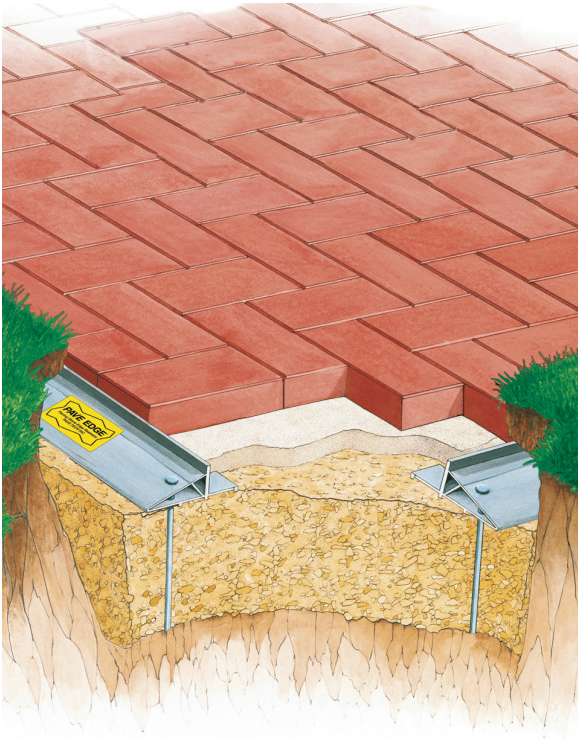
PAVERS BY IDEAL



HOMEOWNER INSTALLATION AND PATTERN GUIDE FOR CONCRETE PAVERS

Pavers by Ideal®

Serving New England Since 1923

Ideal's Stones with Style™ are beautiful and easy to install. The many styles, shapes, and rich colors create distinctive patios, walks, driveways, and pool decks that will bring you years of enjoyment.

Most paving skills are within your reach. We've prepared this booklet to guide you step-by-step and have even included some helpful hints that the pros use. With a little effort and determination, you can achieve beautiful do-it-yourself results. Let's get started!

1 Planning

Careful planning is essential to ensure your project goes smoothly. Start by reviewing our ***Come Home to Style*** catalog for ideas. It will help you visualize what your project might look like in relation to your home and site amenities. Then sketch out a few designs on graph paper. When you have finished your plan, finalize all of the dimensions and note any existing structures, such as your home, stairs, or other paved areas.

While you probably have a pretty good idea of the style and color pavers you want, visit the ***Ideal Authorized Dealer*** in your area to make your final selection from actual product samples. Show them your sketch and discuss the shape and pattern you'd like to use, keeping in mind that some shapes and laying patterns require less cutting than others. They will help you determine the proper amount of pavers, edge restraints, sand, gravel, and other materials you'll need. Most likely you will need to have the materials delivered to your site. The pavers, sand, and gravel are heavy, so delivery makes sense. You should select a convenient and safe location where the materials can be placed.

You will need the following tools and equipment:

- *Gloves*
- *Push Broom*
- *Shovel*
- *String Level*
- *Mason's Line*
- *Wood Stakes*
- *Garden Rake*
- *Marking Crayon*
- *Tape Measure*
- *Rubber Mallet*
- *Wheelbarrow*
- *Steel Rake*
- *24" Carpenter's Square*
- *Safety Glasses*
- *2 pcs 1" o.d. conduit pipe x 8' long (screed pipe)*
- *1 pc 2" x 4" x 8' kiln-dried lumber (screed board)*

In addition, you will need a tamper or plate compactor and a guillotine cutter or masonry saw to cut some of the pavers. They are available from your ***Ideal Authorized Dealer*** or local equipment rental store.

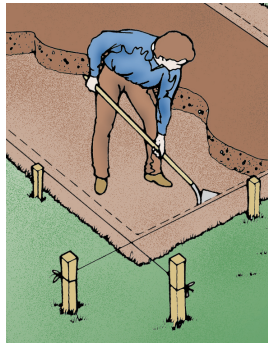
2 Preparing

Before starting excavation, call 811 to contact Dig Safe or Call Before You Dig. They will visit your property within 72 hours and mark underground cables and pipes. The service is free and it's the Law!!

Begin by marking out the area to be paved. Use a garden hose to layout free-form curves. A circle is marked out from a stake at the center point. Using a string line cut to the length of the radius desired, mark the arc with chalk. Be sure to allow an additional 6" on each side of the pavement (except where the pavers abut a wall, foundation, or existing curb) for drainage and edge restraints. Set a series of stakes along the perimeter and connect them with string. It is important to establish a 90° corner as a starting point. A simple technique uses the 3-4-5 triangle method. From the corner stake, measure 3' across the bottom and 4' up the side, adjusting them until the distance of the diagonal line is exactly 5' long. A 24" carpenter's square also can be used. You also will need to establish a 90° corner when setting the edging and laying the pavers.

3 Excavating

If you have a large area to excavate, you may wish to hire a contractor. They can haul away and dispose of the excavated material. For smaller areas, a shovel and some hard work will get the job done. Remove grass, loam, roots, and large rocks. Use a flat shovel or spade to skim off the last couple of inches to avoid disturbing the subgrade soil. Remember, you'll need to excavate 6" beyond the final dimensions of the pavement to install the edge restraints.



The depth of the excavation depends on the project and type of soil at your site. The base under the pavers must be thick enough to support loads to avoid rutting over time. Granular soil is best for drainage and strength, whereas clay soils are weak and require a thicker gravel base. How do you tell which type you have? Granular soils feel gritty between your fingers, while clay feels slick, especially when wet.

Use the following chart as a guide for excavation depth and base thickness for your project.

Determine the elevation of your finished pavement - it should be approximately 1/4" above the surrounding area to allow for "lock-up" over time. The pavement must be sloped 1/4" per foot to provide drainage. This slope is established at the subgrade level by pulling string lines across the width of the excavated area and leveling them using a line level. On the side you wish to slope towards, move the lines down 1/4" for every foot that the pavement is wide. For example, if the area is 4' wide, lower the string 1". Measure the distance between the subgrade and the string lines - the excavated depth should be uniform across the width of the slope.

Tip: Since the string lines must be removed in order to compact the subgrade, mark their position on the stakes, which should be left in place. You'll need to reset these lines for other steps of the installation.

Project	Excavation Depth		Base Thickness	
	Good Soil	*Poor Soil*	*Good Soil*	*Poor Soil*
Walkway/Patio	7"	9"	4"	6"
Pool Deck*	9"	11"	6"	8"
Driveway	11"	15"	8"	12"

**Because an in-ground pool installation involves a lot of excavation, a large volume of earth is disturbed. Unless you are confident that the soil has been properly back-filled and compacted in lifts, it may be advisable to wait 6 months or longer for the soil around the pool to settle naturally.*

*** For permeable pavement information see page 14.*

You must compact the subgrade soil at the bottom of the excavated area with a plate compactor, or for small jobs, a hand tamper, in order to create a firm and stable foundation for the base.

