



West Fraser

## Why Wood?

### The building material decision

Many factors must be considered when deciding what building material to use for new structures. The world is awash in materials whose origins include those that are natural and those that are the result of technological processes. The designer and builder must apply their own criteria to the purchase decision to ensure they select a material that will provide the results they desire.

### Wood, when available, is the sentimental choice

Wood is beautiful, it is great to work with and often it is the warmth of wood that makes a house a home. That warmth factor is hard to quantify but certainly evident and top of mind with many purchasers.

### The long life of wooden structures is well known

How long a structure lasts is an important consideration when selecting building supplies. Buildings constructed of wood can last for hundreds of years. The famous Norwegian Stave churches, built of wood and still in existence today, were constructed in the 12th and 13th centuries.

### Unique features of wood

From a structural and economical viewpoint, wood is a very efficient engineering material. It is a great insulator against condensation and sound and wood's resistance to fatigue provides lasting power against accumulated damage.

There are many factors that go into the selection of building materials including durability, cost, availability, ease of construction, thermal performance, and aesthetics. Wood is a leader in all of these categories.

### Wood best serves the environment

As designers and builders make conscious environmental choices, they are returning to the only building material that uses the sun's energy to renew itself in a continuous sustainable cycle – wood. Wood is the only major building material that is renewable and recyclable and any waste it



The wood used to construct this Stave church in Norway has stored carbon for centuries.

leaves is completely biodegradable. It also uses less energy and produces less air and water pollution in the manufacturing process than steel and concrete. Advances in technology now allow us to produce engineered wood systems that maximize the use of the entire log after the tree is harvested.

### Wood and Global Warming

Using wood helps reduce climate change impacts in several ways. The use of wood reduces the need to burn fossil fuels because, according to life cycle analysis studies, it requires less energy to extract, process, transport, construct and maintain wood products over time when compared to other building materials.

Wood is also a better insulator than most other building materials as a result of its cellular structure, which limits its ability to conduct heat. That means less fuel is required to heat buildings.

Growing trees absorb CO<sub>2</sub> and release oxygen. The CO<sub>2</sub> is stored – a process known as carbon sequestration – either in the trees or wood products made from the trees. Trees absorb the most CO<sub>2</sub> when they are young and growing vigorously. At a certain point, usually between 50

