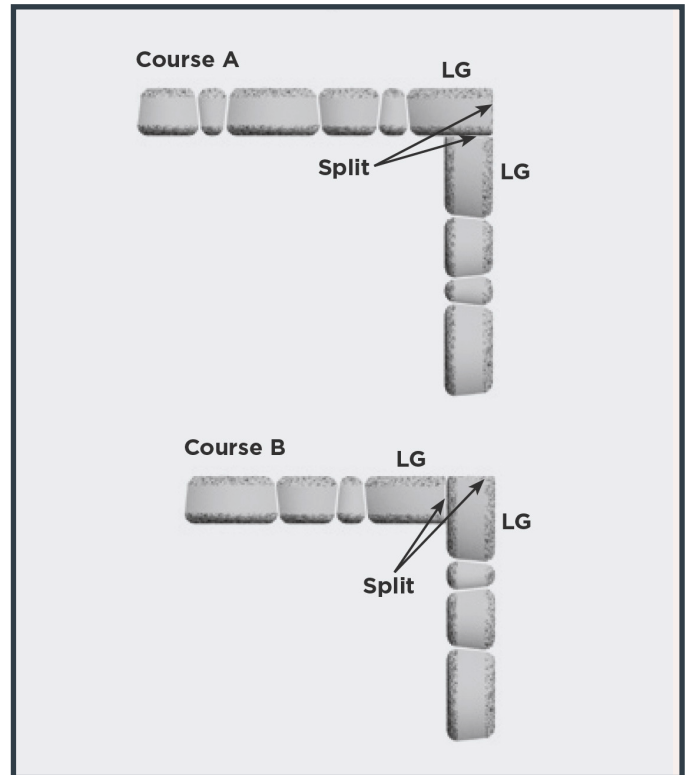
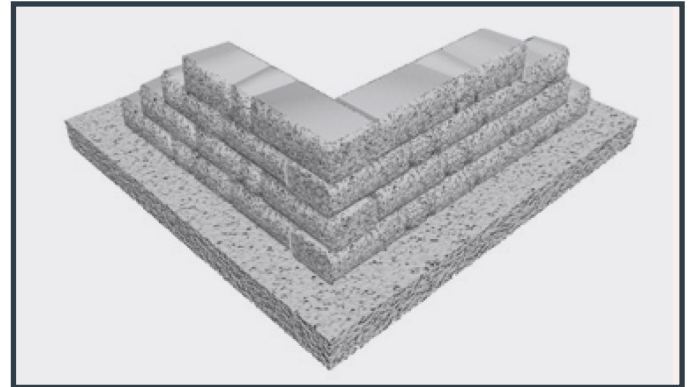
Structural design elements must be used if a freestanding wall is more than 10 feet long. Structural design elements include:

- 7-foot radius for 11 feet
- freestanding wall jog
- 90° corner
- pedestal

90° CORNER

To create a 90° corner in a straight wall, make a third side to a large unit by splitting* it to the appropriate dimension. Use only large units to assure connecting units are on bond. Alternate the direction the units face with each course. Round the split ends with a hammer and chisel. Glue all corner courses with a concrete adhesive.

INSTALLATION INSTRUCTIONS



**To split a block, use a hydraulic splitter or split manually by using a hammer and chisel to score the block on all sides. Pound the chisel on the same line until the block splits. If partial unit sides are not exposed, use a circular cut-off saw with a masonry blade to achieve a tighter fit.*

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STRUCTURAL DESIGN ELEMENTS

Curved Wall



MULTI-PIECE SYSTEM

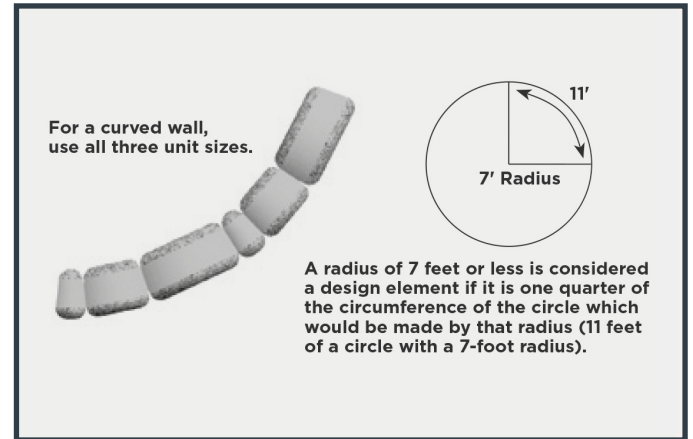
Structural design elements must be used if a freestanding wall is more than 10 feet long. Structural design elements include:

