ALTERNATIVE FUELS
Lafarge looks to reduce carbon emissions
The Terex Finlay 674 is a compact easily transportable machine that offers operators rapid set up and tear down times. The screenbox features three decks giving a large screening area of 170ft² to provide efficient screening even at small fractions and high capacity. The screenbox features quick wedge tensioning, access holes and bottom deck hydraulic tensioning system to reduce time required for mesh changes. All four discharge conveyors are adjustable and hydraulically fold for transport. The fourth product 'oversize plus' conveyor has variable tilt and side slew to accurately discharge material for recirculation and stockpiling.
12
Testing Alternative Fuels
Lafarge looks for solutions to reduce carbon emissions with the introduction of lower carbon fuels at its cement plants across Canada.

8  A Case for Drones
A construction company in Western Canada looks to expand the use of drone technology across its operations following successful trials in Alberta.

16  Building the Bypass
We give you an in-depth look at the construction of the $1.88-billion Regina Bypass.

20  Excavating to the Top
A diversified business approach has been the key to success for one of Newfoundland’s biggest contractors.

24  Hillhead Preview
The aggregates industry gets set to gather at the Buxton Quarry in England for a look at the newest products and innovations.

28  Back to bauma
We go back to Germany to recap some of the biggest news and new products announcements that will impact the Canadian market.

32  Reflecting on 2015
Our financial expert Jim Sanderson looks at the investment climate in 2015 and where mistakes were made along the way.

DEPARTMENTS
4  Editorial  37  Coming Events
6  Industry News  37  Ad Index
36  New Products  38  One More Load
Get serious about emissions

Getting in line with American standards

I don’t like to admit that the United States is doing something better than we are, but after all seven Canadian teams missed the NHL playoffs in April, the discussion seems pretty appropriate.

There is one very important aspect of the aggregates and road construction industry that our neighbours to the south do better than us, and that’s regulating emissions.

I know, the regulations aren’t in place in this country so there is no need yet to worry about buying Tier 4 machines and teaching the team about DEF and SCR.

Yet.

But that needs to change, and I think we all know it. Some of you are already making the switch to machines that have Tier 4 interim and Tier 4 Final emissions technology built in. Good on you. But others either haven’t grasped the need, don’t want to make the investment or just refuse to deal with the “hassle” that comes with the new emissions technology.

I didn’t think that latter still existed here in Canada, but had my eyes opened to it during my trip to the Atlantic Heavy Equipment Show in Moncton in April, where I overheard several contractors asking for Tier 3 machines because they wanted nothing to do with Tier 4.

And yet, while some still resist the official and inevitable transition to Tier 4 interim and Tier 4 Final emissions technology in Canada, companies are already talking about what comes next. At bauma in Munich, officials from John Deere and Cummins both brought up the issue publicly, discussing what Stage 5 might look like as the next generation of technology rolls through the R&D phase and into heavy equipment across the next three-to-five years.

This isn’t the only room for improvement in emissions technology. For decades, our cement manufacturers have relied on coal to produce power for its operations. The non-renewable carbon source sinks countless tons of carbon dioxide into our air and up to the atmosphere, which could be unnecessary as alternatives are explored.

In looking to the future, understanding the need to reduce emissions, Lafarge has taken a role in experimenting with coal alternatives. At concrete plants across the country, the company has partnered with academic institutions to begin experimenting with alternative and renewable fuels to test the viability of the materials for energy production, and the quality of emissions they generate. The list of materials tested includes construction waste, roofing shingles and K-cups, just to name a few. (For our feature story on the progress being made by Lafarge on this, turn to page 12.)

Showing leadership on the issue of emissions is critical in this country, especially at a time when the federal government has begun discussions on the implementation of a nationwide carbon tax. Rather than be left scrambling to find ways to cut down on emissions, the companies already adding renewable fuels to their operations, along with the ones already investing in Tier 4 emissions technology, are showing the way by working out the initial kinks of new technologies to provide a roadmap for others to follow. As more companies come on board with their own initiatives to cut emissions, they can look to the industry leaders to learn the right way to do it.

Emissions reduction legislation in Canada is not a matter of if, but when. If you haven’t already, it’s time to follow the leader and make a plan to get serious about emissions.
Aggregate Drones

“I was able to accurately measure the volumes of stockpiles at one of our quarries in just 10 minutes using the Kespry Drone System. Previously, it took me about 2 days of strenuous GPS work to cross-section those piles. This is an amazing technology!”
—John P. Davenport, Construction Surveyor, Whitaker Contracting Corporation

Automatically measure aggregate stockpiles

Kespry drones are saving mining companies time and money by automating the measurement of aggregate stockpiles and construction materials.

Companies can fly their own sites and automatically get the perimeter and volumes for all their aggregate stockpiles as frequently as needed.

The Kespry 2D and 3D aerial models also assist with mine surveying, planning and operations.

With Kespry, what used to take weeks now takes hours.

www.kespry.com/aggregates
The governments of Canada and the Northwest Territories have announced the joining of the north and south construction spreads of the Inuvik Tuktoyaktuk Highway – the first public highway to Canada’s Arctic coast. The contractor has successfully joined the two construction spreads with a first layer of embankment material placed on April 7, 2016. Geotextile fabric and additional earthworks to bring the embankment up to grade was put in place later that month.

This key piece of transportation infrastructure has now concluded its third winter of construction. Once complete, it will create economic growth in the Beaufort Delta region by providing all-weather highway access to Tuktoyaktuk, which is currently served only by ice road, barge, and air. This project is delivering numerous socio-economic opportunities in the region by employing over 400 individuals at the peak of the construction season.

The scheduled opening to traffic is in the fall of 2017. The new highway will be the northern-most section of the envisioned Mackenzie Valley Highway that will connect Canada from coast-to-coast-to-coast. The highway will decrease the cost of living in Tuktoyaktuk by enabling goods to be transported year-round by road, increase opportunities for business development, reduce the cost of accessing onshore and offshore oil and gas opportunities, and strengthen Canada’s sovereignty in the north.

The Government of Canada is contributing $200 million towards this project. The Government of the Northwest Territories is contributing $99 million. The total estimated cost of the project is $299-million.

The work is being completed using unique construction techniques that ensure the underlying continuous permafrost remains protected in a frozen state.

Inuvik Tuktoyaktuk highway connected

LafargeHolcim elects new chairman

The Board of Directors of LafargeHolcim elected Beat Hess as the new chairman at the company’s annual general meeting in May.

Hess succeeds Wolfgang Reitzle, who has been chairman for two election periods and a member of the board of directors since April 2012. The board of directors would like to thank Reitzle for his valuable service to the group as well as all his efforts and contributions, which were instrumental for the completion of the LafargeHolcim merger.

The board of directors also elected Jürg Oleas as an additional member of the board of directors. Oleas, born in 1957, had previously been a member of the Board of Directors of Holcim Ltd. from April 29, 2014 until the merger closing in July 2015.

Oleas holds a master of science in mechanical engineering from the Swiss Federal Institute of Technology in Zurich. He is the CEO of GEA Group AG – a Dusseldorf-based mechanical engineering company listed on Germany’s MDAX stock index.

