#### **GRAIN/SEED PROJECTS**

### US Grain, New Sharon, Iowa

Design bin foundation and tower structure, 2007

## US GRAIN, Vinton, Iowa

Design of 150' bin foundation, 2007

#### CONSOLIDATED BLENDERS, Guntersville, Alabama

Design structural repair of alfalfa pellet storage facility after fire, 2007

# FARMERS COOPERATIVE ELEVATOR, Ida Grove, Iowa

Design foundation for grain bin, 2003

## FARMERS COOPERATIVE ELEVATOR, Woolstock, Iowa

Investigation of cause of major explosion and design repair of facility, 2002

# FARMERS COOPERATIVE COMPANY, Ida Grove, Iowa

Design foundation for 105' grain bin, 2002

## FARMERS COOPERATIVE COMPANY, Buckeye, Iowa

Evaluation of concrete elevator, 2002

# UNITED COOPERATIVE, Webster City, Iowa

Evaluation of clay tile elevator, 2001

## AG VALLEY COOPERATIVE, Bartley, Nebraska

Structural evaluation and repair design of wood elevator, 2001

### SWISS VALLEY AG SERVICES, Monticello, Iowa

Grain bin manhole inspection, 2001

Evaluation of structural integrity of existing manholes on four concrete tanks

#### HEART OF IOWA COOPERATIVE, Nevada, Iowa

Design of grain bin and conveyors, 2001

## USDA - PLANT INTRODUCTION STATION, Iowa State University, Ames, Iowa

Seed Storage Cooler, 2001

### CARGILL NUTRENA, Smithton, Missouri

Footing design for overhead bins, 2001

Design footings for overhead bins and connection of girders and columns to existing wall.

#### FARMERS ELEVATOR COOPERATIVE, Pleasant Hill, Iowa

Rail loadout, 1999

Development of new facilities for receiving storage and 25-car rail loadout.

## HEART OF IOWA COOPERATIVE, Nevada, Iowa

Grain Storage, 1996

Drawings, specifications and site observation of 100 rail car loadout with supporting grain storage and receiving.

# GOWRIE ELEVATOR, Gowrie, Iowa

Grain Elevator Repair, 1994/95.

Site observation, analysis and report on concrete elevator tanks damaged in an explosion. Design and construction observation of installation of reinforced shotcrete liners.

## STEWART INDUSTRIES, Florence, Illinois.

Barge Load-out, 1995.

Design of a grain handling barge load-out tower, catwalk and conveyor support from a grain elevator into river barges.

## UNIVERSITY OF MINNESOTA, Becker, Minnesota.

Sand Plains Research Farm, 1992.

Drawings and specifications for a 2,400 square foot post frame seed sample preparation facility.

# UNIVERSITY OF MINNESOTA, Grand Rapids, Minnesota.

North Central Experiment Station, 1992

Drawings and specifications for a 3,600 square foot field crop laboratory with lab rooms, offices, meeting room, and a machinery storage area.

## UNIVERSITY OF MINNESOTA, Morris, Minnesota.

West Central Experiment Station.

Drawings and specifications for a 6,500 square foot agronomy research facility complete with labs, computer room, offices, and machinery storage area.

## IOWA STATE UNIVERSITY, Ames, Iowa.

Grain Center Specifications, 1991.

Preparation of Contract Document Specifications for receipt of bids on grain drying and storage system including bins, drying and stirring equipment, bucket elevator and tower, conveyors, temperature monitoring equipment and controls. System design by ISU.

# HENDRIX TOWN AND COUNTRY, La Hogue, Illinois.

Elevator Leg Tower Foundation, 1991.

Design and drawing of foundation for bucket elevator support tower.

## LAWN HILL COOPERATIVE COMPANY, New Providence, Iowa.

Grain Elevator Repair, 1991.

Site observations, analysis and report on existing concrete elevator tanks. Design and construction observation of installation of reinforced shotcrete liners for two concrete grain tanks.

## FARMERS COOPERATIVE COMPANY, Ledyard, Iowa.

Grain Elevator Repair, 1991.

Site observations, analysis and report on existing concrete elevator tanks. Design and construction observation of installation of reinforced shotcrete liners for two concrete grain tanks.

## SCOULAR GRAIN COMPANY, Venango, Nebraska.

Grain Elevator Repairs, 1990.

Analysis on existing concrete elevator tanks. Design and construction observation of I installation of shotcrete liners for 3 concrete grain tanks.

## CENTRAL IOWA COOPERATIVE, Stanhope, Iowa.

Grain Elevator Repairs, 1990.

Analysis on existing concrete elevator. Design and construction observation of installation of shotcrete liners in two concrete grain tanks and supports for overhead bins.

## FARMERS COOPERATIVE AND FEED COMPANY, Cresco, Iowa.

Wood Cribbed Elevator, 1990.

Site observations, analysis, report and recommendations on structural condition of wood cribbed elevator.

# GOOD SEED AND GRAIN COMPANY, Omaha, Nebraska.

Site observations and recommendations for concrete grain elevator, 1990.

Site observations, report and recommendations to insurance carrier on concrete grain elevator annex adjacent to wood crib elevator destroyed by fire.

## GOLD-EAGLE COOPERATIVE, Goldfield, Iowa.

Workhouse and Receiving Revisions, 1989.

Preparation of drawings and specifications for receiving area and upgrading of grain elevator equipment, including receiving building, extension of two bucket elevators, supporting super structure on headhouse roof, grain cleaners, distributor system, and drag conveyor.