

STANDARD BEARER

IN PLANT DESIGN, FEW MATCH CEMSTONE FOR STYLE, FUNCTION AND BUILDING IT RIGHT THE FIRST TIME

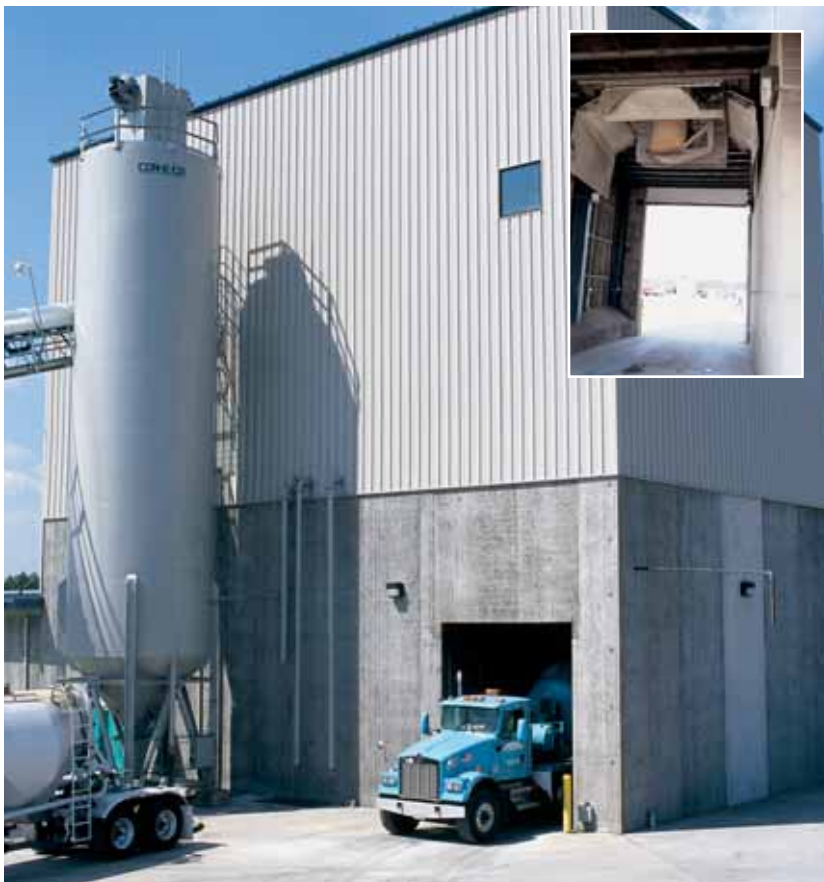
BY DON MARSH

To augment dust control, trucks charge with one of the alley overhead doors closed. Plant equipment suppliers Con-E-Co and Command Alkon programmed the charging scheme whereby the chute height is automatically adjusted for rear or front discharge mixer – according to truck number entered by dispatch – and the appropriate door closed during loading.

Environmental, safety, and aesthetic standards that have made Cemstone Products Co. a leader in ready mixed concrete and plant design abound at the company's newest greenfield site. The East Bethel, Minn., facility attends to short- and long-term maintenance and capacity issues, while using a wealth of concrete pavement and building techniques as consumer and contractor merchandising elements.

"Our North Metro facility is a showcase of the latest construction materials and ready mixed concrete technology," says Cemstone President Thor Becken. "Construction features and product displays show insulated concrete forms for home building, cast-in-place walls, pervious pavements, architectural concrete slabs and decorative countertops."

Cemstone North Metro is equal parts function and style: Galvanized steel is used for prominent plant details, most notably the main conveyor shield, and at moisture-laden material handling points seldom seen. Low-wattage, compact florescent bulbs illuminate key batch plant components to improve safety and productivity for staff charged with routine equipment checks and tweaks. Tilt-up concrete walls satisfy local building ordinances and demonstrate a cast-in-place plant enclosure solution in a market loaded with hollow core wall and conventional precast panel capacity. And, decorative flatwork is used in outdoor displays and interior flooring to remind prospective buyers of Cemstone's custom mix capabilities and the Twin Cities' strong pool of competent finishers.



