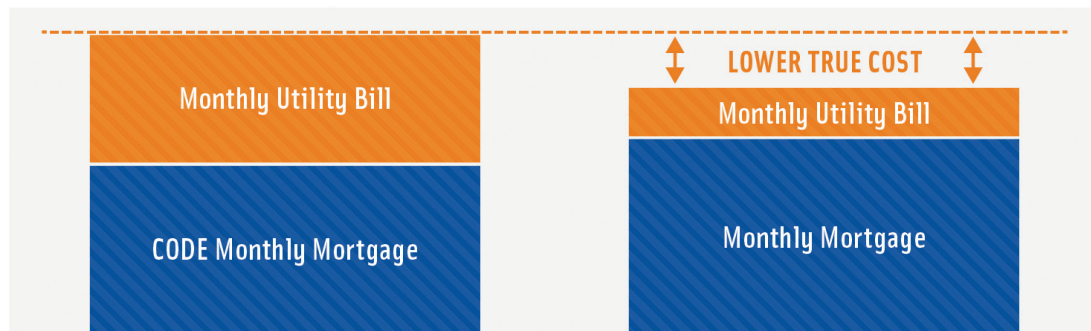


THE REAL VALUE OF RESILIENT CONSTRUCTION

■ Spotlight: Energy Efficiency



Energy-Efficient Homes Lower Monthly Cost (Mortgage + Utilities)

By the numbers—value for consumers

- When owners are asked what they want in a home or place of business, comfort and energy efficiency (low energy bills) often top the list.
- The cost of owning a home includes mortgage plus monthly utilities. Even if it costs more to build an energy efficient home, that can be offset by lower monthly utility bills, resulting in a lower monthly cost to own.
- Over longer periods, **low energy use adds up to significant savings for owners** and reduces the life cycle cost of a building.

How can concrete help?

- Concrete is a heavy material, so it takes a lot of energy to heat or cool it. That means it changes temperature slowly. This phenomenon is known as “thermal mass.”
- **Thermal mass of concrete** slows down heat transfer and translates to **more consistent temperatures** for occupants and **decreased energy needed for heating and cooling**.
- Tight building envelopes eliminate gaps in exterior walls to prevent drafts or cold/hot spots. Many concrete wall and floor systems are continuous, so there are few joints to seal.

Concrete for energy efficiency

Over time, energy efficient buildings save owners money. Concrete provides thermal mass to reduce temperature swings. Adding insulation as part of a concrete building system can help improve the exterior envelope’s resistance to temperature change. The combination of consistent temperatures and low energy usage is important to consumers. A 2013 survey of certified green* home purchasers completed by the National Association of Home Builders (NAHB) found that two-thirds of them felt that having an energy efficient home was important in their decision to buy or build a home. In addition, over 90% of owners said the certified green home maintained more consistent temperatures and was less drafty than non-green homes and 86% said they had lower utility bills.

*ICC-700 National Green Building Standard is the only ANSI-approved green building rating system for homes and apartments