Todd Russell Kendell

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Qualifications & Skills

Master's Degree (Structural Engineering) Dec 2013
Utah State University
Bachelor's Degree (Civil Engineering) Dec 2013
Utah State University

Professional Engineer – Licensed in Utah, Colorado, North Dakota, South Dakota, Nebraska
Engineering: Risa 3D, RAM, SAP2000, CAD
Computer: Microsoft Office, Word, Excel, DevOps
Programming: HTML, CSS, JavaScript, Excel VBA, SMath, R

Job Experience

Division Resource Alpha Tester - Nucor Building Systems Jan 2023-Present

- Provided customer service to engineers for software questions and troubleshooting by collaborating with them and gathering information and then through testing determined solutions.
- Helped diagnose errors in software. Provided error feedback by working with the developers to pin point issues.
- Trained new personnel on how to test software and give proper feedback.

Division Resource Beta Tester - Nucor Building Systems Jan 2022-Dec 2022

- Tested software for current development and provided feedback for issues found.
- Took initiative to train the other testers more of the engineering principles behind the software. This increased out testing efficiency and capacity due to a greater understanding of what we were testing and why.

Design Checker - Nucor Building Systems Jan 2017 – Dec 2021

- Checked 200+ jobs each year for safety and quality assurance.
- Collaborated with and trained 15+ engineers through looking over their designs and helping them understand things they missed and how to better communicate their designs to downstream customers.

Design Engineer - Nucor Building Systems Jan 2014 – Dec 2018

- Designed hundreds of jobs on time with zero quality issues.
- Created 40+ tools using RISA, excel, excel VBA, and CAD to standardize practices and increase efficiency. This improved communication to downstream customers and reduced the amount of time required by at least 30min/tool.

Quote Engineer - Nucor Building Systems May 2013 – Dec 2013

- Estimated the engineering required for up to 5+ projects a day according to building code requirements.

Engineering Intern - Nucor Building Systems Aug 2012 – May 2013

- Worked on preliminary drawings and reactions for customers and increased turnaround time for customers.

Engineering Intern - Nucor Vulcraft May 2012 - Aug 2012

- Worked with engineers to review plans and designate the loadings for each member of the structure.
- Analyzed production equipment for capacity throughout the facilities.
- Designed joists to test new designs and look for desired outcomes.

Technician I & II - Thermofisher Scientific Mar 2010 – Aug 2011

- Was in charge of training and supervising new employees while maintaining zero quality issues.
- Worked with highly technical equipment with zero safety occurrences.
- Studied new procedures and equipment and helped with improving them for a safer and more efficient process.

Engineering Projects

Real Salt Lake Soccer Office / Team Rooms (Phase C) May 2016 - Sep 2016

The project was for the professional soccer team in Utah. This project was broken up into 3 phases for ease of design. My portion of design was a 3-story building. It utilizes Special Concentric Braced Frames as the resisting system. I used a Risa 3D modeling software to design the entire project. I also performed several hand checks for the SCBF's. I created additional models to analyze different parts of the structure due to some software limits. I also helped check the truss frame portion that spanned over 400ft, largest in North America for a metal building.

King's Chapel Oct 2016 - Jan 2017

This project was a 2-story building in Alaska. It utilized Buckling Restrained Braces for the resisting system. I analyzed and designed the frames and coordinated with the BRB manufacturer to design the braces. I performed the checks to verify beams and columns were adequate using RAM design software. I also designed the braces for bracing the BRB system and used Risa 3D for stability checks.

Audi Showroom Dec 2014 - Mar 2015

This project had a curved mezzanine and was in California. The structure also required the use of Special Moment Frames. I analyzed and designed all of the frames. I also designed all of the special bracing by hand that goes with SMF structures. I used Risa 3D software to help analyze and design the mezzanine. I designed all primary and secondary members for the structure.

1508 B ChandlerH Oct 2015 - Nov 2015

This project was an elementary school in Arizona that has 2 stories and used shear walls for the resisting system. I analyzed the mezzanines (stories) with Risa 3D software. I also designed the diaphragms of each level by hand using the IAPMO Report. I had to coordinate with the Engineer of Record to get the proper loadings into the shear walls and come up with connections to transfer the loadings as well. It had 12 buildings that were all next to each other that I had to design for sharing loads or provide seismic separation. I designed all primary and secondary members for the structure.

Bedrock Building B and D Oct 2014 - Nov 2014

This Project had a future mezzanine (story) which required the use of Intermediate Moment Frames. I calculated the fundamental period of each frame to determine the period of the structure. I then analyzed and designed each frame using its period. I designed all primary and secondary members for the structure.

NAU Center for Aquatics and Tennis Apr 2014 - Aug 2014

This was for Northern Arizona University and used Ordinary Moment Frames. It also linked up to another building so I had to coordinate with other engineers for proper fitment and separations. I analyzed each frame and designed all primary and secondary members for the structure.

Harris Thermal Manufacturing Mar 2014 - Apr 2014

This job was located in Montana and used Ordinary Moment Frames. It also has (4) 30 Ton cranes. I analyzed all of the resisting frames and bracing with the crane systems. I designed all primary and secondary members for the structure.

Claremont Colony Aug 2015 - Oct 2015

This project had Ordinary Moment Frames with roof joists instead of purlins (cold form). I had to analyze each frame and do some additional checks for the flange bending forces they see due to the joists. I designed all primary and secondary members for the structure.