

SmartLVL 15 Design Guide



SCOPE OF THIS PUBLICATION

This Design Guide and Load Tables assist in the selection of SmartLVL® 15 beams for most of the common structural arrangements met in domestic construction.

Methods of developing lateral restraint and providing adequate support, adequate anchorage against wind uplift, and overall structural stability are outside the scope of this publication, however some limited examples have been reproduced within this document.

Information on the above matters can be obtained from AS 1684 Residential timber-framed construction or from a structural engineer experienced in timber construction.

Tilling Timber Pty Ltd have structural engineers at the SmartFrame Design Centre who can be contacted for advice on matters concerning the use of its engineered timber products in timber construction at Smartdata@tilling.com.au or on the SmartData Customer HelpLine 1300 668 690.

SUBSTITUTION OF OTHER PRODUCTS

All load tables in this document are designed using in-grade tested properties of SmartLVL 15 as distributed by Tilling Timber Pty Ltd. Other manufacturers' LVL may have different properties and therefore cannot be designed using these span tables.

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CERTIFICATION

As a professional engineer, qualified and experienced in timber engineering, I certify that the use of the SmartLVL 15 members as shown in these tables, and installed in accordance with the provisions of this Design Guide, complies to the Building Code of Australia. These span tables have been prepared in accordance with standard engineering principles, the relevant test reports and Australian standards, ie:

- AS 1684.1 Residential timber-framed construction
- AS 1170.1 Structural design actions – permanent Imposed and other actions
- AS 1720.1 Timber structures - design methods
- AS 4055 Wind loads for houses
- AS/NZS 4357 Structural laminated veneer lumber
- AS/NZS 4063 Characterisation of structural timber



CRAIG KAY, PEng, RPB0730, EC-1961, RPEQ 5100, CC5635C, NPER
National Product Manager - EWP

SmartFrame Product Warranty*

Tilling Timber warrants that its SmartFrame Engineered Wood products will be free from manufacturing defects in workmanship and material.

In addition, provided the product is correctly installed and used, Tilling Timber warrants the adequacy of its design for the normal and expected life of the structure.

This warranty is backed by the full resources of Tilling Timber, Pacific Woodtech Corporation and by underwritten product liability insurance.

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*Abbreviated Warranty - for full warranty document see www.tilling.com.au

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INTRODUCTION

SmartLVL 15

SmartFrame® laminated veneer lumber (LVL) is engineered with sheets of thin ultrasonically graded Douglas Fir bonded together with exterior grade adhesives to make beams which span much longer distances and support heavier loads than ordinary timber.

SmartLVL 15 is manufactured for Tilling Timber Pty Ltd under an evergreen exclusive agreement with the world's best toll LVL manufacturer under the benchmark quality systems of the APA - The Engineered Wood Association*

PRODUCT SPECIFICATION:

Veneer:	Thickness (normal):	2.5 - 3.2 mm
	Species:	Douglas Fir (<i>Pseudotsuga menziesii</i>)
	Grade:	CD (Metriguard graded)
	Joints:	Face Scarf and overlap

MOISTURE CONTENT: 8 - 15 %

DIMENSIONAL TOLERANCES:

Length:	± 10 mm
Depth:	≤ 200 mm ± 1 mm ≥ 201 mm ± 2 mm
Thickness:	- 0, +2 mm (at 12 % moisture content) for 35 mm ONLY - 0, +4 mm (at 12 % moisture content) for 42, 58 and 75 mm

DENSITY: Average 600 kg/m³

ADHESIVE: Phenol Formaldehyde (Type "A", AS 2754.1)

FORMALDEHYDE EMISSION CLASS: E₀ (Table 1 AS/NZS 4357)



CHARACTERISTIC STRENGTHS AND ELASTIC MODULI:

Characteristic short duration modulus of elasticity and strength values ⁽¹⁾

Modulus of Elasticity	E	15300 MPa
Rigidity	G	765 MPa
Bending	f _{b,90}	59 MPa ⁽²⁾
	f _{b,300}	46 MPa ⁽³⁾
Tension parallel to grain	f _{t,150}	40 MPa ⁽⁴⁾
Compression perpendicular to grain	f _p	12 MPa
Compression parallel to grain	f _c	42 MPa
Shear	f _s	
Beam/Joist (3 point bending AS/NZS 4063)		5.2 MPa
Beam/Joist (Rail shear AS/NZS 4357.2)		4.3 MPa
Joint Group		JD4 (Nails, screws and Bolts) Nailplate capacities by nailplate manufacturer

Notes:

1. Characteristic values apply to dry service conditions
2. For beams with a depth exceeding 90 mm, multiply by $(90/d)^{0.197}$, where d is the depth of the member
3. Bending at reference depth of 300 mm to provide comparison with other timber types e.g. "F" grades
4. For tension members with the larger cross sectional dimension exceeding 150 mm multiply by $(150/d)^{0.197}$, where d is the larger cross sectional dimension of the tension member

CAPACITY FACTORS (Φ) FOR USE WITH SMARTLVL 15:

The capacity factor Φ for calculating the design capacity for a structural member depends upon the type of structural material and the application of the member as described in table B1.2 of the BCA. SmartLVL 15 used as a structural element in houses which failure would be unlikely to affect an area greater than 25 m² or secondary elements in structures other than houses has a capacity factor Φ of 0.95. For other structural applications, the values of Φ should be obtained from the BCA and Table 2.5 of AS 1720.1. All the tables within this document have been prepared with the value of Φ = 0.95.

ABOUT FLOOR PERFORMANCE

The "feeling" that is identified when a person walks on a floor is very subjective. Some people want to feel a very stiff floor and others want some "give" so that it softens the footing. When people say the floor "bounces", it may be vibrating.

This sensation is often caused by lack of dead load such as furniture, direct applied ceilings or other materials to absorb or dampen the vibration.

The allowable spans shown in the tables in this manual have been designed to meet the Strength and Serviceability criteria as described in AS 1684.1 Residential timber-framed construction.

FACTORS THAT CAN AFFECT FLOOR DYNAMIC PERFORMANCE.

- The choice of flooring system
- The depth, stiffness and mass of the joists
- spacing of joists
- Fixing of sheathing to joists
- Stiffness and mass of floor sheathing
- mass and stiffness of ceiling materials
- Method of installation
- Location and type of internal partitions and furniture

* APA - The Engineered Wood Association is an accredited certification body under ISO 65 by Standards Council of Canada (SCC) and an accredited inspection agency by the International Code Council (ICC), International Accreditation Service (IAS) under ISO/IEC 17020. APA is also an accredited testing organisation recognised by IAS and SCC under ISO/IEC 17025.

FACTORS THAT CAN IMPROVE FLOOR DYNAMIC PERFORMANCE

- Glue-nailed floors will perform better than floors secured by nails alone.
- Deflection of the sheathing material between joists can be reduced by decreasing the joist spacing or using a thicker and/or stiffer sheathing.
- Proper installation is essential for dependable performance. Adequate and level support for the joists is necessary, as is correct fastening of the joists and sheathing.
- The installation of a ceiling to the bottom flange of the joists.

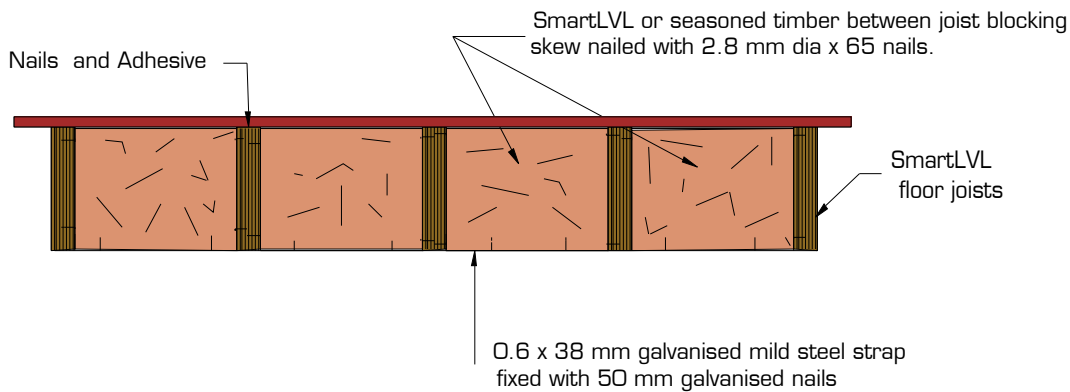
Between joist blocking can provide some improvement to floor dynamic performance. It is emphasised that for between joist blocking to be effective, it is important that the blocking is continuous, this being easily achieved by the addition of a

continuous bottom strap such as hoop iron strapping.

If floor dynamic performance is a concern to either the client, designer or contractor, then the above variables can be altered to improve dynamic performance, or alternatively, the spans should be selected from the appropriate tables based upon floor dynamics.

If between joist blocking is to be used to improve floor dynamic performance, it is recommended that a blocking system (at least midspan, 1/3 points for large open rooms) similar to the one shown below be adopted.

BETWEEN JOIST BLOCKING WITH SmartLVL 15

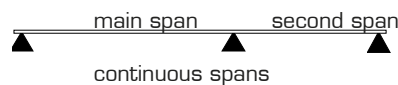


CONTINUOUS SPANS

For beams continuous over two (2) unequal spans, the design span and the "Resultant Span Description" depend upon the percentage difference between the two spans as shown below: Note, for continuous spans, the Design Span is taken as the distance between the centre of the supports, as shown in "Design Span" on page 11 of the Design Guide.

Span Difference %	Effective span	Resultant span Description
10% max	Main span	Continuous
10 - 30%	1.1 x Main span	Continuous
above 30%	Main span	Single

$$\text{span difference} = \frac{(\text{main span} - \text{second span}) \times 100}{(\text{main span} + \text{second span})}$$



RIP SAWING SmartLVL 15

One of the unique properties of SmartLVL 15 is that it may be ripped through the depth to the smaller section sizes as those given in these span tables without affecting the basic strength properties. It is important that the new members are not cut undersized if the maximum spans in these tables are to be used.

The sawing through the thickness to produce sections of a lesser thickness may decrease the integrity of the SmartLVL 15 and is therefore NOT recommended under any circumstances.

DOUBLE SmartLVL 15 SECTION BEAMS

Vertical laminations may be achieved by adopting the procedures described in clause 2.3 of AS 1684, however these procedures should be considered as the minimum requirements to achieve the desired effect.

Experience with SmartLVL 15 beams indicates that this degree of fixing may not satisfactorily prevent cupping of individual components as a result of the ingress of moisture between laminates during construction. The suggested method of vertical lamination on the next page provides a greater level of fixity between individual components, and with the use of an elastomeric adhesive, also prevents moisture penetration between the laminates.

