# Commitment Senvironmental Excellence NRMCA AVVARDS

The National Ready Mixed Concrete Association honors 12 plants in the 2021 Environmental Excellence Awards program. The NRMCA Safety, Environmental and Operations Committee recognizes producers for outstanding contributions to protecting the environment and maintaining sound workplace safety and pollution prevention practices. Now in its 26th year, the awards program salutes operators who surpass permit compliance requirements and demonstrate a commitment to environmental excellence through plant and staff investment.



Entries were reviewed by a panel of judges based on plant images plus narratives covering site aesthetics, environmental compliance documentation, training, water and air quality management, returned-concrete plan, community relations, concrete delivery, and plant sustainability practices. This year's program awards NRMCA producers by Eastern, Central and Western Region categories.

"The NRMCA Environmental Excellence Awards Program were completely revised four years ago. Changes have made it easier for plants to enter, making the competition even tougher, especially in 2021 when we saw a record number of entries," says NRMCA Executive Vice President of Operations and Compliance Gary Mullings. "These plants have demonstrated that they are the 'best of the best' when it comes to being good stewards of the environment."

"This is an excellent example of the ready mixed concrete industry's attention to environmental excellence," adds President Michael Philipps. "These winning entries clearly demonstrate the incorporation of environmental management systems into their plants' operations."

As program co-sponsor, *Concrete Products* joins NRMCA in congratulating this year's entire field of Commitment to Environmental Excellence Awards operators.









www.congreteproducts.com December 2021 • 51

### CHANDLER CONCRETE COMPANY, INC.

# FIRST PLACE

### PLANT 610 • MEBANE, NORTH CAROLINA

Full operation at Mebane began in 2020 under a manager tasked with four ready mixed plants. The absence of office space at three of those sites, each run remotely, contributes to energy savings.

A customized Environmental Management Plan calls for weekly meetings covering accident and pollution prevention, and compels Plant 610 team members to be aware of their impact on the environment. The meetings and call to action will support the manager's NRMCA Green Star Certification efforts.

Central to the Mebane EMS are four settling ponds with an automatic carbon dioxide-based pH treatment system. Meters monitor inbound and outbound flows, and trigger  ${\rm CO_2}$  injection as pH level adjustments warrant. Settled pond water is recycled for truck washout and washdown.

The Mebane Plant minimizes solids build up by processing returned concrete for use as base material. Larger quantities of post-pour mixes are delivered to a local grading and paving company for hardening, crushing and recycling.

Like sister Chandler Concrete operations, Plant 610 reaches out to its community through participation in programs like "Touch a Truck" plus support of United Way and Angel Tree campaigns. Closest to home, the Mebane office is designed for ease of access to all thanks to a handicap parking space and ramp.



The producer promotes accident prevention well beyond the gate, offering customers the Job Safe is Job Smart training program.



An industrial zoned site near several large distribution centers did not stop Chandler Concrete from exercising good neighbor practices: Landscaping along the Plant 610 front elevation serves aesthetic and noise barrier objectives.





# **RUNNER UP**

### MASCHMEYER CONCRETE COMPANY OF FLORIDA

ST. CLOUD PLANT • KISSIMMEE, FLORIDA

The new St. Cloud plant, replacing a dated predecessor a quarter mile away, was built not because of environmental violations or city ordinances, but rather to uphold Maschmeyer Concrete standards. The operation raises the bar for environmental controls, delivery efficiency, site aesthetics and community messaging.

Maschmeyer Concrete sees hands on training as key to implementing environmental compliance procedures. Weekly sessions engage new and existing team members, their effectiveness reflected in results: Outstanding safety and customer service records and unsurpassed environmental management. Anchoring the training program is a 125-page Environmental PowerPoint presentation, complete with 10-page Pollution Prevention Roster and Instruction section and six-page Wastewater Plan, plus standard operating procedure documentation and daily inspection logs.

Good process and storm water management is readily apparent in a Florida ready mixed concrete operation. At the St. Cloud Plant, sound process water handling is indicated in a final settling pond at well below capacity. Maschmeyer Concrete designed the St. Cloud replacement facility with triple settling and pretreatment ponds, affording ample supply of water for vehicle washdown and aggregate watering/cooling, along with a wheel wash station for site-bound mixer trucks.