- 7-foot radius for 11 feet
- freestanding wall jog
- 90° corner
- pedestal

CURVED WALLS

Add stability and a natural flow to walls with curves. While units can be turned somewhat, it may be necessary to make cuts with a concrete saw or splitter. As a rule, the smaller the units, the tighter the radius. Conversely, the larger the units, the larger the radius. Use approximately the same number of units for each course. The approximate minimum radius the system can turn, using all three pieces without cutting, is 3 feet 9 inches measured to the outside face of the wall.

INSTALLATION INSTRUCTIONS



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STRUCTURAL DESIGN ELEMENTS

Wall Jog



MULTI-PIECE SYSTEM

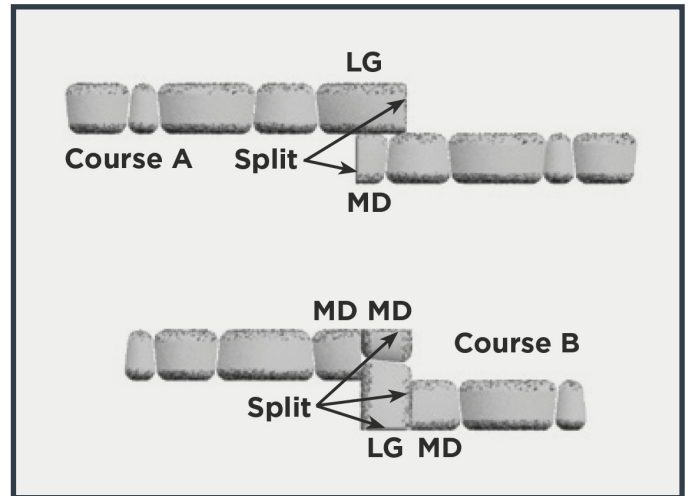
Structural design elements must be used if a freestanding wall is more than 10 feet long. Structural design elements include:

- 7-foot radius for 11 feet
- freestanding wall jog
- 90° corner
- pedestal

FREESTANDING WALL JOG

Jogs are used to break up straight lines and add stability to walls. Split* units as needed. Use hammer and chisel to round split faces. Glue all courses of jog with a concrete adhesive.

INSTALLATION INSTRUCTIONS



**To split a block, use a hydraulic splitter or split manually by using a hammer and chisel to score the block on all sides. Pound the chisel on the same line until the block splits. If partial unit sides are not exposed, use a circular cut-off saw with a masonry blade to achieve a tighter fit.*

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MULTI-PIECE SYSTEM

INDEPENDENT TERRACED WALLS

For each wall to be independent of others, they must be built using a 2:1 ratio. The upper wall must be built a distance away from the lower wall of at least twice the height of the lower wall. In addition, the upper wall must also be equal to or less than the height of the lower wall. Exceptions to this general rule include weak soil conditions or where slopes exist above, below or between wall locations. For example, if the lower terrace is 4 feet tall, the distance between the terraces must be at least 8 feet and the upper wall must not be higher than 4 feet.

