THE GO HOUSE by GENESIS

Modular is Inherently **Green.**

If you thought buying a more energy efficient home meant changing your lifestyle or paying for expensive new technology and building materials, think again. Since the inception of modular construction, builders like Genesis have been practicing many of the construction techniques that are now identified as "Green" or "Sustainable".

> "What makes modular construction different is the ease in which we are able to build a tight building envelope which minimizes air infiltration (drafts) and IMPROVES ENERGY EFFICIENCY."

While we can take pride in the fact that we are a leader in the efficient use of materials and resources, the reality is that these practices are in place because, as a manufacturer, they are central to our business. In fact, our efficient use of materials and resources is one of the primary advantages of modular construction.

MAXIMIZING THE USE OF CONSTRUCTION MATERIALS AND RESOURCES

Even the best planned construction results in some waste, and construction waste is a double-edged sword because:

1) it uses more material *(both renewable and non-renewable)* than is necessary for the construction and;

2) the waste must be gathered up and then hauled off to a landfill.

While we can't completely eliminate waste in our manufacturing facilities, we are able to reduce it and manage it better than traditional site builders.

We purchase specially dimensioned lumber such as precision end trimmed (PET) studs, sheathing and decking, and gypsum panels. Each of our manufacturing centers also contains its own mill where the material for each day's production is carefully precut, ensuring only the necessary materials are delivered to the assembly line.

Those materials are stored under cover until they are assembled inside our environmentally controlled manufacturing center. So, unlike traditional site construction, there is virtually no waste generated from weather damaged materials, vandalism or theft.

REDUCING LANDFILL BURDENS THROUGH EFFICIENT RECYCLING

Many of our manufacturing centers can build the modules for 3 to 4 homes in one day. With such concentrated construction, managing the waste is a relatively simple process. Recycling containers are located throughout each manufacturing facility where the key elements of construction waste – cardboard, gypsum, lumber, copper, and vinyl – are collected for recycling.

Compare this to a typical site built job site with only one home under construction on a site, it isn't economically feasible to gather up all of the waste and segregate it for recycling purposes. You would have to haul all of the recyclable material from job site to job site just so you could collect enough for the recyclers.

This is the primary reason why traditional construction waste represents the largest contributor to landfill!

A BUILDING'S LARGEST IMPACT ON OUR ENVIRONMENT IS THE ENERGY IT CONSUMES FOR HEATING AND COOLING

Green certification programs focus heavily on the key elements of a home's energy performance, so insulated doors and windows, wall/floor/roof insulation, and high efficiency heating and cooling (HVAC) systems are central to Green construction.

While our modular homes contain all of these features, they are simply the result of our decisions to adhere to Green specifications. Site builders can and often do use the same specifications, but even the most efficient insulation, windows and/or HVAC equipment require a tight building envelope to perform properly.

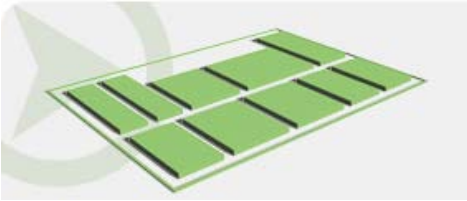
What makes modular construction different is the ease in which we are able to build a tight building envelope and minimize air infiltration (drafts). Inside our manufacturing centers, we have equipment and tools that allow us to build large sub-assemblies – much larger than can be built on-site using traditional construction methods. As an example, the entire roof for a single module is constructed on a table or jig as one component.

Our ability to handle these large sub-assemblies means we can purchase material in dimensions not practical for a site builder. As an example, the gypsum used for our ceiling may be ***4'X14' instead of the common 4'x8' dimension.*** Larger sheathing and gypsum results in fewer seams, which in turn results in fewer chances for air leakage.

The working environment inside our manufacturing centers is another key advantage. Working at a station where the sub-assemblies are waist high or on the assembly line where the worker has the benefit of raised platforms and overhead walkways, it is easier for our craftsmen to locate any exterior gaps or openings and insure they are properly

sealed. Contrast that to a site builder, perhaps in a driving wind or rainstorm, trying to find and repair a poorly aligned joint 15' in the air!

The inside corner at the ceiling and wall is a particularly troublesome area which is difficult to seal. Thermal testing (see photo) reveals that this is a common area of heat loss for site construction. With site construction, first the frame is constructed, then it is sided and roofed, and then the gypsum is attached to the underside of the ceiling and walls. With modular construction, our roofs are installed like a cap on top of the sidewalls with ceiling gypsum already secured to the roof. The ceiling gypsum actually creates a gasket as it extends over the sidewall and helps significantly reduce heat loss.



In fact, a recent University of Michigan study found that in *"comparison with the modular home's air change rate, the conventional home had an 80.4% increased air leakage rate, which results in 7.4% more natural gas consumption than the modular home."*

THE QUALITY OF INDOOR AIR IS ANOTHER IMPORTANT COMPONENT OF "GREEN"

There are a wide variety of materials and systems available to increase the comfort and health of a home's indoor environment. These materials and systems are typically no different for a modular builder than they are for a site builder, but modular construction does have one major advantage when it comes to controlling potential health hazards.

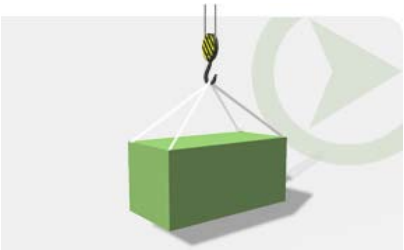
One of the biggest threats to indoor air quality is mold. It can be insidious and difficult to eliminate once it hasa foothold. Your GO House was constructed inside an environmentally controlled manufacturing facility and the materials were stored under cover from the elements.

Think about the last home you saw built in a traditional manner. The partially constructed structure may have stood unfinished, exposed to rain and snow for months. The sheathing, sub-floor, and studs may have become wet several times, absorbing moisture into the structure. And when the home was finally completed, some of this moisture may have been trapped inside the finished home.

While no construction technique can promise 100% protection against mold, modular builders take great care to insure your home is protected from moisture during the construction process.

LEAVING A SMALLER CARBON FOOTPRINT DURING CONSTRUCTION

You hear a lot of discussion these days about our ***"Carbon Footprint."*** But what does this really mean and how can modular construction reduce it?



Simply put, a "Carbon Footprint" is a measure of the amount of energy consumed by a specific activity. So for the construction process, a Carbon Footprint is represented by the energy used for delivery of materials to the job site, the transport of workers to and from a job site, as well as the power needed to run the construction tools and large equipment.

A recent study compared the construction of a commercial building using traditional site built methods and one built using modular techniques. The study found that the CO2 output for the transportation of materials was reduced by 64%. The University of Michigan also looked at the procurement for modular construction. They found a similar reduction in transportation CO2 output because not only will a modular manufacturer typically purchase larger quantities of material, they are also more likely to purchase directly from a material manufacturer or wholesaler. The amount of transport required to support modular construction is reduced and this lowers the overall Carbon Footprint of the homes.

GOING GREEN WITH MODULAR CONSTRUCTION: THE NATURAL CHOICE

With modular construction, a beautiful, affordable, greener home – one that can be built and installed almost anywhere in the country in less than 90 days – is truly within your reach. By maximizing the use of construction materials and recycling wherever possible, building tighter structures that efficiently manage airflow and air quality, and minimizing the Carbon Footprint created by of the construction process, the modular construction process has proven to be the natural choice for people who want a new green option - ***one that's attractive, affordable and built to last***.