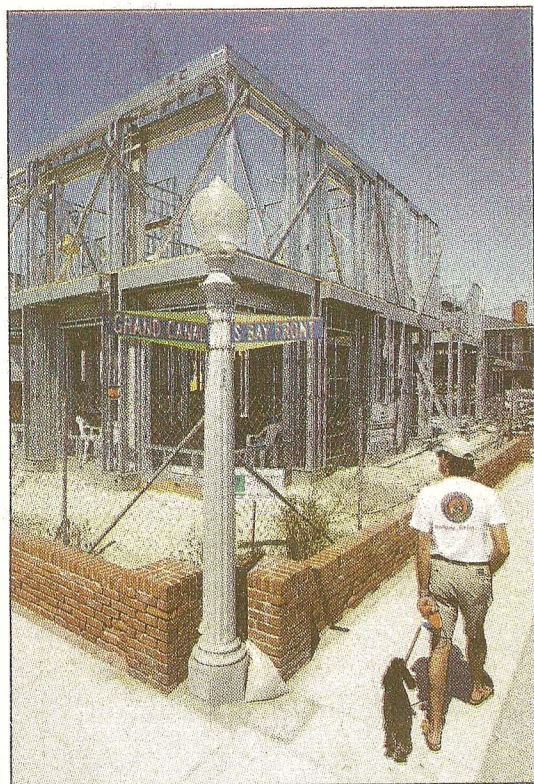


PHOTOS: CHAS METIVIER, THE REGISTER

MEN OF STEEL: Workers assemble pieces of light-gauge steel that will be used to frame a Balboa Island house.



VANTAGE POINT: Anyone who walks around this part of Balboa Island gets a good view of progress on Bob McCaffrey's home.

It costs more and takes special construction techniques, but framing a home in steel offers advantages.

By **NICK HARDER**
THE ORANGE COUNTY REGISTER

The maze of shining beams glistens in the sun, like some new-age beacon on the edge of Newport Harbor.

The sight of a home under construction with light-gauge steel is not a new one in Orange County. But it is still so unusual that it draws people like a magnet to the lot at the edge of Balboa Island.

Don Wheeler, the contractor building the home, is used to the stares. Wheeler is framing four other houses with steel and has contracts to build two more. That brings to 15 the number of homes he has been involved with that are framed with steel.

Most homes today are still built with wood framing. While homes framed with steel have been around for at least 20 years, when one is built, it always draws a crowd.

Those who choose steel cite several advantages:

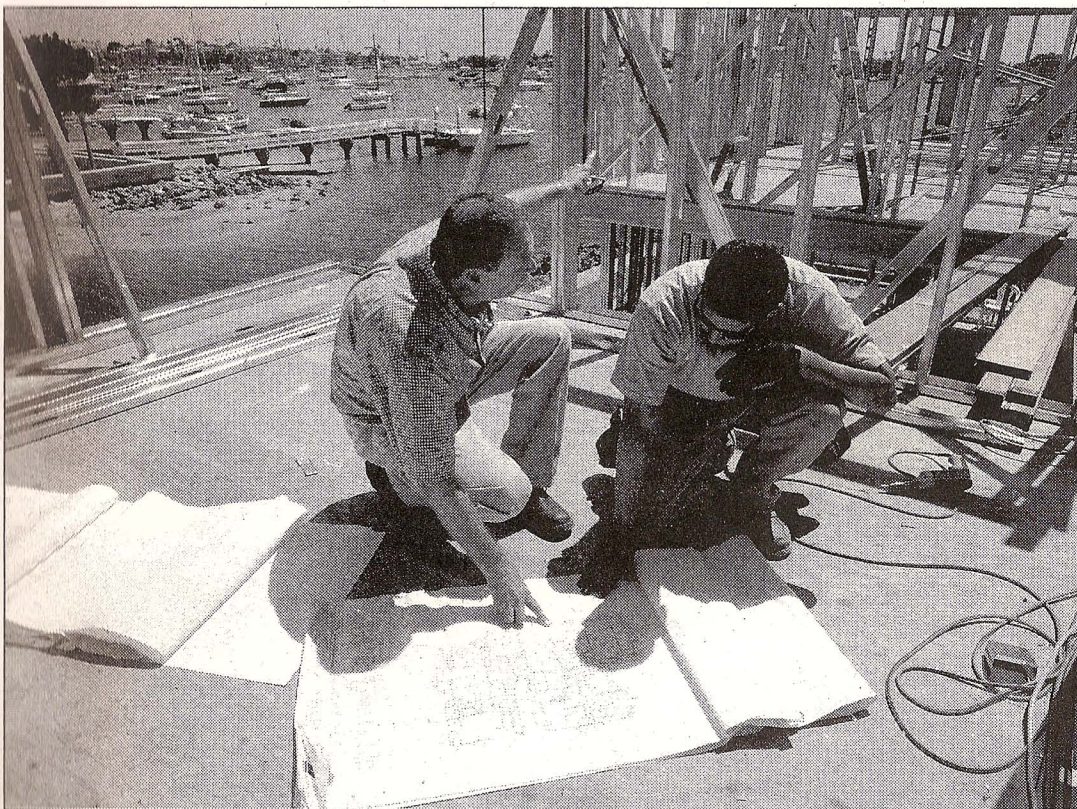


CONFERRING: Homeowner Bob McCaffrey, left, talks with contractor Don Wheeler, who is building his steel-framed home.

