

A BETTER WAY TO BUILD

PERMANENT WOOD FOUNDATIONS

“We went to a lot of effort to design and build an energy efficient home and PWF was the natural complement. Without a doubt it's a much warmer, drier home.”

J. Collins, Carp, Ontario



A permanent wood foundation (PWF) is a better way to build a basement. Basically a below grade stud wall built of preservative-treated plywood and lumber, a PWF is just like any other foundation system. It supports the structure and encloses space. PWFs are suitable for all types of light frame construction including single family detached houses, townhouses, low rise apartments, and institutional and commercial buildings.

A permanent wood foundation is a strong, durable and contemporary building foundation that has a number of unique advantages over other foundation systems both for the builder and the homeowner.

Thousands of PWF homeowners across North America are delighted with the comfort and liveability of their homes, as well as with the economies realized by this energy efficient system of building.

The energy saving qualities of a PWF make them popular. Originally favoured in northern areas

PWF requires less energy to heat or to air condition, so home energy costs can be significantly reduced.

PWF basements are pleasant to live in year round. "Warm, dry comfortable and easy to heat" are the comments most frequently made by the people who live in houses with permanent wood foundations. That all too familiar damp, musty basement feeling is gone forever; replaced by a totally liveable, perfectly comfortable area that is just like the rest of the house because it is fully insulated and built with the same construction techniques and materials.

Finishing a basement is much easier with a PWF. Converting the basement area into finished living space is a far simpler and a more economical process with a PWF than with other types of basement construction. Because a PWF is a wood stud wall, it is easily insulated and a variety of wall finishes can be

“What impressed me and all the rest of the family was that the basement felt like the rest of the house. Heating costs seem very reasonable. All three floors are the same temperature.”

*Carl Ayer,
Fredericton, New Brunswick*



where climate and location made concrete difficult to obtain and expensive, and where heat loss even through insulated concrete foundation walls is serious, PWFs are now built everywhere in North America.

The entire PWF is readily insulated during construction. Wood's natural thermal qualities — far higher than concrete — are reinforced by the insulation between the studs to make the entire perimeter foundation an extremely efficient barrier to heat loss. The

quickly installed. Gypsum board or wood panelling can be nailed or glued directly to the foundation studs without the need for hard-to-apply and space-robbing furring strips. Except for some minor exceptions, wiring and plumbing services are installed in the same manner as elsewhere in the house.

A permanent wood foundation is suitable for all types of living space: bedrooms, bathrooms, kitchens, living rooms, recreation rooms, workshops and dens.

PWFs are quickly built in any weather. Time saved is money saved in the construction business and almost any delay can be both inconvenient and costly. A PWF is a definite time saver over other foundation

The liveability of the PWF area is instantly apparent whether the basement is finished or just roughed in. A PWF basement can be easily finished by the builder during construction since techniques and materials are the

“We’ve never had any water problems, none whatsoever. It’s as good as the day we bought it 25 years ago.”

*J. Pollman
Lloydminster, Alberta*



types because it goes in fast in all weather and does not require special crews. Wet, muddy or frozen ground has little effect on the installation process, which means that builders using PWFs enjoy a longer building season without scheduling problems or weather shutdowns. And owners get to enjoy their new home sooner.

A PWF is adaptable to any style of exterior finish. All types of exterior finishes can be used including cement rendering, wood or other sidings, or brick and masonry veneer. The PWF area can be finished with the same materials used on the upper part

same as for other parts of the house, or the home buyer can complete the basement area as the space is required. The PWF basement offers more living space than a conventional basement since framing for insulation and finishing is not necessary on the perimeter wall.

PWFs are environmentally sound and accepted by building codes. Wood treated with preservatives is environmentally safe when used in the proper applications like PWF. The preservatives used in PWF lumber and plywood are fixed in the wood and resistant to leaching even by extreme conditions of moisture. Tests conducted in

“The cost of PWF in the Yukon is significantly cheaper. It allows us to build in almost any weather conditions.”