4 Installing the Base

The key to a successful pavement is the base - installing it correctly is the most important step of your project. In addition to the proper thickness, the base must be placed in lifts and thoroughly compacted, otherwise settlement may occur. The base material should be a coarse, granular gravel consisting of a proportioned gradation of sand and stone. We recommend **1 1/2" processed gravel, 3/4" crusher run,** or **dense-graded gravel**. For permeable pavements see page 14.

For every 100 square feet (sf) of area, you will need the following amount of base materials for the thickness shown:

- 4" thick - 2 tons
- 6" thick - 3 tons
- 8" thick - 4 tons
- 12" thick - 6 tons

To ensure adequate compaction, you will need to install the base in lifts (layers). If you will be using a hand-tamper, spread an even layer of gravel about 2" thick. If using a plate compactor, you can spread the gravel in 3" to 4" layers.

Wet, but do not saturate the base with water as you compact. When it cannot be compacted further, add the next layer of gravel and compact. Take your time - **do not rush this step**! Continue to add and compact material until the top of the base is approximately 2 3/4" to 3" below the height of the finished pavement. Verify this by resetting the string lines to the final elevation and measuring the distance - the depth should be uniform throughout. The remaining space is for the 1" sand bed and concrete pavers after they have been compacted into place. If necessary, add or delete base material to bring it to the desired slope and grade, and compact it well.

5 Installing Edge Restraints

Because pavers are set loose in sand, they must be secured in place along the perimeter. Otherwise, the pattern will loosen and over time, the surface will settle and rut. A house foundation or curbing is suitable - grass or sod is not!

We recommend SnapEdge® or Pave Edge® professional-grade edging. Few other edging systems can match their performance and both are easy to install and will not rot or rust. They can be used for straight or curved sections. Place them directly on the compacted base and secure with 10" steel spikes driven every 2' into the pre-drilled holes. Be sure that all corners that are to be square are exactly 90°. Use the 3-4-5 triangle method described in Step 2.

6 Placing the Sand Bed

Before the pavers can be placed, a setting bed of washed coarse concrete sand must be spread and leveled. This process is known as screeding. Although commonly used, we do not recommend stone dust because it packs too tightly and can get spongy if it becomes saturated with water.

For every 100 sf of pavers, approximately 1 ton of concrete sand is required for bedding and jointing when the sand is screeded to 1" thick.

Place steel pipes on the compacted base parallel to each other about 4' to 6' apart. At several intervals, run a string line set at the height of the finished elevation across the pipes. The top of the pipes should be 1 3/4" to 2" below the line. If necessary, adjust the height by putting a handful of sand under each end of the pipe if too low or by trimming the base if too high.

Cover the pipes and space between them with concrete sand. Level the sand by pulling the 2" x 4" screed board along the top of the pipes. Fill any low spots with sand and rescreed. Slide the pipes out of the sand and fill the voids they left with sand and repeat the process for the entire sand bed. Do not step on, compact, or allow the sand to become wet once it has been screeded. An important note - you should only screed the area that will be covered with concrete pavers on that same day.

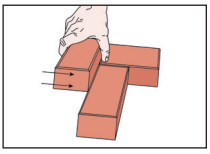
Tip: If the area to be paved is wider than your screed board, carefully remove the screed pipe closest to the edge, place it on the opposite side of the pipe left in place, and repeat the screeding process.

7 Laying the Pavers

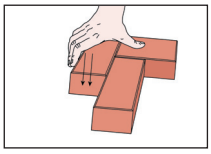
Most ***Ideal*** pavers can be installed in a variety of laying patterns. The most popular are running bond, herringbone, and basket weave. Some shapes feature unique patterns, while others offer virtually unlimited design possibilities. We've shown some of the most popular patterns for our shapes in the ***Patterns with Style***™ section included in this booklet. See your dealer for others.

As pavers are not set in mortar or concrete, you can work at your own pace. Follow the directions carefully, but if you make a mistake, don't panic! Simply remove the pavers to correct the error and pick up where you left off.

It is very important to start your paver installation along a straight edge or from a 90° corner, even with a curved layout. Begin placing the pavers on the screeded sand bed along a straight line in the pattern you have chosen. Install the pavers "hand-tight" so that the joints between the pavers are about 1/8" wide. With circle and fan patterns, joint spacing may vary. We mold our pavers with "spacers" on the sides of most of our shapes to assist in proper joint spacing when installing. Using the "touch and drop" method, grasp a paver between your thumb and fingers. Touch the bottom half against the sides of the previously placed pavers and release your grip, guiding the paver to drop down directly onto the sand. Do not slide the paver across the sand.



Step 1 - Touch

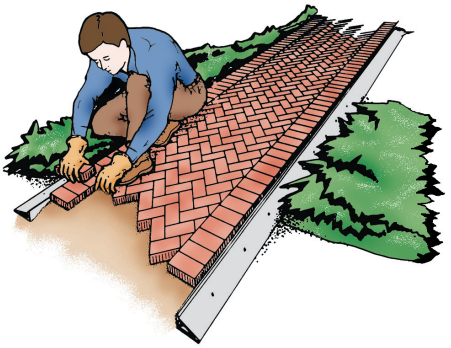


Step 2 - Drop

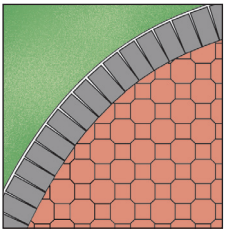
Our traditional pavers with chamfered edges should be placed with chamfers facing up. Yankee Cobble™ should be placed with its dimpled surface up. Our Georgetown Colonial Pavers, MillStone,™ Newport Cobble™ and Town N' Country™ Pavers can be installed with either side face up. For a rustic look, try alternating Georgetown Colonial, Town N' Country or Newport Cobble faces in a random fashion.

Always select pavers from different layers and from several cubes at a time to ensure even distribution of inherent color shades when installing. Proceed from one starting point only. The first several rows are the most important for keeping the lines of the pattern straight. Once you have established the pattern, placing the pavers will become easy. Every couple of feet, pull string lines over the joints to maintain pattern lines.