CASE, Leica expand partnership

CASE Construction Equipment and Leica Geosystems have extended their partnership in North America to include the availability of off-machine precision construction tools through CASE dealers, including pipe lasers, rotating lasers, underground utility locators and automatic/electronic levels.

In a related move, CASE has developed three levels of certification that enable each dealer to carry the expanded product offering, and provide better consultation and customer service on precision construction products and applications.

The original partnership, announced in 2014, included on-machine systems and a joint commitment to product development and training on a global scale. That commitment continues, along with the added accessibility to precision construction solutions and support in North America.

“The new certification program and added product availability through CASE dealers reinforces our commitment to creating a single support point for customers related to precision construction technologies,” says CASE’s vice-president of North America, Scott Harris.
The Baldor • Dodge® MagnaGear XTR®, engineered with Baldor • Dodge proven planetary and helical gear technology is the ultimate advancement in speed reducers. MagnaGear XTR reducer’s simple power-dense design offers torque ratings from 100,000 to 3,500,000 in-lbs. assuring increased reliability in a more compact, economical, heavy-duty package.

And, you can find Baldor • Dodge MagnaGear XTR at your local Motion Canada location. Our local sales and service specialists are experts in application and technical support, providing the parts and the know-how you need to stay up and running.

The brands you count on from the people you trust...that's Baldor and Motion Canada.
It was just a few months ago that JF Gabanna, director of business development for Interoute Construction Ltd. (a subsidiary of Terus Construction), first got his hands on a drone. Sure, he had seen a local company make its case for using the emerging technology, but it wasn’t anything that was completely on his radar.

That changed when management at Terus Construction informed staff that the new tool would be incorporated into the operation.

“Our sister operations in Alberta were using drones before our B.C. operations,” Gabanna says from his office in Crescent Valley, a small community nestled in the Kootenays in southeast B.C.

UNDERSTANDING THE TECHNOLOGY

Over the past few months, Gabanna and his team have been doing some training with their colleagues in Alberta in order to gain a greater appreciation for how the technology works, and how it can benefit the operation.

For starters, an entire site can be surveyed in, at most, 30 minutes from start to finish. That covers each pit/quarry, most of which have 6-12 stockpiles. That is a significant reduction over
DELCIVERING VERSATILITY

Cedarapids® | Canica® | Simplicity® | Jaques®

Rock Crushing | Concrete Recycling | Asphalt Recycling

The NEW Terex® Cedarapids CRH1313R impactor/screen plant does it all.

- Complete stand-alone closed-circuit plant with three product capability
- High production, high efficiency, low maintenance
- High uptime; undercrusher vibrating pan feeder protects the conveyor belt, reducing wear and tear
- Simple to operate, quick to set up, easy to transport

Visit www.terexmps.com to find your local distributor and learn how we can work for you.
Tel +1 (319) 363-3511 | MPSsales@terex.com

TEREX®

Minerals Processing Systems

Strong Heritage, Strong Future.
the hours it can take to manually check each stockpile throughout the site.

“We have a lot of gravel pits and gravel stockpiles,” Gabanna says. “The idea is for us to be able to manage our inventories and have stockpile surveys done a lot quicker.”

Once the drone has captured the site visuals, the operator is able to go on to the Kespry site to access their data (Kespry hosts the data for you as part of the cost of the drone). Once the site visual has been loaded, a polygon tool is used to outline the rough limits of the pile. The operator sets the elevation points around the pile to tell the program what level is ground and, within seconds, you are able to find out the volume of the pile. Also, there is an option to input density to gain a weight measure of the pile as well. At the end of the day, you end up with accurate readings in metric units to provide a comprehensive understanding of exactly how much material is in the stockpile.

In addition to the benefit the drone provides in stockpile management, it also provides the ability to provide detailed information on the contours of the site, providing the site manager with the information for proper site planning.

**IMPROVED SAFETY**

There are also serious safety considerations to factor in with the use of drones for stockpile management. First of all, the operator can set up and launch the drone from the periphery of the operation, far removed from the machine operations and materials movement throughout the bulk of the pit or quarry. Secondly, there is no more need for the surveyor to work their way onto the stockpile with equipment in tow, eliminating the risk of injury that can occur from falling down while trying to climb up the aggregate stockpile.

“Getting a machine to fly over the tops of the piles, versus having one of our guys walk all of the piles is far less hazardous for our staff,” says Gabanna.

And from the early trials, there is no question of accuracy.

“Our experience in Alberta has been that the stockpile reports are consistently accurate with what we had in the past,” Gabanna says. “Our numbers are pretty much identical between surveys and test flights.”

**LOOKING FORWARD**

Terus will incorporate three drone kits into its B.C. operations, one for each of the primary regions that the company works in (northwest, northeast and southeast).

With drone use becoming a cost-effective stockpile management for quarries and pits, and helping to also eliminate a major safety issue, it’s only a matter of time before more companies make drones an integral piece of equipment for their day-to-day operations.

For more on emerging technologies for the aggregates industry, visit www.rocktoroad.com.
When Astec parts salesman GREG PAINTER is not calling on customers to support their parts needs, you can find him on the water fishing or in the woods hunting. But when you call, he’ll trade that fishing hat for a hard hat, because he is always your parts man.

An ASTEC parts salesman knows that being successful in his job means that you count on him to deliver when needed. So when you need a part, he will take the call because no matter what else he is, he is always your parts man.

Anyone can stock parts and ASTEC stocks the world’s largest inventory of parts for asphalt plants. But ASTEC doesn’t just stock parts. ASTEC delivers the industry’s best customer service. That is what sets us apart.

"Any part, any brand. We can help."
“It has become a key lever of our industry to reduce our carbon emissions,” says Robert Cumming, environment director for Lafarge Canada Inc.

Cement production is one of Canada’s largest emitters of carbon into our air, thanks in part to its use of coal and petroleum coke to create the energy necessary for production. The average temperature at the fuel end of the kiln registers at 1,450°F, equivalent to one-quarter of the temperature of the surface of the sun. Getting to that temperature requires a lot of fuel.

The benefit of running kilns at that temperature, however, is that any fuel with energy content can be used safely and efficiently in lieu of petroleum coke or coal.

Bearing that in mind, the cement industry has made a strong
commitment to reducing carbon emissions by replacing fossil fuels with lower carbon fuels, and Lafarge is playing a leading role in this development.

UNDERSTANDING LOW CARBON FUELS

Three years ago, the team at Lafarge Canada applied for permission to conduct a full-scale project under the Natural Resources Canada ecoENERGY Industrial Fuel Initiative Program. The project would allow the company to locate and demonstrate low carbon solutions. They initially teamed with Queen’s University in Kingston, along with WWF Canada and community stakeholders to understand how low carbon fuels could replace part or all of the supply of coal and petroleum coke currently used for energy production.

Low carbon fuels (LCF) are low in carbon for one of two reasons: they contain lower carbon chemistry or are considered to be biogenic carbon. An LCF containing a lower carbon chemistry means that the fuel releases less carbon dioxide for the same amount of energy produced. (measured in gigajoules). Biogenic carbon is carbon that is considered to form part of the natural carbon cycle. This is what wood combustion is considered as, since a new tree absorbs the carbon emitted when another is used, making it a carbon neutral process.

