

Project Location: Treynor, Iowa

Project Overview: Evaluate grain tower structural failure.

- A 10' x 10' x 120' grain tower that collapsed during a wind storm.
- Determine likely cause of the failure.

Project Services:

- Performed site visit and thoroughly documented the failure site.
- Researched the manufacturer's installation recommendations. Noted that welding of anchor rods was not according to manufacturer's recommendations.
- Determined minimum design loads based on International Building Code requirements.
- Calculated minimum weld requirements.
- Concluded welds were insufficient, which led to failure during wind storm.
- Submitted final report stating observations, analysis, and conclusions.

Photos:



Base of collapsed tower.



Top of collapsed tower.



Foundation pad with two legs detached.



Base plate of tower leg.



Failed anchor bolt weld.



Failed anchor bolt.