Dakota Plains Ag Center LLC’s new 4.7-million-bushel rail terminal at Napa Junction, SD, northwest of Yankton, SD. Drone photo courtesy of Dakota Plains Ag Center LLC.

Dakota Plains Ag Center LLC
Parkston, SD • 605-935-6791

Founded: 2000
Storage capacity: 14.2 million bushels at five locations
Annual volume: Current: 25 million bushels, projected: 45 million bushels
Annual sales: Current: $150 million, projected: $250 million
Number of employees: 27
Crops handled: Corn, soybeans, hard red winter wheat
Services: Grain handling and merchandising

Key personnel at Napa Junction:
• Matt Winsand, CEO/general manager
• Denise Gorrell, CFO
• Tyrone Bias, vice president-grain
• Lyle Hoeing, terminal manager
• Nicole Myers, office manager
• Kevin Murtla, operations manager/safety director
• Brooklyn Cole, scale operator
• Bo Moysis, elevator operations

Supplier List

Aeration fans Response Rollins@Boone
Aeration system Airlanco
Automation Control Stuff Inc
Bearing sensors CMC Industrial Electronics
Bucket elevators InterSystems
Bulk weigh scale InterSystems
Catwalks Warrior Mfg. LLC
Contractor Hogenson Construction Co.
Conveyors (belt) Hi Roller Conveyors
Conveyors (drag) InterSystems
Dust collection Airlanco
Electrical contractor Muth Electric
Elevator buckets Maxi-Lift Inc.
Engineering VAA LLC, Stockwell Engineers Inc.
Excavation Rachel Construction
Fall protection Hogenson Construction Co.
Grain dryer Zimmerman Grain Dryers
Leg belt Continental Pathfinder
Level indicators BinMaster Level Controls
Manlift Sidney Manufacturing Co.
Motion sensors CMC Industrial Electronics
Office building Pretz Corp.
Scalpers Ferrell-Ross
Screeners InterSystems
Temporary storage Warrior Mfg. LLC
Tower support system Warrior Mfg. LLC
Track construction MGA Railroad
Truck probe InterSystems
Truck scales Rice Lake Weighing Systems

Reprinted from November/December 2017 GRAIN JOURNAL
two-lane highway out to the site from State Highway 50.

Terminal Project

Construction of the Napa Junction terminal began in April 2016, and it went into operation late in September 2017. At the time of Grain Journal's visit three weeks later, no trains had been loaded. However, that wasn't because the facility was unfinished, says Terminal Manager Lyle Hoesing, who joined Dakota Plains two years ago after operating his own private elevator at Tabor, SD. The basis has been telling producers and handlers to hold grain for now.

Dakota Plains took bids for the project and awarded the contract to Hogenson Construction Co., West Fargo, ND (701-281-1742).

"Hogenson won the contract by being able to build exactly what we wanted to build," says Winsand.

Other major contractors taking part in the project:

- VAA, LLC, Plymouth, MN (763-559-9100), provided structural engineering, site development, and loop track layout design, while Stockwell Engineers Inc., Sioux Falls, SD (605-338-6668), did onsite survey work.
- Muth Electric, Mitchell, SD (605-996-3983), served as electrical contractor.
- Rachel Construction, St. Michael, MN (763-424-1500), performed excavation and site preparation work.
- MGA Railroad Construction Inc., Aurora, SD (605-690-1030), built the loop track.
- Control Stuff Inc, Cologne, MN (952-466-2175), supplied automation systems.

Storage Systems

The Napa Junction terminal has 1.2 million bushels of upright storage, the majority in a six-pack of 170,000-bushel, slipform concrete tanks, with four interstices. No grain temperature monitoring system was included due to fast turnaround times, but the tanks were designed so cables could be added later, if desired.

Each tank is equipped with a single AIRLANCO 60-hp centrifugal fan that delivers 1/11 cfm per bushel on corn or 1/16 cfm per bushel on wheat.

In addition to the upright storage, the facility also includes a Warrior 3.5-mil-

Three enclosed, mechanical, 1,600-bushel receiving pits can take in grain at a combined 80,000 bph.
receiving leg with two rows of 16x8 Maxi-Lift Tiger Tuff orange buckets on a 34-inch belt. The pits are serviced by an AIRLANCO reverse air filter system driven by a 125-hp centrifugal fan.

The elevator does not have a distributor. Instead, a series of two-way valves route grain to InterSystems overhead drag conveyors out to storage. Grain may be routed to either an InterSystems 20,000-bph or an InterSystems 40,000-bph gravity screener, matched in capacity to each receiving leg, and/or a set of 20,000-bph Ferrell-Ross scalpers ahead of storage or loadout.

Grain also may be routed to a 10,000-bph propane-fired Zimmerman tower dryer. As of mid-October, the dryer had been test-fired but not yet used for actual grain drying, according to Hoesing.

Shipping Operations

Storage tanks empty onto a 40,000-bph Hi Roller enclosed belt conveyor in below-ground 10-foot-x-8-foot tunnels. The receiving legs double as shipping legs, either one at a time or in any combination. They feed an InterSystems bulk weigh loadout scale located inside a slipform concrete structure and operated by a control system combining elements from InterSystems and Control Stuff. The bulk weigher is rated at up to 100,000 bph.

The scale is set up with a 12,000-bushel surge bin on top, the actual scale below that, and then a pair of 4,400-bushel tanks feeding a trolley-mounted spout. This setup allows for a railcar to be load-ed while the bulkweigher is measuring out the next load. Dust is kept under control during loadout operations by an AIRLANCO reverse air filter system driven by a 40-hp centrifugal fan.

Workers atop railcars are protected by a trolley-type fall protection unit running seven car-lengths and custom-built by Hogenson.

Hoesing comments that no train loadings are anticipated before Jan. 1 due to market conditions, but once they commence, he estimates that loading a 110-car train will take about 4-1/2 hours once crews get up to speed.