With support granted from Natural Resources Canada to move forward, Lafarge Canada began construction of the fuel handling system needed at its Bath, Ont. plant to begin using LCF. At the same time, Lafarge began working with its partners to develop the scope of the research program, including the different types of fuel that could be collected and tested.

For the new fuel handling system, the company looked to a compact footprint on the southwest corner of the property where they could develop a transloading facility. From there, trucks unload the fuel, which is then put through a shredding system to eliminate any lumps that may have formed in transit. The fuel is then conveyed to one of two storage bins, passing under a magnetics system that removes any metallic content. From the bins, the fuel is conveyed into the plant and to its final destination inside the kiln.

THE FIRST TRIAL

With the fuel handling system in place, the company was able to conduct its first test in 2014. The test involved having a predicted lower carbon fuel replace 10 per cent of the coal/petroleum coke. The first trial included three different materials: railway ties, construction and demolition (C&D) waste and asphalt shingles.

After the fuel was used, the emissions results were given to the team at Queen’s University to conduct a thorough statistical analysis. The result was that no increase in any emissions was found when using the fuels, and there was an over 80 percent carbon reduction for every tonne of coal/coke replaced.

The result was very positive for the company, putting them in a position to use the fuel on a permanent basis. In order to do so, they must apply to the government for permission, moving from compliance approvals on a three-year trial basis to a permanent approval. This must be done for each individual fuel that provides successful results.

A second trial was conducted in October of 2015, using the same formula for fuel replacement but this time testing non-recyclable packaging, manufactured rejects, and non-recyclable commercial products such as carpets and K-Cups. Initial data showed similar results to the first trial and that all emission limits were met, however Queen’s University is still working on the full statistical analysis.

LIFE CYCLE ANALYSIS

While the importance of the positive emissions data using LCF cannot be overstated, Cumming recognizes that it isn’t simply a
matter of what comes out of the stack.

“It’s important for our employees, for us as a company, for our neighbours and for the environmental NGOs that we work with that there is not a trade-off here. We’re not trying to reduce carbon at the expense of some other pollutant. We’re trying to show that the fuels can be used safely and efficiently in our process. That’s one piece. But the other piece is a life cycle assessment.”

A life cycle assessment analyses the full environmental impact associated with a product from cradle to grave. It factors in all of the emissions created, and the types of emissions created, at all stages of the process. For the Bath plant, that means a comparison to the coal it is replacing, which is mined in Virginia, brought by barge to the Bath plant on the north shore of Lake Ontario, and grinding the coal for use in the kiln. Using the example of construction and demolition debris, there is the energy to sort the debris, truck the debris and shred the debris at the Lafarge site. However, the diversion from the landfill, where it would eventually rot and become methane, also must be considered in the analysis.

According to Cumming, the life cycle assessment provides “…the most transparent, comprehensive, and accurate way of assessing fuels and their carbon emissions.”

CHALLENGING INFRASTRUCTURE
The introduction of the new fuels into Lafarge's energy production system has its staff learning as the process unfolds. That goes for the fuel suppliers as well, being asked to change the way they approach their waste.

“Getting the infrastructure changed for processing the material from jobsite to end user has been a challenge,” Cumming says. “Using C&D waste as an example, that means having the mindset to separate the waste that can be used as LCF while others continue to go to previous outlets like landfills.”

That challenge extends to building sustainable infrastructure for supplying LCF to Bath, which can’t be done as the company experiments with multiple types of fuel. That makes it cost-prohibitive for many fuel suppliers until someone like Lafarge is in a position to ask for consistent supply.

On the plant side, the challenge comes in the intake process. New processes for quality control, storage, moisture, logistics, safety and training have to be established at the plant for dealing with the new types of fuel versus what has already been established using coal and petroleum coke.

Cumming cites that it is the infrastructure and the logistics that will be the biggest hurdle for the adoption of low carbon fuels. “But once you get it right, the other fuel users will be able to benefit from those supply chain systems.”

But the lessons already being learned have been shared with other Lafarge Canada facilities that are also experimenting with alternative fuels. In Nova Scotia, Lafarge’s Brookfield plant is working with Dalhousie University on tests using non-recyclable plastics, asphalt shingles and scrap tires.

BIOMASS ALTERNATIVES
There are also experiments being done with a new type of fuel at the Richmond plant in B.C., one that just recently received national recognition thanks to work being done by Ontario Power Generation in Thunder Bay, Ont.

The fuel is known as torrefied or black pellets. The pellets are wood pellets that are pre-cooked to become a product that closely resembles charcoal’s textural and energy properties.

“In most plants, you can get to 20-30 per cent co-fire before running into mechanical and thermodynamic issues,” Cumming says. “But if you can convert C&D wood into something that works like charcoal, then you can use it in your existing process and at a higher substitution rate.”

OPG Thunder Bay discovered just that during testing phases with the pellets, supplied by a company in Norway. OPG then converted its plant to the pellets at a minimal cost, using most of the equipment originally in coal-based energy production.

A few years ago, Vancouver-based Diacarbon Energy created the pellets at a pilot scale, providing them to Lafarge for testing as an LCF at the company's Richmond plant with very good results. Now Diacarbon is scaling up the technology at its plant in Merritt, B.C. with hopes of producing consistent volumes by the end of 2016.

That would be a welcome development for Cumming and his team.

“In order to move past that 20-30 per cent co-fire barrier to get to 50-60 per cent, you need to process the fuel,” Cumming says. “Torrefaction, and the process that Diacarbon has is very exciting for us. I think that, all across the country, we are going to benefit from that research.”

With the knowledge and expertise gained from the extensive experiments taking place across the country, Lafarge Canada is leading the charge to significantly reduce emissions in the cement industry.
The New Clearview FXS® fume extraction system provides greater visibility to the front of the paver hopper, to the opposite side, and down to the augers.

Paver controls are mounted to the pivoting seat station, which hydraulically swings out past the side of the machine for excellent visibility.

All functions are easily accessible, including feed system and flow gate controls.

Noise levels cut in half and improved visibility allow the operator to stay in constant communication with the rest of their crew.
In recent years, major urban areas like Edmonton, Calgary and Montreal have seen heavy investment in new and upgraded transportation routes that help people and goods get into their cities, but also assist traffic in getting around it.

Now, we can add Regina to the list. This year marks the first full year of construction of the new Regina Bypass, which will provide a new route around Saskatchewan’s capital.

The Government of Saskatchewan’s total investment in the project is $1.88 billion. Of that total, $1.2 billion is for construction, while the remainder is for...
the Bypass’ operation and maintenance for 30 years.

Once fully open to motorists, this new transportation infrastructure will reduce traffic congestion in the Queen City, improve safety for the region’s commuters, and better support this land-locked western province’s export-based economy.

REGIONAL GROWTH
The new Bypass idea was first discussed in the 1990s, as growth in Regina and its outlying area was causing increased congestion on Trans-Canada Highway 1 and, subsequently, on the secondary highways through the region.

According to the Saskatchewan Ministry of Highways and Infrastructure, numerous studies were commissioned and 24 separate public consultation events were held in an attempt to determine the best route for the new roadway. Those studies looked at key factors that would be affected by a new route, and would affect the cost of a new route, such as plans for municipal growth, the movement of commercial goods, the locations of utilities, and existing land uses.

