

## **Waterfront Building**

By John Gower

BC is blessed with an unsurpassed variety of shoreline landscapes, from the gently pastoral to the wildly rugged. As a designer of rural homes my clients most often approach me after they have purchased their lot, and as they embark upon the exciting process of creating a home design together. When we begin working together prior to the purchase of the property, there are (setting aside the absolutely pivotal issue of affordability for the moment) a number of characteristics we look for, which, if all were found together, would constitute an ideal site.

Whether high or low bank waterfront, the first characteristic should be a good sense of connection with the water. This is why we're here, after all, and to be obscured from the water by dense tree cover in a way defeats the purpose. From this it follows that we would also look for a view -- whether an intimate, close-in view of a nearby point or islet, or a long view of open water and distant mountains. Ideally, the shoreline would run approximately east west and the lot would have a southern aspect -- perfect for passive solar heating and year-round comfort. We would hope to find a degree of privacy from immediate neighbours. This is a function partially of lot size, but can also be achieved by topography or vegetation.

We would want the lot to have an adequate amount of terrain suitable for a septic system, without having to resort to an expensive treatment plant or disposal field, and some way to get building materials and equipment onto the site without resorting to a helicopter.

All of the above are important attributes; however, as a home designer I am also looking for something else: what I call a strong spirit of place. A site with a strong spirit of place is unique. As in a Japanese garden, there is a harmony between the parts and a grace to how they occur together. It is beautiful, has distinctive features, whether trees, rock outcrops, a stream, natural vegetation and it inspires a strong architectural response.

Once you have found that unique place, it deserves a special design response. Ideally, the home should be designed to be in sync with the spirit of place, and take advantage of the natural gifts the lot has to offer. One way to preserve these beautiful and unique features is by building in the least special and least attractive location on the lot. Imagine looking at your home from the water. If your home will be vacant for long

periods and beach access is easy, you might not want to make your home an appealing target for trespassers, and thus might consider moving it back from the water's edge.

You cannot control public use of the area below the high water line. Oyster and clam harvesters, recreational boaters and even hikers have legal access to this area so make sure your privacy is protected. Consider your view. If you have a water view lot, investigate the codes in your neighbourhood to find out about future development. Is it possible that a multi-level apartment could be slated for construction in front of your home? Look at the trees on the properties located in front of your lot. In ten years or so, could these trees obscure your view? Is the forested ridge on the island across the straight a designated park or privately held land slated for logging?

## **Setbacks**

Anyone with a house in town will be familiar with the concept of building setbacks. Setbacks, in effect, define a "no build zone" creating a buffer around buildings and between neighbours. Side yard setbacks will be largely determined by considerations of fire safety and privacy. Typically they range from as little as 1.5 metres to 3 metres or more, depending often on the size of the properties in the vicinity. Waterfront setbacks vary from as little as 7 metres on lakefront in the Interior to 15 metres on many of the Gulf Islands and in some cases even more. They have been put in place for a number of different reasons including the protection of private property from storm damage, maintaining visual continuity of the shoreline and protecting shoreline vegetation and habitat. Every region will have a setback policy and a list of activities that are permitted in this area. Check with your local building department for requirements.

One thing experience has taught some of our clients: do not assume that the setback is defined by the location of existing dwellings. Many homes or cottages built more than 20 or 30 years ago are much closer to the natural boundary than is currently allowed. If you seek to renovate one of these "grandfathered" dwellings you may be able to retain the relaxation. However, any new construction will have to be in accordance with the current rules and this generally means moving it farther back from the water's edge.

Besides shoreline setbacks, what are some of the other major restrictions for building on waterfront and water view properties? Slope instability due to failure or erosion is possible with waterfront and water view lots. This can be exacerbated by the building of a house, so make sure to have an engineer's report, and check with your municipality for any past or present concerns about the area before building or purchasing.

## **Flood Control Levels**

On lakes these are determined by seasonal high water, on the ocean, they are usually determined by maximum storm surge levels, and on rivers by what's called the 100-

year or 200-year flood. In some cases it is the flood protection level that governs where the house can be located more than the setback.

### **Septic Disposal Issues**

Check for sufficient depth of soil and adequate level area for a field, generally 100 feet back from the so-called "natural boundary". As the easily developed lots are gone first, most new homes built near the water are required to pump from the septic tank to their dispersal field.

### **Water Supply**

Clean, drinkable water is in short supply on many islands and in the Interior. Make sure you can access a good water supply.

### **Construction Access**

If your property is boat access only - as on many of the smaller islands and remote lakeshore - you need to think about how you will transport building materials and tools/machines necessary for building.

### **Public Access and Parking**

Is there a public beach access near your property? Ensure you will have adequate space for your own parking and to come and go as you please, without being blocked by the cars of others.

### **Archeological Concerns**

Many of our local beaches are rich in First Nations history. In some cases, buyers of bare land may find that they have purchased a piece of property with previously unknown historical value. In these cases, construction is often halted in an effort to preserve a part of our history.

### **Exposure**

Given current demand for coastal real estate, new waterfront lots are sold almost the moment they hit the market. The most important thing to keep in mind in the rush to get your offer in first is that not all of these lots are created equal. At our latitude, location is everything! The Gulf Islands and South Coast of BC are full of examples of homes built in dramatic locations, close to the water, where it is unbearably cool in all but the hottest, stillest weather.

The difference between a sheltered, south-facing property and an exposed, north-facing one can mean as much as six or eight months of additional comfortable outdoor living. For year-round comfort, the best situation is to build on a gently south-facing lot on a protected bay with a windbreak of trees, hills or other homes on the north, east and west sides. At the other extreme would be a north-facing lot, with a lot of high trees to the south and little wind buffering. Both sites can be equally dramatic but the latter will be much more enjoyable from inside the house!

In any location, the best solar orientation for the long axis of a house is within 20 degrees of East-West to maximize solar gain in the cool months and minimize in the summer. Remember that if you plan to use the home in the winter months that at our latitude the sun will be only 15 or 16 degrees off the horizon at midday. Any tall object that lies to the south of the building site can potentially block out the sun.

Sometimes even a perfect southern exposure is not enough. Dramatic, rocky and open sites such as found at the extreme south ends of many Gulf Islands have terrific spirit of place but almost always feel 5 to 10 degrees cooler than elsewhere on the same island.

Our Southern Gulf Islands tend to lie with their length in a northwest-south east direction. Almost invariably, properties located on the "inner", southwest side are much more temperate than those on the opposite "outer" side. To moderate the effects of the climate in those outer areas it is important to create sheltered outdoor living space on the landward side of the home and to maximize the amount of south-facing glazing.



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