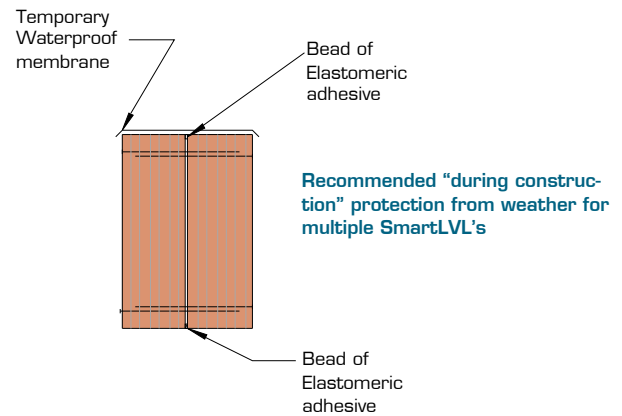
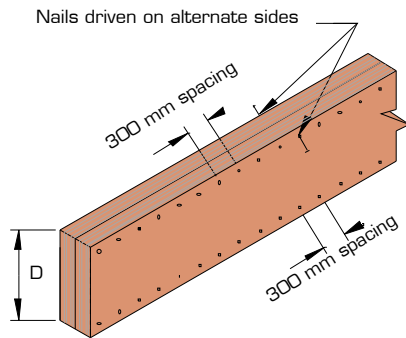
Beams of 70, 84 and 116 mm thickness can be formed by nail laminating two sections of SmartLVL 15's as follows.

Beam thickness (mm)	Individual section thickness (mm)	Nail Ø	Minimum nail length (mm)
70	35	3.06	75
84	42	3.30	90
116	58	3.30	100

MULTIPLE MEMBER LAMINATING OF TOP LOADED BEAMS (Symmetrical loading)

The edges of the individual sections must be carefully aligned to each other so that the composite beam is flat, allowing the applied loads to be equally shared.

Depths up to and including 300 mm: 2 rows of nails as shown above at 300 mm centre
 Depths in excess of 300 mm: 3 rows of nails as shown above at 300 mm centres



MULTIPLE MEMBER LAMINATING OF SIDE LOADED BEAMS (Non-symmetrical loading)

MAXIMUM FLOOR LOAD WIDTH SUPPORTED BY EITHER OUTSIDE MEMBER (mm)

Combination (see details below)	3.75Φ x 90 mm nails		12 mm Φ bolts	
	2 rows at 300 ctrs	3 rows at 300 ctrs	2 rows at 600 ctrs	2 rows at 300 ctrs
Combination 1	3400	5100	7500	15000
Combination 2	2900	4000	5600	11000
Combination 3	2900	4000	5600	11000

Combination 1

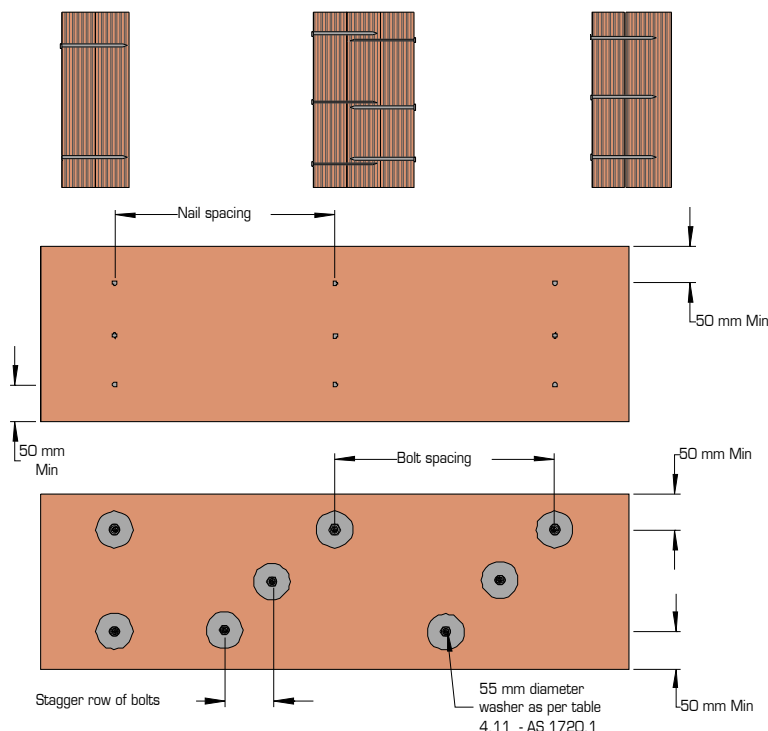
2 pieces of
35 or 42 mm

Combination 2

3 pieces of
35 or 42 mm

Combination 3

1 piece of 35 or 42 mm
1 piece of 58 or 75 mm



Notes:

1. Table values are for 40 kg/m² floors.
2. The table values for nails may be doubled for nails at 150 mm centres, and tripled for nails at 100 mm centres
3. The nail schedules shown apply to both sides of a three (3) piece beam
4. Bolts are to be grade 4.6 commercial bolts conforming to AS 1111. Bolt holes are to be a maximum of 13 mm diameter and are to be located NOT less than 50 mm from either edge.
5. All bolts shall be fitted with a washer at each end, of a size NOT less than that given in AS 1720.1 table 4.12.

HOW TO USE THE MAXIMUM UNIFORM SIDE LOAD TABLE

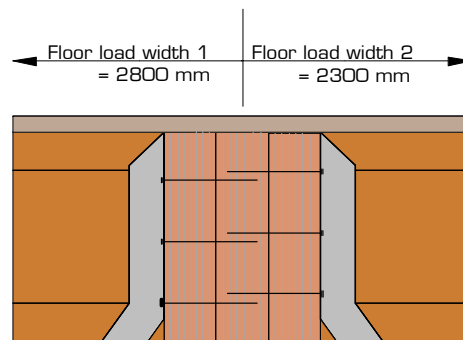
Example: see diagram opposite

Beam of 2 SmartLVL loaded on both side (Combination 1)

FLW 1 = 2800 mm, FLW 2 = 2300 mm

Total FLW = 2800 + 2300 = 5100 mm.

1. Use SmartFrame software or SmartLVL safe load tables to size the two member section to support the FLW of 5100 mm.
2. Choose the larger of the side FLW's carried by the beam, in this case 2800 mm.
3. Enter the table at the "Combination 1" row and scan across to a table value greater than 2800 mm. The first value in the row at 3600 mm is greater than the 2800 mm required.



FIRE RESISTANCE FOR STRUCTURAL ADEQUACY OF SmartLVL 15

Many of the construction details in the MRTFC manuals incorporate additional solid timber (blocking or extra studs, joists etc) in lieu of fire grade lining to protect the timber frame and maintain the fire resistance level at intersections. When timber burns, it chars relatively slowly from the outside at a predictable rate. This allows additional, sacrificial timber to be used in lieu of fire grade lining to protect structural timber.

This system has been developed to simplify and speed up the construction process by allowing all framing to be complete and roof installed before fixing plasterboard linings.

The Fire Resistance Level (FRL) is the performance criteria for fire resistance, i.e. the grading periods (in minutes) for the following criteria as specified in the BCA:

- a. Structural adequacy (the duration for which the elements can carry its designated load)
- b. Integrity: (the duration for which the element can maintain its integrity to prevent the spread of fire to/ from the compartment)

and

- c. Insulation (the duration for which the element is insulating the adjacent space from excessive temperature rise)

And expressed in that order e.g. 30/30/30.

The method for determining the Fire Resistance Period for timber (including LVL and Glulam) is laid out in AS 1720.4, and is beyond the scope of this publication.

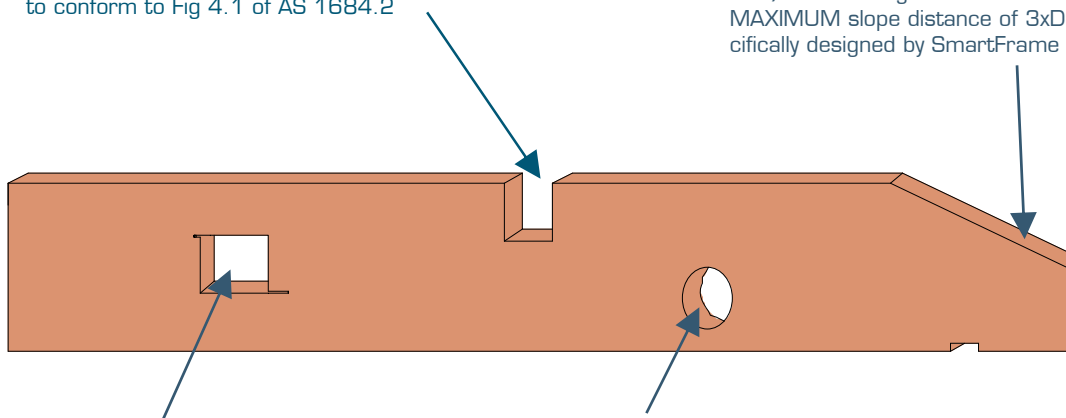
For SmartLVL 15, use $\delta = 600 \text{ kg/m}^3$ in equation 2.1 in the above standard.

As a general rule however, to maintain FRL 60/60/60 at intersections, a minimum of 45 mm thickness of SmartLVL is required. This is in addition to any structural member within the fire rated wall.

CUTTING AND NOTCHING SmartLVL 15

For bearers and joists, maximum notch (on both tension or compression edge) dimensions and locations within the span to conform to Fig 4.1 of AS 1684.2

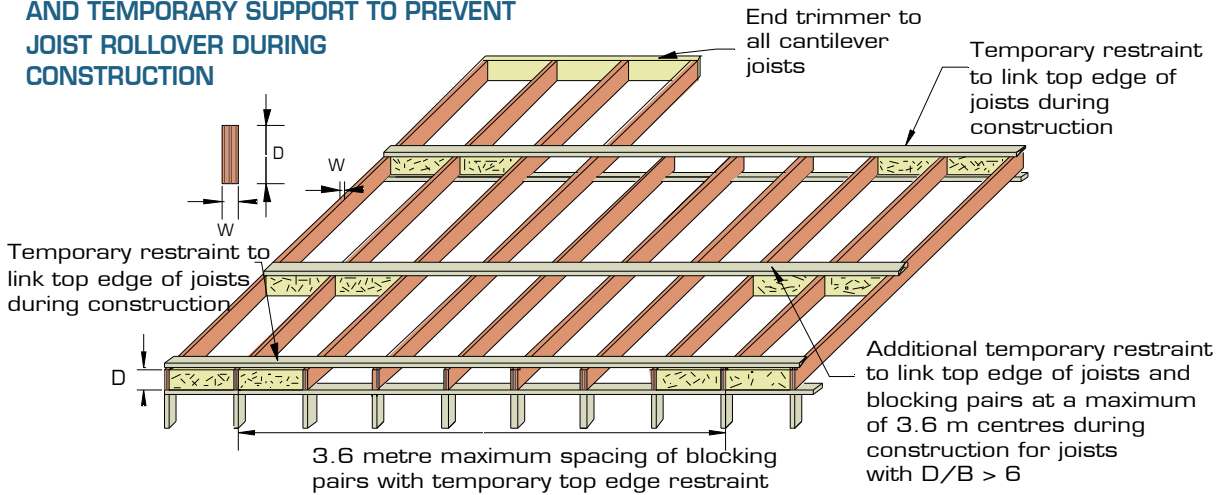
Rafter cuts are required to have a MINIMUM of $D/3$ remaining at the outer face and a MAXIMUM slope distance of $3xD$ unless specifically designed by SmartFrame Engineers



As a general rule, under NO circumstance are holes with sharp corners allowed, unless specifically designed by SmartFrame Engineers

For bearers and joists, maximum hole dimensions and locations within the span to conform to Fig 4.1 of AS 1684.2 unless alternative hole sizes have been specifically designed by SmartFrame Engineers

DEEP JOIST BLOCKING OF SmartLVL AND TEMPORARY SUPPORT TO PREVENT JOIST ROLLOVER DURING CONSTRUCTION



RESTRAINT FOR DEEP JOISTS DURING CONSTRUCTION

Floor joists with a depth of four (4) times the width are classified as deep joists. These joists, due to their large depth to width ratio, are prone to overturning or buckling under construction. To prevent this, restraint systems for deep joisted floors should comply with the diagram above as a minimum, or alternatively, the deep joist blocking detail in AS 1684.