After the studies were conducted, factors were considered and stakeholders were consulted, the route was finalized. The route, officially released in April of 2014, will begin on Highway 11 northwest of Regina, with a twinned highway running south to Highway 1. The Bypass then wraps around south of the city approximately 5 km south of Highway 1. It will then be routed 400 metres east of Tower Road to link back up with Highway 1 on the east side of Regina.

The Bypass provides safer access for surrounding communities, with the inclusion of new Highway 1 overpasses for Pilot Butte, Balgonie, and White City. Each of those communities, including the Rural Municipalities of both Sherwood and Edenwold, were directly engaged throughout the process.

The new Bypass will also provide improved access to key commercial points in the greater Regina area, including the University of Regina and Regina International Airport.

FINDING THE CONTRACTOR
With the plan for the route released in 2014, the Government of Saskatchewan moved forward with the request for qualifications (RFQ) process for finding a partnership or consortium to take on the build – the largest transportation infrastructure project in the province’s history.

The initial RFQ resulted in five groups confirming their interest in being considered for the Bypass project. After careful evaluation, three proponents were selected to respond to a request for proposals.

On May 29, 2015, the Government of Saskatchewan announced that Regina Bypass Partners (originally known as SaskLink Global Transportation Partners) was selected as the winning bidder for the project. The partnership is lead by four companies: Graham, Parsons Canada, Carmacks Enterprises and Vinci Canada. According to the Saskatchewan Ministry of Highways and Infrastructure, the Regina Bypass Partners “… submitted a compliant bid at the lowest cost that includes innovations in design that helped contribute to value for money for the public.”

The project is being built with a P3 model, which a report provided by Ernst & Young estimates will provide Saskatchewan with a savings of up to $380 million over the length of the partnership.

Ultimately, the overall scope of the project includes 12 overpasses, 40km of new four-lane highway, 20km of resurfaced four-lane highway and 55km of service roads.

With a P3, the team building the Bypass must also maintain it in “like new” condition for 30 years, which encourages the use of high-quality materials and long-term thinking in design to reduce costs into the future.

CONSTRUCTION UNDERWAY
Within a few short months of Regina Bypass Partners being officially named as the contractor, work began on multiple sites throughout the length of the Bypass.
From the Ministry: "Construction began in 2015 with site preparation and then geared up with 24-hour-a-day work beginning in early 2016 to move earth materials for the embankments and piling work for an overpass at Trans-Canada Highway 1 and Tower Road on Regina’s eastern city limits."

The focal point for the work in 2016 surrounds the network of interchanges being built throughout the eastern portion the Bypass project.

"Throughout 2016, construction will focus on such work as the overpasses at: Highway 46 near Balgonie; Highway 48 at White City; near Tower Road on Regina’s eastern edge; and at Highway 33 near Regina’s southeastern border along with services roads. Work in 2016 is also expected to include reconstruction of the existing pavement structure on existing lanes of Trans-Canada Highway 1 between Regina’s eastern edge to Balgonie and earthworks and bridge construction on all areas of the project."

Work on the overpasses along the eastern and southeastern portions of the Bypass are expected to be completed by the end of 2017. More than 20 local companies are involved with the current phase of construction in some capacity.

Significant work is now happening throughout the entire project route, including to the west, where an additional eight interchanges will be built. At the same time, work will be done to twin approximately 5 km of Highway 6 south of Regina. Both of the components are scheduled for completion at the end of 2019.

**CONGESTION CONCERNS**

While the Regina Bypass will provide improvements to traffic congestion in the long-term, there are significant concerns in regards to traffic congestion during the construction phase.

"As construction ramps up on overpasses and the reconstruction of the pavement on existing lanes, various portions of this stretch of Highway 1 may need to be closed temporarily to accommodate this work. As well, numerous utility moves have to occur, which will also impact motorists."

In some circumstances, those vehicles can be moved north to Highway 46 before re-accessing the route via the Ring Road. However, there are no suitable options for diverting traffic to the south. More than 25,000 vehicles currently use Highway 1 east of Regina, making it one of Saskatchewan’s busiest sections of provincial highway.

The province has suggested that it will take a combination of strong traffic accommodation plans, in concert with effective communication to affected stakeholders, which will make the traffic disturbances more manageable.

**BUILDING FOR THE FUTURE**

The completion of the Regina Bypass will provide access to growing neighbouring communities, especially to the east, while also providing stronger road access to growth areas in Regina, much like the original Ring Road did decades before. The Bypass will also significantly improve commercial traffic through the region, allowing inter-provincial traffic to easily traverse the Saskatchewan capital.

The entire Regina Bypass project is scheduled for completion by the end of 2019. For additional information about the project, visit: http://www.highways.gov.sk.ca/Regina_bypass.
We appraise,
We plan,
We support,
We deliver.
terex.com/washing
Since its early days doing residential projects with a single truck backhoe and a dozer, Conception Bay South, N.L.-based Farrell's Excavating Ltd., has grown to become one of the top five asphalt producers on the island. And asphalt is not all they do. Farrell's Excavating is a going business. It quarries and processes 500,000 tonnes of rock a year, on average, from its St. John's quarry alone, it operates two mobile asphalt drum plants, it can pave up a storm (2,880 tonnes in one day is its record) and its fleet of tractors and trailers move other companies’ heavy equipment the length and breadth of the Rock and across the Strait of Belle Isle to Labrador.

Their employee figure hit a high of 130 last year, with 40 being full-time jobs, and the rest are seasonal positions.

Owner Billy Farrell, and vice-president, Roger Butler, started the company in 1991, and incorporated it in 1992. Farrells is located on the outskirts of St. John's in Mount Pearl. Here, the government leases quarries to companies, which is how it’s done in these parts. “All quarries in Newfoundland are leased from the government on 25-year leases. They give us quarry rights. In
modular solutions from Telsmith.

There are numerous avenues for minerals processing equipment, unless your OEM is truly a partner. A partner that can provide a full-scale modular solution with design, engineering, manufacturing, site planning, and construction. Telsmith is that partner in the aggregate & mining industry. Partnering with someone who knows the industry and equipment yields a solution that will impact the performance of your site.
the St. John's area, they set aside a district for quarries and lease out blocks to contractors,” Butler explains.

Farrell’s started out with 18 hectares, mined it out, then bought a couple of quarries from contractors that weren’t doing so well. Their entire quarry is active, and they are digging hard sandstone around 20-25 feet deep.

The company runs an Elrus mobile crusher, which can produce 250 tonnes an hour of 3/4-inch road gravel. If it needs to munch rock out on a job site, the Elrus breaks down into seven truckloads of crusher equipment, supported by three truckloads of loaders.

The biggest of Farrell's eleven loaders – the company mostly favours loaders over conveyors to feed the Elrus is a CAT 980. The rest includes CATs ranging from the 950 to 980 models, and a John Deere 444. Its 12 CAT excavators range from a 305 mini-excavator to a CAT 345.