In the field, the producer leaves nothing to chance by recognizing that timeliness, cleanliness and jobsite performance hinge on training of delivery professionals. Backing them up is the "Triangle of Safety/Environment," comprised of the plant manager, delivery professional trainer and Safety/Environmental Committee member. One Triangle member routinely arrives on a jobsite ahead of mixer trucks to ensure Maschmeyer Concrete's high standards prevail.







The new plant runs refurbished equipment, exceeding Florida Department of Environmental Protection air quality standards and equal to National Ambient Air Quality Standard PM 2.5 criteria. Stephens Mfg. dust collectors serve the tops of overfill detection device-equipped silos, cement batcher and wind-protected loading point.



# **RUNNER UP**

### S&W READY MIX CONCRETE COMPANY, LLC

MURRELLS INLET PLANT • MURRELLS INLET, NORTH CAROLINA

Facility is adjacent to a residential area, inviting special measures to ensure plant operations do not negatively impact neighbors. On the main elevation property line, abutting Highway 707, a 10-ft. wall with distinguishing pillows and pillow caps conveys a message to visitors and passersby: S&W Ready Mix keeps a clean, environmentally friendly workplace.

The plant manager and delivery professionals believe strongly that equipment and site appearance underscore a commitment to the environment. The plant structure, office building and surrounding wall blends nicely with the neighborhood, as do professionally landscaped and maintained

The producer's Driver Training Procedure stresses environmental awareness; fueling, wash-down, spill response and housekeeping are all covered. Each mixer truck bears a spill kit with which drivers can immediately respond to and contain potential release of petroleum or other regulated products. Drivers are also trained in the areas of water and returned concrete management, jobsite washout, and truck washing. Water from the truck wash down area is collected in a two-stage settling basin for recycling in Murrells Inlet Plant operations. The closed loop system conserves fresh water while eliminating the need to release treated process water.

S&W Ready Mix matches water pollution control in air quality management: A central dust collector minimizes cement and fly ash emissions from silos and along a shroud lowered at mixer truck charging point. Captured dust is conveyed to the fly ash silo for reuse. Additional dust control measures include capping power transfer from bulk pneumatic tankers at 10 psi.





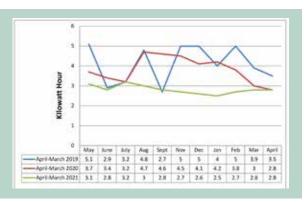




The Murrells Inlet operation holds NRMCA Green Star Certification and earned the Carolinas Ready Mixed Concrete Association Environmental Excellence Award in 2015.

### KILOWATT HOUR/YARD

Parent company Titan America's advanced energy management program sees S&W Ready Mix confine power consumed per yard of concrete output to 2.5-kilowatt hours. Contributing factors: Lower air compressor pressure setting, plus energy efficient lighting and programmable thermostat installations.



# **RUNNER UP**

### SUPERIOR CONCRETE MATERIALS, INC.

DC PLANT • WASHINGTON, D.C.

This urban operation serving the nation's capital was built three years ago and designed with the environment in mind, from a fully enclosed batch plant that reduces emissions, noise and visual impacts, to a bio-retention basin filtering all stormwater leaving the site. Management and team members understand that housekeeping is the base of any successful environmental program, fostering compliance and perceptions of a responsible and environmentally conscious neighbor.

Superior DC deploys the cloud-based Mapistry application to ensure regulatory and permit compliance. Plant managers use the app's dashboard to complete inspections, download past inspection reports, view upcoming or past due tasks, and obtain an at-a-glance view of how their site is performing. The system eliminates guess work by automatically sending reminders of upcoming inspections and tasks, while storing all completed inspections and logs for easy retrieval. Managers tap Mapistry to assign corrective actions or tasks, and track individuals' response through deadlines or due dates. Environmental agency representatives have taken note of the app's effectiveness in helping Superior DC abide air and water permit guidelines.

Beyond pollution prevention, Superior DC proactively responds to construction market calls to curtail carbon dioxide emissions along the value chain. The producer adopted the CarbonCure Technologies platform in 2019, proving how the injection of industrial waste stream-derived CO, gas into batches can contribute to cement optimization and raise finished concrete performance. Carbon-reducing mix designs and use of supplemental cementitious materials, coupled with environmental and safety program success, position Superior DC as a preferred ready mixed concrete provider in the District of Columbia metro area.