PERMANENT BLOCKING

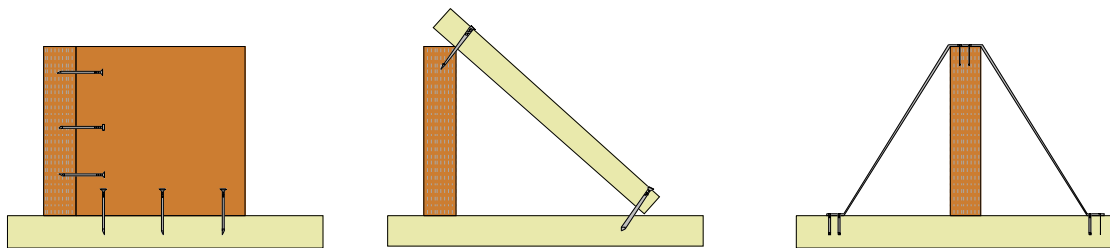
Permanent blocking (which will include some or all of the temporary blocking) has an important function in the structural stability of the structure as a whole. With the increase in trussed roof construction, ever-increasing proportions of the lateral bracing loads are all transferred to the exterior load bearing walls.

This permanent blocking provides:

- A satisfactory mechanism to transfer racking loads through the floor diaphragm.
- Vertical load transfer independent of the floor joist.
- Support to the end of the floor sheeting (Platform floors only). Heavily loaded furniture legs have been known to cause large deflections and even failures at the edges of sheet flooring.
- Torsional restraint to the end of floor joists, improving the joists structural performance.

With the diminished requirement to provide midspan blocking due to the properties of SmartLVL 15 joists, it is recommended that the exterior load bearing wall be blocked at least every second joist (in combination with area of heavy point loads etc) to provide adequate lateral restraint to the structure as a whole.

LATERAL RESTRAINT OF HANGING, COUNTER, STRUTTING, STRUTTING/HANGING BEAMS, STRUTTING/COUNTER BEAMS



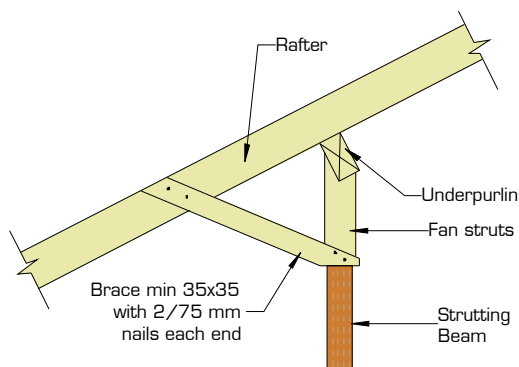
(a) Block skew nailed to beam and to support with 3/75 mm skew nails to each member

(b) Min 35 x 32 mm tie nailed to top of beam and to support with 2/75 mm nails at each end

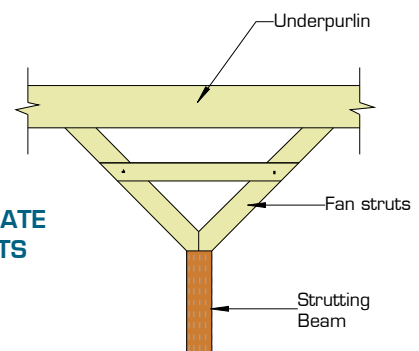
(c) Galvanised strap nailed to support and top of beam with 2/30 x 2.8 mm nails each end and to beam

Notes:

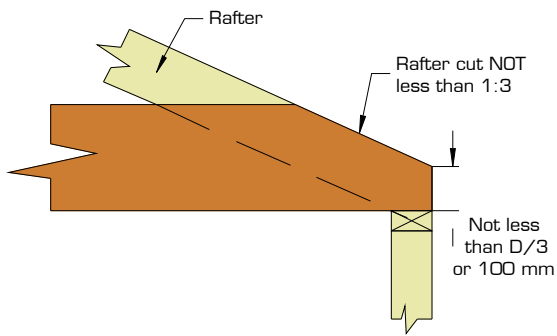
1. Method used depends upon whether ceiling joists are perpendicular or parallel to the beam.
2. Methods given in (b) and (c) are particularly suitable for restraining strutting beams and strutting/hanging beams at the intermediate points where the beams are supported, as they also permit these beams to be supported up clear of the ceiling joists by packing under at their supports.



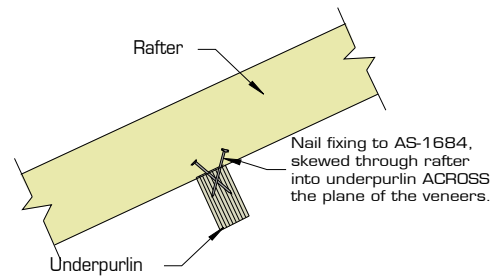
EXAMPLE INTERMEDIATE LATERAL RESTRAINTS



SmartLVL ROOF CONSTRUCTION DETAILING



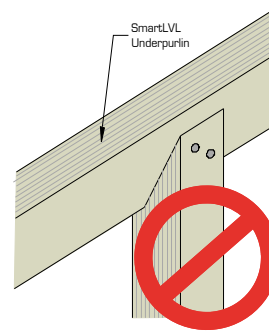
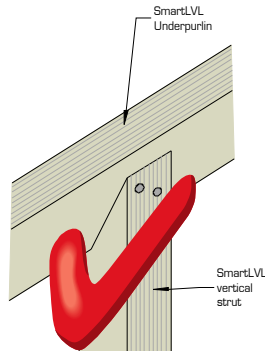
RAFTER CUT DETAIL - May be used for Counter, Hanging and Strutting beams



Rafters are NOT to be skew nailed to the underpurlin with the nails parallel to the direction of the veneers.

RAFTER UNDERPURLIN FIXING

VERTICAL SmartLVL ROOF STRUTS



DO NOT cut the birdsmouth in the direction of the SmartLVL veneers

DURABILITY AND EXPOSURE TO MOISTURE

SmartLVL is manufactured from Douglas Fir (Oregon) which has a durability rating of class 4, which is the same rating as some Ash type Eucalypts. Untreated SmartLVL should not be used where the equilibrium moisture content is likely to remain above 20% for an extended period.

Untreated SmartLVL is suitable in the *internal, fully protected, ventilated* and the *external above ground, protected* zones of the structure as shown on the next page. Untreated SmartLVL is not suitable for *external above ground, exposed* or humid indoor conditions, such as swimming pool enclosures.

MOISTURE EFFECTS ON LVL

SmartLVL is supplied WITHOUT any short term construction sealer, but once framed into a structure may be exposed to the weather for a limited time (not greater than 3 months) without negative affect, BUT, it may exhibit some effects of this exposure such as swelling and checking.

SmartLVL, like all wood products, is hygroscopic, which means it has an affinity for water. SmartLVL will readily take up and release moisture in response to changes in the local environment.

Moisture exposure will lead to dimensional change. SmartLVL should be considered as a composite of many pieces of wood, each with different potential swelling.

While the products will withstand normal exposure, excessive exposure during distribution, storage or construction may lead to dimensional changes that affect serviceability. These changes include cupping, bowing or expansion to dimensions to beyond the specified tolerance of the product in the "as-manufactured" condition.

Individual members of a vertically laminated multi member may exhibit some cupping if water becomes trapped between the laminates. This cupping produces more of a visual and possible fixity problem rather than being structurally significant. If not

properly dried out, this moisture between laminated members may lead to decay. To prevent this effect, use construction details as shown on page 3.

As an organic material, mold and mildew may grow on untreated wood products if moisture is present. Prolonged periods of high moisture may also support the growth of wood decay fungi, which is another reason to follow proper methods of storage and handling of LVL.

The table below shows the moisture content of LVL as a function of humidity.

1. DIMENSIONAL CHANGE

Moisture content of wood products % ⁽¹⁾

Relative Humidity %	LVL MC
10	1.2
20	2.8
30	4.6
40	5.8
50	7.0
60	8.4
70	11.1
80	15.3
90	19.4

1. Approx. moisture content at 21°C

SmartLVL will shrink and swell in proportion to changes in their moisture content between 0 and 28 % fibre saturation point.

The most significant moisture movement will occur across the grain (tangential and radial directions within a log). Longitudinal (movement in the grain direction) may be a factor depending upon the type of structure. Detailing of SmartLVL to be used where moisture contents will cycle should allow for dimensional instability.

The AVERAGE amount of dimensional change in a piece of LVL

DURABILITY AND EXPOSURE TO MOISTURE (cont'd)

due to changes in moisture content can be APPROXIMATED by the following formula:

$$\Delta D = D_i S (MC_i - MC_f) / FSP$$

Where:

- ΔD = change in dimension
- D_i = Initial dimension
- S = Shrinkage coefficient = approximately 6%
- MC_i = Initial moisture content
- MC_f = final moisture content
- FSP = fibre saturation point approximately 28%

HOWEVER, these dimensional effect are quite variable. Thickness swell in LVL is erratic along the length because of the densification of the lap joints during manufacture tends to "relieve" when saturated and the total swell in sections containing two (2) laps can be as much as 3 mm.

