One should always consider finishing off any stone, stucco, brick masonry, or cast stone wall with beautiful coping. Coping is the most popular type of décor that adds that finishing touch to any parapet wall upon a roof, or balcony, or upon any type of wall, or landscaping planter design. Most importantly, it helps preserve the integrity of the wall itself by shedding water away from the wall unit.

Single slope coping can be placed on decorative walls—rock, stucco, or stone—designed to direct the water flow away from the wall unit. Single slope is commonly used on parapet walls running along roofs, or ledges. When placed upon any wall that can butt up against another structure, it can also act similar to a water table directing the water away from that structure. (Water tables are used to shed water away from a structure instead of allowing the water to flow down the side of the structure. They are often used in transition areas where different bed depths, or elevations occur.)

Double-sided copings can be used on any type of wall and can have many types of edges - Bullnose, Flat, or Crown. Pier caps (and an added finial, or sphere) can be added to the ends and corners of the walls to give added elegance. Coping can be designed to handle the right and left corners as well as end pieces. Our design team can work with you to design any special effect that you desire, for the type of wall that you wish to create, to enhance the beauty of your residential, commercial, or landscaping project.

Coping is usually made in 47 5/8” long sections (3/8” joint allowance) and comes in a variety of widths and styles. This allows for rapid manufacturing of the same mold and provides enough material out in the field for field cutting. Different lengths can be ordered, such as 23 5/8” and 35 5/8”, which are typical alternatives.

Coping is not limited to walls. Coping can be used to finish off edges on many types of components, such as pool coping. (Drip edges are usually located at the bottom edges.)

Proper planning for installation must be done as coping can be large in size and very heavy. Hoists or crane systems may need to be employed as the pieces are too heavy and dangerous for the installers to lift and install by hand. Oversized coping structures can be manufactured using the coil loop system with eye bolts for lifting purposes on the job site for placement.

When designing and installing the coping upon a wall, it is important to consider how the coping is connected to the block, brick, stone, or metal studded center of the wall. One should never place a complete piece of metal flashing over the wall and below the coping as there needs to be a bond between the wall unit and the coping. Instead, full flashing works in the opposite desired effect and holds water which can create a puddling effect under the coping. This can have many more complications than just deterioration of the wall and coping while it collects. Once it has collected, the inclement weather conditions will also come into play with freezing, shrinking, and expansion.

A through-wall flashing should be used which allows the coping to wick and drain to the weep holes below, without compromising the bond of the coping to the wall.

There are a couple of methods to securing the coping to the wall unit. One can secure the coping with vertical dowel pins that hold the coping on the block of the wall. It is important that one sufficiently seal the dowel hole and bond the coping to the wall when using the flashing.
A more popular method is to employ dowels at the ends of the coping. The dowel holes are made during manufacturing of the cast stone coping pieces. The installer places mortar, then the dowels into each end, which allows them to align the pieces and holds them together as they match up the pieces end to end. Additionally, the dowel pin can have a wire wrapped around the centermost part that allows it to be connected at the head joint when metal studs and lath are used for rigid support of the wall.

Another method is to place a cramp anchor between the coping pieces. These are placed side by side so they assist in aligning the coping, and holding it in place, as it is installed.

One must also be cautious of the color of the mortar with the cast stone used in the wall or coping. Mortar can stain the lighter cast stone pieces thus it is advisable to continuously sponge off the face of the cast stone material to avoid staining. Carefully clean the mortar off the cast stone, ensuring one not scrape or damage the cast stone with any metal tools.

Although many masonry contractors use high pressure washers and strong acidic solutions to clean the brick walls after installation, it is not advisable to use high pressure on the cast stone pieces. Soap and water should be used first to wash cast stone. If that does not work, a mild (5-10%) acidic solution, designed for cast stone material, should be tested on an extra piece of stone or in an inconspicuous spot. Acidic solutions can change the texture of the face of the stone, thus one wants to be cautious not to change the appearance or texture from the control sample that had previously been approved.

Additionally, one should avoid any collection of water at the base of the building, wall, or planter box. Any collection of acidic solution can change the color and texture of the cast stone material. Proper drainage should be in place.

Once the project has been washed, it is prudent to check the joints to make sure that there are not any areas that have shrunk or been compromised during install or cleaning. Any cracking or separation can cause voids where water and moisture can seep in and cause deterioration problems. Proper precautions and remedies should be in place from the start.

Once final inspection and approval has been completed, it is a good idea to apply a water repellent on the cast stone material. (See our bulletin on Water Repellents.)

We have only touched lightly on coping and strongly suggest that you refer to our other bulletins on Mortars, Sealants, Pointing of Joints, Allowances For Movement, Weather Consideration and Tips, and Cleaning. Our design team can assist you making recommendations. It is always prudent to discuss your options with a structural engineer when designing any structure.