Houses That Swim

Floating homes redefine what qualifies as a buildable lot

LAGERQUIST & MORRIS, AIA

Moored in Seattle's Lake Union, this two-bedroom, 2,000+-square-foot floating home was built for a former vice president of Microsoft by International Marine Floatation Systems. The architect, Gene Morris, squeezed every bit of usable space out of a 16-foot height limit without making the structure look like a box.

According to Dan Wittenberg, two-thirds of the earth still has not been developed. He's talking about the blue parts on the globe, not just the green parts, and while his comment is delivered tongue-in-cheek, he's driving at a point that requires us to rethink what we mean by "real estate." For Wittenberg, president of International Marine Floatation Systems of Vancouver, B.C., Canada, the surface of the water is the new frontier in coastal living.

Floating neighborhoods have a long history in delta regions worldwide. Seattle, Portland, and San Francisco all have thriving houseboat communities that have gradually become stable with homes that are more house than boat. And as a development scheme, floating communities have found traction in the Netherlands, where "amphibious houses" sited along waterways provide some relief in that low-lying, densely populated country.

INTERNATIONAL MARINE FLOATATION

The home's foundation includes an underwater observation room with a porthole for viewing local marine life.

DURA VERMEER GROEP NV

"Amphibious homes" built by Dutch construction company Dura Vermeer start at 260,000 euros (approximatel $347,000). The foundations, which rest on the bank, are hollow concrete cubes designed to float, and power, water, and waste are delivered through flexible conduits that accommodate movement whenever the Maas River floods.

Floating security. The difference between a floating home and any other is (mostly) just the foundation, insists Wittenberg. "It's still a permanent, unsinkable foundation, not a hull," he explains. "The platform can't fill up or capsize. You can even drill through it, as we do all the time to allow for drainage of surface walkways."

The foundations consist of concrete-encapsulated foam. The art and science of building one is finding the right balance between ballast (concrete) and buoyancy (foam). "Nothing we do is really that new. Archimedes figured this out long ago," Wittenberg explains. His team has simply developed the engineering and the business. IMF typically works with builders, providing the engineering and coaching to get them through the construction of the foundation. Once the foundation is in place, the home goes up just like any other, and it has to meet code just like any other residence.

House sizes are comparable as well. IMF house projects typically range from 3,000 to 5,000 square feet, with values running correspondingly high. "A $1M home on a $1M water lot is pretty typical," Wittenberg says. "The bank doesn't see too much difference, though insurance companies sometimes do. We ask for homeowner's policies on these. It's not a boat; it won't sink, so marine rates do not apply."

Bullish on buoyancy. Wittenberg sees more municipalities becoming comfortable with the idea as industrial-owned waterfronts have given way to public access. Sewage is often a concern, but Wittenberg says it's easy to demonstrate how the homes hook up to municipal sewer lines with flexible lines and lift pumps to move the waste ashore. This doesn't entirely quiet opposition from environmentalists, however. "There are always factions that want to shut down any new development. But if you really want to improve the quality of our waterways, let people to live on them," urges Wittenberg. "People are much less tolerant of pollution in their own backyard." — *Clayton DeKorne*