2. CHANGE IN CHARACTERISTIC STRENGTHS

Changes in moisture content in wood results in changes in mechanical properties, with higher properties at lower moisture contents. Estimates of the effect of moisture differentials on the properties of clear wood may be obtained by the following equation:

$$P = P_{12} \left(\frac{P_{12}}{P_g} \right)^{\left(\frac{12 - M}{M_p - 12} \right)}$$

Where:

- P = Characteristic property at moisture content
- P₁₂ = same Characteristic property at 12% moisture content
- P_g = same Characteristic property for Green wood
- M_p = Intersection moisture content = 24% for Doug Fir

The APPROXIMATE effect upon key Characteristic Properties of LVL by changes in MC are outlined in the table below:

Characteristic Property		Reduction in Characteristic Strength at % MC					
		14	16	18	20	22	24
MOE (Stiffness)	E	3.3	6.5	9.7	12.7	15.6	18.4
MOR (Bending)	F _b	8.4	16.1	23.1	29.6	35.5	40.9
Compression perpendicular to grain	f _p	9.9	18.9	27.0	34.2	40.8	46.7
Compression parallel to grain	f _c	11.0	20.7	29.4	37.2	44.1	50.2
Shear	f _s	6.6	12.8	18.6	24.0	29.0	33.7

The design Characteristic properties of SmartLVL can therefore be considerably reduced by severe increase in MC of the LVL. If the SmartLVL is being built into structures (such as Prefabricated trusses) that are:

1. Likely to experience large increase in MC due to weather exposure or stored on the ground
2. Likely to be loaded to at/or close to design loads while in the high MC state

then the reduced Characteristic Strengths as detailed above NEED to be used in the design or members may require temporary propping.

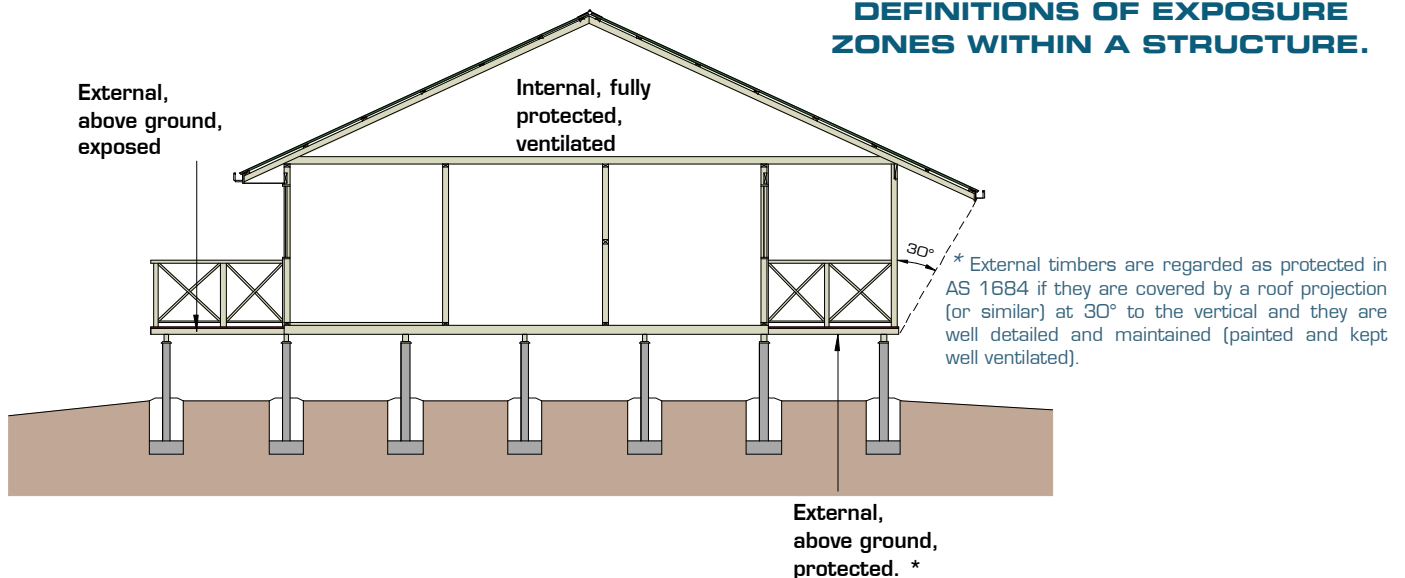
Once covered, the SmartLVL will ultimately dry and re-equilibrate to the ambient humidity conditions, but some expansion or swelling will remain after re-drying. The thickness swelling in laps will never fully shrink back and a large piece of LVL can have a final thickness variation along the length of 3-4 mm

3. DESIGN FOR DURABILITY

Design & Construction detailing tips

- i. The use of building overhangs and other structures which protect the beams from excessive moisture movement and sun exposure.
- ii. All beams should be provided with adequate ventilation so that moisture content within beams will not exceed 15% and moisture gradients across the beam will not occur.
- iii. The use of arrised or round edges on beams to reduce the likelihood of coating failures on sharp edges.
- iv. The use of drip edges or other devices which provide a path for free moisture flow away from the timber beam.
- v. Joint detailing should, wherever possible, comply with the following:
 - Keep horizontal contact areas to a minimum, in favour of self draining vertical surfaces.
 - Ventilate joint surfaces by using spacers, wherever possible.
 - Always use compatible fasteners which have adequate corrosion protection and do not cause splitting during installation e.g. hot dipped galvanic coatings or stainless steel.
 - Ensure any moisture entering a joint is not trapped but can adequately drain away from the joint.
- vi. Allow for thermal expansion/contraction in the joint design.

DEFINITIONS OF EXPOSURE ZONES WITHIN A STRUCTURE.



DURABILITY AND EXPOSURE TO MOISTURE (Cont'd)

HAZARD CLASS SELECTION GUIDE

HAZARD CLASS	EXPOSURE	SPECIFIC SERVICE CONDITIONS	BIOLOGICAL HAZARD	TYPICAL USES
H1†	Inside, above ground	Completely protected from the weather and well ventilated, and protected from termites	Lyctid borers	Interior beams, staircases, stringers
H2S*	Inside, above ground	Protected from wetting. Nil leaching	Borers and termites	Interior beams, staircases, trusses, joists
H2	Inside, above ground	Protected from wetting. Nil leaching	Borers and termites	Interior beams, staircases, trusses, joists
H3	External, above ground	Subject to periodic moderate wetting and leaching	Moderate decay, borers and termites	Exterior beams

† The timber species in SmartLVL 15 are not susceptible to Lyctid Borer attack.

* H2S treatment is only suitable South of the Tropic of Capricorn

SMARTGUARD® LOSP TREATMENT

SmartLVL 15 can be supplied glue-line H2S* treated or SmartGuard® LOSP treated to either H2 or H3 hazard class levels, as per AS/NZS 1604.4. **To maintain effective treatment it is a requirement that any cuts, notches or penetrations made in LOSP treated LVL be painted with a suitable "brush/spray on" preservative.**

(Note: Water borne treatment processes are NOT suitable for SmartLVL 15). The hazard class number selected is based upon the specific exposure condition for the proposed end use of the SmartLVL 15, as shown in the table above.

A more comprehensive Hazard Class Table is available in AS/NZS1604.4, but it is **NOT** recommended that SmartLVL 15 be used in end uses with exposures requiring treatment in excess of H3.

Experience is showing that LOSP treated timber in the **external above ground, exposed** (H3 Hazard Class) may experience some leaching of the active ingredients of the LOSP treatment. To minimize the possibility of timber degradation in these situations, it is recommended that Smart Guard H3 treated LVL 15 NOT be used where the surface is horizontally exposed AND unprotected from

water entrapment OR where post-treatment protection cannot be maintained.

Post treatment protection may include:

- (i) Protectadeck™ high density water proof joist/bearer cover or malthoid capping **and**
- (ii) An impervious membrane such as regularly maintained painting or staining.
- (iii) Construction detailing to prevent water entrapment.

H3 treated SmartLVL is **NOT** recommended for fascia's, pergolas or other similar **external above ground, exposed** applications due to mechanical degradation of the wood fibre causing checking and cracking which is both aesthetically unacceptable and allows ingress of water to inner veneers.

FASTENERS FOR SmartGuard H3 LVL

For SmartGuard H3 LVL to be used in exposed exterior applications, it is recommended that either hot dipped galvanised or stainless steel fasteners are used.

PAINTING of SmartGuard® LOSP TREATED SmartLVL 15

Wait until excess solvents have evaporated and timber is dry. The pressure of the solvent (white spirits) from the LOSP treatment may affect the drying and hardening of paints if there has been insufficient evaporation time after the treatment. It is strongly recommended that the treated timber is left to recondition for at least 7 days in the end use situation before painting.

One coat of premium quality primer as a minimum should be applied to all surfaces prior to erection of beam and to any cuts or holes drilled. If the first coat of primer, sealant paint or stain fails to dry or adhere within the time expected, do not proceed to any further coats until the first coat has achieved satisfactory dryness and adhesion. If the first coat fails to dry it may be necessary to strip back to bare timber and allow it to weather for another week or two.

1. Paint

a. Exterior solid colour acrylic finish. One coat of oil based primer followed by one or two coats of the exterior acrylic finish as required.

Or

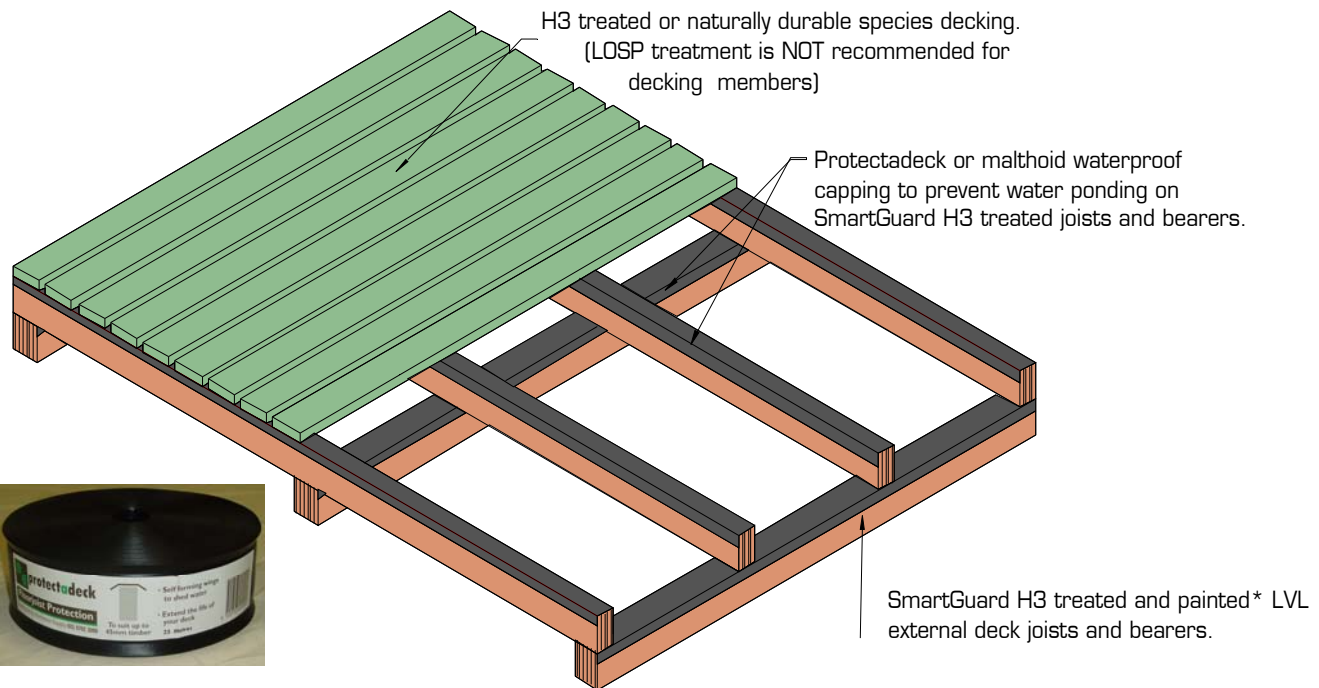
b. Exterior solid colour oil based enamel. One coat of oil based primer followed by one coat of oil based undercoat (if required) then two coats of the oil based enamel.