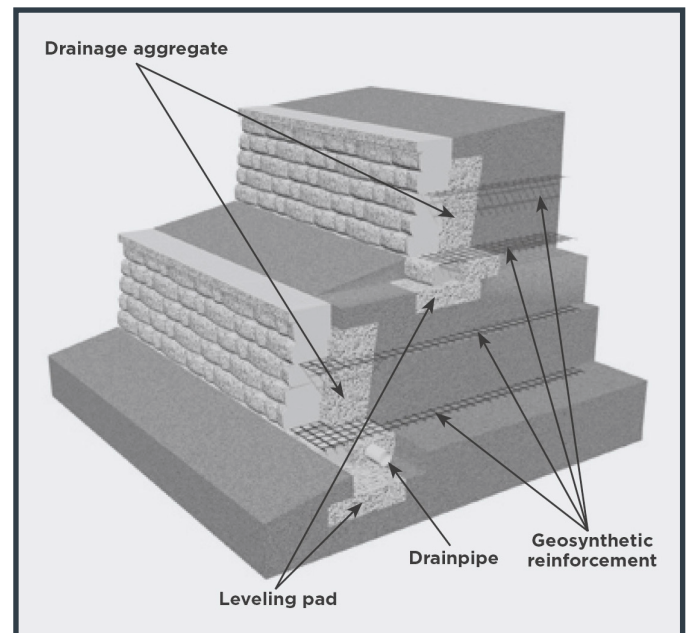
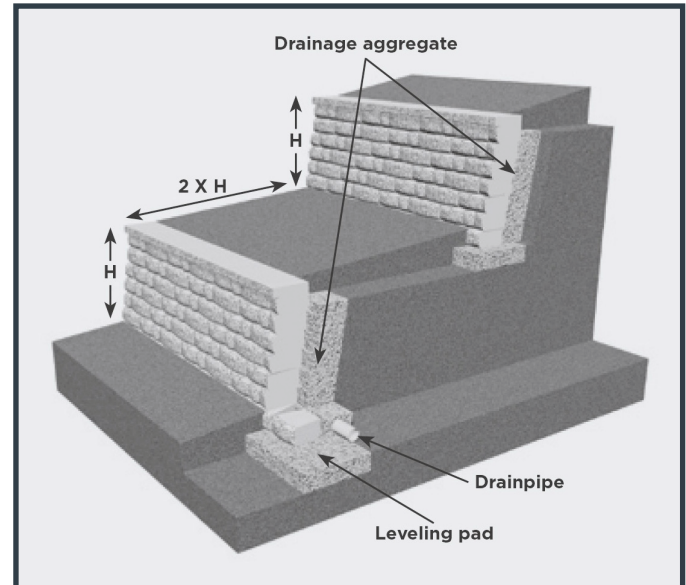
Proper drainage is vital to maintaining stable, longlasting terraced walls. Drainpipe must be installed so that the water is directed around or under the lower wall. (Never place the drain outlet for the upper wall above or behind the lower wall.)

DEPENDENT TERRACED WALLS

When the distance between the lower and upper walls is less than twice the height of the lower wall, the walls become structurally dependent on each other. In this situation, it is important to take global stability into account, incorporating additional reinforcement –and longer layers – into the wall plan. In addition, structurally dependent walls require even more excavation, backfill and time. So plan ahead. Be sure to check the wall plan for specific requirements. For structurally dependent walls, consult with a qualified engineer.

Tip: For more detailed information, see Daylighting and Drainage Swales.

INSTALLATION GUIDELINES



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TORPEDO® BASE BLOCK



MULTI-PIECE SYSTEM

INSTALLATION INSTRUCTIONS (1 OF 2)

PREPARE LEVELING PAD

Excavate for the leveling pad. The trench should be a minimum of 24 inches wide and should be 10 inches deep.

Create a leveling pad of compacted base material that extends a minimum of 6 inches in front of and 6 inches behind the Torpedo® base blocks. This leveling pad should be at least 6 inches deep after compaction.

BASE COURSE

Install the Torpedo® base blocks with the hand-holds down. Place the blocks end to end so the outside curve of one block fits into the inside curve of the block next to it. The blocks are shaped to fit together to hold their position as they are placed.

Note: When using Artisansa™, Brisa® or Matiz™ retaining wall blocks, pitch the base course back 1/16-inch for each foot of wall height to keep the wall level on higher courses. Example: If wall is 3 feet high, pitch the back of the Torpedo® base block into your slope a minimum of 3/16-inch.

The Torpedo® base block's locator marks guide accurate placement:

- For a straight line, align the center locators
- For an 8-foot radius align the first notch to the right and left of the straight locator
- For a 4-foot radius, use the next set of notches in either direction

Blocks should touch. Level blocks front to back and side to side with a dead-blow hammer.

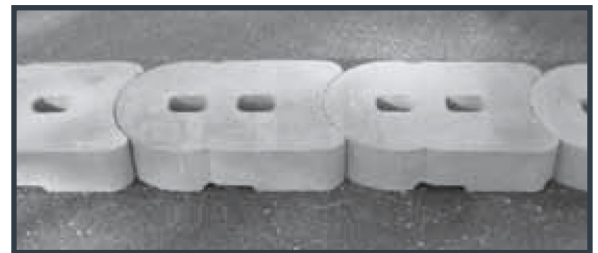
STEPPING UP THE BASE

Walls built on a sloping grade require a stepped base. Begin excavation at the lowest point and dig a level trench, 24 inches wide, into the slope until it is deep enough to accommodate the base material and one entire base block.