PHOTOS: Concrete Products



Process water is captured through a conventional settling pond structure, with clarified water held for truck washout and production of non-spec mixes. The plant is equipped to use gray, well and hot or cold water, the latter two types from tanks within the main enclosure. A dearth of crushed stone in the Twin Cities market makes short work of selling settling pond solids or leftover concrete as fill.



Dedicated last month, the East Bethel property has a single-alley transit mixed plant with a Cemstone Contractor Supply store. It lies about 30 miles north of Minneapolis-St. Paul along Minnesota Highway 65, a four-lane route dotted with new big box retail stores. "The Twin Cities market has no natural growth barrier, and development is following a 360 degree course from the Minneapolis-St. Paul core," says Cemstone Vice President of Operations Tim Becken. "We had been working on a site for four years, knowing growth will continue up Highway 65."

TOWN CONVENANTS

North Metro is Cemstone's first greenfield site since 2001, he adds, although the company averages one or two new plants or major plant upgrades annually. With a population of just over 10,000 and limited tax base, the town of East Bethel was not necessarily waiting with a permit in hand for any concrete operator wishing to set up shop. Prior to closing on the Highway 65 plot, Tim Becken notes, Cemstone considered five other town sites, including one next to a Superfund-listed landfill. Complicating development of that location, pollution aside, is the land's designation as habitat for the endangered sand hill crane.

The ultimate site provides Cemstone perhaps the quickest routing to the bulk of future development along the immediate corridor. The plant and store rise

above a storm water containment plain and hay field on a 3.5-acre, concrete-paved platform framed by layers of 2-ft. x 4-ft. concrete block with split-face texture. Consistent with neighboring towns' construction guidelines, East Bethel required the company to limit the amount of metal building exterior – for North Metro, along the batch plant enclosure's upper half – while recycling process water and containing storm water runoff on site.

Exterior design goals are achieved by combining tilt-up concrete and metal wall panels. Process water captured from alley and truck-routing areas is clarified through conventional settling ponds and a main holding tank. In addition to feeding the truck washout stations, the recycled-water tank can be tapped for production, joining the plant's well and temperature-controlled water sources. Provisions Cemstone made in the construction include an oversized well with additional water available to the local fire district.

The East Bethel property enables Cemstone to gradually branch outward from the Twin Cities toward central Minnesota markets where it has expanded through acquisition in the past decade. The plant sources aggregate from a company pit in Braham, Minn., about 30 miles north. Counting the North Metro operation, plus recently acquired Lambert Ready Mix in Carlton, Minn., Cemstone has 40-plus plants in a 100-mile radius from the Twin Cities, covering Minnesota and western Wisconsin.

The combined ready mixed plant and Contractor Supply model especially suits smaller or lower-volume locations. East Bethel plant staffing requirements are limited, as the property is part of a new three-region central dispatch platform supported by Command Alkon Commandseries technology.

The Contractor Supply store complements the ready mixed business with finishing tools, surface treatments, pattern-stamping tool rentals, and insulating concrete forms. The East Bethel store design takes full advantage of opportunities to merchandise colored flatwork and (Cemstone staff-fabricated) counters, plus ground-face concrete masonry units from the company's lone block plant.

A row of decorative flatwork samples showing color or stain schemes, and pattern stamping or stencil options abuts a parking area adjacent to the store and opposite mixer and dump truck routing. Accompanying each sample is a description of pattern and pigments, stain or surface treatment from L.M. Scofield, for whom Cemstone is a well established distributor. The producer has developed the Twin Cities market for decorative, premium flatwork sufficient to support installation of automated pigment-dosing systems – stemming from the Master Builders-Scofield alliance – at nine of its ready mixed plants.