*D. Flinn
Whitehorse, Yukon*



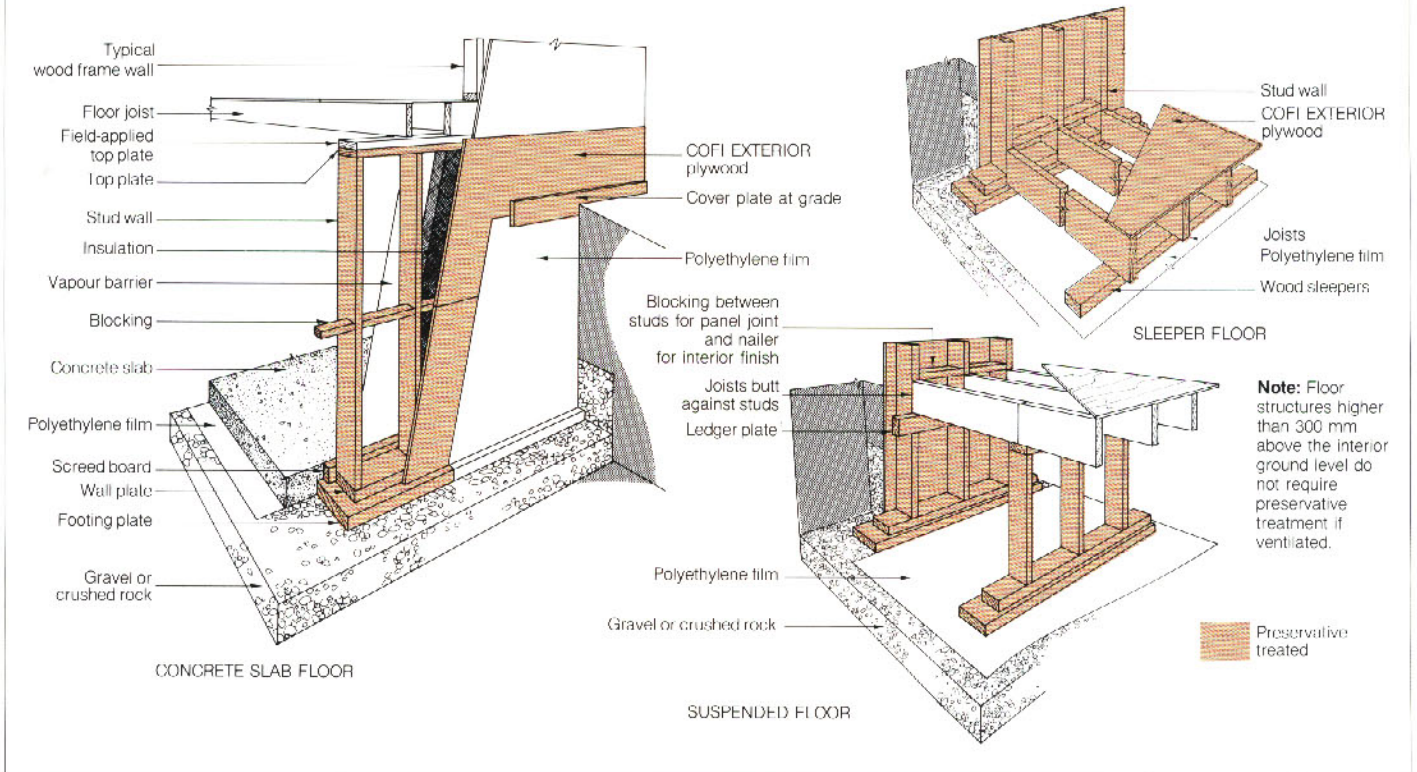
of the house for a uniform appearance or accented with contrasting materials.

PWF homes have buyer appeal. Because PWF basement areas are warm, dry and pleasantly comfortable from the moment the house is built, they have immediate appeal to potential buyers.

the lower levels of PWF structures indicate that air quality in the PWF area is equal to air enclosed by other foundation systems.

The PWF construction system meets the structural requirements of the National Building Code of Canada and Provincial Building Codes. It is suitable for use in all types of light frame construction.

Preservative Treatment in Typical Wood Foundations



All plywood and lumber used in PWFs must be pressure treated with preservatives in accordance with CSA - O80.15-M89. The stamp shown below appearing on treated plywood and lumber assure that the materials are suitable for use in PWFs.

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Facsimile of Certification Mark

| | |
|-----------------------|-----------------------------|
| Company Name and Logo | (name of inspection agency) |
| | PWF - FBT 0322 |
| | L/B P/C CCA 1389 |

Further References:

Canadian Wood Council - Wood Text Series
Permanent Wood Foundations

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Foundation For the Future

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