



RECLAMATION, RESTORATION AND REVENUE

A 50-year-old pile of excavated rock, concrete and garbage sitting on prime development real estate could have meant an expensive trip to the landfill for the Village of Crestwood in Illinois. Instead, city officials determined it would be more cost-effective and environmentally-friendly to hire a local contractor to sort, crush and process the material into a salable product that could be used for road and infrastructure projects.

The property restoration project began in September 2015 and is slated to take two years to complete, with approximately 1.5 million tons of material to process and move off-site, said Bill Pavin, manager of operations with custom crushing contractor IM Crushing. The material is a mixture of limestone, concrete and miscellaneous garbage that was excavated out of a local canal half a century ago.

To accomplish this, Pavin and his seven-person team are using a 3055 Pioneer jaw crusher and a 5260 impact crusher, as well as eight portable radial stackers, six Roll-Pack stackable conveyors and one magnet conveyor, all from Kolberg Pioneer (KPI). They are also using two 6' x 20' and dual 7' x 20' portable horizontal screening plants from Johnson Crushers International (JCI). IM Crushing processes between 350-500 tons per hour – sometimes more depending on the material and the weather conditions.

“The Village of Crestwood needed someone with experience in the crushing industry to process the material rather than just haul it off to a landfill,” Pavin said. “With the wide variety of material that was here, from large limestone chunks to concrete, they felt it would be most cost-effective to process it on site to get it off the property.”

IM Crushing won the bid for the project in part because it returns 50 percent of any product sold to the Village of Crestwood. This helps the city offset some of the costs for the project, Pavin said.



This year, IM Crushing plans to process 680,000 tons for the Village of Crestwood, 35 percent of which will be engineered fill from the dirt that is screened off. This material has already been tested for contaminants, allowing it to be sold for environmental remediation projects where contaminated material is removed and a clean fill material is needed to go back in. The remaining material – concrete and limestone – is used as back fill for sewer work and base material for parking lots and roads.

COMBATting CHALLENGES

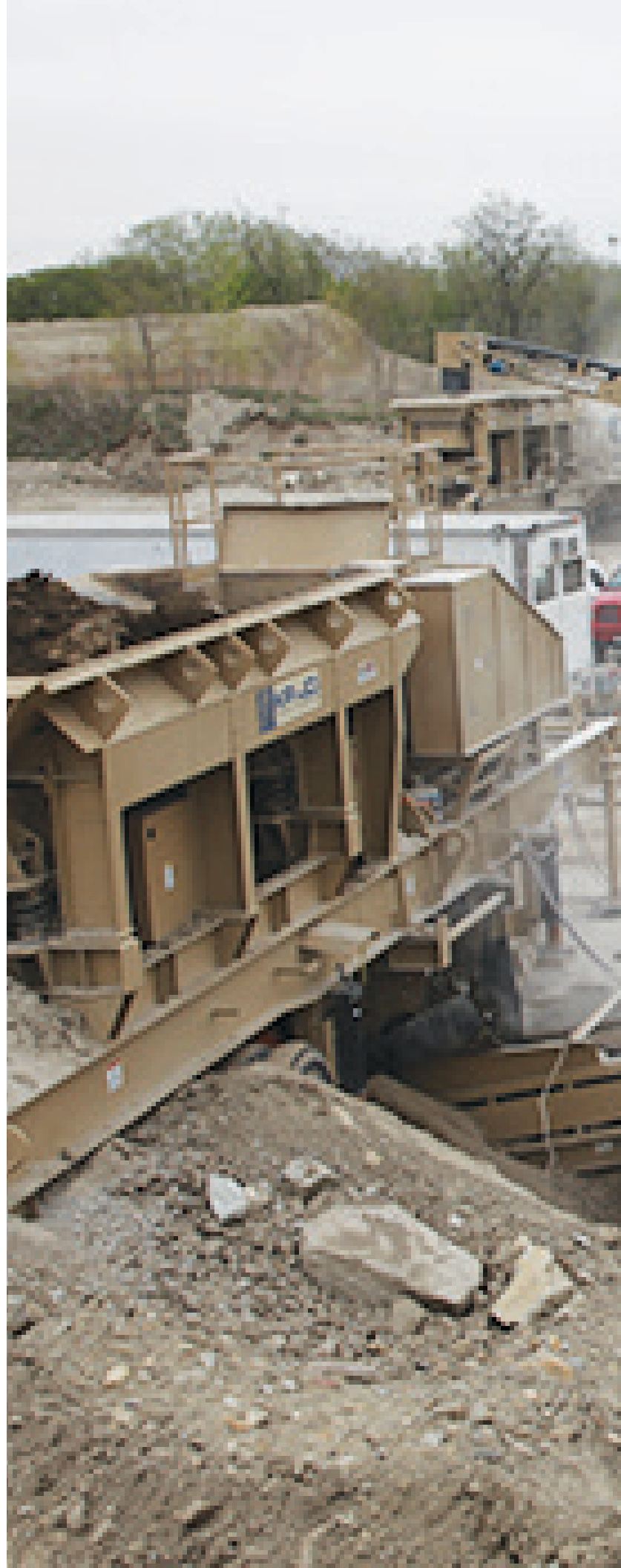
Most people are surprised to learn that IM Crushing doesn't need a wash plant to clean the material and make a high-quality product from it. Fifty years ago, when the material was blasted from the canal during the excavation process, the overburden was not stripped and became mixed in with the natural limestone. The wide variety of raw feed – including large chunks of limestone, steel, trap metal and concrete – presents significant challenges when trying to sort and process the rock, Pavin said.

