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WAIMEA'S UNTREATED DOUGLAS FIR SOLUTIONS

IMPORTANT INFORMATION

ABOUT CHANGES TO THE TIMBER TREATMENT
SYSTEM FOR ACCEPTABLE SOLUTION B2/AS1

PRODUCED APRIL 2011



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Introduction

Waimea advocates a 'fit for purpose' approach to timber treatment.

Effective 01 July 2011, the new timber treatment system for Acceptable Solution B2/AS1 allows Douglas fir to be used in houses of a defined low-risk design.

DBH have achieved a new simpler system which improves the overall level of protection and durability.

The **Waimea Untreated Douglas Fir Solutions** apply this new system and illustrate the use of untreated Douglas fir which is also permitted in medium and high risk buildings and commercial buildings through Alternative Solutions in compliance with NZS 3602:2003, specifically low risk applications – internal wall framing and roof framing greater than 10 degrees.



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What are the changes?

Douglas fir – the chemical free option

Untreated Douglas fir can be used for all the framing in traditional low risk houses (e.g. houses that are one or two storeys, with eaves and cavity walls).

There are exceptions to the levels of treatment for those who do not want to use chemically treated timber in their home. Alternative solutions will be needed to use untreated Douglas fir in medium and high risk buildings and in commercial buildings.

Untreated Radiata is no longer allowed.



See **Low Risk House Conditions checklist** on following page.

Radiata and Douglas fir – treated options

Boron treated H1.2 Radiata Pine and Douglas fir are now permitted for all elements inside the building envelope.

There is no longer a requirement to use H3.1 for certain elements (e.g. flat roofs). Scientific research confirms that boron H1.2 performs just as well as H3.1 LOSP in enclosed framing applications.

H3.2 must be used for cantilevered deck joists and framing.

Cavity battens must be H3.1, but we will continue to recommend H1.2 boron as an alternative solution for cavity battens.



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Low risk house conditions checklist

✓ LOW-RISK HOUSE CONDITIONS

is a standalone, single household unit of no more than two storeys (as defined in NZS 3604), that is designed and constructed to NZS 3604

AND

is situated in wind zones no greater than 'high' as defined in NZS 3604

AND

has a building envelope complexity no greater than 'medium risk', and a deck design no greater than 'low risk', as defined by the risk matrix in the Acceptable Solution E2/AS1

AND

has drained and vented cavities complying with E2/AS1, behind all claddings

AND

uses roof and wall cladding systems and details meeting E2/AS1

AND

has a risk matrix score of no more than 6 on any external wall face, as defined in E2/AS1

AND

has a simple pitched roof with hips, valleys, gables, or mono pitches, all draining directly to external gutters*

AND

has a roof slope of 10° or more

AND

if it has a skillion roof, the roofing material is corrugated iron or concrete, metal or clay tiles for adequate ventilation

AND

has eaves 450mm-wide or more for single-storey houses, and eaves 600mm-wide or more for two-storey houses.

* The roof does not have internal or secret gutters, concealed gutters behind fascias, or any roof element finishing within the boundaries formed by exterior walls (eg, the lower ends of apron flashings, chimneys, dormers, clerestories, box windows).



Refer to diagram: **Waimea's Untreated Douglas Fir Solutions** (Acceptable and Alternative Solutions for the use of Waimea's untreated Douglas fir in buildings with low to high risk matrix scores)



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Acceptance of Alternative Solutions

Over the past five years the Douglas Fir Association (DFA) has worked to demonstrate the suitability of untreated Douglas fir for widespread use throughout the building envelope.

Acceptance by Territorial Authorities (including Tasman District Council and Nelson City Council) for the use of untreated Douglas fir in medium and high risk buildings and commercial buildings through Alternative solutions in compliance with NZS 3602:2003, specifically low risk applications – internal wall framing and roof framing greater than 10 degrees, can be achieved on the basis that:

1. Research shows that Douglas fir resists decay better than untreated Radiata pine.
2. Changes to the building code ensure buildings are now designed with adequate deflection, drainage and drying to deflect external moisture away from external walls and ensure any moisture that gets into the building doesn't accumulate in the wall cavity.
3. The building industry is better regulated, ensuring a higher level of competence among builders and enhanced inspection and monitoring processes.



Please request a copy of the supporting documentation for: **Acceptable and Alternative Solutions for the use of Waimea's untreated Douglas fir in buildings with low to high risk matrix scores.**



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Waimea's Timber Design Service

Applying the Waimea Untreated Douglas Fir Solutions

Waimea offer a complimentary service to provide assistance throughout the design process.

We can review your plans and advise you how to maximise the use of untreated Douglas Fir in compliance with Acceptable Solution B2/AS1.

Where Alternative Solutions can be utilised, Waimea will provide supporting documentation to assist the consent process.