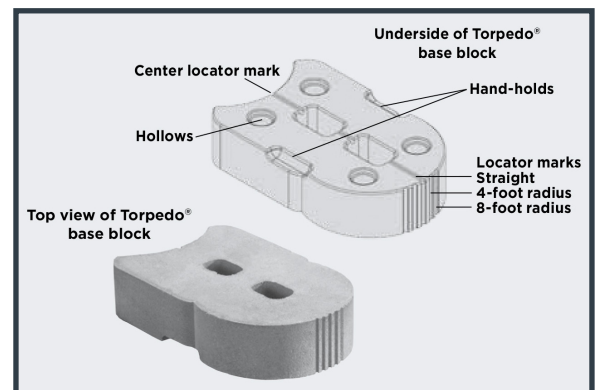
At this point step up the height of one block and begin a new section of base trench. Use a 6-inch high unit on the base course to level the base unit that is stepped up. Continue to set up as needed to top of slope. Always bury at least one full base block at each stepup.



Trench



Base Course



Step Up

Torpedo® base block videos can be found at www.youtube.com/anchorwallsystems.

TORPEDO® BASE BLOCK

DEVELOPED BY
ANCHOR
DIAMOND
WALL INDUSTRY EXPERTS

MULTI-PIECE SYSTEM

SUBSEQUENT WALL COURSES

Install wall courses per your project's plan.

RETAINING WALL BASICS

Segmental retaining walls typically fall into one of three categories:

GRAVITY RETAINING WALL

The first category—a gravity wall—is a retaining wall that does not use soil reinforcement. A gravity wall has height limitations specific to each product. An advantage of this type of retaining wall is that it requires a smaller work area behind the wall. A gravity wall relies on the weight and setback of the block to resist the soil forces being exerted on the wall.

GEOSYNTHETIC-REINFORCED RETAINING WALL

The second category is a geosynthetic-reinforced wall, which needs to be designed by a qualified engineer. There are (theoretically) no height limitations with reinforced retaining walls, and they are used in larger applications. It requires more work area behind the structure.

The block of soil is stabilized by introducing reinforcement layers into the soil mass behind the facing units. The larger the stabilized soil mass, the more soil can be retained or held back. The geosynthetic reinforcement in the soil extends past the theoretical failure plane and serves to create a large, rectangular mass of block and soil, restraining the retained soil.

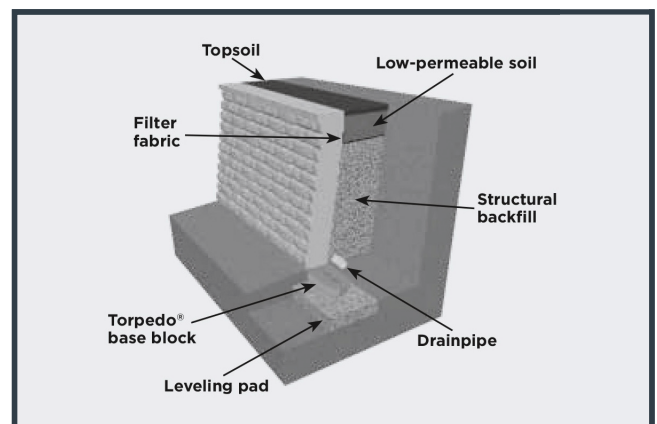
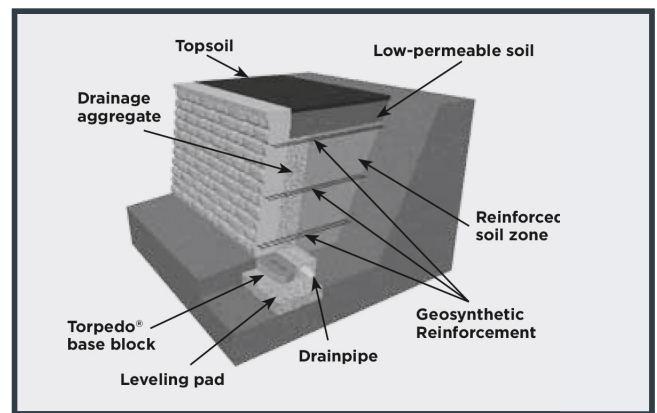
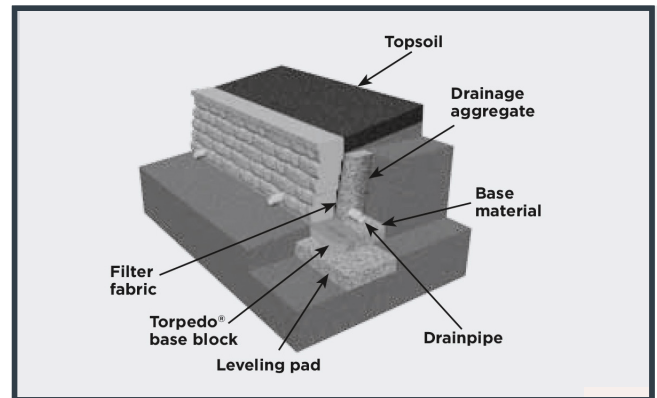
ANCHORPLEX™ SYSTEM

