

# ANOTHER SOLUTION FROM RECON! AESTHETICS YOU WANT. PERFORMANCE YOU NEED.

## Project Facts

Location: Beachwood Ohio

Size: 10,200 Sq. Ft.

Contractor: Mr. Excavator

Wall Engineer: Civil Design Professionals

ReCon Block Supplier: Norwalk Concrete Industries



### ReCon Creates Custom Block for Unique Application

A standard ReCon block is 16" high by 48" wide for a finished face area of 5 1/3 square feet. With standard installation, each course of blocks sets back one inch behind the course below giving the wall a face batter of approximately 3.6 degree. ReCon offers 5 different options for finished face texture including our unique "Old World" face texture, which is the texture that led one corporate customer to consider ReCon for its unique application.

### The Problem:

The application was a 336 ft. diameter reflection pond that would sit in front of a new \$170 Million 600,000 square ft. corporate headquarters in Beachwood Ohio. Because of the high visibility of the pond, aesthetics was highly important. The developers were drawn to the wet cast durability of ReCon because of the constant exposure to standing water. While the "Old World" texture offered the architectural finish they were looking for, the standard ReCon block did not meet the desired geometry.

The pond walls were to be 10 ft. tall with the normal pond water level to be set at 6 ft. above the base of the wall. The original wall layout consisted of 12" high blocks with a 12" setback to create the appearance of a wall stepping down to the water and also to avoid any sort of fall hazard that would be associated with a 10 ft. tall nearly vertical wall. While the developers were considering adjusting the geometry of the wall to fit a standard ReCon block, ReCon worked together with our producer to propose a block that would meet their exact need.

The proposed block for this project was 12" tall, 72" wide and 30" deep with 2 custom shear knobs on each block that allowed for a 12" setback on each course.

### The Challenges:

The pond wall was constructed in a perfect circle, with no specific beginning point or end point. Even with a standard ReCon block (with one inch setback per course) curves in the wall can create a bond shift that if not addressed during construction can become noticeable and unsightly. Because this wall was built on a continuous curve and because of the extreme setback (12 inches per course) we knew this issue would need to be addressed before construction even began. The reason this presented such a challenge for this project is that with each course setting 12 inches back from the course beneath, the diameter of the wall on the base course

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## The Challenges Cont.

(316 feet) was significantly less than the diameter on the top course (336 feet). This means that the top course of blocks was over 60 feet longer than the base course of blocks. It was desired by the owner for running bond to be reasonably maintained on each course. In order to maintain running bond on each course, each course of blocks would need to contain the same number of blocks.

A second challenge involved the top course of blocks. The top course of blocks was constructed 12 inches above finished grade on the back side of the wall in order to act as a seat wall around the pond. Because the block is visible on the front and the back side of the block the Old World chamfer was required on both the front face (pond side) and the back face of the top block. In addition to the chamfer on both sides the owner wanted to eliminate the gap between blocks on the back side that would normally be associated with turning a radius with a 6 ft. long square block.

## The Solution:

The solution to maintaining running bond involved two components. A 60 inch wide block was produced to be introduced at specific intervals on each course in order to maintain a running bond that did not shift more than 12 inches to the left or right of the block above or below. Secondly, a very detailed set of shop drawings was provided to account for every block in the wall to ensure running bond was maintained on each course.

The top course of blocks was set as the benchmark for all of the rows beneath it. The top row of blocks was produced with the dimensions that would result in a perfect circle with an exact number of blocks. These blocks included a 1" chamfer around the blocks on the front and back face of the block. This block also included a slight taper in order to eliminate the gap between the blocks typically associated with turning a radius in the wall with a perfectly square block.

For this project three unique blocks were produced; A 12" x 24" deep double sided top block, a 12" x 30" x 72" wide middle block and a 12" x 30" x 60" wide middle block. In total, over 1700 blocks were produced and installed to create a unique pond wall.

In the end, ReCon, our form manufacturer, our producer and the developer were able to provide a block that met the owner's desired aesthetic while meeting the structural needs and timing needs of the project.