In addition to its finer crushed products, the quarry supplies rock right up to armour stone (loose boulders ranging from six to eight tonnes apiece). For instance, Farrells supplied 40,000 tonnes of armour stone and 88,000 tonnes of blast rock for a ground station in Seal Cove, in Conception Bay South – part of the Muskrat Falls hydroelectric project.

This year Farrell's is busy supplying 25,000 tonnes of rock to Pennecon Heavy Civil for a wharf project in St. John’s harbour.

Its dump truck fleet includes nine tandems, two single axles, 16 twin steers (tandem-tandem) and 14 tractors. The company recently bought new Western Star twin steers.

Farrell’s has also grown a strong asphalt business, but it was tough going, Butler says. “We had a lot of challenges. None of it came easily. Every time we tried something, there was a roadblock. Right off the bat, trying to get quarries. When we got into asphalt, we did a lot of homework."

Now, Butler says, “Paving is our big thing.”

To meet the demand for asphalt, the company runs two mobile asphalt drum plants. The big one is an Astec Six Pack, with a 350 tonne/hour capacity. The small one, a Nomad plant, has a 120-tonne/hour capacity. The asphalt plants spend some time in the quarry, and some on job sites if they are more than 150 kilometres away, or if the project size warrants. “For a small job we take the Nomad. A lot of highway projects here are five, six, seven thousand tonnes, and for these we take the Nomad.

For big jobs, say, 20,000 tonnes, we take the Astec,” Butler says.

Farrell’s uses two CAT asphalt spreaders: a CAT AP600D with a screeed 8 feet to 16 feet wide, and a CAT 1055, with a screeed of 8 feet to 20 feet. “Most of our paving equipment is CAT,” Butler says. The company will take on any job, from paving driveways to the Trans-Canada Highway (TCH).

One TCH project on the books for this year is a mill and fill of a 50-kilometre stretch from Portugal Cove Road to Salmonier Line.

A recent emergency project Farrell’s completed last November demonstrates its versatility as an asphalt-laying, aggregate-supplying, road-building machine. An old culvert crossing the TCH at Kelly’s Pond, near Butternpot, had collapsed, necessitating weeks of detouring traffic. After three weeks of planning, a crew of 20 pounced on a Friday evening at six o’clock, with a strict deadline to complete the repair by seven o’clock Monday morning.

Working in 12-hour shifts, first they dug a trench 75 feet wide, 20 feet deep and 200 feet long, and removed the old culvert. Then, using a 250-tonne crane, they placed two bolted-together 100-foot sections of 12 by 16-foot in diameter culvert, weighing 10 tonnes per section, in the trench. Then they backfilled, paved and had the highway ready to reopen 12 hours ahead of schedule.

The company’s transportation arm is made up of a fleet of low-bed trailers and five tri-axle Western Star and International tractors. Most of them are powered with 500-550 horsepower engines. “We haul a lot of big equipment; for example, D8s, 769 rock trucks, and 773 rock trucks. Since the Muskrat Falls project started up, Farrell’s has been moving a lot of gear up to the top of the Rock, onto a ferry, across the Strait of Belle Isle and then over 500 km of gravel road to Muskrat Falls.

Other transportation gigs include moving everything from booms, manlifts, graders, excavators and loaders to an offshore oil production platform under construction at Bull Arms. They have been feeding that project – one of their biggest – for three years, and have a year and a half worth of hauling to do before it is finished.

Then there is the nickel processing plant under construction in Long Harbour. “The site has been on the go for years now. It will definitely be another two before it becomes fully operational,” Butler says.

There have been challenges in this past quarter century, including the inevitable ones that competitors throw down, the never-ending search for someone willing to sell them their quarry lease, and even the odd moose strike. “It’s almost impossible to get a quarry now because they are all taken up. The only way to expand is to buy out someone else’s lease,” Butler says. But of the quarter decade climbing the ziggurat, Butler sums it up like this: “We’ve had lots and lots of fun along the way.”
When you choose John Deere heavy equipment, support includes 24/7 machine monitoring, remote diagnostic and programming capability, and world-class parts availability. Not to mention annually re-certified technicians backed by factory tech specialists who are ready to drop in when needed. Together, we’re building big things.
Hillhead 2016

The aggregates industry descends on Buxton Quarry

Hillhead returns to the expanded Buxton Quarry in England for the biennial showcase of the newest innovations and technologies for the aggregates industry.

With many of Europe’s biggest manufacturers holding a stake in the Canadian market, we once again present our preview of the newest crushing, screening and conveying equipment soon to debut in North America.

KLEEMANN
At this year’s Hillhead, Kleemann GmbH showcases two mobile crushing plants from the EVO series, which are ideal for use at rotating operation sites. Both the mobile jaw crusher MOBICAT MC 100 R EVO and the mobile impact crusher MOBIREX MR 110 Z EVO2 achieve top results in recycling and in natural stone processing.

Booth Q1
www.kleemann.info

Kleemann is one of the many European-based crushing equipment manufacturers whose equipment is in wide use here in Canada.

SANDVIK
Sandvik is using Hillhead 2016 to highlight the total solutions nature of our world-leading product ranges. This year, the company will focus on mobile crushers and screens, as well as recent developments from customer services. Hillhead will also mark the global product launch of the QJ341 jaw crusher with new pre-screen, which will also be part of the company’s live demonstrations at the show.

Booth J1
www.sandvik.com

TEREX MPS
Terex MPS will be showing two products at its booth at Hillhead. The NEW MJ400R Modular Recycling Jaw and the TSV6203-32 6 x 20 screen box. The MJ400R Modular Recycling Jaw is a new product to the Terex MPS Modular Range. The module is pre-engineered, pre-wired, pre-built and pre-tested and developed so that it can be ready to work much more quickly than the traditional “stick built” plants. The Terex Cedarapids TSV6203-32 screen combines the legendary El-Jay oval stroke with the unique ability to install at various slopes, increasing pro-
You talked about a better way to screen material.

We listened.

Everything you’d expect from a larger machine.
Except all the hassle.

• No shafts, bearings, gears, seals, sheaves or guards means no parts inventory and fewer break downs.
• Change screens on all 3 decks in under 2 hours.
• Up and running in minutes.
• No permits for transportation.
duction and handling more applications than traditional horizontal screens.

**Booth H6**
www.terex.com/materials-processing-systems

**TEREX FINLAY**
Terex Finlay is set to unveil three new products at Hillhead 2016 as part of the company’s largest ever presence at the show. At the show, Terex Finlay will officially launch the NEW C-1540 direct drive cone crusher and 674 3-deck inclined screen. The company will also preview the new I-140RS impact crusher in advance of its launch in Q3, 2016. Also, trained personnel will be on hand to demonstrate the new Terex Finlay T-LINK telematics system.

**Stand L6**
www.terexfinlay.com

**TELESTACK**
Telestack will use Hillhead to globally launch a number of new models. The AggStack range is a series of value added mobile conveying systems designed to meet the needs of the quarry, aggregate, sand and gravel markets. The comprehensive AggStack series combines their range of entry-level radial telescopic stackers, radial fixed length stacking conveyors, truck unloaders, hopper feeders and link conveyors. The AggStack 36 x 140 Radial Telescopic Conveyor will be on display at the show.