2. Stains

Exterior semi-transparent or solid colour penetrating oil based stain or similar. Two or three coats of the stain are required or recommended by the manufacturer.

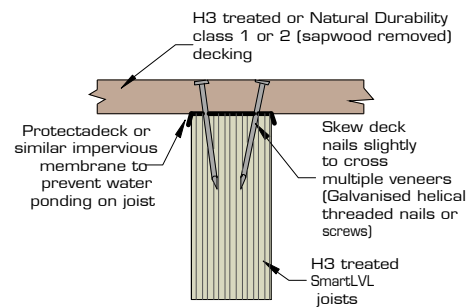
SMARTGUARD® H3 DECK BEARERS AND JOISTS

SmartGuard H3 Treated Deck joists and bearers are a common application for treated SmartLVL 15. The diagram demonstrates the minimum construction detailing for SmartGuard LOSP H3 treated joists and bearers. Failure to follow these guidelines may render treatment warranties void.



Recommended proprietary top protection for joists and bearers

It is a requirement that any cuts, notches or penetrations made in LOSP treated LVL be painted with a suitable "brush/spray on" preservative such as "Enseal". (Enseal is available as part of any Smart-Frame H3 LOSP order)

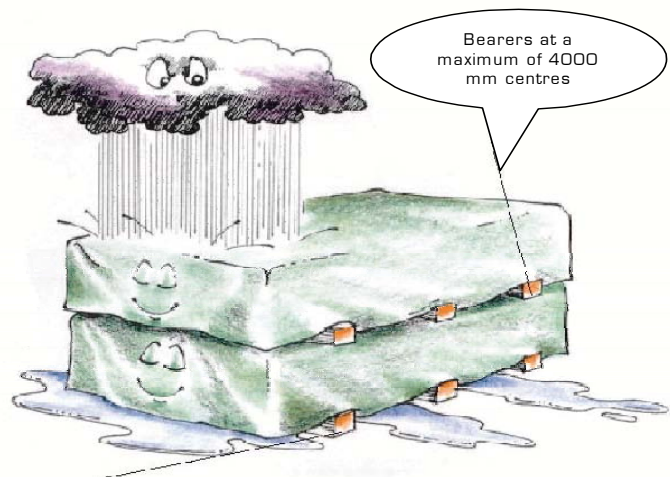


* Painting as per "Painting of SmartGuard LOSP Treated SmartLVL 15" above

Recommended Fastening to SmartLVL Deck Joists.

STORAGE AND HANDLING OF SmartLVL 15

- Store SmartLVL 15 flat on a hard, dry surface
- If surface isn't paved, the ground should be covered with a polythene film
- Keep covered with waterproof material that allows bundles to "breathe"
- Use bearers (bolsters) between the ground and the first bundle (4 metre max spacing)
- Use 100 x 50 timber flat between bundles at same spacing as bolsters
- Take great care to rewrap remaining material after opening bundles
- LVL "grows" in thickness and depth when allowed to get wet....KEEP DRY!
- LVL with high MC has short term reduction in Characteristic Strengths KEEP DRY!
- Under NO circumstances is stored SmartLVL to be in contact with the ground.



Use bearers to keep stacked material away from damp surfaces. Align bearer vertically

CHEMICAL RESISTANCE

SmartLVL's (wood in general) has a definite advantage over steel members when exposed to corrosive environments. Timber and wood products are able to withstand mild acid conditions and are more resistant to degradation.

The behaviour of SmartLVL in chemical environments depends upon a number of factors, including PH and temperature. Wood essentially responds by either swelling (Category S), similar to moisture response, or by chemical degradation (Category D). Damage due to swelling is essentially reversible, but chemical degradation results in breakdown of the wood structure and is non-reversible. Category S agents include alcohol and other polar agents. These agents swell dry wood causing a strength (and stiffness) loss proportional to the swelling.

Category D agents include acids, alkalis and salts and result in a loss of strength and stiffness directly related to the loss of member cross-section. The table below provides a rough guide to performance of SmartLVL in chemical environments.

The effect of chemicals on wood will generally be worsened by increased exposure time, temperature, extremes of pH and chemical concentration. Wood generally offers considerably less resistance to alkalis than acids. Softwoods (includes SmartLVL) generally have better resistance to acids than hardwoods.

Where there is the possibility of chemical attack on SmartLVL members, designers should seek expert advice.

Agent category	Chemical agent	Mode of attack	Damage - reversible or permanent	Severity - (loss of strength and/or stiffness)
Neutral	Non-polar liquids such as petroleum hydrocarbons	None	Negligible	Negligible
S (swelling)	Alcohol and other polar solvents	Swelling	Reversible	Proportional to volumetric swelling
D (degrading)	Inorganic acids	Hydrolysis of cellulose	Permanent	Slight to moderate
D	Organic acids such as: Formic, acetic, propionic and lactic acid	Hydrolysis of cellulose	Permanent	Slight (pH 3-6)
D	Alkalis such as: sodium, calcium and magnesium hydroxide	De-lignification of wood and dissolving of hemicellulose	Permanent	Moderate (pH > 9.5) Severe (pH > 11)
D	Salts (considered as weak acids)	Hydrolysis of cellulose	Permanent	Slight

Table reference Williamson T.G 2002 APA Engineered Wood Handbook

WOOD DUST

(for all Wood Dust, Wood and Wood Products Not Preservative Treated)

CAUTION

- WOOD DUST CAN BE PRODUCED BY SAWING, SANDING OR MACHINING WOOD AND WOOD PRODUCTS
- FLAMMABLE - POSSIBLE EXPLOSION HAZARD MAY CAUSE RESPIRATORY, EYE AND SKIN IRRITATION
- SOME SPECIES MAY CAUSE DERMATITIS OR ALLERGIC RESPONSE THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) CLASSIFIES WOOD DUST AS A NASAL CARCINOGEN IN HUMANS

For additional information see the Material Data Sheet (MSDS)

Tilling Timber Pty Ltd
SmartFrame Design Centre
Kilsyth, Victoria.

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SmartData Customer HelpLine 1300 668 690

SmartFrame DESIGN/EFFECTIVE SPAN

Normal structural analysis uses the centreline representation of the member. The term "span" can be defined in a number of ways and these are defined as follows:

Clear Span. This is the distance between the faces of any support. It is generally the one easiest to measure and read from the drawings

Nominal span/centre-line span. This is the distance between the centre of the supports. This span is used to determine bending moments and deflections for continuous spanning members

Design span/Effective span. This is the span used for single span members to determine the bending moment, the slenderness of bending members and the deflections. In AS 1720.1, this is the dimension referred to as "L", and is defined below.

Design span/Effective span is the distance between -

- The centre of the bearing at each end of a beam where the bearing lengths have **NOT** been conservatively sized
- The centre of notional bearing that have been sized appropriately, where the size of the bearing **IS** conservative.

Diagram (a) shows beam where bearings have been designed appropriately. The effective span is taken as the distance between the centre of each bearing area

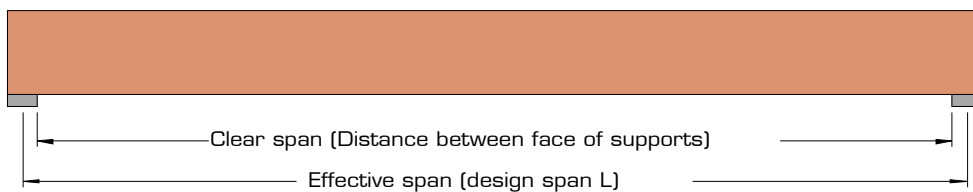
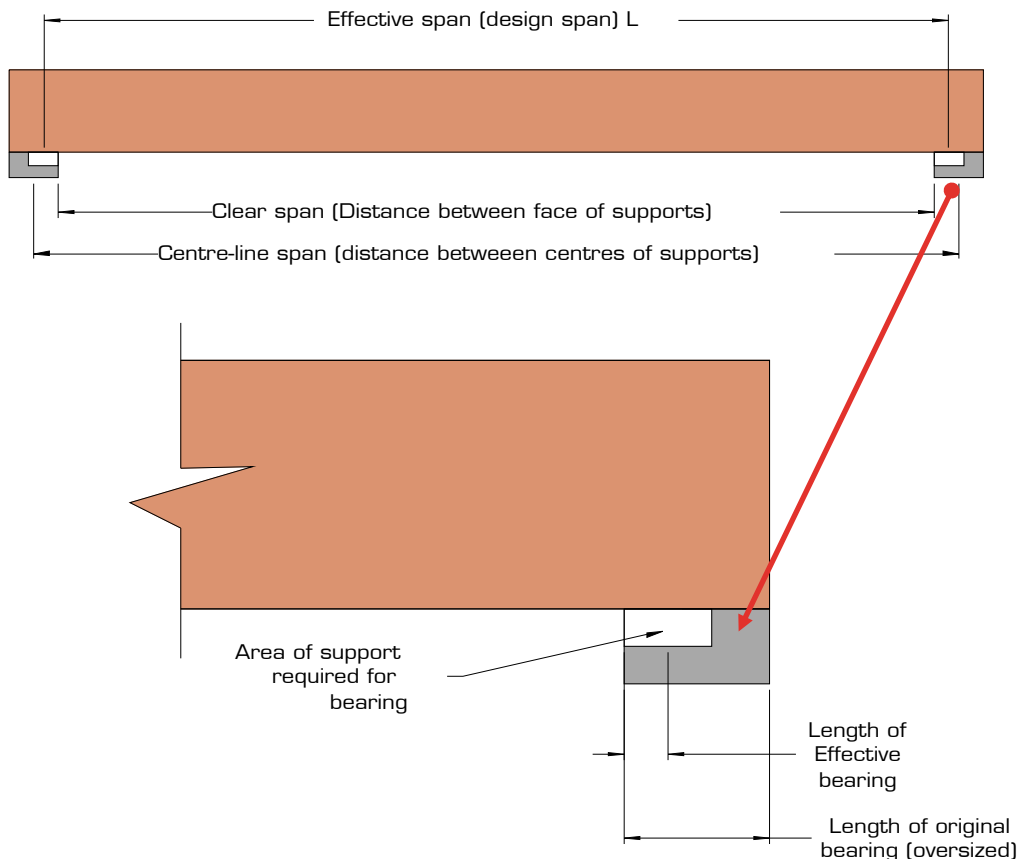


Diagram (b) below shows beam where bearings at each end have been oversized. (This is frequently the case for beams that bear onto brickwork or concrete walls where the thickness of the wall is in excess of the area required to give the beam bearing capacity).