You should work atop the pavers as they are installed, keeping a foot or so back from the laying edge. If you are installing pavers on a slope, always start at the bottom and work uphill. Periodically check your row alignment by running a string line along the front edge of the leading row, making sure that each paver touches the string. If adjustment is needed, wedge the pavers into the proper position using a screwdriver or tap them with a wood block and mallet. Install any remaining edge restraints at this time. For pavements with curves, continue the pattern to just beyond the width of the pavement. Mark and cut the pavers along the perimeter to accommodate the curve. Do not attempt to turn the pavers to follow the curves.



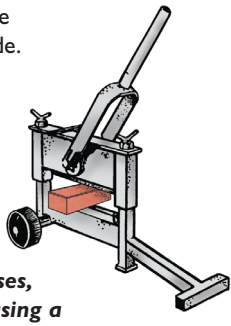
If you are laying a pattern with circles or fans, it is best to start at the center of the circle and work your way out. Refer to the circle chart on page 26 for the pattern you are using. Screed only enough sand for the setting bed that allows you to comfortably place the pavers within arm's reach. As the diameter of the circle increases, you will be able to work off of it to place additional pavers. Another method is to place half of the circle first, then install the remaining half by working from the previously installed area. Fans are installed in a similar manner.



Add a professional touch to your pavement by using Boston or Georgetown Colonial Pavers® as a soldier or sailor course along the outside edges to finish the border. This technique works well with almost any style of paver and pavement shape, including curves, by "framing" the pavement for a neat finished appearance. See page 17 for more information on soldier and sailor border courses.

8 Cutting the Pavers

You will need to cut some of the pavers to fit neatly along the edges of the pavement. Measure and mark the pavers to be cut with a marking crayon (it is best to cut the paver about 1/4" less than the actual dimension). Always cut the paver in the shortest direction for a neat cut. Don't be too concerned if a cut is not perfect. Jointing sand will fill the gaps.



If using a guillotine cutter, place the paver under the center of the blade. Push the handle down using a quick, forceful motion. When using a masonry saw, cut under the center of the blade, using just enough pressure to allow the blade to do the work. When cutting pavers, exercise caution. ***Always wear safety glasses, gloves, a dust mask, and when using a masonry saw, hearing protection.***

9 Compacting the Pavers

After the pavers have been installed and the edge restraints securely set, sweep the surface clean of any debris and tamp the pavers into the bedding sand using a plate compactor. Do not compact within three feet of an unrestrained edge. Adjust the speed of the machine so that it runs with a high vibration, but at a low amplitude (jumping motion). Make two or three passes at 90° angles to each other. Spread sand over the surface, sweep into the joints, and compact again. When compacting, spread a thin layer of sand or place a sheet of woven geotextile fabric over the surface. Pavers with embossed and clefted surfaces, such as Yankee Cobble,™ Town N' Country™ and Andover Collection,™ must be protected against scuffing and scratching during installation through the use of a urethane pad attached to the plate. If any of the pavers become damaged, remove them and tamp replacement pavers into place with the compactor.

"Tap and Set Method" - If you have not rented a plate compactor, you will need to "tap and set" the pavers into place using a rubber mallet. Hit each paver firmly enough to set it into place and level all those that surround it.

Sand Binders - Polymeric sand binders are a popular choice to minimize weeds and loss of joint sand. They replace the regular sand swept into the joints in the compaction and sweeping step. Carefully follow product directions and be sure to completely clean the surface of any residue before activating sand binders with water. They contain glue that binds the sand particles together. Any trace of sand left on the surface will leave a dulling film that mutes the color of the pavers.

If you intend to seal your pavers, consider using a liquid-type sand binder. This is a two-in-one product that offers the advantage of sealing the surface, while stabilizing the joint sand. Most are water based, come in several sheens, and can be applied immediately after the pavers are swept and compacted. They are sprayed or rolled on and squeegeed across the surface, taking care to saturate the joints. See the container for complete instructions. We recommend keeping traffic off the pavement for about 24 hours with either type you choose. Watch the weather as you want to avoid rain for about 48 hours.

10 Finishing

If you have not used a sand stabilizer, you may need to sweep additional sand into the joints. Make this task easier by spreading sand over the pavers and allowing it to dry prior to sweeping. You can also use a plate compactor to help vibrate sand into the joints. To finish the job, sweep the pavers clean and hose the surface down with water. Complete the landscaping by adding sod or plantings as desired. After a few weeks you may find the sand in the joints has settled. Keep a small amount of sand on hand to re-fill them. Of course, this is not necessary if you used a sand stabilizer.

Congratulations!

Your new walkway, patio, pool deck, or driveway is ready to use and will provide a durable, attractive pavement that you will enjoy for many years to come. A new pavement is an opportune time to apply one of our specialty sealers. Although not necessary, sealers are an option that will enhance the richness of the colors, make cleanup easier, reduce staining, and help keep sand in the joints.

Maintenance

Over time, dirt, stains and wear and tear are inevitable. This is where concrete pavers are superior to other types of pavements, because with a little care, your pavement will bring years of enjoyment.

Weeds from wind-blown seeds sometimes germinate down into the joints. Pluck or treat them with an environmentally-safe product like Round-Up®. In winter, remove snow to prevent ice build-up. Properly installed, pavers are snow-plow safe, however, adjust the height of snow plow blades to avoid scratching the faces of embossed pavers. We recommend sand for traction control, but if ice does happen to form, use a sodium chloride type product as it has been shown to be the least harmful to concrete. Apply sparingly, and once loosened, treated snow and ice should be promptly removed to avoid a build-up in concentration of the deicing chemical. *Avoid magnesium chloride deicers.*

Cleaning and Sealing

Our cleaning and sealing products can restore the appearance of pavers exposed to traffic, weathering and time.

There are a number of specialty cleaners and sealers made for concrete pavers, which are available from an ***Ideal Authorized Dealer*** near you. These products are professional grade and contain chemicals, so be sure to handle them with caution. *Carefully follow directions on the label as to use, application, precautions, and first aid measures. Wear protective clothing, eye goggles, rubber gloves and boots.*

Step 1 - Removing Stains

Many stains can be removed with a strong solution of a household cleaner, while others may require specialty cleaners.

- Food, beverages, and grill splatters - ***Simple Green™ or TSP***
- Oil, grease, tar and tire marks - ***Concrete Cleaner and Degreaser***
- Rust and stains caused by fertilizers - ***Efflorescence Cleaner***
- Oak and leaf stains, as well as moss - ***Household Bleach***

Follow label directions. Protect the surrounding surfaces and vegetation. On slopes, start at the bottom and work your way up in sections. Stubborn stains may need a second application. Rinse treated areas with lots of water, using a garden hose, not a pressure washer.

