

ater eco 610.727.0550 | alterecobuild.com

#### Roof

Our super-insulated roof assemblies provide a strong, highly energy efficient, air-tight enclosure. This means more comfort and less drafts for you! We use only roof shingles with high Solar Reflectance Index (SRI\*) values to reflect the sun's heat away from your home and not into your living spaces to further ensure your comfort year-round.

\* SRI is a measure of a surface's ability to reflect solar heat, which is a combination of reflectance and emittance values. These values range from 0-100. The higher the value, the more heat is reflected from a surface.

### **Exterior Walls**

Our super-insulated, airtight walls provide a strong, highly energy efficient, air-tight enclosure. All penetrations are taped and sealed to virtually eliminate any leaks. This reduced air infiltration equates to increased energy efficiency and reduced HVAC system sizes and operational costs. This means more comfort and less drafts for you!

### Windows

We use only high-performance, triple paned ENERGY STAR certified windows and doors to help lower your energy bills and save you money. With our energy efficient windows and doors, you also use less energy, which reduces greenhouse gas emissions from power plants. In winter, the cold, inside surface of an inefficient window pulls heat away from your body, so you can feel chilly in a sweater with the thermostat at 70 degrees. With ENERGY STAR certified windows, the interior glass stays warmer, so you can enjoy your window seat even when the temperature outside dips well below freezing. In summer months, our ENERGY STAR certified windows reduce "heat gain" into your home without reducing the visible light. You get the light you need without the uncomfortable heat.

Our ENERGY STAR certified windows help protect your belongings from fading and discoloring with coatings that keep out the summer heat and act like sunscreen for your house. These coatings protect your valuables from harmful, fading ultraviolet light without noticeably reducing visible light. These special coatings reduce fading by up to 75 percent\*.

\*Window information taken from Energy Star website

#### Water

We design and install your home's plumbing system to meet EPA's WaterSense requirements. Dual flush toilets, high performing, low flow plumbing fixtures and a high-performance heat pump water heater help reduce water and water heating expenses, while also providing continuous, rapidly delivered hot water to your fixtures.

### **Materials & Finishes**

To ensure we meet or exceed the Environmental Performance Agency's EPA Indoor AirPLUS Program, we specify low/no VOC and sustainable products and finishes throughout your home. From no-VOC paints to locally and responsibly sourced materials, our intent is to support responsible manufacturers with active programs in place to improve our environment. Improved indoor air quality minimizes your exposure to airborne pollutants and contaminants. This is especially beneficial for those with chronic respiratory conditions.

### **Indoor Air Quality**

Our homes meet the stringent indoor air quality requirements of the Environmental Performance Agency's EPA Indoor AirPLUS Program. From our construction practices to the products in your finished home, we minimize your exposure to airborne pollutants and contaminants. This is especially beneficial for those with chronic respiratory conditions. To ensure comprehensive indoor air quality protection in your new home, we focus on the careful selection and installation of:

- moisture control systems
- heating, ventilating and air-conditioning systems
- combustion-venting systems
- radon resistant construction
- low-emitting building materials

### **Basement Walls**

Our pre-engineered structural basement and foundation walls provide a continuous layer of insulation and less concrete compared with those built on-site. This results in less jobsite material waste and shorter construction time, getting you into your home sooner.

### **Mechanical Systems**

Due to the high efficiency of the building envelope, we install a small ("right-sized"), super-efficient mechanical system to heat and cool your home. Smaller mechanical systems run more quietly and less frequently than larger units, and therefore have reduced operating costs and an increased life span. We also include a fully balanced Energy Recovery Ventilation System (ERV) to provide a constant supply of fresh filtered air into your indoor living spaces, while extracting air from your kitchen, bathrooms and laundry rooms.

The ERV system recovers heat energy from your exhaust air to warm the incoming fresh air, saving on heating costs. The air distribution system then channels the optimally tempered fresh air to individual rooms as needed. The air volume can be adjusted individually for each room, providing comfort for everyone. The constant supply of fresh air and exhaust of dirty air greatly Improves indoor air quality which minimizes your exposure to airborne pollutants and contaminants. This is especially beneficial for those with chronic respiratory conditions.

#### **Appliances**

All our refrigerators, dishwashers, washing machines, dryers and ceiling fans are ENERGY STAR qualified. These highly efficient products help you save money on long term operating costs by reducing energy use without sacrificing performance.

### Lighting

Our ENERGY STAR qualified LED lighting is more efficient and lasts longer than incandescent and compact fluorescent lighting which means you save money on your electric bill and spend less time changing light bulbs.

#### **Renewable Energy Ready Home**

When building orientation and site conditions allow, we design our homes to meet the Renewable Energy Ready Home (RERH) Specifications, as developed by the U.S. Environmental Protection Agency (EPA). This program allows us to design and construct homes equipped with a set of features that make the installation of solar energy systems after the completion of construction easier and less expensive. By defining the minimum structural and system components needed to support a solar energy system, we can assure you that if you choose to do so, solar renewable energy systems can quickly and easily be integrated into your house with minimal retrofit installation costs. Note that meeting the elements of the RERH specification may not be possible for all homes due to factors such as excessive shading on the proposed array location.