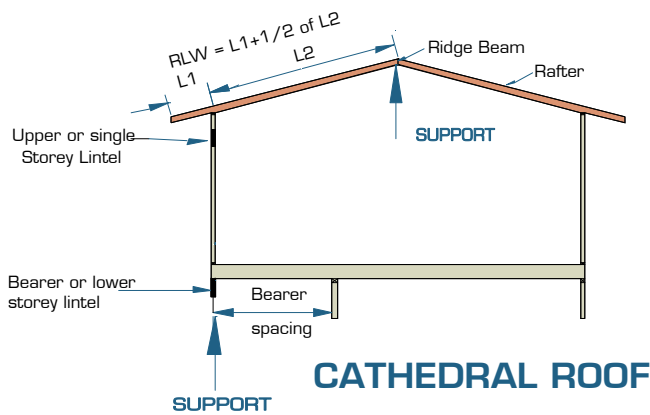
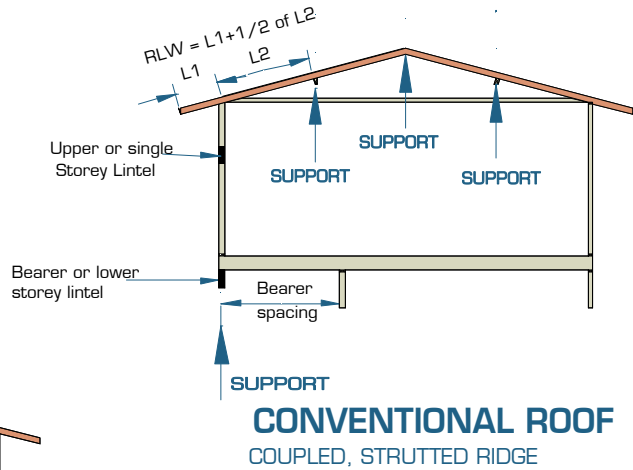
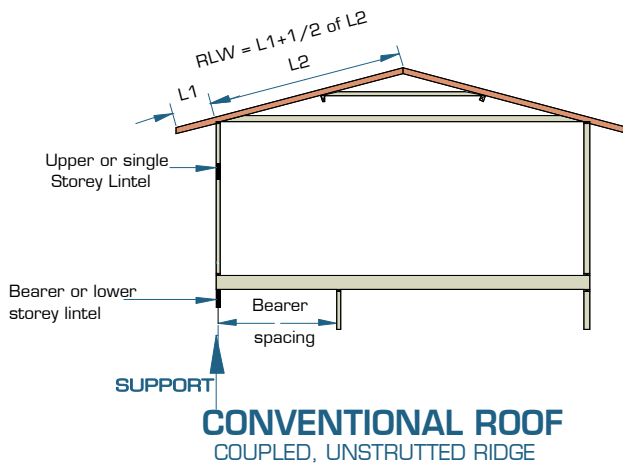
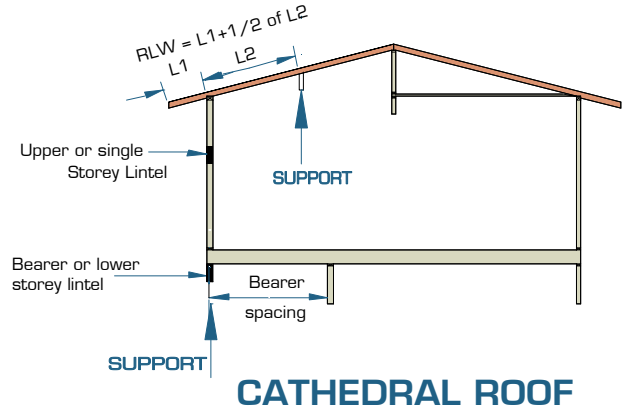
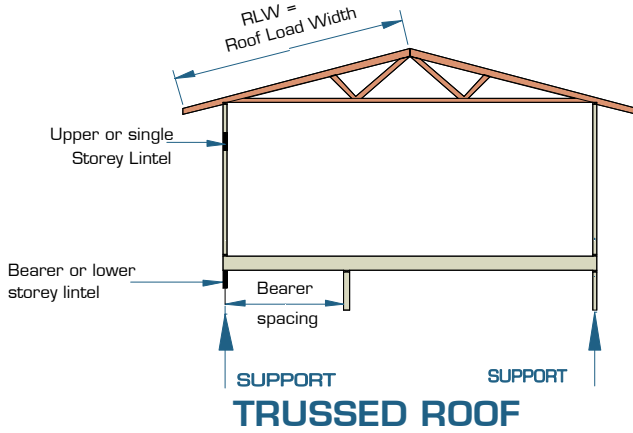
To find the correct effective span:

1. Calculate the minimum bearing required to carry the loads satisfactorily
2. Add minimum bearing length to "clear span" distance



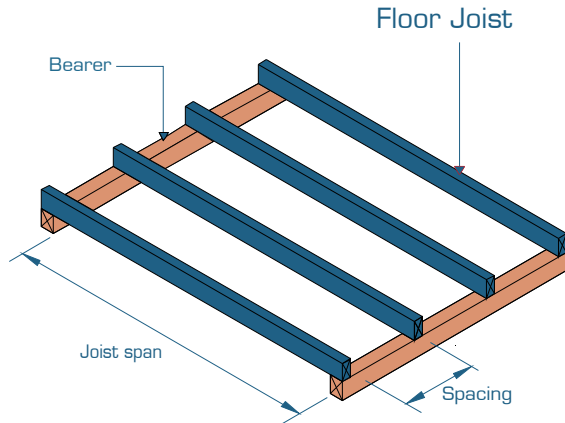
DETERMINATION OF ROOF LOAD WIDTHS

"ROOF LOAD WIDTH" applies to garage beams only (eg: bearers under walls, lintels etc) and determines the loads carried by the walls. Typical examples of the RLW are shown below, a far more comprehensive list is shown in AS1684.2



FLOOR JOISTS SUPPORTING FLOOR LOADS ONLY

Floor mass - 40 kg/m²



EXAMPLE:

domestic floor loads
single span
joist spacing = 450 mm
joist span = 3500 mm

Enter single span table at 450 mm in joist spacing column, read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 15 - 190x35

Loadings: permanent - self weight + 40 kg/m² + 0.6 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

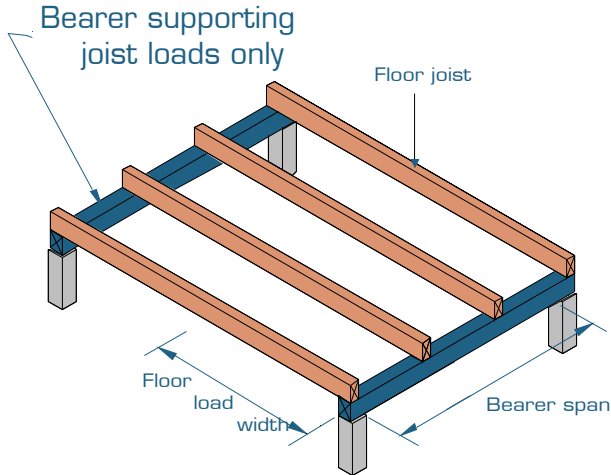
Joist spacing (mm)	300	450	600	300	450	600
Member size DxB (mm)	Maximum Allowable span (mm)					
	Single span			Continuous span		
90x35	1850	1650	1550	2350	1950	1800
120x35	2950	2300	2150	3600	2750	2500
130x35	3200	2550	2350	4000	3050	2700
140x35	3450	2750	2550	4300	3300	2950
150x35	3650	3000	2750	4550	3600	3200
170x35	4150	3450	3150	4950	4200	3650
190x35	4600	3950	3550	5400	4850	4150
200x35	4750	4150	3750	5600	5100	4400
240x35	5400	4950	4550	6450	5800	5400
290x35	6150	5650	5350	7400	6700	6250
300x35	6300	5800	5450	7600	6900	6400
90x42	2100	1800	1650	2550	2100	1950
120x42	3150	2500	2300	3900	2950	2650
130x42	3400	2750	2500	4250	3250	2900
140x42	3600	2950	2700	4500	3550	3150
150x42	3850	3200	2900	4750	3850	3400
170x42	4350	3700	3350	5200	4550	3900
190x42	4750	4200	3800	5650	5100	4450
200x42	4950	4500	4000	5900	5300	4700
240x42	5600	5150	4850	6750	6100	5650
290x42	6400	5900	5550	7750	7000	6550
300x42	6550	6050	5700	7950	7200	6700
360x42	7400	6850	6450	9150	8250	7700
400x42	7950	7400	6950	8350	8950	8300
90x58	2550	2050	1900	3000	2400	2200
130x58	3700	3050	2800	4600	3700	3250
150x58	4250	3650	3300	5150	4450	3850
170x58	4700	4200	3750	5650	5100	4400
200x58	5250	4850	4500	6400	5750	5300
240x58	5950	5500	5200	7300	6600	6150
300x58	6950	6450	6100	8650	7800	7250
360x58	7800	7300	6900	8350	8950	8350
400x58	8400	7850	7450	9100	9700	9000
450x58	9050	8500	8050	9950	9950	9850
300x75	7250	6750	6400	9100	8350	7750
400x75	8700	8200	7800	11350	9950	9600
525x75	10350	9800	9350	12000	10000	9950

NOTES:

- Spans are suitable for solid timber, particle board and ply flooring. floor sheeting glued and nailed to joists will improve floor rigidity. Where heavy overlay material is to be applied, such as a mortar bed tiled or slate floor, the permanent load allowance should be increased to 1.2 kPa. A reduction of joist spacing may be used to accommodate this extra permanent load. A satisfactory result can be achieved by adopting the maximum spans for 600 mm and 450 mm spacing but installing the joists at 450 and 300 mm spacing respectively.
- For beams which are continuous over two unequal spans, the design span and the 'resultant span description' depend upon the percentage span differences between the two spans as shown on page 2.
- D = member depth, B = member breadth, NS = not suitable.
- End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members.
- Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE SPAN FLOOR BEARERS SUPPORTING FLOOR LOADS ONLY

Floor mass - 40 kg/m²



EXAMPLE:

single span bearer = 4000 mm
 floor load width = 6000 mm

Enter single span table at 6000 mm in floor load width column, read down to a span equal to or greater than 4000 mm

ADOPT:

SmartLVL 15 — 2/360 x 42
 (Additional bearing length of 20 mm required)

Loadings: permanent - self weight + 40 kg/m² + 0.6 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

