

Building Excellence Awards

SIPs Senior Living Cottage

Project Name:	SIPs Senior Living Cottage
Category:	Commercial/Industrial/Institutional Buildings under 10,000 sq. ft.
High Performance:	No
Manufacturer:	
Submitted By:	Terry Dieken

Project

2939 Cooper Ave S St
St. Cloud, MN 56301
United States

Builder

Julkowski Inc.
James Julkowski
2087 Old Hwy 8 NW
New Brighton, MN 55112
United States
Phone: 651-633-9211

Design Professional

Design Professional

Julkowski Inc.
Rachel Julkowski
2087 Old Hwy 8 NW
New Brighton, MN
United States
Phone: 651-633-9211

Building End Use:

The building will be used as a sustainable, high-performance assisted living residence for senior citizens in central MN.

Describe the end use of the building:

The builders are fans of SIP technology and wanted to support a local manufacturer in Extreme Panel Technologies. As this is an assisted living residence for senior citizens, SIPs were chosen as the building method to ensure structural integrity, indoor air quality, and energy efficiency for end-users.

SIP wall thickness and core material:

6 1/2"

SIP roof thickness and core material:

12 1/4"

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

Using SIPs helped the builder achieve optimal energy efficiency and comfort for future residents. They were also able to save on time, labor, and money due to the constructibility of SIPs and the off-site manufacturing process. The manufacturing process also made it notably easier to comply with ADA regulations and required zero modification on-site.

Describe any innovative design elements or structural engineering involved:

A shallow-depth foundation was used to help cut down on excavation costs and labor time.

We utilized the peak of the hallway for a catwalk to install mechanicals in each of the senior's bedrooms. This created a clean look and efficient runs throughout the structure.

SIP roof panels allow for vaulted ceilings in the bedrooms which creates a spacious feel and comfortable environment for residents.

Spanning the main living space with the SIP roof allows for a wide-open floor plan with no posts hindering accessibility.

Certifications & Specifications

Certifications:

HERS Index:

HERS score of 39

Blower door test results (ACH50):

.83 ACH50

Energy use intensity in kBtu/ft2:

Describe the HVAC system used on the project:

We utilized radiant in-floor heat and mini splits for the heating and cooling of this structure. Due to the air-tight quality of SIPs, residents are more comfortable and are able to control the temperature in each of their individual rooms while enjoying a higher level of indoor air quality. The mini-splits create a negative pressure system, allowing residents to remain comfortably in their own rooms in case of sickness.

Other Energy-saving Materials:

Energy-efficient products or design features:

Solar panels installed:

Sustainable materials or design features:

Additional comments:

This slab-on-grade home features in-floor heat and SIP construction of the walls & roof system for optimum energy efficiency and comfort of residents. Each bedroom has individual climate control and the capability of negative air pressure. The home follows R-3 occupancy requirements including sprinklers and one-hour fire-rated bedrooms. The design is a modern cottage and has a homey feel complete with a fireplace and comfortable furniture. Upgraded materials include luxury vinyl plank flooring, granite countertops, a roll-in shower, and a walk-in jacuzzi tub. All ADA requirements are also being met including grab bars and lower counters in the kitchen for accessibility. The exterior has maintenance-free vinyl siding and architectural shingles. It sits on a beautiful wooded lot in an established neighborhood with sidewalks and a creek running alongside the house.

Builder, homeowner, occupant testimonial:



Julkowski Cottage 1 (1).jpg



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