

RISING TO THE CHALLENGE

Anchor Helps Paver Plant Ramp Up

Shakopee Paver Plant Ramp

Location: Anchor Block Company, Shakopee, Minnesota
Scope: 360 feet (109m) of wall supporting a 107-foot (32.5m) long up slope (10:1), a 100-foot (30.4m) level surface and a 153-foot (46.5m) down slope (12:1).

Engineer: Ron Vickery, P.E., Anchor Wall Systems

General Contractor: Sunram Construction

Anchor Wall Supplier: Anchor Block Company

The challenge: Enable efficient, daily conveyance of millions of tons of aggregate to holding bins inside the plant.

The solution: Build a wall system that supports a ramp, allowing trucks to drive up and dump aggregate into a hopper for the conveyor system.

The full story:

Most of the time, sand and gravel belong outside. But not so at the Anchor Block Company plant in

Shakopee, Minnesota. Forget about wiping your feet on their welcome mat, because this paver and retaining wall block manufacturer is constantly moving large amounts of aggregate inside. Their recent challenge was to find a way to easily move large quantities of rock and other loads onto a conveyor system that would feed the plant with the raw materials for their products.

Ron Vickery, design engineer with Anchor Wall Systems, was asked to design a system of retaining walls to support a ramp over the fifteen-foot high hopper of a conveyor system. The walls would eliminate the need for below-grade installation of the hopper and extensive lengthening of the conveyor system. With ramps, the hopper could be raised so that the entire conveyor system would sit above ground.

Vickery says the city's safety requirement of a guardrail or Jersey barrier provided an additional challenge to the project. Vickery notes, "We designed a Jersey barrier consisting of back-to-back Anchor Wall Systems Vertica® walls that topped Anchor Wall Systems Vertica Pro™ walls on both sides of the ramp. By using the blocks rather than guard rails, we were able to keep the top of the walls looking nice."

Harvey Erstad, plant manager, says the wall is serving its purpose very well, "It's an added convenience. Trucks drive up the ramp, the driver pre-selects a bin and dumps the load, and then exits the ramp. The shuttle conveyor moves the load into one of six bins inside the plant."

Since installation, the ramp has been so busy that the crew haven't had time to lay pavers over the gravel-filled road. Adds Erstad, "We have trucks containing aggregate that weigh upwards of 80,000 pounds every day, and the ramp is working just fine."

The ramp has worked so well that a similar set of walls is going up across the plant yard. The new wall system will support ramps traveled by front-end loaders moving materials onto another conveyor system. It's just another example of how Anchor Wall Systems has helped this block manufacturer ramp up to do business. **AS**

Anchor Wall Systems Engineer Finds Self in a Fine Pickles



Anchor Wall Systems geotechnical engineer Ron Vickery knows how to add spice to his life – as a part-time pickle maker. He recently enjoyed a taste of success at the Minnesota State Fair, where Vickery's Spicy Spars won the 1999 Golden Blue Ribbon and the company's commitment to market Ron's pickles on grocery store shelves across the country.

After a day of designing segmental retaining walls for commercial and public construction projects, Vickery spends the evening producing pickles, thanks to the influence of his ill-pickling mother, Millie Vickery.

Vickery's engineering skills surely influenced the "process improvement" approach he took to his mom's milder dills. "I just kicked up the spices a little in mom's recipes to make a zippier pickle!" explains Vickery. To date, friends, family and Minnesota State Fair judges have heartily enjoyed his zingy creations.



Have you risen to the challenge with an Anchor Wall Systems retaining wall installation? Contact us at 800-473-4452, ext. 217 for consideration of your story in a future issue.