

HVAC Design

In the event plumbing or HVAC ductwork is to be run along a SIP wall, a chase can be built that will both conceal and protect the run. Wherever possible, ductwork should be routed through the stick-built (interior) partitions of the building.

Since SIP buildings are very well insulated and are very tight, HVAC systems are often mistakenly oversized. When the HVAC system is too big, it tends to run for short periods, or "short cycle". Short cycling causes a number of problems.

If an air conditioner short cycles, it will not effectively reduce humidity, it will not run long enough to get peak efficiency, and it will often switch off the thermostat before the entire house is cool because it will create a wave of cool air. Also, oversized systems tend to be noisier, and require more maintenance.

Some similar problems can occur if the heating system is oversized. Again, the system will short cycle and the heat exchanger will not get up to efficient temperature, it will be noisier, and it will "Trick" the thermostat into shutting off early with a wave of warm air, making the building less comfortable.

To eliminate these problems, make sure that the HVAC system is designed by a qualified HVAC engineer.



HVAC ducts are placed in the stick-built parts of the PorterSIPs home