Step 2 - Cleaning the Surface

Now you'll need to clean the entire surface to remove any dirt, grime, and efflorescence. If there are no signs of

efflorescence, a detergent such as Simple Green™, may do the trick. Better yet, use SRW Paver Wash, a general-purpose cleaner formulated to prepare pavers for sealers. *Do not use muriatic acid to clean your pavers. It is caustic, difficult, and dangerous to work with.*

Step 3 - Sealing

You're now ready for the final step - sealing. Your ***Ideal Authorized Dealer*** can provide guidance on specific products. We recommend the following:

SRW LG Low Gloss and HG High Gloss Sealers
These acrylic, film-forming sealers enhance the color and create a barrier on the surface that helps protect against dirt and stains, such as rust, oil and salt. LG and HG are water based and cleanup with soap and water. Both are suitable for indoor and outdoor use. If using a film-forming type of sealer, we also recommend waiting 60-90 days after the installation to see if any efflorescence develops.

Note: We don't recommend the use of sheen-producing sealers on pool decks, as they absorb heat and are uncomfortable for bare feet.

SRW PS Penetrating Sealers
PS Paver Seal is a siloxane sealer that penetrates and forms a barrier below the surface to provide long-term durability and resistance to deep stains, dirt and salts. It maintains the natural finish of the pavers while slightly darkening the color. PS is water-based and is suitable for indoor/outdoor use. Because it does not impart a sheen, this product can be used on pool decks.

Before applying sealer, the pavers and joints must be completely dry and moisture-free for at least 24 hours. Turn off automatic sprinklers while you work. Check the weather forecast, as sealers should not be applied at temperatures below 50° F or if rain is expected within 24 hours. Protect vegetation and surrounding surfaces as necessary. The surface must be completely clean of dust and grit. A leaf blower works well - avoid blowing sand from the joints.

Sealers are applied by a low-pressure tank sprayer or with a roller. They are best applied in two light coats. Directions are provided on the container or ask your ***Ideal Dealer*** for a detailed product sheet. Keep the area free of traffic until totally dry - about 24 hours.

Efflorescence

Efflorescence is a white haze that sometimes appears on the surface of clay and concrete products. Although it can come from a number of sources, efflorescence is often a natural by-product of cement hydration. Technically known as calcium hydroxide, it appears as a white film when carried to the surface by moisture. *Efflorescence is not indicative of a flawed product.*

It has no detrimental effect on the pavers. Efflorescence typically lessens or dissipates with time. If desired, efflorescence can be removed with specialty cleaners during the first season it appears. Please note that pavers should not be sealed if efflorescence is present.

Repairs – No ugly patch!

With ***Ideal*** pavers you are assured years of lasting beauty and long-term performance that few other paving materials can match. It is a good idea to keep a few extra pavers aside in case of damage. If repairs are ever necessary to your base or subgrade, or if gaining access to underground services or utilities is required, the paving units can be lifted, set aside, and when the work is completed, reinstated seamlessly…without ever leaving a trace of an unsightly patch that asphalt, cast-in-place, and stamped patterned or exposed aggregate surfaces leave behind! Here's how:

Using a putty knife or small screwdriver, scrape sand from the joints around several pavers that you wish to remove. Thoroughly soak the joints around the pavers by running a hose over them for a minute or two. Next, insert two large screwdrivers into the joints and gently rock them back and forth to wiggle the pavers upward. As you lift, the pavers will want to wedge themselves in against other pavers, so tap the surrounding pavers down with a rubber mallet. After removing a few pavers, you'll find that subsequent ones can be lifted more easily. Remove enough paving stones to give you the access you need to make the repairs.

Once the repair work has been performed, replace the base material. Thoroughly compact it in 2" lifts, paying particular attention to the edges to avoid settlement at a later date. If the pavers and the sand setting bed around the opening were disturbed during the work, remove additional pavers back to an undisturbed course. Spread sand over the area, screed it then reinstate a few of the pavers you have set aside. Check the grade and elevation to make sure they will match the existing surface after the pavers are compacted. Adjust as needed. Place the remaining pavers back in the original laying pattern and compact them into place. Sweep sand over the area until the joints are full.

Tip: To ensure a tight fit as you re-lay the pavers, scrape off any sand that has stuck to the sides and bottom of them when they were removed.

Permeable Pavers

Are you environmentally conscientious or concerned about the pollutants in stormwater? Then our family of permeable pavers might be the right choice for you. They create strong, beautiful pavements that reduce runoff and infiltrate stormwater, while providing a firm, stable walking and driving surface. Permeable pavers are not porous - they are solid units! They work by allowing rain to drain through openings and joints, which are filled with aggregate, and infiltrate into the ground below.

Installation - The installation method is similar to our regular pavers, with a few important differences. On page 4, we talked about using gravel for the base under our regular concrete pavers. While processed gravel can be used as a base under permeable pavers, we recommend open-graded stone for peak performance. The voids between the stones provide space to collect and store water for a short period, allowing it time to filter into the earth below. A 1 1/2" open-graded crushed stone is preferred. If this is not available in your area, try for a 3/4" open-graded stone. Most quarries will have a stone close to either size.

Excavation - You'll need to dig deeper when using permeable pavers, so consider this when excavating. The thickness of the base should be at least 6"- 8" thick for patios and walkways and a minimum of 8"- 12" for driveways. The setting bed also is thicker - 2". When you add in the paver thickness, here's what you are looking at:

Project	Excavation Depth	Base Thickness
Walkway/Patio	10-12"	6-8"
Driveway	12-16"	8-12"

(Note: If you will not be using a plate compactor to set the pavers, reduce the thickness of the setting bed to 1" and depth of excavation by 1".)

Base - Once the area has been excavated, cover it with a layer of woven geotextile fabric. Overlap the seams 6" or more and wrap it up the sides of the excavated area. Place and compact the graded stone in lifts no greater than 3" thick. Continue to add stone and compact until you have reached the desired depth. For every 100 sf you will need:

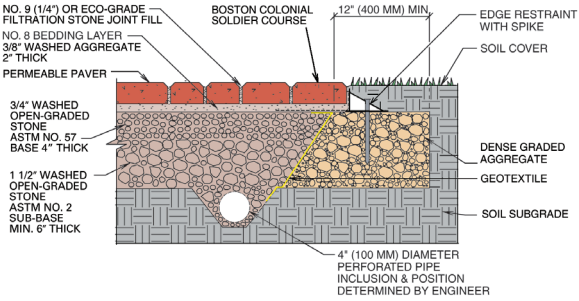
- 6" thick - approx. 3 tons
- 8" thick - approx. 4 tons
- 12" thick - approx. 6 tons

Edge Restraint - Holding permeable pavers in place is as important as it is for our regular pavers. You will need to install edging along the perimeter wherever there is an

unrestrained edge. Driving spikes into a graded stone base can be difficult, so we suggest using one of two options.

