

Location: Greenwood, WI

Client: Grassland Dairy

Engineering: Excel Engineering, Inc.

Contractor: Boson Construction, Inc.

Precast/Products: Columns
Beams
Floor slabs
Insulated wall panels
Double tee wall panels
Precast stairs



A LOOK AT GRASSLAND DAIRY

Wells Concrete, Excel and Boson worked with Grassland Dairy, a butter production plant, on five projects over the last ten years. There was much discussion around utilizing precast for a whey dryer before it was ultimately considered for this project. Grassland and Excel Engineering originally considered utilizing a steel frame for the dryers but did provide Wells Concrete an opportunity to propose a total precast frame measuring 115' tall. Wells Concrete collaborated with the dairy equipment supplier for a shell around, and supporting their equipment. A design/build approach helped with column and beam placement which was critical to the dryer's position and its supporting functions.

Grassland contracted four buildings to Wells Concrete, Excel and Boson in 2010; including an intake building, membrane building, dryer, and warehouse.

Description:

Throughout project delivery engineering and drafting was instrumental in keeping this project on track. The size and depth of this project required all of engineering and drafting; Grand Forks managed the intake building. Production realized some success on pouring self consolidating concrete, a necessary factor in USDA's strict finish requirements.

Some interesting quantities on this project:

- 1, 718 precast concrete pieces
- 937 loads = 477,000 miles
- 6,400 yards of concrete—enough to pour a 20' wide road 6" thick for 3 miles
- 530,000 lineal feet of strand = approximately 100 miles of strand
- 34,000 hours plant labor = 1 man working for 17 years