An air monitoring system (below, left) tracks DC plant dust emissions 24/7. Monitors were required for six months as a condition of initial air permitting; management elected to keep the devices active. The Mapistry app (below, right) drives air and water permit compliance measures and recordkeeping.





### CARBONCURE PROJECT METRICS

Superior DC has demonstrated CarbonCure-rooted carbon dioxide emissions reduction possibilities on high profile District of Columbia projects, including the 4,000-yd. Washington Area Transit Headquarters under construction. That contract will add to a Superior DC CarbonCure mix roster on track to hit 100,000 vd.





WWW.CONCRETEPRODUCTS.COM DECEMBER 2021 • 55

# If Your Business is the North American



# **Exclusive Listings!**

- Ownership Information
- Corporate Headquarters
- Addresses
- Websites and Phone Numbers
- Main Office Personnel
- Plants, Terminals and Sales Offices
- Brands

### 2022 U.S. & Canadian Portland Cement Map



This Wall Poster-Sized Resource has Been Updated and Revised, Showing the Location of Cement Plants and Terminals.

# Cement Market... Then you need to own

The Completely Updated 2022
North American Cement Directory and
U.S. & Canadian Portland Cement Map

Signature

Published Since 1987, this Authoritative Directory Includes Hundreds of Up-to-Date Listings from Every Cement Company and Plant in the U.S., Canada, Mexico and Central America.

Buy Online: www.cementamericas.com

For credit card orders call: 303-283-0640, ext. 207

Send all checks along with shipping information to:

Semco Publishing 8751 E. Hampden Ave. Suite B-1, Denver, CO 80231

email: Lmestas@semcopublishing.com

Plus applicable sales tax in certain states.

### 2022 North American Cement Directory and Map Order Form

Name:	
Company:	
Address:	
City:S	St: Zip:
Phone:	
Fax:	
E-mail:	
2022 North American Cement Directory	X \$195.00 =
2022 Portland Cement Map	X \$85.00 =
2022 Cement Directory & Map Combo	X \$245.00 =
Plus \$9.95 shipping per bo	ok Total =
Credit Cards: AMEX MC VIS	SA DISCOVER
Cardholder's Name (Print)	
Card Number	Exp. Date

### **CEMSTONE CONCRETE MATERIALS**

### NORTHFIELD PLANT • NORTHFIELD, MINNESOTA

The Northfield plant sits at the end of a village road, near a city park and nature area. Mature trees along the thoroughfare, coupled with plant enclosure, screen stockpiles and operations from public view.

Process water management begins with a weir system that settles solids and affords gray water reuse in truck washing or batching of fresh concrete. Stormwater on the site runs through a system of grass swales before ultimately recharging a wetland located in the adjacent nature area.

All silos and mixing points have dust control equipment. Silo dust collectors have reclaim hoppers so that captured powder can be reused. Most of the Northfield site is paved to minimize vehicle traffic dust; all stockpiles are maintained in concrete bunker block. A visible emissions check for the entire operation is performed daily, with corrective action taken on any observed releases.

The Northfield Plant mixer fleet bears Enviroguard on-board chute washout systems, allowing all water to be pumped back to the drum while filtering out sand and rock to be reclaimed. The water is then brought back to the plant weir system and recycled. All trucks also have spill kits, proper use of which is central to driver training.









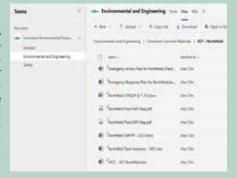
(below, left) Along with permit-driven environmental management measures, the Northfield plant strives to reduce the carbon footprint of delivered concrete through the use of EcoCem Portland-Limestone Cement, or Type IP, in most or all mixes where specifications allow. Water conservation and recycling are also prioritized.



The Northfield plant was integral in bringing insulated concrete forms to local Habitat for Humanity home specs, and is working with the NRMCA-aligned Build with Strength coalition on a Habitat project scheduled for 2022 completion.

### **TEAMWORK**

Cemstone uses the Microsoft Teams communication platform to share updates of all environmental documents with Northfield and sister plants throughout the Upper Midwest. All inspection forms are filled out on an intranet site and immediately available for environmental staff review. Energy, water, and recycled water consumption metrics are tracked monthly.



