



Halle Senger
Biographical Sketch
“The Future of Existing Buildings”

Halle Senger is a Building Scientist at Chelsea Group, Ltd., a leading firm in building science consulting. Ms. Senger works with a team of engineers on design and technical analysis for Chelsea Group’s consulting work in mechanical infrastructure of existing buildings. She has refined her skills in evaluating existing conditions, replacement system design, equipment selection, and building energy modeling to determine optimal configurations for system constructability, reliability, and efficiency.

Currently, Ms. Senger is assisting the design team with The Queen’s Medical Center supply air system upgrade, taking on project design lead, calculating ventilation rates and energy loads, and tracking her work through design reviews. Ms. Senger’s experience with CAD, 3-D design tools including CAD MEP, and calculation programs, such as HAP, allows her to conduct detailed analysis of airflow requirements of the current and planned space. She designs variable air volume systems (VAVs) to replace constant air volume systems (CAVs), including integration of demand control ventilation (DCV). Her design work has encompassed common areas, general patient spaces, nursing stations, treatment rooms, specialized medical areas, and airborne isolation spaces.

Prior to joining Chelsea Group, Ms. Senger was employed as lead engineer for Trilogy Engineering Solutions, a position at which she handled project management, product developments and reduction of costs, and also provided installation assistance. Her previous work included a stint at Timken, a National Machine Company, where she was employed as a product designer, utilizing 3D CAD software and testing equipment to design and build various projects. Ms. Senger also led the design and build of a human-powered vehicle at the University of Akron, where she completed her Bachelor of Science in the discipline of mechanical engineering.