PIT&QUARRY

E&T RECYCLING

Play Ball

An Atlanta contractor crushes debris from Fulton County Stadium into a major league amount of recycled material.

By Mark S. Kuhar

Quarry operations that want to tap into the lucrative debris recycling market can look to contracting operations as an example of how portable equipment can be moved from site to site — when not being used in a quarry environment — for the purpose of making base or backfill material from crushed concrete.

In Atlanta, the demolition of Fulton County Stadium is an example of just such a site-specific project. Tons of concrete needed to be crushed for recycling and reuse as backfill at the stadium's 15-acre site. Dykes Paving of Norcross, Ga. — one of the top recycling contractors in the Atlanta area — handled the job.

The paving contractor not only took care of the concrete recycling, but also the grading of the site and asphalt paving of the entire area. Because the scope of the project was so huge, company president Jim Dykes bought a new crushing plant for the job. In Milwaukee, Telsmith manufactured a 3055 PPNGF portable primary crushing plant that could handle the job. Dykes had seen another 3055 jaw plant in Atlanta owned by C. W. Matthews Contracting that had produced more than 600,000 tons of 1-1/2-in. minus crusher-run material since being purchased a year before. He liked what he saw.

Dykes was very impressed with that plant. He also liked the versatility of being able to run concrete, asphalt or shotrock through the 3055 portable plant. Another reason he bought the Telsmith 3055 portable plant was the factory support that he would get for the equipment.

Telsmith designed a unitized feed hopper

Jim Dykes (center) looks over demolition plans with Roy Simonsen (left) and Lee Young (right).

More than 120 tons of material was processed using the portable plant.

with a vibrating grizzly feeder that can easily be unbolted and set on a low-boy for transport. The vibrating grizzly feeder is 54 in. x 20 ft. long with hopper side extensions. It accepts large amounts of material loaded from either front-end loaders, excavators or off-highway haulers.

The vibrating grizzly feeder, as big and wide as it is, can accept extremely large amounts of material to keep the plant running. Telsmith designed the jaw to set in at an angle rather than vertical where the material comes over and drops down. This allows the material to be accepted into the jaw without hanging up or jamming. For a recycling operation, this is extremely critical to production.

Telsmith also designed a spacer plate to put in the fixed jaw that allows the operator to set the jaw to a smaller closed side setting. This enables Dykes Paving to make 3-1/2-in. minus of spec material through the jaw without a secondary crusher.

"The vibrating pan feeder under the jaw designed by Telsmith is probably the heaviest in the industry that we have seen," Dykes says. "It's able to accept any type of steel that we have put through it with no problem at all.

"The magnet conveyor was designed by Telsmith to be a little bit longer than our other two plants. This gives us a longer picking distance to remove any material that would not be attracted by the magnets, such as plastic, wood, paper products or any other trash."

The magnet conveyor at the end is designed to take off the heaviest metals that can be put across it. It discharges onto an 80-ft. conveyor and this produces a pile of 3-1/2-ft. minus product. By charging another 80-ft. conveyor, material can be diverted to a Telsmith 57S cone crusher to make 1-1/2-in. minus product.

"The cone is big enough for a recycle operation," Dykes says. "You get scrap metal in the form of wire and this needs to be liberated from the cone itself. It will actually bunch up inside.

"The larger size enables us to climb up inside through a trap door at the back and, within a few minutes, remove any of the metal in the form of wire that's inside. With the 57S we've been able to open it up to a 1 -1/2-in. setting and make a spec product ready for our base material without screening."

In a little more than 2-1/2 months, Dykes Paving crushed more than 120,000 tons of material using the Telsmith 3055 portable recycling plant.