# **RUNNER UP**

### **CONCO COMPANIES**

### BRANSON PLANT • HOLLISTER, MISSOURI

Trees line the site of a plant serving the scenic Ozarks market in southwest Missouri. Permit compliance at the Branson Plant is rooted in an online Environmental Management System tracking all duties. Reminders flag managers and team members of monthly inspections and related permit compliance tasks. Completed inspections, including image files, are sent for Environmental Director review. All team members participate in annual environmental and safety training sessions, as well as frequent toolbox talks. Supervisors and those responsible for plant environmental inspections receive more extensive training.

Settling basins anchor water pollution control and recycling measures at the Conco Branson operation. All water is collected in the basins and recycled to wash out trucks. Water not tapped from a final settling basin evaporates; hence, treated process water does not leave the property.

A 2021 environmental upgrade brought the Branson Plant a new dust control system serving the central mixed equipment, plus two silo top collectors. The system handles all of the powder going into the plant and controls it as it leaves. A plant enclosure, along with watering of stockpiles and facility haul roads, round out primary dust control measures.

Branson staff makes blocks with most of the returned concrete mixes. If the volume of mix exceeds block forms, concrete is ribboned in a no-discharge area, stirred up until dry, then recycled into a fill material.

Conco participates in many community events, including classroom presentations for schools covering the importance of the construction materials industry and best management practices to protect natural resources. Through cash or material donations, the producer also supports charitable organizations such as Habitat for Humanity, St. Jude Dream home and local DARE program.







# **RUNNER UP**

### INGRAM CONCRETE, LLC

### CHISHOLM TRAIL PLANT #767 • CROWLEY, TEXAS

Ingram Concrete management and team members understand that keeping equipment and operations clean inside and out creates a good first impression with regulators and the communities they serve. At Chisholm Trail, that philosophy starts at the entrance with a manicured lawn and decorative signage. Other factors fueling positive first impressions are routine sweeping, measures eliminating daily track out, trash monitoring, plus dust control equipment preventive maintenance.

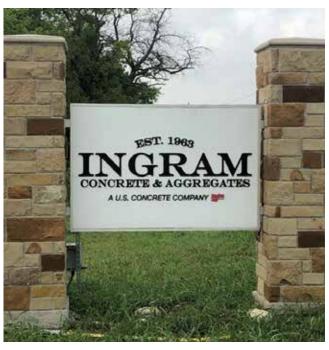
Team members are trained on best environmental management practices, topped by spill and stormwater pollution prevention, plus proper fueling techniques. Training also stresses the importance of reducing water use and consumption while washing down trucks and equipment at the plant or jobsite. Sessions are conducted at onboarding and annually thereafter to ensure each team member understands the company's commitment to sustainability and environmental stewardship.

Water in West Texas is a precious commodity. From an environmental and business aspect, Ingram Concrete aims to optimize use of water resources. A weir system captures and settles 100 percent of Chisholm Trail Plant process water, then recycles it for slump loads, truck wash down and sprinkling aggregate stockpiles. The latter function is part of an overall dust control plan managed through a customized Mapistry software platform.

The Chisholm Trail and sister ready mixed operations utilize best management practices to recycle all unused concrete. Returned mixes can potentially be dispatched to other projects, specifications permitting, or placed in forms to make blocks suited to stockpile containment or public sale. Some returned, hardened concrete is likewise recycled into base used in many construction applications. Material recycling and virgin material optimization at Ingram Concrete begin well before a load is ready to pour: Through its EF Technology—heavy on the use of supplementary cementitious materials and admixtures to limit a mix design's volume of carbon-intensive portland cement—the producer is at the forefront of a market transformation to green building.



Ingram Concrete and sister operations raised nearly \$283,000 last year for Texas organizations through the Redi-Mix Charity Classic golf tournament.



Plant #767 was designed and constructed to blend with the surrounding environment and community.







# **RUNNER UP**

### **VCNA PRAIRIE LLC**

YARD 1001 • BRIDGEVIEW, ILLINOIS

VCNA Prairie executives assist in plant permit compliance training measures, including those for dust control, storm water management and job site chute rinsing. An Environmental Management System covers such training amid a broad range of actions to prevent air and water pollution from one of the Chicago market's anchor ready mixed concrete operations.