**Stand E11**
www.telestack.com

**TEREX WASHING SYSTEMS**
Terex Washing Systems will launch a number of new product lines at Hillhead. First in the new product line-up is the eagerly awaited Modular Scalping Unit. This modular chassis-mounted scalping unit brings operators a durable machine in a modular all-electric format. Another much anticipated launch is the new track mounted AggreStac conveyor range, the first in a new and growing range of Terex conveyor solutions. The show also sees the unveiling of a new ultra-fines recovery system.

**Stand H6**
www.terex.com/washing

**POWERSCREEN**
Powerscreen will showcase an array of existing and newly released products with live demonstrations in the working display area, as well as showcase machines on its booth. Visitors to the demonstration area will see the new generation Premiertrak 400 jaw crusher, along with the Trakpactor 550 impact crusher feeding the Chief-tain 2200 3-deck screen. The Powerscreen stand will showcase the Warrior 600 screen, Warrior 2100 screen, Premiertrak 300 jaw crusher, Premiertrak 600 pre-screen and a 1150 Maxtrak cone crusher.

**Stand L10**
www.powerscreen.com
Kodiak® Plus roller bearings reduce operating expenses by up to 50%.
Patented Tramp Iron Relief System significantly reduces stress.
Patented internal counterweights maintain true balance.
Anti-spin cone brake extends manganese wear life.

TOUGHNESS REFINED.
Back to bauma

Looking back at the biggest headlines from bauma 2016

bauma has quickly become the premier heavy construction show for Europe, but it also has become a showcase for innovation and technology that quickly finds its way to the shores of North America.

This year’s mammoth showcase drew 3,423 exhibitors from 58 countries, along with approximately 580,000 visitors from 200 countries, to Munich, Germany.

We wanted to provide you with a look at some of the news and new releases from the show that will have an impact on the Canadian aggregates and road construction industry.

CAT LAUNCHES THE ‘AGE OF SMART IRON’
Doug Oberhelman, chairman and CEO of Caterpillar Inc., unveiled the “Age of Smart Iron” at bauma 2016. The Age of Smart Iron describes Caterpillar’s strategy to be the industry leader bringing digital solutions designed to improve productivity, efficiency, safety and profitability for customers.

Together, Caterpillar and Zeppelin Cat had 12,000 square metres of exhibit space at bauma ’16. Caterpillar featured more than 60 products, a large selection of work tools and a full slate of dealer-delivered support services.

DEERE LOOKS TO LEAD STAGE V TRANSITION
John Deere Power Systems announced that it is prepared to lead original equipment manufacturers (OEMs) through the transition from Stage IV to anticipated Stage V regulation. The John Deere modular building block approach to emission

Alongside German distributor Zeppelin Cat, Caterpillar ushered in its “Age of Smart Iron” initiative at bauma, focused on further introduction of digital solutions.
WE KEEP IT MOVING.

Customers look to PPI to provide idlers that meet their specific project requirements in the most demanding applications in the world today. Whatever the application may be, make PPI the preferred choice for top of the line conveyor components.
control has led to a diesel particulate filter (DPF) solution that is capable of complying with the requirements indicated in the EU Commission’s proposal COM (2014)581 concerning Stage V emissions. One of the significant impacts expected of Stage V will be the introduction of a particle number (PN) limit for engines in the 19 kW to 560 kW power band, which will necessitate use of DPF technology by OEMs.

VOLVO GOES BIG AT BAUMA
At bauma, Volvo Construction Equipment (Volvo CE) unveiled a host of new excavators, wheel loaders, pavers, haulers and compactors – including the A60H articulated hauler and the EC950E excavator – by far the largest machines of these types the company has ever introduced.

The largest ever articulated hauler and largest excavator are not the only flagship models being launched – several other large general purpose products are also debuting at the show, including the new G-Series articulated haulers. There were 16 product launches in total, along with an entirely new approach to customer services and the launch of a new generation of machine control systems.

POWERSCREEN UNVEILS THE WARRIOR 1400XE
Powerscreen hosted its global launch of the new electrically driven Warrior 1400XE mobile heavy-duty screen at bauma 2016. It was exhibited alongside the Premietrak 600 jaw crusher.

The Warrior 1400XE has been designed to meet the needs of customers for whom electricity is a preferred power source and opens up the possibility to run the machine indoors. It can be powered by electricity generated by other Powerscreen models like the Premietrak 600. The Warrior 1400XE builds on the success of the standard Warrior 1400X model with its single shaft, high amplitude 3.6m x 1.25m (12’ x 4.1’) screenbox and the chassis riser option – by far the largest machines of these types the company has ever introduced.

The Warrior 1400XE and the chassis riser option give excellent stockpiling capacity.

KEESTRACK
Keestrack presented its lineup of mobile crushers at bauma, with a focus on new high-end, high-capacity, large-scale models and the production of high-quality end products. With transport weights of less than 30 tonnes, jaw crusher Keestrack B2 (former Argo) with a jaw width of 1,000 mm and the crusher unit Keestrack R4 (former Destroyer 1011) with add-on screener and oversize material recycler again set industry standards in compact performance and/or high flexibility and efficiency with the most diverse of source materials.

CDE’S NEW SCREENING TECHNOLOGY
The development of the patented Infinity screening technology by CDE will enable the company to bring a range of elliptical, circular and linear motion screens with application in the sand and aggregates, mining, industrial sands and C&D waste recycling sectors. The screens, which were displayed as individual boxes, were also integrated into modular equipment – including the R2500 scalping screen, M2500 ESX modular washing plant and AggMax 253R portable logwasher - to demonstrate its full range of use.

TEREX RE-LAUNCHES DEMAG BRAND
 Terex Cranes made headlines the first day of bauma 2016 by announcing the re-launch of the iconic Demag brand for a line of all terrain and lattice boom crawler cranes. With a compact frame measuring only 14.5m (47.6-ft) long and 3-m (9.8-ft) wide, the 220-tonnes (245-ton) capacity class Demag AC 220-5 all terrain crane is ideal for navigating congested urban streets with ease.

HYUNDAI ADDS TO 900 SERIES WHEEL LOADERS
Hyundai Construction Equipment Americas introduced the HL955TM wheel loader, the newest addition to its HL900 series of Tier 4 Final-compliant wheel loaders. The HL955TM joined the family of six other Hyundai HL900 wheel loader models the company began introducing in 2015 to the U.S. and Canadian markets. The new model is among more than 20 Hyundai construction machines that were on display at bauma 2016.

TRIMBLE’S NEXTGEN VISION LINK
Trimble introduced the next generation of its VisionLink solution for fleet, asset and productivity management. The new version provides easier and faster access to more focused information using targeted apps via any web-enabled device, such as a tablet or smartphone. It provides identical functionality whether users are viewing the information on a laptop or a smartphone, with uncluttered, easy-to-read screens featuring large buttons.

DANFOSS’ NEW PISTON SOLUTION
Danfoss Power Solutions introduced its new MP1 closed circuit axial piston pump, which provides strong modular configuration for manufacturers seeking a reliable medium-power product. The MP1 pump, which is set for a global market launch in Q3 2016 of 28/32 and 38/45cm³ frames, is designed to help OEMs prove proven, precision machine control for customers while speeding up the design process, improving time to market and offering endless possibilities in connectivity and data capture through telematics.