Floor load width (mm)		1200	1800	2400	3000	3600	4200	4800	5400	6000	6600
Member size DxB (mm)	Floor mass (kg/m ²)	Maximum Bearer span (mm)									
		Single span									
2/90x35	40	1800	1550	1400	1300	1200	1150	1100	1050	1000	NS
2/120x35	40	2350	2050	1900	1750	1650	1550	1450	1400	1350	1300
2/130x35	40	2550	2250	2050	1900	1750	1650	1600	1500	1450	1400
2/140x35	40	2750	2400	2200	2050	1900	1800	1700	1650	1600	1500
2/150x35	40	2950	2600	2350	2150	2050	1950	1850	1750	1700	1650
2/170x35	40	3350	2900	2650	2450	2300	2200	2100	2000	1900	1850
2/190x35	40	3700	3250	2950	2750	2600	2450	2350	2250	2150	2050
2/200x35	40	3850	3450	3100	2900	2700	2550	2450	2350	2250	2200
2/240x35	40	4350	3950	3700	3450	3250	3100	2950	2800	2700 ₅	2600 ₁₀
2/290x35	40	5000	4550	4250	4000	3850	3700 ₅	3550 ₅	3400 ₁₀	3300 ₁₅	3150 ₂₀
2/300x35	40	5150	4700	4350	4100	3950	3800 ₅	3650 ₁₀	3500 ₁₅	3400 ₁₅	3250 ₂₀
2/90x42	40	1900	1650	1500	1400	1300	1200	1150	1100	1050	1050
2/120x42	40	2500	2200	2000	1850	1750	1650	1550	1500	1450	1400
2/130x42	40	2700	2400	2150	2000	1850	1750	1700	1600	1550	1500
2/140x42	40	2900	2550	2300	2150	2000	1900	1800	1750	1700	1600
2/150x42	40	3100	2750	2500	2300	2150	2050	1950	1850	1800	1750
2/170x42	40	3550	3100	2800	2600	2450	2300	2200	2100	2050	1950
2/190x42	40	3850	3450	3150	2900	2750	2600	2450	2350	2300	2200
2/200x42	40	4000	3600	3300	3050	2900	2750	2600	2500	2400	2300
2/240x42	40	4550	4150	3850	3650	3450	3250	3100	3000	2900	2800 ₅
2/290x42	40	5200	4750	4450	4200	4000	3850	3700	3600 ₅	3500 ₁₀	3350 ₁₀
2/300x42	40	5350	4850	4550	4300	4100	3950	3800	3700 ₅	3600 ₁₀	3450 ₁₅
2/360x42	40	6100	5550	5200	4900	4700	4500 ₅	4350 ₁₀	4250 ₁₅	4100 ₂₀	4000 ₂₀
2/400x42	40	6550	6000	5600	5300	5100 ₅	4900 ₁₀	4700 ₁₅	4600 ₂₀	4450 ₂₀	4350 ₂₅
90x58	40	1650	1450	1300	1200	1150	1100	1050	NS	NS	NS
130x58	40	2400	2100	1900	1750	1650	1550	1500	1450	1350	1350
150x58	40	2800	2450	2200	2050	1900	1800	1750	1650	1600	1550
170x58	40	3150	2750	2500	2300	2150	2050	1950	1850	1800	1750
200x58	40	3650	3250	2950	2700	2550	2400	2300	2200	2100 ₅	2050 ₅
240x58	40	4200	3800	3500	3250	3050	2900	2750 ₅	2650 ₁₀	2550 ₁₀	2450 ₁₅
300x58	40	4950	4500	4150	3950	3750 ₅	3600 ₁₀	3450 ₁₅	3300 ₂₀	3200 ₂₅	3100 ₃₀
360x58	40	5600	5100	4750	4500 ₅	4300 ₁₀	4150 ₂₀	4000 ₂₅	3850 ₃₀	3750 ₃₅	3650 ₄₀
400x58	40	6050	5500	5150	4900 ₁₀	4650 ₁₅	4450 ₂₀	4300 ₃₀	4200 ₃₅	4050 ₄₀	3950 ₅₀
450x58	40	6600	6000	5600 ₅	5300 ₁₅	5100 ₂₀	4900 ₃₀	4700 ₃₅	4550 ₄₅	4450 ₅₀	4350 ₅₅
300x75	40	5200	4750	4450	4200	4000	3850	3700 ₅	3600 ₁₀	3450 ₁₅	3350 ₂₀
400x75	40	6400	5850	5450	5200	4950 ₅	4750 ₁₀	4600 ₁₅	4450 ₂₅	4350 ₃₀	4200 ₃₅
525x75	40	7750	7100	6650	6300 ₁₀	6050 ₁₅	5800 ₂₅	5600 ₃₀	5450 ₃₅	5300 ₄₅	5150 ₅₀

CONTINUOUS SPAN FLOOR BEARERS SUPPORTING FLOOR LOADS ONLY

Floor mass - 40 kg/m²

Loadings: permanent - self weight + 40 kg/m² + 0.6 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

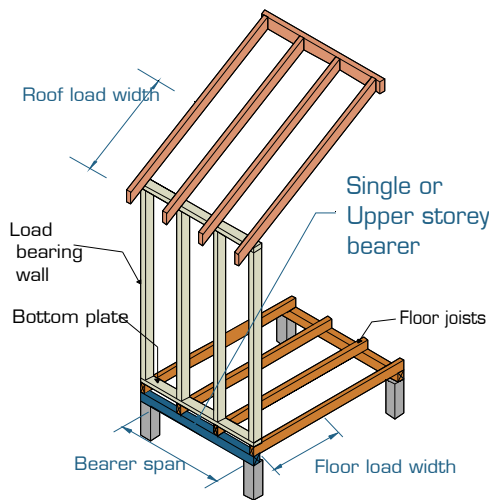
Floor load width (mm)		1200	1800	2400	3000	3600	4200	4800	5400	6000	6600
Member size DxB (mm)	Floor mass (kg/m ²)	Maximum Bearer span (mm)									
		Continuous span									
2/90x35	40	2400	2100	1900	1750	1650	1550	1500	1450	1400	1350
2/120x35	40	3200	2800	2550	2350	2200	2100	2000	1900	1850 ₅	1750 ₁₀
2/130x35	40	3400	3050	2750	2550	2400	2250	2150	2100 ₁₀	2000 ₁₅	1900 ₂₀
2/140x35	40	3600	3250	3000	2750	2600	2450	2350 ₅	2250 ₁₅	2150 ₂₀	2050 ₂₅
2/150x35	40	3800	3450	3200	2950	2750	2600 ₅	2500 ₁₅	2400 ₂₀	2250 ₂₅	2150 ₃₀
2/170x35	40	4200	3800	3500	3350	3150 ₅	2950 ₁₅	2850 ₂₅	2700 ₃₅	2550 ₄₀	2400 ₄₅
2/190x35	40	4550	4100	3800	3600 ₅	3450 ₁₅	3300 ₃₀	3150 ₃₅	2950 ₄₅	2800 ₅₀	2650 ₆₀
2/200x35	40	4700	4250	3950	3750 ₅	3600 ₂₀	3450 ₃₀	3300 ₄₀	3100 ₅₀	2950 ₆₀	2800 ₆₅
2/240x35	40	5400	4900	4550 ₅	4300 ₂₀	4100 ₃₅	3950 ₅₀	3850 ₆₅	3650 ₇₅	3450 ₈₅	3300 ₉₅
2/290x35	40	6250	5650	5250 ₂₀	4950 ₃₅	4750 ₅₀	4550 ₇₀	4400 ₈₅	4300 ₁₀₅	4100 ₁₁₅	3900 ₁₂₅
2/300x35	40	6400	5800	5400 ₂₀	5100 ₄₀	4850 ₅₅	4700 ₇₅	4550 ₉₅	4400 ₁₁₀	4250 ₁₂₀	4000 ₁₃₀
2/90x42	40	2550	2250	2050	1900	1750	1650	1600	1500	1450	1400
2/120x42	40	3350	3000	2700	2500	2350	2250	2100	2050	1950	1900
2/130x42	40	3600	3250	2950	2700	2550	2400	2300	2200	2100 ₅	2050 ₁₀
2/140x42	40	3800	3400	3150	2900	2750	2600	2500	2400 ₅	2300 ₁₀	2200 ₁₅
2/150x42	40	4000	3600	3350	3150	2950	2800	2650	2550 ₁₀	2450 ₁₅	2350 ₂₅
2/170x42	40	4400	3950	3700	3500	3350	3150 ₅	3000 ₁₅	2900 ₂₅	2800 ₃₀	2650 ₃₅
2/190x42	40	4750	4300	4000	3800	3600 ₅	3500 ₁₅	3350 ₂₅	3200 ₃₅	3100 ₄₀	2900 ₄₅
2/200x42	40	4950	4450	4150	3950	3750 ₅	3600 ₂₀	3500 ₃₀	3400 ₄₀	3200 ₄₅	3050 ₅₀
2/240x42	40	5650	5100	4750	4500 ₅	4300 ₂₀	4150 ₃₀	4000 ₄₅	3900 ₅₅	3800 ₇₀	3600 ₇₅
2/290x42	40	6550	5900	5500 ₅	5200 ₂₀	4950 ₃₅	4800 ₅₀	4600 ₆₅	4500 ₈₀	4350 ₉₅	4250 ₁₁₀
2/300x42	40	6700	6050	5650 ₁₀	5350 ₂₅	5100 ₄₀	4900 ₅₅	4750 ₇₀	4600 ₈₅	4500 ₁₀₀	4400 ₁₁₅
2/360x42	40	7650	6950	6450 ₂₀	6100 ₄₀	5850 ₅₅	5600 ₇₅	5450 ₉₅	5300 ₁₁₀	5150 ₁₂₅	5000 ₁₃₅
2/400x42	40	8250	7500 ₁₀	7000 ₃₀	6600 ₅₀	6300 ₇₀	6100 ₉₀	5900 ₁₁₀	5700 ₁₂₅	5550 ₁₄₀	5450 ₁₅₅
90x58	40	2250	1950	1800	1650	1550	1450	1350	1300	1200	1150
130x58	40	3250	2850	2600	2400	2200	2050	1900 ₅	1800 ₁₀	1700 ₁₅	1600 ₂₀
150x58	40	3650	3300	3000	2800	2550 ₅	2350 ₁₀	2200 ₂₀	2050 ₂₅	1950 ₃₀	1850 ₃₅
170x58	40	4000	3600	3350	3100 ₅	2850 ₁₅	2600 ₂₅	2450 ₃₀	2300 ₃₅	2150 ₄₀	2050 ₅₀
200x58	40	4500	4050	3800 ₅	3600 ₂₀	3250 ₃₀	3000 ₃₅	2800 ₄₅	2650 ₅₅	2500 ₆₀	2400 ₇₀
240x58	40	5150	4650	4350 ₁₅	4100 ₃₅	3850 ₅₀	3550 ₆₀	3300 ₇₀	3100 ₈₀	2950 ₉₀	2800 ₁₀₀
300x58	40	6100	5500 ₁₅	5150 ₃₅	4850 ₅₅	4650 ₇₅	4350 ₉₅	4050 ₁₀₅	3800 ₁₁₅	3600 ₁₂₅	3450 ₁₃₅
360x58	40	7000	6350 ₂₅	5900 ₅₀	5550 ₇₅	5300 ₁₀₀	5050 ₁₂₀	4700 ₁₃₀	4450 ₁₄₅	4200 ₁₅₅	4000 ₁₆₅
400x58	40	7600 ₅	6850 ₃₅	6400 ₆₅	6050 ₉₅	5750 ₁₁₅	5500 ₁₃₅	5100 ₁₅₀	4800 ₁₆₀	4550 ₁₇₅	4350 ₁₈₅
450x58	40	8300 ₁₅	7500 ₄₅	6950 ₈₀	6600 ₁₁₀	6300 ₁₃₀	6050 ₁₅₅	5650 ₁₇₀	5300 ₁₈₅	5000 ₁₉₅	4750 ₂₁₀
300x75	40	6500	5900	5500 ₁₅	5200 ₃₀	4950 ₅₀	4750 ₆₅	4600 ₈₅	4350 ₉₅	4100 ₁₀₅	3900 ₁₁₀
400x75	40	8050	7300 ₂₀	6800 ₄₀	6450 ₆₀	6150 ₈₅	5900 ₁₀₅	5700 ₁₂₀	5450 ₁₃₅	5200 ₁₄₅	4900 ₁₅₅
525x75	40	9750 ₁₀	8950 ₄₀	8350 ₇₀	7900 ₁₀₀	7550 ₁₂₀	7250 ₁₄₀	7000 ₁₆₀	6800 ₁₈₅	6450 ₁₉₅	6150 ₂₁₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum DL of 40 (kg/m²) + 0.6 kPa of LL, floor live load of 1.5 (kPa), floor point load of 1.8 (kN)
3. End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 42 mm at end supports and 58 mm at internal supports
4. Restraint value for slenderness calculations is 600 mm (floor Joist Centers at 600 mm max)
5. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