Fugitive-dust management procedures require silo baghouse operation during all cementitious material deliveries to Yard 1001, along with proper transfer hose management to prevent accidental powder discharge during hose removal. All admixtures are stored in a steel container with a plate welded at the open end to provide secondary containment. Fully 100 percent of returned concrete is reclaimed, either by casting 4-ft. cubes or at an offsite recycling facility. A large retention pond captures nearly all (> 95 percent) of the Bridgeview site's storm water and supports a variety of fish, turtles and birds.



A closed loop treatment system takes a combination of storm and excess process water from the main retention pond and manages solids and pH via settling and acid dosing, plus cycling through three basins. Additional water pollution control measures at Bridgeview include secondary containment for admixture tanks.







With three ready mixed plants, Yard 1001 and VCNA Prairie headquarters are fixtures for Interstate 55 drivers approaching or leaving Chicago.



VCNA Prairie Yard 1001 sponsors the Bridgeview Police Car entry into the Illinois Law Enforcement Torch Run, where agencies race retired police vehicles on a dirt oval track to benefit Special Olympics.

### MARTIN MARIETTA MATERIALS, INC.

### SUMMIT VIEW READY MIX • FORT COLLINS, COLORADO

The recently opened Summit View Plant is the culmination of years of hard work by environmental, natural resources, planning, man-

agement and production staff members. They designed the operation to reduce air quality impacts, effectively recycle returned mixes and process water onsite, and provide positive visual impacts to the surrounding neighbors—all while providing high quality concrete.

The plant excels in its use of natural landscaping and resources to ensure environmental protection: Cottonwoods and surrounding vegetation were removed from the construction area to foster natural visual buffers and protect from high wind. A garden was planted near the entrance sign with native perennials to safely invite pollinators and welcome incoming traffic. Rock was placed at the entrance and exit roads, and around the stormwater detention ponds, to help lower onsite water use. Staff spread native grass seed at the entrance and in each detention pond to encourage infiltration and filter any runoff exiting the site.

Summit View Ready Mix has a limited area near the east detention pond for recycled concrete placement and storage. Drivers and plant crews take great care in maintaining the vegetated berm and buffers when returning concrete to be collected and recycled offsite. A large weir system is engineered to settle out process water solids prior to reuse in plant operations. North of it are drying bays cast from returned concrete mixes. The bays are placed on a grade so water drains into the weir system.



Summit View Ready Mix leverages CarbonCure Technologies' carbon dioxide injection process for cement optimization and finished concrete performance.

# FIRST PLACE

The plant's next-door neighbor is the Poudre Fire Authority Station 6, a designated gathering point in the event of an evacuation or emergency. Martin Marietta management is working with the Authority to set up various onsite trainings including height rescue from the silos, and engulfment retrieval using the aggregate piles.

Located in a unique area of Fort Collins, Summit View Ready Mix services mountain, rural and urban jobsites. Drivers are trained to handle various hazards in different settings, including spilled concrete, petroleum leaks, and proper jobsite washout practices. They complete spill training and emergency response before delivering their first load, and participate in annual sessions to reflect on plant and field incidents.



In response to input from the public and local government, the enclosure for the Erie Strayer batch plant is constructed to resemble a commercial warehouse, hiding conveyors, aggregate hopper and weigh scales. Silos and baghouses are placed behind the plant and custom painted to disappear into Colorado's signature blue sky.





# **RUNNER UP**

### CALPORTLAND CO.

### DUWAMISH READY-MIX • SEATTLE, WASHINGTON

In a tightly regulated market with steady precipitation throughout the year, water capture, treatment and pollution prevention factor heavily in the Duwamish Plant Environmental Management System. The facility evidences CalPortland's commitment to staying current on environmental research and adapting plant operations as sustainable technology unfolds.

The Duwamish Plant's process water treatment system consists of a reclaimer; primary and secondary settling ponds; filter press; clear water pond; 90,000-gal. receiving tank; four 40,000-gal., cone-bottomed water treatment tanks; and, three hydrochloric acid storage tanks. A low, perimeter concrete wall prevents process water from entering the Duwamish River. Collection and treatment infrastructure is equal to nearly 100 percent of the site's process water load, which can reach 10 million gallons in a year.

The site's previous dust collectors were 99.9 percent efficient and had an aggregate cfm capacity of 12,000. In 2021, crews installed new collectors operating at 99.99 percent efficiency with aggregate cfm of 15,000. All cementitious materials silos have indicator lights to prevent overfill.