The third category is the Anchorplex™ system, which offers a unique, nonconventional solution to problematic wall construction sites. It is a retaining wall built with Anchor™ products and structural backfill specified by Anchor Wall Systems, and backed by engineering support tools developed by Anchor.

Use of the Anchorplex™ system completely eliminates the need for the construction of a mechanically stabilized earth zone behind the wall facing and requires substantially less excavation than is usually necessary in geosynthetic-reinforced wall construction.

Contact Anchor Diamond for more information about designing and building with the Anchorplex™ system.

INSTALLATION INSTRUCTIONS (2 OF 2)



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MULTI-PIECE SYSTEM

With correct design and construction, Anchor™ products can be successfully installed at the edge of water channels, river banks and drainage ditches.

The final design of the wall is affected by various factors, including the movement and velocity of the adjacent water, erosion and scour, the direction of water travel to the wall, the risk of flooding, as well as the soil and ground conditions where the wall is being built.

A qualified engineer should always be consulted to determine the effect of water on the wall and to design a wall that takes all these factors into account.

Consult a qualified engineer before design, construction and installation take place, and follow the engineer's design.

BASE COURSE

Place a filter fabric with extra length in front of the wall.

Install the leveling pad and the base course of block, including drainpipe and drainage aggregate. Wrap the extended filter fabric up along the face of the base course. Place soil fill in front of the wall and compact. Install another section of filter fabric in front of the wall to protect against erosion. Cover the fabric with a minimum of 3 inches of sand. Install larger stones, such as riprap, to hold it in place.

NEXT COURSE

Continue constructing the wall. Drainage is vital. To prevent clogging of the drainage aggregate and drainpipe by fine-grained soils, a geosynthetic filter fabric is installed to separate the drainage aggregate from the reinforced soils.

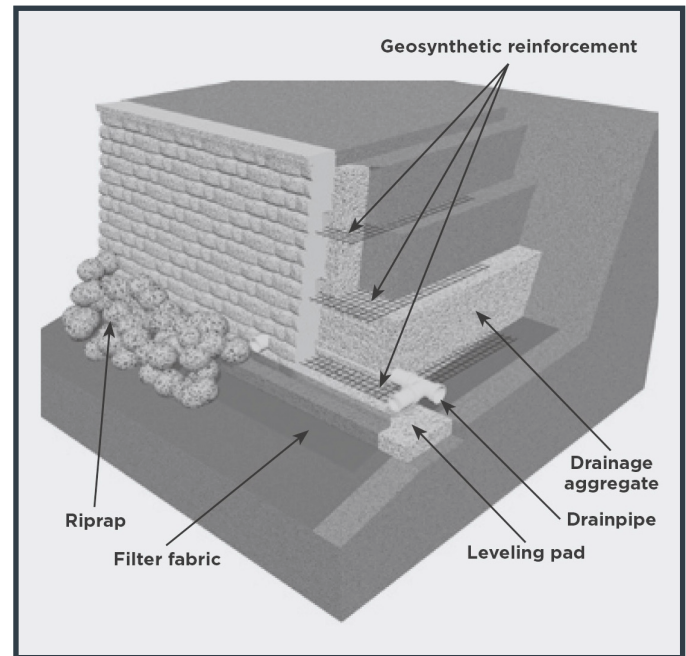
ADDITIONAL COURSES

Continue these steps until the wall is complete. The last section of filter fabric should cover the drainage aggregate and run up against the back of the top course of block. Add fill soil and compact.

Numerous issues, including wave or ice impact, erosion or scour in front of the wall, and ice uplift of the wall must be considered in water applications of segmental retaining walls.

For more information, consult with a qualified engineer.

INSTALLATION GUIDELINES



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