Speed and efficiency is important when a grain elevator is a truck-only facility. For Country Partners Cooperative the way to get more speed and efficiency was to add stand-alone receiving facilities at its Spalding headquarters and at nearby Cedar Rapids.

The two projects, which consisted of one large steel tank, a smaller wet holding tank, a grain dryer and receiving system were added for the 2012 harvest.

“Both locations had little or no space for corn harvest,” says Operations and Safety Manager Josh Hollibaugh says, “and the expansions at both the Spalding and Cedar Rapids locations will increase speed and space.”

The increased speed and space provides shorter truck lines and faster service for Country Partner’s customers, adds Brian Cornwell, Cedar Rapids location manager.

“The increased capacity will also relieve some of the truck traffic at our main Spalding location,” says Boots Seamann, Spalding location manager.

National Builders Inc. dba Agri-Steel Equipment, Hawarden, IA (712-552-1200), was the main contractor for the project and has worked with Country Partners in the past.

Project Specifications
According to Hollibaugh, the two projects

Supplier List
Aeration fans.................AIRLANCO
Bin sweeps...............Sioux Steel Co.
Bucket elevators.............Schlagel Inc.
Catwalks.................Warrior Mfg. LLC
Cleaner....................InterSystems
Concrete foundation.......Vanvoorst
Concrete Contractor/millwright......National Builder Inc.
Conveyors...............Schlagel Inc.
Consulting engineer.........Nohr Engineering Company, LLC
Distributor...............Schlagel Inc.
Elevator buckets ...... Maxi-Lift Inc.
Grain dryer ..........The GSI Group
Grain temperature system ..Tri-States
Grain Conditioning, Inc.
Level indicators.......BinMaster Level Controls
Motion sensors ......4B Components Ltd.
Steel storage............Behlen Mfg. Co.
Steel tank erection ........Allen Steel, Windy Hills
Tower support system ....Warrior Mfg. LLC

Country Partners Cooperative added a standalone grain receiving facility, featuring Behlen tanks, at its Spalding and Cedar Rapids (pictured), NE locations in 2013. Photos by Alex Lord.
were identical except for the large dry storage tanks.

At the Cedar Rapids location, the new Behlen 600,000-bushel dry storage tank stands 123 feet tall at the peak, 98 feet at the eave, and 90 feet in diameter. It also has a 24-cable Tri-States Grain Conditioning (TSGC) grain temperature monitoring system.

The dry storage tank at Spalding holds 747,000 bushels and stands 121 feet tall, 92 feet at the eave, and 105 feet in diameter. It also has a 24-cable TSGC temperature monitoring system.

Both flat-bottom tanks have outside stiffeners and a 5,000-bph Daay bin paddle sweep.

Each tank has a set of six AIRLANCO 60-hp centrifugal fans that provide 1/7 cfm per bushel of aeration, with the assistance of ten 2-hp roof exhausters at Cedar Rapids and twelve roof exhausters at Spaulding.

The wet tanks at Spalding and Cedar Rapids each hold 125,000 bushels and stand 85 feet tall at the peak, 72 feet tall at the eave, and 49 feet in diameter. They each have 7-cable TSGC grain temperature monitoring systems. The flat-bottom tanks have outside stiffeners, a 5,000-bph Daay bin paddle sweep, and have full aeration floors.

Each wet tank has a set of two AIRLANCO 40-hp centrifugal fans providing 1/5 cfm per bushel of aeration, with the assistance of three 2-hp roof exhausters.

At each site, a natural gas-fired 3,000-bph GSI tower dryer was added. Each dryer is serviced by a set of 6,000-bph Schlagel wet and dry legs.

Cornwell says that the Cedar Rapids dryer processed roughly 500,000 bushels of grain and performed well through the 2013 harvest. Seamman adds that the Spalding dryer has processed 800,000 bushels so far in 2013.

Each facility has one 1,300-bushel gravity receiving pit, 10 feet wide by 26 feet long. Each pit feeds a 15,000-bph Schlagel leg equipped with one row of 16x8 Maxi-Lift Tiger-Tuff buckets mounted on a 17-inch belt.

The leg is located inside a 16-foot-x-16-foot-x-150-foot Warrior support tower with switchback stairs.

Each location’s receiving and dry leg feed a double 18-in. Schlagel swing set distributor. The distributor feeds the wet tank and truck loadout tank via gravity spout. Grain runs out to the dry tank via 20,000-bph Schlagel drag conveyor.

Each large tank empties onto a 8,000-bph Schlagel above-ground drag conveyor. A 4,000-bushel overhead welded-steel surge tank at each location is used for truck loading.

Alex Lord, associate editor