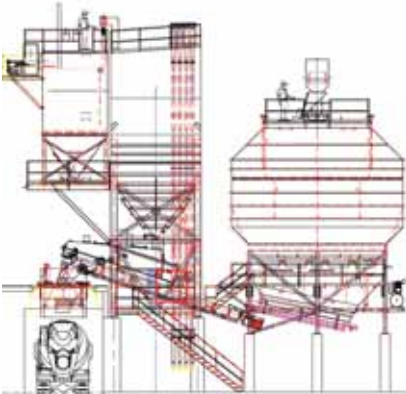
The East Bethel display slabs were finished by Bulach Custom Rock, a long-time Bomanite contractor based in Inver Grove Heights, Minn. The company also provided crews for pervious pavement parking area slabs placed in conjunction with the new plant's mid-July open house and dedication.



Cemstone staff fabricated and erected the batch plant enclosure's tilt-up wall panels, complete with deep rake finish. The panels demonstrate tilt-up concrete and limit the amount (25 percent) of exterior metal skin East Bethel allows in commercial properties. Butler metal building dealer Dernick Construction, New Richmond, Wis., supplied and erected the structure.

Inside, Cemstone lights routinely checked batch plant points. The enclosure houses a six-compartment, 220-ton overhead aggregate bin, plus a square, four-compartment 400-ton silo for fly ash, slag cement and Type I powder. Additional powder storage is provided in the single-compartment, 212-ton exterior silo. A central Con-E-Co dust collector is equipped with 2,000 sq. ft. of filter area – capturing particles at silos, scales and loading points – and full dust reutilization.

Con-E-Co engineered the plant with two scales to expedite cement and aggregate weighing, and more readily accommodate a conversion to central mixed. Easing that change would be minimal iron relocation and enclosure-wall cutting requirements, and ample area for an exterior alley.



Many plants have been integrated into a three-region central dispatch platform installed this spring at company headquarters in Mendota Heights, between Minneapolis and St. Paul.

East Bethel is among 14 properties combining ready mixed production plus Contractor Supply stores offering aggregates; tool sales and rentals; surface treatments; masonry supplies; and, insulating concrete forms. In the Twin Cities, Cemstone has three stand-alone Contractor Supply stores, which along with much promotion and contractor training have helped the company become the country's largest ICF (Reward Wall Systems) distributor.

The Cemstone plant nearest to North Metro is 25 miles south in Blaine, a large, Minneapolis-bordering suburb that would be home to the proposed Minnesota Vikings Northern Lights Stadium Development – Minnesota's Sports, Retail & Entertainment Center. Currently under review in the Minnesota legislature, the commercial and residential project would be anchored by an open-air football stadium with much financing from New Jersey real estate developer Zygi Wilf, who acquired the NFL Vikings franchise in mid-2005. Augmenting the

Building it right the first time, Cemstone applied specs from previous new plant and upgrade projects to North Metro. Eyeing low maintenance, the company uses galvanized steel for the main conveyor and under-conveyor pans; a tunnel conveyor, suspended to eliminate floor-mounted supports; and, a turbine-type tunnel vent. Charging the tunnel conveyor are four 80-ton drive-over bins. Like the remainder of the plant perimeter not bordered by road, the ramp is framed in 2- x 4-ft. blocks cast in Landscape style forms from Cemstone's Minnesota neighbor, Duluth-based Design Pro.

center master plan are a soccer complex and the Tournament Players Club of Twin Cities golf course, both recently built, that have helped make Blaine a sports destination.

The Northern Lights plan follows the Minnesota legislature's approval of funding for new Minnesota Twins baseball and University of Minnesota Gophers football stadiums in downtown Minneapolis. Those projects, coupled with significant rebuilding of the Twin Cities' Interstate 94 arteries and sustained strength in residential building, bode well for a market leader like Cemstone Products.