Berm Method

If you prefer to use SnapEdge®, or Pave Edge,® we suggest the "Berm Method" of edge installation.



Curbstone Edging

CurbStone™ can be placed in sand or set in "wet-mixed" concrete. Dig a trench 8-12" deep and set the CurbStone™ into the sand or concrete mix. Adjust the height so the top is flush to the pavers when set. Pack some of the material up the sides to firmly seat the CurbStone™ in place. How much will you need?

- CurbStone™: 1 pc/lf
- 1 bag Concrete Sand for every 6 pcs of CurbStone set in sand
- 1 bag Concrete Mix for every 4 pcs of CurbStone set in wet mixed concrete (base and toe)

Note: If you are using a "wet" mix, be sure to allow it to cure thoroughly before proceeding.

Setting Bed, Drainage Opening and Joints - The next big difference between permeable and regular pavers is the type of sand used for the setting bed and joints. Stone is best - use ⅜" crushed stone for the setting bed and ¼" chip stone to fill the joints and openings. Your ***Ideal Authorized Dealer*** may have these aggregates, so check with them. Otherwise, to achieve maximum infiltration, you must use a coarse stone sand. How coarse? At least one or two grades coarser than concrete sand. Emphasize the word "*coarse*" when ordering this and never, ever use stone dust as a setting bed for permeable pavers. Follow the same steps outlined earlier in Section 6. For every square foot you will need approximately 12-15 lbs coarse stone sand for the bedding layer, drainage openings, and joints.

Laying Pavers - Aqua-Bric®, Eco-Stone® and Andover 5511™ can be laid in a herringbone (preferred for drive-

ways), running bond, or basket weave patterns. With our Aqua-Bric® IV, you can follow the pattern of the layer within the cube as shipped or install in a modified herring-bone pattern. Refer to Sections 7 and 8 in this pamphlet for guidance on placing and cutting.

Filling the Openings - Once the pavers are compacted into the setting bed, spread the ¼" chip stone or stone sand across the pavement surface and with a stiff bristle broom, sweep the chip stone into the joints and openings using a slight pounding motion. Compact and sweep until the pavers are firmly seated and the joints and openings are full. Add more chip stone to completely fill the joints and openings.

Maintenance - Our permeable pavers have the same strength and physical properties as our other concrete pavers. They have the durability to withstand New England's harsh winters and when properly installed, are snow-plow safe and resistant to deicing salts. Snow removal is the same as for conventional pavement - shovel, snow blower or plow! They can even be sealed using one of our water-based sealers applied in a light coat with a roller.

Keep it Draining - To maintain infiltration, a permeable pavement requires more care and consideration than an impervious pavement. Use sand sparingly in the winter. Keep the pavement free of leaves and debris as much as possible. Remove weeds promptly and periodically sweep the openings with a stiff bristle broom to remove any crust that may have formed on the surface of the drainage openings. If clogged, removed the sediment in the openings with a wet/dry vacuum and replenish with fresh ¼" chip stone.

For oil stains, clean the pavers with products described under cleaning and sealing. If any oil has spilled into the ¼" chip stone in the drainage openings, remove and discard it, then replace it with fresh material. You might wish to keep some chip stone, as well as a few extra pavers, for future repairs. Don't fret over oil drippings that may have seeped into the sand below the pavers. Microbes naturally occurring in the soil will degrade oil into CO_2 and H_2O over time.

We hope our instructions have given you the confidence to undertake that paver walkway, patio, pool deck or even small driveway project that you will enjoy for years to come. We've tried to cover all the bases to guide you for beautiful do-it-yourself results. Concrete pavers have become so popular that many landscape shows feature installations on a regular basis.

PATTERNS WITH STYLE™

Pavers by Ideal features a wide array of attractive pavers with shapes that can create engaging patterns and designs that no other paving material can match! The color, pattern, shape, and visual texture of our concrete pavers are all important elements in the design of picturesque pavements that add charm, vitality, and ambiance to any landscape setting.

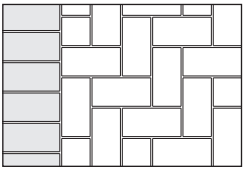
Most shapes can be installed in a number of patterns. Choose from classic 45° or 90° herringbone, elegant basket weaves, traditional running bonds, dramatic circles, fans, or sweeping curves. Some pavers, such as Symetry,® have shapes that lend themselves to patterns specific to their geometry. Other styles can be installed in virtually unlimited patterns and combinations.

Any of the patterns are suitable for walkways, patios, and pool decks. While running bonds and basket weaves may be used for residential driveways, herringbone patterns provide the greatest degree of interlock. Stack bond patterns and large size pavers should be utilized only for foot traffic. When ordering, allow extra for curved layouts.

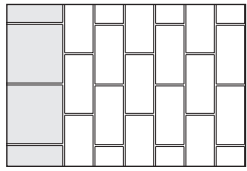
Border Courses

Although Boston and Georgetown Colonial Pavers® are the most popular choice for border courses, other paver shapes also may be used.

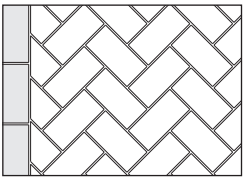
4" x 8" Soldier Course	3 pieces per lineal foot
4" x 8" Sailor Course	1 ½ pieces per lineal foot
8" x 8" Soldier Course	1 ½ pieces per lineal foot



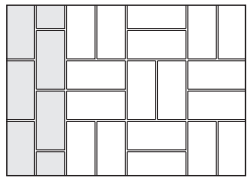
4" x 8" Soldier Course w/ 90° Herringbone Pattern



8" x 8" Soldier Course w/ Running Bond Pattern



4" x 8" Sailor Course w/ 45° Herringbone Pattern



4" x 8" Double Sailor Course w/ Basket Weave Pattern

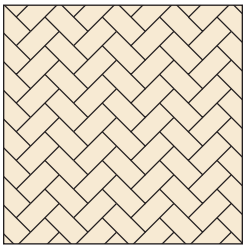
Boston Colonial Pavers®
Georgetown Colonial Pavers™

Nominal Size:
4" x 8" • 4.5 pcs/sf
6 cm or 8 cm thickness
8 cm - *Made to order*

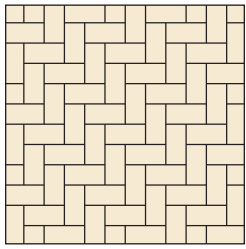
Boston Colonial and Georgetown Colonial Pavers may be installed in a wide variety of pattern designs including herringbones, running bonds, and basket weaves.

