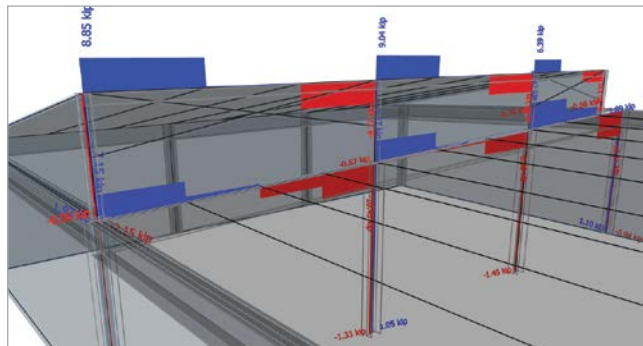
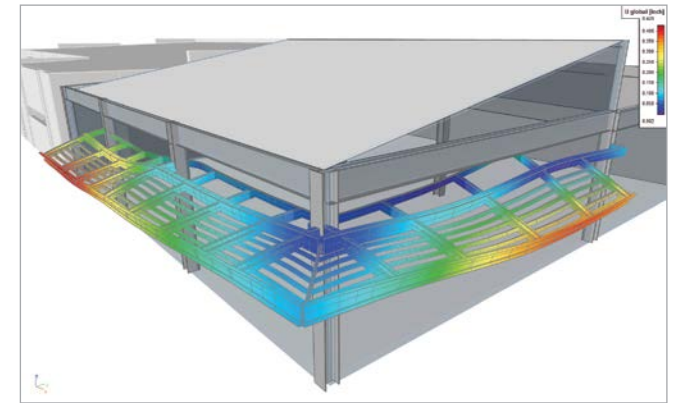
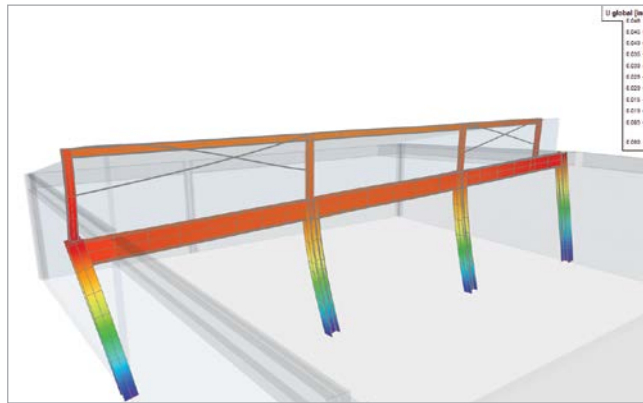


Owner The City/County of Twin Falls, Idaho
 Architect CSHQA
 General Contractor n/a
 Engineering Office Riverstone Structural Concepts
 Construction Period 05/2015 - 03/2016

The Magic Valley Airport Terminal Expansion and Remodel is an 8,000 ft², \$2.9 million addition to the existing Magic Valley Airport. The gravity system is steel deck over open web steel joists that are supported by steel wide flange beams. In some cases, the architecture called for the use of curved roof joists. Wide flange columns were used, which for the majority of cases doubled as the lateral resisting moment frame system.

The project utilized an OpenBIM workflow by exchanging models as IFC files. Architectural BIM models generated in Revit were exported as an IFC file to ArchiCAD where they were modified for structural use. Then the ArchiCAD file was exported via IFC to Scia Engineer for model construction, loading and engineering analysis.

We used Scia Engineer's 3D wind load generator to aid in the wind loading of the structure and the built-in steel deck diaphragms to accurately deliver the appropriate loads to the resisting elements. As with any self-supporting structure adjacent to an existing structure, it was required that the deflection of the new building was analyzed carefully. Scia Engineer helped dial in on this number reducing the required gap significantly.



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At Riverstone, we are committed to providing our clients with unmatched customer service and high-quality drawings. Our structural engineers are creative by nature and thrive on finding effective solutions to challenging projects. We take pride in being an integral part of the design team and recognize the importance of first-rate customer service in all that we do.

