

OVERCOME CHALLENGES WITH READING ROCK SOLUTIONS

Hamilton County, Indiana, was able to improve the safety of its communities by replacing four bridges while also abiding to a strict budget and timing constraints. The impact to the residence and environment was minimized by updating bridge specification verbiage and design options.



The challenge

The Hamilton County Highway Department required four bridges be replaced. The County wanted to engage in innovative construction of its infrastructure. Downtime of the bridges needed to be minimized to reduce impact to residents. The Federal Highway Administration (FHWA) standard for Geosynthetic Reinforced Soil (GRS) in an Integrated Bridge System (IBS) needed to be updated to allow consideration for alternate products. Alternate products would provide options for the county to save cost and reduced construction time.

The solution

Hamilton County, the engineering firms and Reading Rock consulted with the FHWA to educate and implement the modification of the construction techniques and standards to identify Allan Block Segmental Retaining Wall (SRW) units as an approved product. Allan Block units met specification requirements and were installed in conjunction with Strata GRS 4800 and GRS 7200 geotextile product that reduced construction time to weeks versus months. By constructing a GRS-IBS system using SRW units, there was no need to install deep foundations or to pour concrete such as footings, abutments or wing walls, again reducing time and overall costs of the project.

The results

Hamilton County delivered a savings to its tax payers across all the bridge projects. The reinstallation of the bridges was completed within the strict time constraints. Additionally, the installation of the SRW system reduces future maintenance costs. Aesthetically the abutment is attractive. The entire system is flexible and coherent, all moving with the induced forces reducing the traditional "bump" drivers experience at each crossing.

GRS-IBS system allowed for the utilization of on-site soils which greatly reduced impact on the local environment. The GRS-IBS system will also work to prevent future soil erosion and undermining of the bridge structure.

Nationally, the FHWA continues to realize structures are built better, faster and for less by using a GRS-IBS system. Under the "Every Day Counts" initiative, dollars spent are kept within the local government providing significant cost savings. Local communities are able to improve the safety of their roadways with minimal financial impact to the residents.

"Versatility of Allan Block to adapt to our challenging project and meet the stringent specification requirement, made it an ideal candidate."

- Faraz Khan, Hamilton County, Indiana



"Hamilton county in collaboration with their design team completed an efficient design which allowed the contractor to be successful in constructing the bridges as planned. We will be sharing this experience with others Nationally. Congratulations to Hamilton County for completing an excellent project."

- Daniel Alzamora, Federal Highway Administration

QUICK PROJECT FACTS

Project Location	Hamilton County, Indiana
Project Size	4230 sq. ft.
Product Used	Allan Block (Champagne)
Project Owner	Hamilton County Highway Department
Contractor	Hoosier Price Excavating, Springport, Indiana
Consulting Engineers	Beam Longest and Neff, Indianapolis, Indiana USI Engineering, Indianapolis, Indiana
Geotechnical Engineer	Earth Explorations, Indianapolis, Indiana



Your challenge. Our solution.

Since 1947, Reading Rock has had a passion for manufacturing quality masonry products and is recognized today as a market leader providing Engineered Wall Solutions to customers with Allan Block Retaining Wall Systems, AB Fieldstone, GreenWall and ReCon, a big block retaining wall system. As Allan Block's first licensee in 1988, and the largest manufacturer of AB products in the United States, Reading Rock is the retaining wall expert.

The AB Classic Collection is the perfect blend of performance and style and has been a favorite among wall builders for years. The collection captures the hand-laid stone effect while offering maximum durability. In addition, Allan Block products offer many other features and benefits including:

- ♦ Engineered hollow-core system provides many benefits over solid systems.
- ♦ Built-in engineering allows each block to be firmly locked in place with patented lip and notch configuration. No pins, mortar or fancy connectors are needed.
- ♦ Built-in set back from raised lip automatically establishes a proper set back.
- ♦ Built-in drainage allows water to drain freely from behind the wall.

Learn more. Ask an associate how Reading Rock can help you overcome a challenge with one of our Engineered Wall Solutions. Contact us at 800.482.6466 or online at www.readingrock.com to request additional information.