

SIPs Make Sense at All Ends of the Earth

Summit Station is a research platform located near the summit of the Greenland ice sheet; a mass of glacial land ice extending more than 20,000 square miles and about as far north as you can go. The station is part of the Greenland Ice Sheet Project Two, which involves drilling ice cores to study environmental changes.

The station consists of three permanent, primary structures and serves a seasonal population of up to 50 staff and researchers during the months of April to August, and a skeleton staff of five for the remainder of the year.

SIPs were the product of choice in protecting the foundation from any warmth seeping into the foundation.

The Summit Mobile Garage is a 32 by 98-foot building insulated with a floor that is made from Structural Insulated Panels (SIPs). Interestingly, it is designed and engineered to be somewhat mobile. Because of the amount of drifting snow in the region, it is simply easier to tow the entire building to a new resting spot instead of taking on snow removal. Last October, the 200,000-pound garage was moved by sled a quarter mile from its temporary location to its long-term, snow-packed foundation.

“The hoop type of building that was placed on top of the SIP floor panels needed to be mobile so that it could be placed above the snow pack,” explains Neal Mack, Regional Sales Manager at Enercept Structural Insulated Panels. Interestingly, Enercept was involved in another SIPs-related project at the South Pole, which you can read about in the Fall 2017 issue of SelectSIPs, at www.SIPs.org.

For this North Pole project, Mack explains, “The floor had to be able to stay intact during any moves so the design called for a structural lumber grid system that could assist in holding

the floor together as they moved the Summit Mobile Garage from location to location at the site.”

SIPs were the product of choice in protecting the foundation from any warmth seeping into the foundation from the building above and, before moving the mobile garage, temperature sensors were placed in the snow foundation of the garage’s new home in order to record temperatures at its new location. This allowed researchers to monitor heat loss through the floor and head off any building settlement.

“SIPs were chosen for this project because of their great structural strength and the insulation quality that the panels provided,” says Mack. “The SIPs created incredible R-value for the garage with panels that were rated greater than R-56.”



The floor is extremely flexible, allowing for contours and movement.



The interior of the building.

FOR MORE INFORMATION, VISIT: WWW.ENERCEPT.COM



Towing the fully assembled building.