To combat this, IM Crushing runs the material through the 3055 Pioneer jaw crusher's grizzly feeder to remove the excess dirt, then prescreens the material before it runs through the secondary plant. The dirt is pre-screened over a slotted self-cleaning screen on the 6' x 20' portable horizontal screening plant, then the clean rock is processed through the 7' x 20' dual screening plant. From there, the material is finished through the impact crusher, which makes a clean product that is able to be used in commercial applications. Any excess metal is pulled out by magnets on both the jaw crusher and impact crusher.

"We needed two really good magnets to pull the steel out, and we've had no complaints about that," Pavin said. "We haven't had any damage to the impact crusher since we started – the magnets are really doing a good job for us."

PATRIOTIC PARTNERSHIP

For more than 20 years, IM Crushing has been a local leader in custom crushing, using Pioneer jaw crushers, roll crushers and screen plants. The





company's familiarity with the products led it to consider more crushing and screening products from Kolberg-Pioneer and its sister company, Johnson Crushers International.

"We've always felt like the products were really durable products," Pavin said. "It's built really well, very heavy-duty. It's also easy to get parts, which is important when stuff starts to wear out down the road."

Equipment performance was a critical factor in the purchase decision, Pavin said. The most appealing feature was the ease of adjustment for both the jaw and impact crushers.

"We have a hydraulic adjust on the toggle plate, so it's essentially a five-minute change on the jaw crusher, which was important, depending on what type of material we are feeding that day," he said. "We can open up the jaw for a larger rock, or close the jaw down if we have smaller, finer material. This allows us to maximize our production."

Purchasing an American-made product was also important to the company.

"We appreciate that it's an American-based company. It's a good product and they stand behind it," he said. "The company that we're working for on this project is a fourth-generation family company, so they're very patriotic and it's important to them to know that we support American-made equipment."

Pavin also carefully considered his partnership with the distributor when considering equipment from various manufacturers. He chose to purchase through McAllister Equipment Company because of his positive working relationship with area manager Clyde Robison.

"We are really happy to be working with Clyde, and are impressed with his knowledge of the equipment," Pavin said. "That really went a long way when we were pricing other manufacturers. Clyde really knows the aggregate industry and developed an agg flow that made sense to us."

Another considerable factor that went into the purchase decision was the contractor's need for portability.

“When we purchased the equipment, we were looking also to future jobs,” he said. “This is only a two-year project. Because we are in the custom crushing business, we move equipment around a lot. We move all around the city and crush recycled concrete, as well as other limestone quarries and sand and gravel pits. Having the versatility to do all of that was a must for us.”

Although IM Crushing handles the majority of its service work internally, Pavin said the parts and product support from KPI-JCI and McAllister Equipment Company has been outstanding.

“The support has been awesome,” Pavin said. “We can talk directly to their engineers if we have any questions, they always call back really quickly and there are no dumb questions. They are always very understanding and willing to help.”

Pavin recalls the experience of a recent breakdown, where his team had to change the apron tips on the impact crusher. Hoping to get parts fast, he called the distributor on a Saturday. The office was closed, but he received a call back from a parts representative immediately.

“He said, I’ll meet you Monday morning and get you the parts you need so you’re running,” Pavin said. “That was really helpful for us, knowing we could call them on Saturday and Sunday and he could track down the parts and make them available for us so we could run on Monday.”

“It’s just another great reason to buy from an American company,” he continued. “They’re in the states; we don’t have to worry about trying to find parts. The manufacturer is right there in South Dakota, and we can get pretty much anything we need within a day’s time if McAllister doesn’t have it in stock. That kind of reassurance, knowing our downtime will be kept to a minimum, means everything to us.”