Boston Colonial Pavers

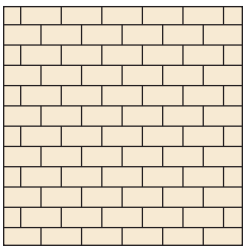
Georgetown Colonial Pavers



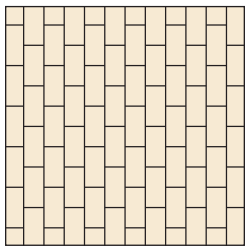
45° Herringbone



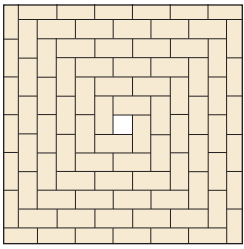
90° Herringbone



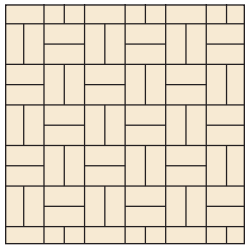
Running Bond



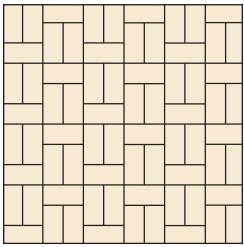
Running Bond
Head-on



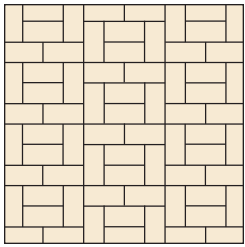
Whorling Square
with cut 4x4



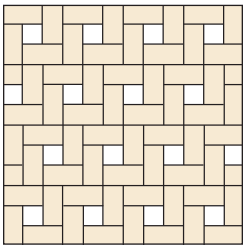
Basket Weave
Traditional #1



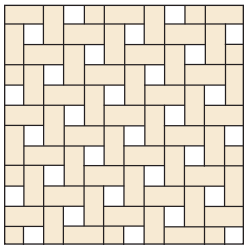
Basket Weave
Traditional #2



Basket Weave
Variation



Basket Weave
Offset with cut 4x4

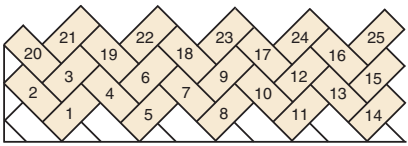


Herringbone
Variation with cut 4x4

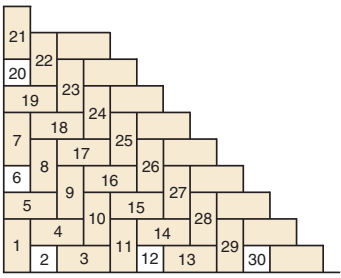
**For patterns that require a 4" x 4" paver (shown as white units above), cut Boston or Georgetown Colonial Pavers® in half.*

Starting Herringbones

When starting herringbone patterns with Boston or Georgetown Colonial Pavers,® some units will need to be cut (shown as white units below). Start with the first paver and continue placing the pavers in the order shown. The order of placement shown below, known as the "Ladder," is the most efficient installation method.



45° Herringbone Pattern



90° Herringbone Pattern

Andover Collection™

5-Piece Set
5 ½" x 11", 11" x 11"
and 11" x 16 ½" • 3.8 sf/set
7 cm thickness

GrandStone
16 ½" x 11" • 2.52 sf/pc • 7 cm thickness

5511
5 ½" x 11" • 2.38 pcs/sf • 7 cm thickness

Andover Collection features larger-scale pavers that can create a variety of timeless patterns with the classic look of natural stone. The Collection consists of a 5-piece set comprised of 3 sizes that can create a variety of arrangements, including our Set-Stone pattern. Andover GrandStone and Andover 5511 are available as separate items that can be interchanged with pavers within the Set-Stone pattern or used alone. While the Andover Collection can be placed randomly, our "Set-Stone" pattern creates impressive arrangements that are easy to follow.

Each set (Fig. A), is placed as a module. Each module, sized 16 ½" x 33", is placed in a herringbone pattern as shown in Fig. B. To vary the look, rotate the orientation of the module (Fig. C), or for a more random pattern, rearrange the layout of the stones within the module. For more dramatic designs, randomly insert GrandStone in place of pavers within the module (Fig. D). Note that all patterns maintain the basic herringbone layout of the module. Use our Andover 5511 as a border course.

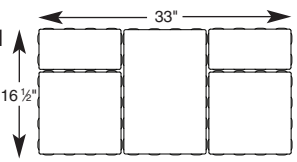


Fig. A

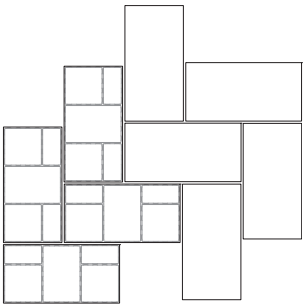


Fig. B

Note: Use a urethane pad on compactor plate when installing.

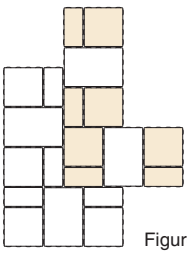


Figure C

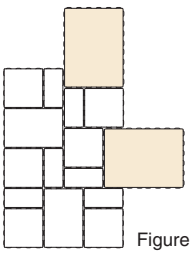
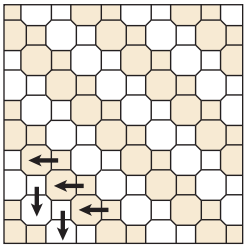


Figure D

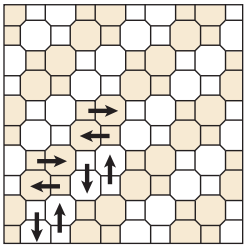
Uni-Decor®

5 1/2" x 9" • 3.5 pcs/sf
6 cm thickness

When installed, Uni-Decor's appearance remains the same regardless of pattern selected, however, different colors can be used to highlight pattern designs. Cut full pieces to fit edge or check with your Ideal Authorized Dealer for availability of pre-made edge pieces.



90° Herringbone



Parquet/Basket Weave

Symetry®

Master Stone

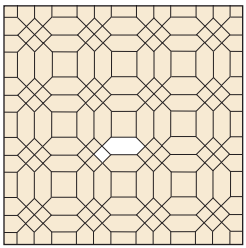
4 3/8" x 10 3/4"
6 cm thickness • 3 pcs/sf

Square

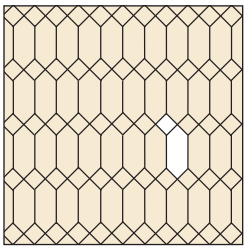
6 5/16" x 6 5/16"
6 cm thickness • 3.62 pcs/sf

Symetry can be installed in single stone patterns or in striking combinations with Symetry Squares.