The next edition of bauma Europe takes place April 8-14, 2019. For more information, visit bauma.de.
THE QS331 GYRATORY CONE
YOUR ULTIMATE BASE PRODUCT SOLUTION

You spoke, we listened

- 3 Foot Cone
- 3 Foot Cone Running Costs
- 4 Foot Cone Performance
- 5 Foot Cone Equivalent Feed Size

Our QS331 is able to accept a feed size up to 90% larger than standard cones. Low operating costs, high performance. The QS331 is the ideal solution for your base product needs.

Don’t take our word for it, try it for yourself.

Sandvik 1-800-826-7625
info.mobilecs@sandvik.com
CONSTRUCTION.SANDVIK.COM
Reflecting on 2015

The impact of investing your money

Many investors and analysts made some bad calls in 2015 in a number of areas ranging from interest rate movement to oil price predictions. “So, what else is new?” you ask.

Some were armed with the research, industry contacts, experience and knowledge of how the markets work. You might think all these tools would help them enrich themselves and their clients. To no avail, as oil prices collapsed (taking the Canadian dollar with it) leaving global markets in disarray.

In this column, I will explore some of their biggest and costliest miscalculations and why they occurred – and why others of equal or greater magnitude will keep occurring. I’m not cursing active management. For some investors, this provides them with the experience they seek and they are happy to focus on the prospect of significant short-term gains at the expense of more consistent long-term wins.

Despite evidence that this strategy can be very expensive, they continue to place bets through active managers. For example, in 2015 only 39.62 per cent of actively managed Canadian equity funds outperformed the S&P/TSX Composite Index over a one-year period ending June 30, 2015. That number falls to just 23 per cent over a five-year period. Managers have a tough time being consistent, although some may have good years and then trail off. An investor has no control over an active manager’s choices whether he or she has a good or a dreadful year.

In support of asset-class management, I wrote in 2012 that the debate between asset-class and active management styles goes back to the famous 18th century Scottish social philosopher and pioneer of political economy, Adam Smith. Yet, many years later it remains unresolved in many investors’ minds. This is the result of active managers offering them incentives (the chance for substantial and quick investment returns) rather than evidence. After all, a lucrative and influential industry, which includes most of the mainstream media, has every reason to keep the debate going. Investors who place their hope in their advisor’s stock-picking skills are less likely to jump ship for lower-cost (and lower-margin) asset-class management-based, or passive solutions.

Mistakes will be made for as long as stock markets exist and investors and market “experts” try to actively gain from random and complex events they cannot control, but only try to predict.

"It’s tough to make predictions, especially about the future," is a quote attributed to Yogi Berra. I am not sure why so many people like the quotes of the late veteran of 14 World Series Championships. Maybe it’s because his sayings throw people off with their simplicity when they are looking for something deeper and more complex to challenge them.

That’s often true of investing. Investors who are not content to follow proven strategies often end up in trouble by making investing more complicated than it needs to be. Veering away from these strategies can make their lives unnecessarily complicated and trigger some costly investment decisions. (As you will soon see, 2015 was no different).

This column describes many investors who keep returning to investment strategies that get them in trouble while expecting a different result.

MONKEYING AROUND?

History has proven stock picking and market timing to be games of chance, regardless of how sophisticated the equity research or economic measurement engines. For example, in 1999, a chimpanzee actress in L.A. named Raven posted a 79 per cent gain in her portfolio, then swung a 213 per cent gain the following year. Raven, whose picks were tracked by the now-extinct MonkeyDex.com, amassed her fortune by throwing darts at a board containing 133 Internet-related stocks. As a result of pure luck or innate jungle instincts when it came to dart throwing, Raven would have ranked as the 22nd most popular money manager in the United States if she had actually been managing money in 2000.

Although no one I know has hired a monkey to pick their stocks, the surprises of 2015 caused some investors to re-evaluate all aspects of their portfolio for a successful investment experience.

Here are three examples of 2015’s most prominent miscalculations.
SKILLS CANADA HAS ESTIMATED THAT ONE MILLION SKILLED TRADES WORKERS WILL BE NEEDED IN CANADA BY 2020.

We are at a critical time in the history of the heavy construction industry. Without a concentrated effort to work together to engage the next generation workforce, our industry will not have the skilled labour needed to provide the quality infrastructure that has built our communities for generations.

The Careers in Heavy Construction Expo will introduce students to the industry by providing guidance for the road ahead, a clear picture of the numerous opportunities this industry can provide and a chance to experience the new technologies driving development forward.

With your support, we can help build the next generation of the heavy construction workforce!

Sponsorships & Exhibit space available now:
  > Indoor tabletop display
  > Outdoor equipment display

Space is limited so book today! Contact:
Laura Goodwin
289-928-8543 • lgoodwin@annexweb.com

PREMIER SPONSOR
RITCHIE BROS.

GOLD SPONSORS
STRONCO • Wajax EQUIPMENT

SILVER SPONSOR
GeoShack

PRESENTED BY
ROCK TO ROAD

LEARN MORE ONLINE
CAREERSINHEAVYCONSTRUCTION.COM
OIL PRICES
Forecasters did not expect to see oil at $50 (U.S.) in 2014. And they didn’t expect it in 2015, either, forecasting average oil prices of $65 to $70 for the year. Many were hoping (hope is not a strategy) that OPEC countries, having declined to cut volume late in 2014, would finally curtail production and stabilize oil prices in the first half of 2015. As well, many experts underestimated the extent of the global slump in emerging markets due to headline data that understated China’s marked deceleration. As a result, forecasts with a 2014 date on them were too optimistic about Canada (and the U.S.). Many economies suffered from the dramatic decline in oil prices and took those who remained sold on bullish “Texas Tea” predictions down with them.

THE LOONIE
In another example of misguided assumptions in 2015, many forecasters were expecting that the loonie, in U.S. dollar terms, would be worth between 82.75 cents to 85.5 cents. This hope was bolstered by the assumption that oil would be worth approximately $70 a barrel. As a result of the drop in oil prices, the loonie hit a new 12-year low during the week of Dec. 14, closing on the Friday at 71.71 cents. The 16 per cent decline was the second-largest annual drop in the currency on record. Only 2008 was worse.

INTEREST RATES
Many economists were caught flat-footed when instead of raising interest rates as many predicted, the Bank of Canada lowered rates on Jan. 21, marking the first of two decreases in 2015. This was as a result of the U.S. Federal Reserve holding rates at zero for longer than expected, despite U.S. unemployment falling to 5 per cent. In reaction to this, the Bank had to cut rates to lower the Loonie and support exports.

I will close by sharing my five basic strategies to help keep you out of trouble in the investment arena.

1. Don’t try to predict the future or time the market.
2. Develop a good relationship with an experienced financial advisor who shares your values and understands your needs.
3. Remember that most active portfolio managers have historically failed to match the returns of the market.
4. Establish investment goals and commit to a strategy that you can revisit as your financial needs evolve.
5. Read print and electronic media with a grain of salt. They can gain your attention and make you wish you were invested elsewhere – today. That is just entertainment.
6. Remain focused on the long term.