MORE ON PAGE 15

METAL FAN: Bob McCaffrey is building his dream home.





PHOTOS: CHAS METIVIER, THE REGISTER

GOING UP: Builder Don Wheeler, left, goes over plans with one of his crew on the second story of the steel-framed home he is building for Bob McCaffrey on Balboa Island.

METAL WINNER

FROM PAGE 1



It resists termites, won't warp and won't rot. It also won't rust because it has a galvanized coating.

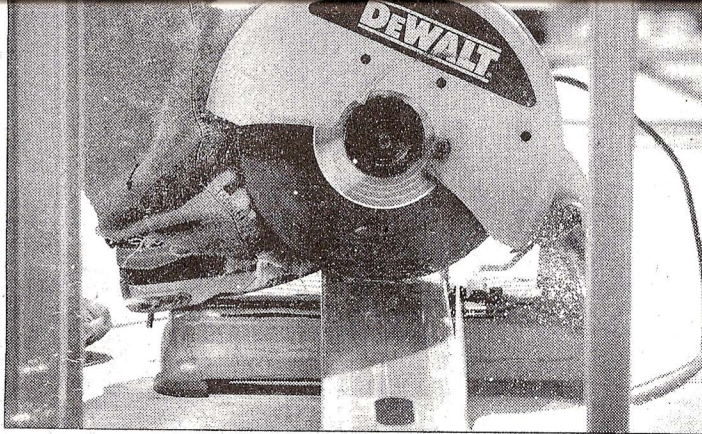
- Steel reduces the likelihood of mold problems.
- Steel-frame houses tend to suffer less damage in a fire.
- Light-gauge steel is 30 percent-50 percent lighter than wood. This can be an advantage because fewer major supports may be needed to support a second floor.
- Unlike wood, which can move and curl, steel often allows for straighter walls and level floors.

Because steel is stronger, it can be used to enhance design options such as larger open spaces, arched ceilings and doorways, higher ceilings and longer spans. At the Balboa house, the support joists are 24 inches apart. In a typical house, they are 12 or 16 inches. "The steel is so strong it justifies the extra space," said Wheeler.

It helps the environment because it decreases the amount of logging that has to be done. Almost all light-gauge steel is from recycled products.

So, why haven't more homes been framed in steel?

One reason is that not all



MAKING THE CUT: A worker uses a chop saw to cut steel beams while working on the McCaffrey house.

Source

• Don Wheeler, Wheeler Construction Co., (714) 970-8170, don@wheeler-construction.com

contractors and framers are up to speed on how to build with steel.

"They just think it's going to be really different building with steel than with wood," Wheeler said. "And it is different, but not so different you can't easily learn it."

Wheeler should know. He went through some of the same thinking almost 10 years ago when he built his first custom home. Though he had

done some commercial construction with steel, he had not used it in residential construction. Even so, he said, when he began, he thought he had made a mistake.

"I thought I understood the process," Wheeler said. "I had a background in building with steel and wood; I understood things like sheer and sheer transfer; I understood drag; I understood all these things it takes to frame a house out of wood. But a steel-framed house is put together quite a bit differently, so I put myself on a fast learning curve. But there were still many days building that first house of



SIGHTSEEING: A pair of kayakers pause for a look at the steel-framed home McCaffrey is building on his waterfront lot. The unusual-looking structure often attracts attention.

steel when I thought I'd gotten myself into trouble."

Wheeler and other steel frame contractors face problems finding workers who are skilled in steel framing. Just finding people who will work

guns and snips.

Another factor that can slow building is that while work crews may be unfamiliar with the process, so may inspectors. A city building inspector might be well-versed

the price went up.

Between the cost of steel itself and the increased cost labor, the steel-framed home can cost as much as 15 percent to 20 percent more to frame than a conventional home, and

"Building with steel is different, but not so different you can't easily learn it."

DON WHEELER - CONTRACTOR

and learn steel framing on the job is tough, Wheeler admits.

"I tell people who are willing to work that I will teach them, and I do. That's a bit of a downside for me because I have to spend more time doing that sort of thing. That can slow down a job for a while."

Then there's the matter of tools. Wood-framing crews use hammers, nail guns and conventional saws. Steel framers use screws, screw

in conventional wood framing but know very little about steel.

Until this year, a big advantage to framing with steel had been its relative cost savings compared with lumber.

However, steel has nearly tripled in price since the beginning of the year because China has been using an increasing amount of it for new construction. When the supply of steel began to go down,

according to Wheeler.

"But, the benefits short-term and long-term outweigh the initial cost," added. "I won't go back wood framing."

CONTACT THE WRITER:

Nick Harder, c/o Home & Garden
The Orange County
Register, P.O. Box 11626,
Santa Ana, CA 92711.
(714) 796-7769
nharder@ocregister.com