White area shows a single Symetry paver within the patterns. Coverage based on 100 square feet of pavement.



Venetian Parquet
83 sf Symetry • 17 sf Squares



Diamond Runner
100 sf Symetry

MillStone™

Large Rectangle - 6 5/16" x 9 7/16"
Medium Rectangle - 4 3/4" x 6 5/16"
Small Rectangle - 3 1/8" x 6 5/16"
Square - 6 5/16" x 6 5/16"
Grand Square - 9 7/16" x 9 7/16"

MillStone Pavers offer the look of tumbled stone with the ability to create virtually unlimited pattern designs.

Yankee Cobble™

Large Rectangle - 6 5/16" x 9 7/16"
Medium Rectangle - 4 3/4" x 6 5/16"
Small Rectangle - 3 1/8" x 6 5/16"
Square - 6 5/16" x 6 5/16"
Grand Square - 9 7/16" x 9 7/16"

Yankee Cobble's pressed corners are reminiscent of cobblestones used in New England streets of yesteryear.

Note: Use a urethane pad on compactor plate when installing.

Town N' Country™

Large Rectangle - 6 5/16" x 9 7/16"
Square - 6 5/16" x 6 5/16"
Grand Square - 9 7/16" x 9 7/16"

Town N' Country features design versatility with its Flip N' Place dual surfaces and popular shapes and sizes.

Note: Use a urethane pad on compactor plate when installing.

Newport Cobble™

Rectangle - 4 1/2" x 6 1/2"
Square - 4 1/2" x 4 1/2"

Newport Cobble pavers closely resemble natural cobble stones, yet offer a dimensionally consistent "easy walk" surface. Newport Cobble can be installed in a wide range of pattern designs.

All MillStone, Yankee Cobble, Town N' Country and Newport Cobble pavers are 6 cm thick. Please see the following pages for pattern information. Refer to Ideal's Color, Product & Packaging for sizes and specifications.

Pattern Chart
Yankee Cobble,™ Town N' Country,™ MillStone™ and Newport Cobble™

PATTERN	YANKEE COBBLE	MILL-STONE	TOWN N' COUNTRY	NEWPORT COBBLE
1	✓	✓	✓	✓
2	✓	✓	✓	✓
3	✓	✓	✓	✓
4	✓	✓	✓	✓
6	✓	✓	✓	✓
20	✓	✓	✓	✓
Herringbone #2	✓	✓	✓	✓
Herringbone #3	✓	✓	✓	✓
Circles	✓	✓	Use MillStone Circle Pak	
GS 1	✓	✓	✓	
GS 2	✓	✓	✓	
GS 4	✓	✓	✓	
GS 6	✓	✓		
GS7	✓	✓		
GS 9	✓	✓	✓	
GS 10	✓	✓	✓	
GS 13	✓	✓	✓	

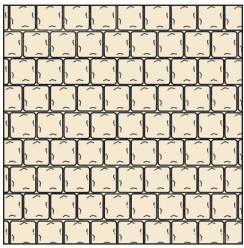
This pattern chart provides guidance in selecting patterns. Any of the patterns are suitable for walkways, patios, and pool decks. While running bonds and basket weaves may be used for residential driveways, herringbone patterns provide the greatest degree of interlock. Stack bond patterns should only be utilized for applications limited to pedestrian traffic.

Placing stones in a pattern is like painting by numbers. Most patterns are comprised of just a small combination of stones that are repeated throughout. Once you get started, simply follow the laying order. The order of stones will help establish a sense and rhythm to whatever pattern you choose. Be sure to always start at a 90° corner or along a straight edge, even when the pavement curves, and remember to pull string lines as you progress to keep the pattern from going astray! We have shown some of the most popular patterns here. For additional pattern designs, ask your ***Ideal Dealer*** for our Yankee Cobble, MillStone and Town N' Country ***Patterns with Style***.

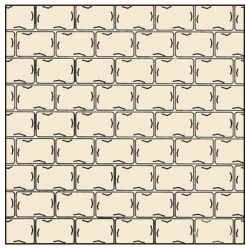
Patterns
Yankee Cobble,™ Town N' Country,™ MillStone™ and Newport Cobble™

Running bond, basket weave and herringbone patterns are the most popular, however, these pavers also may be installed in random patterns as well.

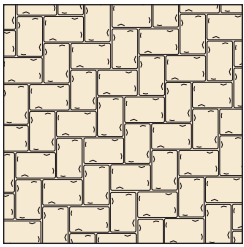
Coverage based on 100 square feet of pavement.



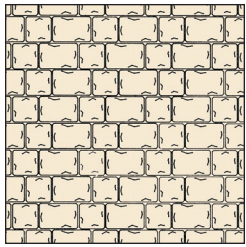
Pattern 1
100 sf Squares



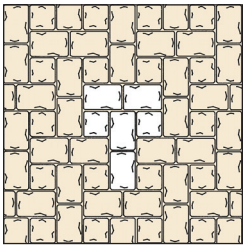
Pattern 2
100 sf Rectangles



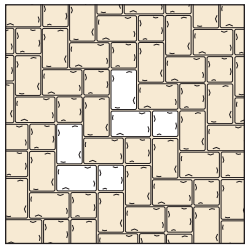
Pattern 3
100 sf Rectangles



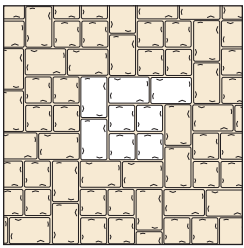
Pattern 4
40 sf Squares • 60 sf Lg. Rectangles



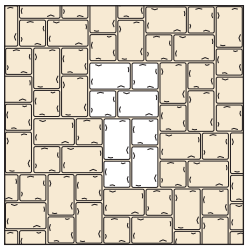
Pattern 6
27.5 sf Squares
72.5 sf Lg. Rectangles



Pattern 20
25 sf Squares • 75 sf Lg. Rectangles



Herringbone #2
75 sf Rectangles • 25 sf Squares

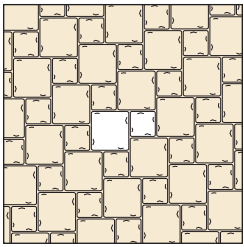


Herringbone #4
60 sf Rectangles • 40 sf Squares

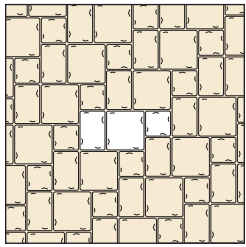
Patterns - Yankee Cobble™ Town N' Country™ & MillStone™

The Grand Square is proportionately sized to fit with the standard square and large rectangle for patterns with impressive scale and dimension.