No concrete mix returned to the Duwamish Plant is sent to landfills. Approximately 10 percent is poured into block forms and 85 percent processed through the aggregate recovery system, accounting for more than 70,000 tons annually. The remainder of returned concrete is transported to an offsite recycler, where it is processed into a variety of manufactured aggregate.

In the course of serving complex projects on the hilly terrain of central Seattle, Duwamish Plant drivers make hundreds of decisions that reduce waste and prevent spills. They monitor their drum speeds, encourage customers to order clean ups versus full loads, carry spill kits, secure Shute Shutter devices capping chute ends, and keep their trucks clean.



Duwamish Plant crew members, well trained in spill prevention procedures, demonstrate their cleanup capabilities for fuel a neighbor released on a shared access road. Quick, deft response prevented any pollutants from entering catch basins and the Duwamish River.





The Duwamish Plant's environmental profile reflects the merits of material delivery by barge, which proves 75 percent more efficient than trucks while curtailing road dust and release of pollutants from tire and brake wear. The operation's extensive water management system includes a filter press, yielding water with low suspended solids properties.



### **ROCK & RAIL, LLC**

### HIGHWAY 34 PLANT • JOHNSTOWN, COLORADO

The Highway 34 Plant was designed to blend with the Weld County agricultural landscape by mimicking the look of a large red barn. Vegetated berms, trees and custom designed decorative block walls engulf the site.

Rock & Rail management views employee and external stakeholder involvement as critical to ensuring continued full environmental compliance. The Highway 34 Plant sports multiple air emission control devices or measures, among them: Paved high traffic areas and roadways; wrapped silo top baghouses; central dust collector; plant blowers for bulk cement tankers; high inventory light and shut off valve for cementitious material overfill protection; and, cameras mounted on potential dust creating activities for constant batch office surveillance.

Drivers at the northern Colorado plant are especially geared for urban and mountain navigation, enabling focus on priorities like concrete spill prevention and accidental petroleum release response. They are likewise trained on proper truck washout practices, especially on jobsites or in proximity to wetlands, storm drains and roadways.

Returned concrete is either placed in block forms or spread to dry on the south side of the facility. Hardened material is removed to an offsite location for crushing, processing and recycling. Highway 34 Plant team members take great pride in their operation and the surrounding community. As a result, all aspects of the site have been improved or adapted to ensure maximum efficiency and complete ongoing environmental compliance. Team members' continued dedication to environmental stewardship is apparent at every turn.



One employee-suggested plant feature is an internal watering system at loadout. It cools the drum during summer months and provides additional point source dust control during truck charging.

# **RUNNER UP**





A recently added Shumaker Load & Go wash system reduces by at least 50 percent the normal truck wash down cycle and water consumption volume. All Load & Go water is captured in a nearby pit and pumped back to the weir system for reuse.





### ENVIRONMENTAL AWARDS

# **WESTERN REGION**

# **RUNNER UP**

### **WESTERN ROCK PRODUCTS**

FORT PIERCE READY MIX • ST. GEORGE, UTAH

Age does not prevent this operation from being a top performer for Western Rock Products, thanks to a team that prides itself on plant cleanliness and organization, starting with a daily yard sweeping regimen.

A standard Environmental Management System for Fort Pierce Ready Mix and sister plants entails a headquarters team visit, viewed as a coaching opportunity tied to the corporate Sustainability Excellence Award program. Sites that demonstrate 100 percent compliance with safety and environmental regulations, then go above and beyond through housekeeping and sustainability projects receive internal Gold Standard Facility recognition.

The EMS informs process water and dust management. All water from ready mixed production and truck washing is directed to a concrete-lined pond, the nucleus of a closed loop recycling system. The water is allowed to settle out and pumped into a secondary pond, which supplies the truck washing station. Vents on top of every cement silo curtail dust releases during batching and silo loading. Additionally, the immediate area around the batch plant is concrete and kept clean to prevent truck traffic dust.

Concrete mixes returned to the Fort Pierce site are used to cast blocks. If all forms are full, material is spread on a pad, then stockpiled and crushed for road base. Upon returning from every delivery, Western Rock drivers proceed to a wash station, ensuring vehicle appearance for the next load is spot on.



A manager enlightens fourth graders on what Western Rock does as a company and how aggregates build our world.





The Fort Pierce Plant holds 11 Gold Standard Facility Awards from Western Rock Products, part of the CRH Americas Materials business.