We will continue to liaise with Councils to ensure we provide their preferred method of compliance to assist the process.

For Timber Design Service enquiries please contact:

Em: design@waimeawood.co.nz

Ph: 03 547 5621

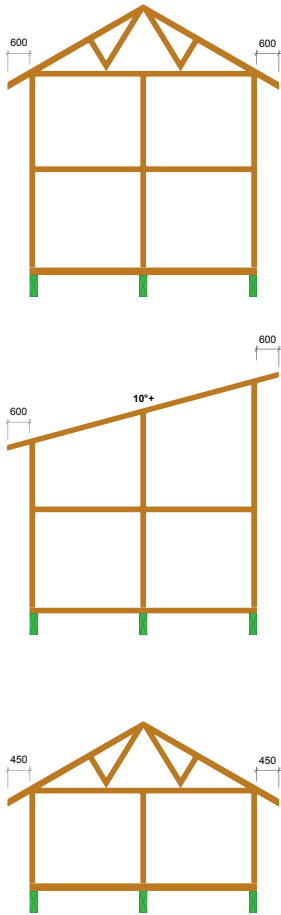
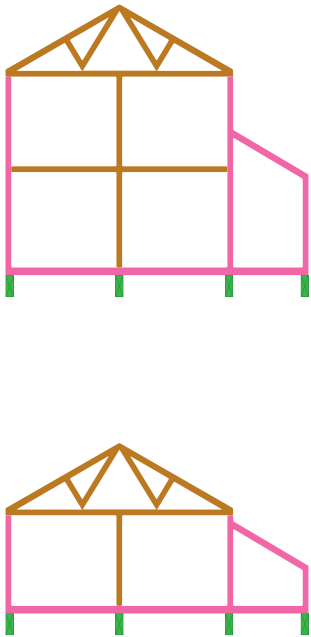
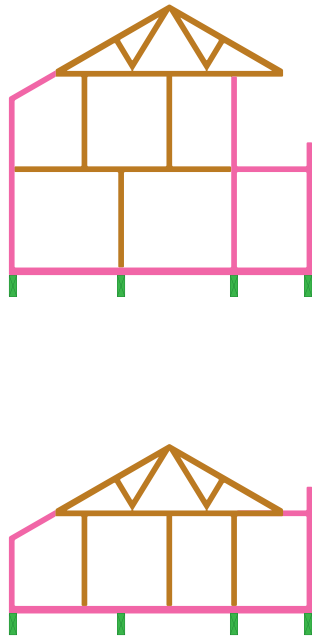
Waimea is currently preparing a detailed '**Solutions**' package (including 3-dimensional designs) for distribution in June to assist in simplifying your design and build process.



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Waimea's Untreated Douglas Fir Solutions

Acceptable and Alternative Solutions for the use of Waimea's untreated Douglas fir in buildings with low to high risk matrix scores

Low risk = 0-6	Medium risk = 7-12	High risk = 13-20
<p>USING ACCEPTABLE SOLUTION B2/AS1 FOR ALL EXTERNAL & INTERNAL FRAMING & ROOF FRAMING</p>  <p>ACCEPTABLE SOLUTION B2/AS1 2011 PARA 3.2.2.2 ALL UTDF</p>	<p>USING ALTERNATIVE SOLUTION NZS 3602:2003 FOR ALL INTERNAL FRAMING & ROOF FRAMING</p>  <p>ACCEPTABLE SOLUTION B2/AS1 2011 PARA 3.2.2.2 ALL EXTERNAL WALLS H1.2</p> <p>ALTERNATIVE SOLUTION NZ3602* ALL INTERNAL WALLS & TRUSS ROOF UTDF</p> <p>*REF NOTE 1.</p>	 <p>ACCEPTABLE SOLUTION B2/AS1 2011 PARA 3.2.2.2 ALL EXTERNAL WALLS H1.2</p> <p>ALTERNATIVE SOLUTION NZ3602* ALL INTERNAL WALLS & TRUSS ROOF UTDF</p> <p>*REF NOTE 1.</p>

KEY:

- UNTREATED DOUGLAS FIR
- H1.2 TREATED DOUGLAS FIR
- H5 TREATED

NOTE 1: ALTERNATIVE SOLUTIONS FOR UNTREATED DOUGLAS FIR INTERNAL AND ROOF FRAMING:

NZS 3602:2003. TABLE 1
E - MEMBERS NOT EXPOSED TO WEATHER OR GROUND ATMOSPHERE AND IN DRY CONDITIONS. Ref No. 1E.1 - E1.5

TABLE 2
B - MEMBERS PROTECTED FROM THE WEATHER AND DAMPNESS REF NO. 2B.1 AS OF 1ST JULY 2011