

Arthur Hance - Misconceptions about today's metal buildings and building green

April 21, 2011 - Green Buildings

When you say 'metal building', many still think of Quonset huts, the pre-fabricated steel buildings that most people associate with World War II era army barracks. But modern techniques, materials and laboratory testing ensure that today's metal buildings are every bit as attractive and energy-efficient as their conventional counterparts. In fact, metal buildings often provide superior sustainability and cost-savings for building owners.

Even for those property owners who know that metal buildings have made some progress in the last 60 years, metal buildings still create images of large gray warehouses that waste energy faster than you can blink. But today's metal buildings can provide virtually unlimited design options and have actually made green building affordable.

"Metal roofs and walls offer an unbeatable level of environmental performance and aesthetic appeal," concluded an industry report based on a U.S. Green Building Council Continuing Education program. "They are sustainable, have low impact on the environment, reduce solid waste in construction, help reduce energy usage in all climates, and improve the air quality and water efficiency in buildings and their surroundings. They can be applied to all types of buildings in any climate and offer designers and building owners a variety of visible options and behind the scene operating benefits."

As president elect of the Metal Building Contractors and Erectors Association (MBCEA) Mid-Atlantic Division, I recently had the opportunity to co-author the American Institute of Architects (AIA) Continuing Education program on metal building sustainability and design that is provided through the MBCEA. We presented the program, entitled "Pre-Engineered Metal Building Sustainability and Design," at METALCON International, our industry's premier professional event.

The message for both people in the metal construction industry and property owners is pretty simple. Building attractive, safe and energy efficient buildings has never been more important. The good news for property owners is that metal buildings today are the right choice for cost-effective, expeditious construction, particularly in markets where there is demand for quality, quickly delivered buildings.

And metal buildings will stand the test of time. If smart metal building decisions are made now, property owners will have structures that retain value long after initial building utilization plans are changed. We have all seen communities where manufacturing booms come and go and towns are left with dilapidated industrial facilities.

Responsible industrial planning ensures that we are taking actions today that won't inhibit the opportunities of future generations. That's the essence of sustainability - and the reason why more and more people are building green. Because buildings account for such a significant amount of the energy consumed in the world, choosing materials and designs with sustainability benefits provides

one of the biggest opportunities for the environmentally conscious.

Cutting-edge metal manufacturing companies can combine green technology practices with systems construction efficiencies to make sustainable building more affordable than ever. Advanced engineering practices allow metal building design to make the most efficient use of raw materials, virtually eliminating waste.

Through extensive testing and computer modeling, we are able to reduce the amount of steel used while still meeting the most stringent building codes. In many instances, lighter weight structures can also reduce the size of footings and foundations, reducing the amount of concrete and steel used.

Steel is the proven standard in the effort to create sustainable architecture. In addition to being 100% recyclable and reusable, steel can reduce utility costs, lifetime maintenance, and the amount of waste material created.

In 2004, Hance Construction co-founded Green-By-Design, a workshop series for architects and engineers that offers American Institute of Architects (AIA) credits to participants for a variety of sustainable building practices. My message to the hundreds of attendees that have attended our programs and today's industrials property owners is the same. In terms of recyclability, recycled content, ecosystem depletion from production to end of life reuse, metal construction leads the way in green design. And best of all the end product is attractive, quicker to erect and more cost-effective.

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