

Concrete Concepts, Inc. (CCI) cast approximately 47,000 square feet of lagging panels for site walls along the Ohio River. The project is located along the southern edge of a 400-acre Beaver County brownfield to be reclaimed over the next five years as a Shell Chemical Appalachia petro chemical complex.

Two walls running in staggered 4- to 40-foot heights and more than 2,000 feet in length follow natural contours. Specifications for the project underscore Shell Chemical's aesthetic, environmental and concrete performance objectives. CCI cast the 9-inch thick panels using an integrally colored self-consolidating mix, ensuring the finished wall harmonizes with its surroundings. That aspect is apparent from Vanport Township directly across the river along the east bank.

Reinforced with epoxy-coated rebar the panels range from 2- x 5-feet to 4-x 8-feet. Those taller than 2 feet have false joints to project a uniform 2-foot joint across the length of the wall face. Panels were either solid or contain small diameter weep holes or larger block outs for wall drainage or tieback connections. There were 31 standard panel sizes and more than 250 unique panels.

CCI used a shale green pigment in the precast concrete mix design. After testing the interactions of the pigment with the SCC admixtures, the form-release, and the form materials, CCI achieved a combination of products that produced a clean finish, as well as maintaining the plastic and structural properties desired in the concrete.

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# PRECAST CASE STUDY

PROJECT:  
SITE WALLS OHIO RIVER

LOCATION:  
BEAVER COUNTY, PA.

PRECAST MANUFACTURER  
CONCRETE CONCEPTS, INC.  
[www.bryanmaterialsgroup.com](http://www.bryanmaterialsgroup.com)



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