Jim Sanderson is a wealth advisor team with 28 years in the investment services industry. The Jim Sanderson Group at ScotiaMcLeod specializes in creating and distributing wealth for successful individuals and corporations in the aggregate and road building industries across Canada. He helps his clients supported by a team of experts in insurance, merchant banking, trust and estates. Jim can be reached at jim.sanderson@scotiamcleod.com and his website is located at www.jimsandersongroup.com.
IMAGINE WHAT’S NEXT.

Get the ultimate view of where construction is going.

Join us at CONEXPO-CON/AGG 2017 for a never-before-seen look at where your industry, your career, and your business are headed.

The show is advancing to a new level and there is a buzz already starting. You can be a part of it.

Find out first at www.conexpoconagg.com/future

March 7-11, 2017 | Las Vegas Convention Center | Las Vegas, USA
Terex MPS CRH1313R

Terex Minerals Processing Systems has introduced the new CRH1313R portable impactor and screen plant.

The new Terex Cedarapids CRH1313R has the versatility to handle rock crushing, concrete recycling, and asphalt recycling. The highly mobile plant is a complete stand-alone closed-circuit unit with three-product capability.

The plant features a high production Cedarapids IP1313 impactor with a 3 or 4 bar 50" (1270 mm) rotor powered by a Tier 4, 450 hp (335 kW) diesel engine, direct drive to crusher, and 200 hp (150 kW) generator. Uptime is maximized with a heavy-duty undercrusher pan feeder that protects the conveyor belt from damage by absorbing the high velocity discharge from the crusher.

More capacity is possible because of the 5’x16’ (1515 x 4875 mm) patent-pending dual-slope 2-deck screen which handles heavier loads. In addition, the capability to return both screen deck products to the crusher maximizes production.

A rugged 48” x 16’ (1220 x 4875 mm) high-stroke Cedarapids “Advantage” feeder with 60” (1525 mm) grizzly bar or optional stepped tine style grizzly section feeds the impactor.

www.terexmps.com

Flexco Modular Impact Beds

Flexco has added Modular Impact Beds to its line of load zone solutions. Engineered with maximum capacity in mind, while ensuring full containment, the modular beds are designed with universal components that offer effective and affordable load zone protection.

The new Modular Impact Beds feature a 2’ (600 mm) sectional design, which allows the user to choose the layout of their load zone, depending on application-specific performance requirements.

Along with offering total design control in the load zone, the new Modular Impact Beds can also be paired side-by-side with each other to match specific load zone lengths and requirements.

The Modular Impact Beds feature slide-out service in three pieces, offering service to each section right at the conveyor, complete with long-lasting 1” (25 mm) UHMW bars that are designed for use on reversing belts.

Universal components and field-adjustable trough angles reduce lead time and make the Modular Impact Beds easier to service.

www.flexco.com

Are you well-positioned for the road ahead?

Is your wealth protected and are your investments properly diversified?

Find out how a Second Opinion can provide you with the direction you need in these uncertain times. We can help you develop a personalized plan from a comprehensive suite of financial solutions to ensure your goals are on track.

For a complimentary, no obligation review of your portfolio, please call us today.

Scotia Wealth Management®

© Registered trademark of The Bank of Nova Scotia, used by Scotia McLeod. Scotia McLeod is a division of Scotia Capital Inc. ("SCI"). SCI is a member of the Investment Industry Regulatory Organization of Canada and the Canadian Investor Protection Fund.
Investing in Innovation

How strategic investment can help improve productivity

For as long as I can remember the construction industry has been hammered by academics, government and business leaders for having low productivity measures compared to other industries. The sector has also been criticized for poor productivity – being amongst the lowest ranked in developed countries. I’m not entirely sure the measures being used to determine productivity are entirely appropriate, but I do believe there’s a great opportunity for the Canadian construction industry to improve.

THE QUESTION IS: HOW?

There are many ways the construction sector could improve its productivity. However, an investment in innovation has the potential to be the most potent. Some may call it investment in research and development (R&D), but whatever you call it, if a company, or an industry invests in new ways to deliver their offering to the economy, they often find it leads to improvements in productivity, too.

So how much is the construction industry currently investing in innovation? The table below outlines the construction industry’s innovation investment in comparison to other sectors.

It doesn’t take a statistician to devise that the construction industry is well behind in terms of investing in better ways to deliver their offerings. This is a tragedy, and it MUST be rectified. Though the industry is delivering great value to owners and investors, there’s an opportunity to further optimize the way we design, build and operate assets in today’s Canadian construction economy.

GET INVOLVED

Key trends within the global construction economy (globalization, lifecycle asset management, investigation into new delivery models) are creating even greater demand for innovation. The timing of initiatives like the Canadian Construction Association’s CCI Advocacy Program is perfect.

Formed a couple of years ago, the Canadian Construction Innovation program could help Canada become a world leader within the global construction and asset management economy.

CCI’s mission is to instill a new culture for research and innovation in Canadian construction.

If you are not aware of CCI, I strongly encourage you to visit their website – www.ccinnovations.ca/.

There is little doubt that investment in innovation and research within any industry invariably leads to improved productivity and profitability for industry participants.

As you know I’m in the risk game, and so are you, and though productivity and profitability are prime benefits of investment in innovation, there should also be more discussion around the linkage between this type of investment and the lowering of risk. Those of us within the risk industry need to take a leadership role in the efforts of CCI and the CCI Advocacy Program.

FINANCE INNOVATION

The insurance sector spends millions of dollars within the construction industry on risk engineering in order to proactively manage risk, so why on earth wouldn’t it consider financing innovation and research that can lower risk on construction projects (and the resultant operating assets)? The insurance sector should, and I expect will, step up and support CCI and the CCI Advocacy Program, in order to lower risk and create a more fertile environment for profitable underwriting returns.

Ultimately, it would benefit all sources of capital that goes into a project, not only insurance capital, to investigate this association and its initiatives in order to gain more certainty around their investments (i.e., the project finance community).

David Bowcott is senior vice-president and national director of Large/Strategic Accounts at AON Reed Stenhouse Inc.

The column originally appeared in the March/April 2016 edition of On-Site magazine, Rock to Road’s sister publication.
Mack’s mDRIVE® HD heavy-duty automated manual transmission is now available with an extended range of gears—including 12, 13 or 14 speeds, as well as multi-speed reverse gears—allowing you to slow it down for jobs that require extra precision or speed it up to take on your roughest work. Its durable, lightweight design improves productivity while keeping you prepared to do the heavy lifting. No matter what jobs you face, you’ve got the flexibility to dominate them.

MackTrucks.com/mDRIVEHD
The SUPER 2000-3i is an entirely new paver developed specifically for the North American market. Designed primarily for use in highway construction and large-scale commercial applications, which are all about power and productivity.

Other Features:

- 10-foot tracked Highway class paver with a large range of applications and paving widths up to 28 ft. 3 in. (8.6 m)
- Powerful Cummins engine complying with Tier 4 Final emissions standards
- Advanced design provides precise material handling
- Innovative and reliable drive concept for accurate tracking
- ErgoPlus3 with a number of additional ergonomical and functional advantages
- Daily maintenance-free paver with auto-lubrications and more