

Classic Competition



Cardigan Ridge

Cardigan Ridge



Participant information

Energy Panel Structures

Lee Bergum

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Category: Multifamily

High Performance: No

Project information

Cardigan Ridge

3300 Rice Street

St Paul, MN 55126

Date Completed: 06/2017

Total sq. ft. of conditioned space: 156,090 sqft

Built By:

Nottingham Construction

Greg Johnson

3300 Rice Street Suite 300

St. Paul, MN 55126

Panels Manufactured By: Energy Panel Structures

Designed By:

Kaas-Wilson Architects

Kim Behrens

1301 American Blvd. Suite 100

Bloomington, MN 55425

Total sq. ft. of conditioned space: 156,090 sqft



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Describe the end use of the building:

This is a 118 unit assisted living facility. The building is four stories with additional level below for parking. In addition to the living units, there are many community areas for residents to enjoy.

How did SIP construction help you get this job?

Utilizing historical energy performance from past projects, we were able to engage the owner in a discussion regarding the payback on the cost as well as importance of the enhanced comfort for their future customers.

SIP wall thickness and core material: 5-1/2" walls R-26

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy?

We were able to reduce the construction time considerably by utilizing the SIPs. As well as savings in the future for heating and cooling the structure versus the costs that would be incurred in heating and cooling a traditional stick-built structure.

Describe any innovative design elements or structural engineering involved:

There was a considerable amount of planning and engineering that went into the design of this structure. There are four stories of panels with various two story features.

Blower door test results (ACH50): 4.75

Describe the HVAC system used on the project:

We utilized an in-floor radiant heating system made up of two, one-million BTU boilers. These heat not only the building but also all domestic water for the building.

Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the U or R-value of any insulation materials. (judged only for High Performance Category)

Anderson 100 series window were used
Low-E Smart Sun U-27

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar (judged only for High Performance Category):

All lighting in the building is LED, with 80% of common areas lighting utilizing motion detectors. Energy Star appliances are used.

Please list any sustainable materials or design features not listed above, such as recycled materials, low-VOC finishes, landscaping, etc. (judged only for High Performance Category):

Low VOC paints and flooring

Entrance view

Cardigan Ridge











Interior views

Cardigan Ridge





