

Taconite ships for road base

PETER PASSI
ppassi@duluthnews.com

The sight of 5,000 tons of taconite waiting to be loaded onto a barge at Duluth's Hallett Dock last week was enough to put a broad smile on the face of Larry Zanko, a research fellow for the University of Minnesota Duluth's Natural Resources Research Institute.

For the past several years, Zanko and others at the institute have been testing taconite as an aggregate road base. The iron-bearing rock has been applied to a bridge deck in International Falls and has been used to construct small stretches of road throughout the state, including a segment of U.S. Highway 53 north of Independence.

"The biggest projects we've done up until now have involved hundreds of tons, but this is getting closer to the scale we'd hoped to see," Zanko said. "It's pretty exciting."

In the past several years, about \$2 million has been invested to study and evaluate taconite's suitability for use as aggregate, railroad track ballast and other applications, said Don Fosnacht, director of the NRRI's Center for Applied Research and Technology Development.

Now that investment could begin to pay off.

"We've had several meetings with end users. And based on those conversations, I think that within the next couple years, we could be shipping substantial quantities of taconite into markets such as Chicago," said Mike Urie, logistics manager for Laurentian Aggregate, the Duluth-based company that orchestrated Thursday's 5,000-ton shipment of rock via the Pere Marquette 41, a barge powered by the tug Undaunted.

Jeffrey Heller, president of Laurentian Aggregate, foresees a day in the not-too-distant future when a dedicated laker, carrying 25,000 tons per load, could be kept busy hauling taconite throughout the shipping season.

The ability to move the material by water is key to keeping transportation

costs in check. Zanko said. Maritime shipping could provide less expensive access to distant Great Lakes markets, such as Chicago or Milwaukee, than to landlocked destinations, such as the Twin Cities, he said.

"To ship by rail to the Twin Cities, you have to deal with two separate railroad companies, and each wants more than the other," said Ron Johnson, the Duluth Seaway Port Authority's director of trade and development.

Even though shipping taconite by water is relatively cost-effective, Fosnacht acknowledged that transportation costs for the initial taconite sent to Chicago last week were subsidized.

Heller is convinced that once contractors in the Chicago market gain firsthand experience using the material and see its advantages, additional orders will follow.

Fosnacht said many of the dolomite- and limestone-based materials currently used for road construction in Illinois are considerably softer than taconite aggregate. He said that by incorporating taconite into roads, their usable life could perhaps be doubled.

An added advantage is that taconite aggregate offers improved traction, Fosnacht said.

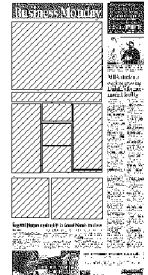
Providing a market for waste rock with relatively low iron content also could make Iron Range mines more cost-competitive, ensuring the longevity of their operations.

That's not to mention the benefits to the Twin Ports' maritime community.

Mike McCoshen, president of Hallett Dock Co., said he's willing and eager to handle more taconite for Laurentian Aggregate if the market develops. He believes Hallett is uniquely positioned to play a useful role.

"We have more of a boutique setup," he explained. "Almost all the other facilities in our port are product-specific operations. But we can handle anything and everything."

As for the handling qualities of the aggregate, McCoshen said: "It's very



abrasive material, and it's a little tough on our hoppers, but it flows very well."

"I think that within the next couple years, we could be shipping substantial quantities of taconite into markets such as Chicago."

MIKE URIE, logistics manager for Laurentian Aggregate



Workers shift taconite rock into a hopper from which it is fed by conveyor to the barge's hold. The rock will be shipped to Chicago for use in road construction. *Bob King / rking@duluthnews.com*

construction zone

What: Scanlon pumping station

Where: 3209 Minnesota Highway 61

General contractor: Gridor Construction in Buffalo, Minn.

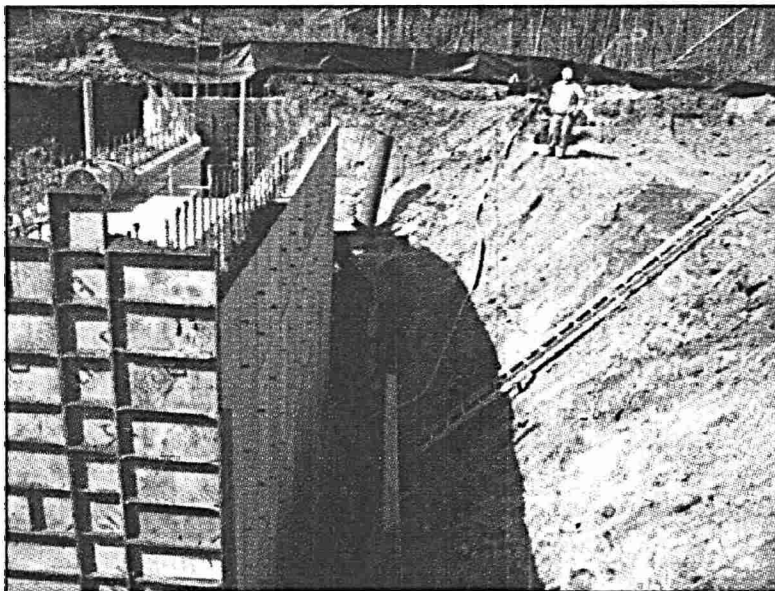
Engineering firm: Brown and Caldwell

Size: The 1.3-acre site will pump 18 million gallons per day from the towns of Cloquet, Carlton, Scanlon and the Sappi paper mill.

Cost: \$2.5 million, from the Clean Water State Revolving Loan Fund and federal stimulus money

Purpose: The existing pumping station was in need of rehabilitation to extend its life. The new station will be completed by Oct. 1.

Features: To pump wastewater from local industries and private residences to Western Lake Superior Sanitary District's treatment plant in Duluth. About 100 jobs will be created by the project at 18 companies.



Submitted photo