



Aggregate Structural Integrity Project 2010



Highway 494 and 694 Concrete Paving Project

Project description

This concrete paving project was performed by PCI Roads. Aggregate Industries supplied all the needed concrete aggregates for the paving from local sand and gravel operations. The materials achieved MnDOT's incentive for well-graded aggregate as well as MnDOT's full carbonate content incentive.

Project date

04/01/10 - 08/31/10

Special project challenges

The project required five different materials that ranged in size from 1 1/2" down to a concrete sand. Of the five materials, PCI Roads needed 28,000 tons of Super Grit, a material that we produce at our Nelson Plant on Grey Cloud Island. After the Super Grit was produced, it was barged upriver to our St. Paul location where it was unloaded and stockpiled. This process takes about a day; materials are loaded at Grey Cloud Island one day and unloaded in St. Paul the next. We have a limited amount of space at our St. Paul location so stockpiling a great deal of material at one time is not possible. By communicating with PCI a minimum of twice a day, we were able to have enough material in inventory to meet the ever-changing project schedule.

For many days, St. Paul and Lakeland locations extended regular hours to ensure the customer would have enough material to keep paving on the project. Much work behind the scenes was done to coordinate barges so there was a steady flow of material to our customer.

By adding the Super Grit to our aggregate mix design, we were able to decrease the amount of gravel needed, increase the amount of sand in the mix, and save the customer and our company money.

Team

Architect: MnDOT
Contractor: PCI Roads
Engineer: MnDOT
Owner: MnDOT
Aggregate supplier: Aggregate Industries

For more information about this project, contact Ty Raleigh at tyler.raleigh@aggregate-us.com.