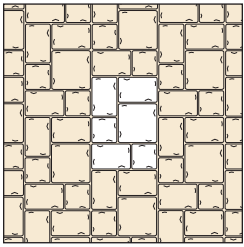
Coverage based on 100 square feet of pavement.



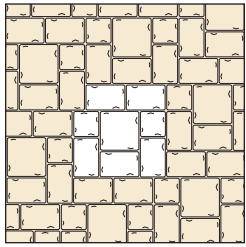
GS Pattern 1
69 sf Grand Squares
31 sf Squares



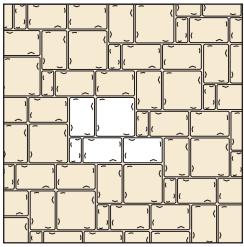
GS Pattern 2
47 sf Grand Sq. • 21 sf Squares
32 sf Lg. Rectangles



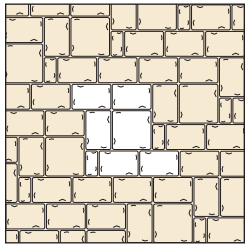
GS Pattern 3
26 sf Grand Sq. • 23 sf Squares
51 sf Lg. Rectangles



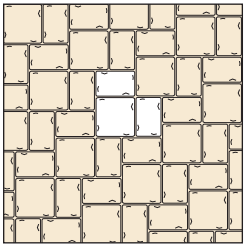
GS Pattern 4
19 sf Grand Sq. • 17 sf Squares
64 sf Lg. Rectangles



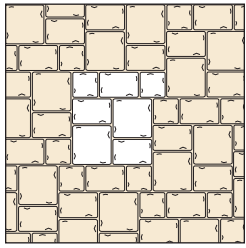
GS Pattern 6
31 sf Grand Sq. • 62 sf Lg. Rects.
7 sf Sm. Rectangles



GS Pattern 7
22 sf Grand Sq. • 73 sf Lg. Rect.
5 sf Sm. Rectangles



GS Pattern 9
43 sf Grand Squares
57 sf Lg. Rectangles



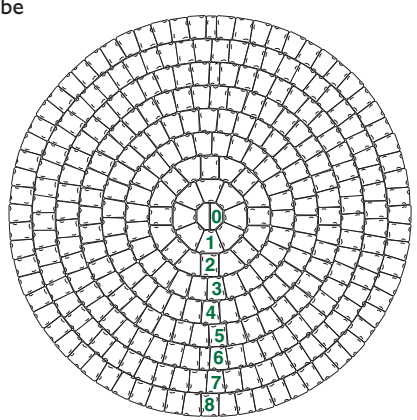
GS Pattern 10
41 sf Grand Sq. • 18 sf Squares
41 sf Lg. Rectangles

Yankee Cobble™ & MillStone™ Circles

Packaged as follows:

6 - Center Stone
18 - Large Wedge Stone
174 - Small Wedge Stone
120 - Medium Rectangle
6 - Small Rectangle

64 sf/cube



LEGEND

CS	-	Center Stone	MR	-	Medium Rectangle
LW	-	Large Wedge	SR	-	Small Rectangle
SW	-	Small Wedge			

Row	Diameter	CS	LW	SW	MR	SR	#Packages
0	6 1/4"	2					1st Circle Pak
1	19 1/4"		8				
2	31 3/4"		8		8		
3	44 1/2"			26			
4	57 1/2"			34			
5	70"			21	21		
6	83"			26	24	2	
7	96"			30	30		
8	108 1/2"			34	33	1	
9	120 3/4"			38	38		2nd Circle Pak
10	133 1/2"			42	42		
11	146 1/4"			45	45		
12	159"			49	49		Medium Rectangle Package
13	171 3/4"				106		
14	184 1/2"				115		

Use *Medium Rectangle* and/or *Square* stones to expand the circle beyond the 14 rows shown in chart. Additional rows will increase the diameter in increments of approximately 12 3/4".

Eco-Friendly Pavements

Aqua-Bric®

4 " x 8" • 4.50 pcs/sf
6 cm thickness

Aqua-Bric is a pedestrian-friendly, ADA compliant permeable interlocking concrete paver that allows infiltration of rainwater through aggregate-filled joints to manage stormwater runoff. It can be installed in the same popular patterns as our Boston Colonial Pavers. For heavy-duty applications such as areas subject to vehicles heavier than passenger cars, ask us about **Aqua-Bric® IV**, the 8 cm version of Aqua-Bric.

Eco-Stone®

4 1/2" x 9" • 3.55 pcs/sf
8 cm thickness

Eco-Stone is a permeable interlocking concrete paver that is ideal for commercial and municipal applications, as well as residential projects. Eco-Stone's unique shape provides the same surface appearance with all installation patterns.

Andover 5511™

5 1/2" x 11 • 3 styles
2.38 pcs/sf
7 cm thickness

Our Andover 5511 pavers may be used as a highly-effective permeable pavement when used with open-graded aggregate for a stylish solution to stormwater runoff.

See page 14 for permeable pavement installation.

Turfstone™

23 5/8" x 15 3/4" • 2.6 sf/pc
8 cm thickness

Turfstone is a large paving unit with openings that can be planted with grass to provide a "green" pavement or can be filled with stone to help manage stormwater runoff and allow for the infiltration of rainwater. For information on the installation of Turfstone pavements, contact ***Ideal***.

Ideal Concrete Block Co. has been making quality concrete masonry products since 1923. As one of the first companies in the United States to manufacture concrete pavers, we bring you over 40 years of experience and have sold millions of square feet of pavers and countless landscape walls throughout New England! You can rely on Ideal...

We are here to help make your landscape project a success from start to finish. Our ***Come Home to Style*** catalog was created to inspire you with images and ideas, and with our ***Color and Product Packaging Directory***, you have all the resources you'll need to plan a successful project. And when you're ready to start, our easy to follow instructions found in this booklet will help guide you each step of the way for beautiful do-it-yourself results.

We make it easy to get the information you need. Contact us directly by phone or by visiting our website at *www.IdealConcreteBlock.com*, or see your local ***Ideal Authorized Dealer***. Their trained staff can answer your questions, place an order, and arrange for delivery.

WARRANTY - Pavers by Ideal provides a lifetime warranty on the structural integrity of our concrete paving stones used in residential applications. Material installed according to our guidelines that is proven to be defective will be replaced without cost. Color matching cannot be guaranteed and replacement labor is not included. Proof of purchase is required and other exclusions apply. Please ask for complete details.

Sizes shown are soft-converted from metric mold measurements.

Pavers by Ideal®

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INPAT-15M-6/15