

economics

# HELLO, I'M FROM THE GOVERNMENT, AND I'M HERE TO HELP YOU

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**THE STRUCTURAL STEEL INDUSTRY** has faced a variety of marketplace challenges over the past century and in each case has emerged as the market share leader compared to competitive framing systems.

Ever since 1885 when the Home Insurance Building, the world's first skyscraper, was built in Chicago—displacing masonry construction through the emergence of concrete, pre-engineered metal buildings, cold-formed steel members, pre-cast concrete and hybrid systems—structural steel has consistently maintained an approximately 50% market share of the structural framing market based on constructed square feet. On an annual basis, more square footage is framed using structural steel than all other competing systems combined.

Throughout this entire period, the marketplace operated freely allowing owners, structural engineers, architects and contractors to select the structural framing system most appropriate for their buildings. Individual companies and trade associations representing the various framing systems invested their funds in the marketplace through research, technical support and promotional efforts with the goal of influencing those same decision makers to select their products. These same groups worked together with the developers of model building codes to define a common set of requirements for life and safety issues related to building design and construction. And, for the

If the government really wants to battle climate change through more sustainable buildings, it should understand that carelessly subsidizing specific construction materials will not help reach this goal—and will also have negative effects on local and national businesses.

most part, local, state and federal government stayed out of the process of specifying framing systems. Jurisdictions did adopt building codes and selected framing systems for governmentally funded projects, but they did not attempt to influence the choice of framing systems by private owners and developers. But that is changing.

## No Longer Neutral

State and federal government agencies are no longer remaining neutral in the arena of structural framing decisions and are now attempting to exercise influence and control over that decision. This is occurring on several levels and primarily focusses on increasing the use of wood for structural framing systems.

At the state level, legislation has been submitted in several states mandating that all projects receiving state funds be constructed using wood framing. The most significant push for the enactment of this legislation has occurred in Oregon. Due to the efforts of a coalition of material suppliers and trade groups, the legislation was not enacted; however, by executive order the governor has established a pilot program to investigate the impact that such legislation would have on state-funded construction projects.

Even more invasive is the current push by the U.S. Department of Agriculture to encourage the use of wood as a structural framing material. Under the misguided guise of sustainability, Department of Agriculture funds are being used to promote wood framing through design seminars and a national design competition. In March of 2014, the department's secretary, Tom Vilsack, announced \$1 million of federal funding for a national training program conducted by the softwood lumber industry to train architects, engineers and builders about "the benefits of advanced wood building materials." In addition, Vilsack announced another \$1 million of federal funding for a prize competition "to demonstrate the architectural and commercial viability of using sustainable wood products in high-rise construction." The justification of spending federal tax dollars for these programs focuses on the protection of jobs in the



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forestry industry and protecting the environment through the use of sustainable wood products.

Regretfully, little thought is given to the jobs displaced by such programs in other industries. Job growth does not take place by moving jobs from one segment of the construction industry to another; it comes from investing in programs that grow the demand for construction.

But even more troubling is the knee-jerk assumption that construction using wood is by definition sustainable construction. Trees are green. Trees can be harvested in a sustainable manner. But less than 15% of the wood harvested in the United States and Canada is harvested under Forest Stewardship Council (FSC) guidelines, and even wood harvested under FSC guidelines isn't necessary sustainable. The studies often pointed to by the wood industry, such as a report from CORRIM (Consortium for Research on Renewable Industrial Materials), to document the sustainability of their products are based on incorrect and outdated data that minimizes the impact of production waste and end-of-life disposal, during which time carbon dioxide sequestered in the wood products is released back into the atmosphere as greenhouse gases.

### Serious Flaws

With respect to life-cycle assessment (LCA) results for wood products, a recent document published by the Sierra Club points out that "current conventional LCA studies of wood products are seriously flawed," and then documents nine significant issues with the data being cited by the wood industry. Perhaps the most revealing of the conclusions reached by the Sierra Club is that "wood can be a relatively 'energy-efficient' material compared to other building materials like steel and concrete, but to get the wood, you have to cut down trees, which provide CO<sup>2</sup> sinks, water storage and filtration, wildlife habitat, global cooling and other benefits. We cannot destroy forest ecosystems and all the benefits that trees provide in the process of getting the wood. Any honest discussion of wood use must not ignore the source of that wood."

The federal initiatives promoting wood construction ignore those very aspects of wood construction.

But it doesn't stop there. The softwood lumber industry was able to gain congressional approval to establish a check-off program supporting their promotional efforts. Under this program, which is similar to the "Got Milk" program of the dairy industry, a producer "tax" is collected by the federal government on every board foot of softwood lumber produced in or imported to the United States. On an annual basis approximately 15 mil-

lion dollars flow to the Department of Agriculture, which, after deducting an administrative fee and exercising oversight on their usage, sends these funds on to a wood industry council for use in promoting wood products in construction.

What will these funds be used for? While a large portion will be used for traditional marketing and promotional campaigns, \$3.5 million has been set aside to influence the building code development process to raise the existing building height limitations for wood structures, and another \$1.3 million will be focused on tall wood (>50 story) structures. Interestingly, the wood industry is also investing significant funds following the lead of the steel industry in creating their own version of the AISC Steel Solutions Center. By their own admission, the goal is to capture an additional 30 points of market share in the nonresidential construction market, most of it from steel.

### A Voluntary Approach

How will other material producers and trade associations respond to the direct and indirect involvement of the government in the selection of structural framing systems? In Illinois there has already been a bill introduced and defeated that mandated a minimum masonry content in all buildings. Both the hardwood lumber industry and the National Ready Mix Association are in the process of seeking congressional approval for their own check-off programs requesting the Department of Agriculture and the Department of Commerce, respectively, to collect a producer "tax" on their products.

The structural steel industry remains committed to a voluntary program on the part of structural steel producers and fabricators, providing research, publications and technical and marketplace support of structural steel framing, and has resisted legislative intervention or check-off programs as a means of increasing the use of structural steel. The industry also believes the selection of the structural framing system of a building or bridge should be determined by a competent, trained professional who has been provided with credible technical information to weight the structural, economic and sustainable aspects of the proposed structure—not via government policy.

For the past century, those professionals acting in an open market without undue government influence have made and will continue to make structural steel the material choice. ■

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