FLOOR BEARERS SUPPORTING SINGLE STOREY LOAD BEARING WALL - SHEET AND TILED ROOF

Floor mass - 40 kg/m²



EXAMPLE:

sheet roof - 40 kg/m²
 roof load width = 1950 mm
 bearer span = 3000 mm (single span)
 floor load width = 3500 mm

Enter single span table at 2400 mm in floor load width column, 4500 roof load width column, read down to a span equal to or greater than 3000 mm in the 40 kg/m² row.

ADOPT:

SmartLVL 15 — 2/240x35

SINGLE SPAN

Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Bearer span (mm)								
		Single span								
2/90x35	40	1400	1250	1150	1200	1100	1050	1000	NS	NS
	75	1300	1100	1000	1150	1050	NS	1000	NS	NS
2/120x35	40	1850	1650	1550	1600	1500	1400	1350	1300	1250
	75	1750	1500	1350	1550	1400	1250	1350	1200	1150
2/130x35	40	2000	1800	1650	1750	1650	1550	1450	1400	1350
	75	1900	1600	1450	1700	1500	1350	1450	1350	1250
2/140x35	40	2150	1950	1800	1900	1750	1650	1600	1500	1450
	75	2050	1750	1550	1850	1600	1500	1550	1450	1350
2/150x35	40	2300	2100	1900	2050	1900	1750	1700	1600	1550
	75	2200	1900	1700	1950	1750	1600	1650	1550	1450
2/170x35	40	2650	2350	2150	2300	2150	2000	1950	1850	1750
	75	2500	2150	1900	2250	1950	1800	1900	1750	1650
2/190x35	40	2950	2650	2450	2600	2400	2250	2150	2050	1950
	75	2800	2400	2150	2500	2200	2000	2100	1950	1850
2/200x35	40	3100	2800	2550	2700	2500	2350	2250	2150	2100
	75	2950	2500	2250	2600	2300	2100	2200	2050	1950
2/240x35	40	3650	3300	3050	3250	3000	2850	2750	2600 ₅	2500 ₅
	75	3500	3000	2700	3150	2800	2550	2650	2450 ₅	2300 ₁₀
2/290x35	40	4200	3900	3650	3850	3600	3400	3300 ₁₀	3150 ₁₀	3000 ₁₅
	75	4050	3600	3250 ₅	3750	3350	3100 ₁₀	3200 ₁₀	3000 ₁₅	2800 ₂₀
2/300x35	40	4350	4000	3750	3950	3700	3550	3400 ₁₀	3250 ₁₅	3100 ₁₅
	75	4150	3700	3350 ₁₀	3850	3450 ₅	3200 ₁₅	3350 ₁₀	3100 ₁₅	2900 ₂₅
90x42	40	1150	1050	NS	1000	NS	NS	NS	NS	NS
	75	1100	NS	NS	1000	NS	NS	NS	NS	NS
120x42	40	1550	1400	1300	1350	1250	1200	1150	1100	1050
	75	1500	1250	1150	1300	1150	1050	1100	1050	NS
130x42	40	1700	1500	1400	1500	1350	1300	1250	1200	1150
	75	1600	1350	1200	1450	1250	1150	1200	1100	1050
140x42	40	1850	1650	1500	1600	1500	1400	1350	1250	1200
	75	1750	1450	1300	1550	1350	1250	1300	1200	1150
150x42	40	1950	1750	1600	1700	1600	1500	1450	1350	1300
	75	1850	1600	1400	1650	1450	1350	1400	1300	1200 ₅
170x42	40	2250	2000	1850	1950	1800	1700	1650	1550	1500 ₅
	75	2100	1800	1600	1900	1650	1500	1600	1450 ₅	1400 ₁₀
190x42	40	2500	2250	2050	2200	2000	1900	1800 ₅	1750 ₅	1650 ₁₀
	75	2350	2000	1800	2100	1850	1700 ₅	1800 ₅	1650 ₁₀	1550 ₁₅
200x42	40	2600	2350	2150	2300	2100	2000	1900 ₁₀	1850 ₁₀	1750 ₁₀
	75	2500	2100	1900 ₅	2200	1950	1800 ₁₀	1900 ₁₀	1750 ₁₅	1600 ₂₀
240x42	40	3150	2800	2600	2750	2550	2400 ₅	2300 ₁₅	2200 ₂₀	2100 ₂₀
	75	3000	2550 ₅	2300 ₁₅	2650	2350 ₁₀	2150 ₂₀	2250 ₂₀	2100 ₂₅	1950 ₃₀
290x42	40	3750	3400	3150 ₁₀	3300 ₅	3100 ₁₀	2900 ₁₅	2800 ₃₀	2650 ₃₀	2550 ₃₅
	75	3600	3050 ₁₀	2750 ₂₅	3200 ₅	2850 ₂₀	2600 ₃₀	2750 ₃₀	2500 ₃₅	2350 ₄₅
300x42	40	3850	3500 ₅	3250 ₁₀	3450 ₁₀	3200 ₁₀	3000 ₂₀	2900 ₃₀	2750 ₃₅	2650 ₄₀
	75	3700	3150 ₁₅	2850 ₂₅	3300 ₁₀	2950 ₂₀	2700 ₃₅	2800 ₃₅	2600 ₄₀	2450 ₄₅

FLOOR BEARERS SUPPORTING SINGLE STOREY LOAD BEARING WALL - SHEET AND TILED ROOF

SINGLE SPAN [Cont'd]

Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Bearer span (mm)								
		Single span								
2/90x42	40	1500	1300	1200	1300	1200	1100	1100	1050	NS
	75	1400	1200	1050	1250	1100	1000	1050	NS	NS
2/120x42	40	1950	1750	1650	1750	1600	1500	1450	1350	1300
	75	1850	1600	1450	1650	1450	1350	1400	1300	1200
2/130x42	40	2150	1900	1750	1850	1750	1650	1550	1500	1450
	75	2050	1700	1550	1800	1600	1450	1550	1400	1300
2/140x42	40	2300	2050	1900	2000	1850	1750	1700	1600	1550
	75	2200	1850	1650	1950	1700	1550	1650	1500	1450
2/150x42	40	2450	2200	2050	2150	2000	1900	1800	1700	1650
	75	2350	2000	1800	2100	1850	1700	1750	1650	1550
2/170x42	40	2800	2500	2300	2450	2250	2150	2050	1950	1900
	75	2650	2250	2050	2350	2100	1900	2000	1850	1750
2/190x42	40	3100	2800	2600	2750	2550	2400	2300	2200	2100
	75	2950	2550	2250	2650	2350	2150	2250	2050	1950
2/200x42	40	3250	2950	2700	2900	2650	2500	2400	2300	2200
	75	3100	2650	2400	2800	2450	2250	2350	2200	2050
2/240x42	40	3850	3500	3250	3450	3200	3000	2900	2750	2650
	75	3700	3200	2850	3350	2950	2700	2850	2600	2450 ₅
2/290x42	40	4400	4050	3850	4000	3800	3600	3500 ₅	3350 ₅	3200 ₅
	75	4250	3800	3450	3900	3550	3250 ₅	3400 ₅	3150 ₁₀	2950 ₁₅
2/300x42	40	4500	4200	3950	4100	3900	3700	3600 ₅	3450 ₅	3300 ₁₀
	75	4350	3850	3550 ₅	4000	3650	3400 ₅	3550 ₅	3250 ₁₀	3050 ₁₅
2/360x42	40	5150	4800	4500	4700	4450	4250 ₅	4150 ₁₀	4000 ₁₅	3850 ₁₅
	75	5000	4450	4100 ₁₀	4600	4200 ₅	3950 ₁₅	4050 ₁₅	3850 ₂₀	3650 ₂₅
2/400x42	40	5550	5150	4850	5100	4800	4600 ₅	4450 ₁₅	4300 ₂₀	4200 ₂₀
	75	5350	4800	4450 ₁₅	4950	4550 ₁₀	4250 ₂₀	4400 ₂₀	4150 ₂₅	3950 ₃₀
90x58	40	1300	1150	1050	1150	1050	1000	NS	NS	NS
	75	1250	1050	NS	1100	NS	NS	NS	NS	NS
130x58	40	1900	1700	1550	1650	1550	1450	1400	1300	1250
	75	1800	1500	1350	1600	1400	1300	1350	1250	1150
150x58	40	2200	1950	1800	1900	1750	1650	1600	1500	1450
	75	2050	1750	1600	1850	1650	1500	1550	1450	1350
170x58	40	2500	2200	2050	2150	2000	1900	1800	1750	1650
	75	2350	2000	1800	2100	1850	1700	1750	1650	1550
200x58	40	2900	2600	2400	2550	2350	2200	2150	2050	1950
	75	2750	2350	2100	2450	2200	2000	2100	1950 ₅	1800 ₅
240x58	40	3500	3150	2900	3050	2850	2650	2550 ₅	2450 ₁₀	2350 ₁₀
	75	3300	2800	2550 ₅	2950	2600	2400 ₁₀	2500 ₅	2300 ₁₀	2150 ₁₅
300x58	40	4150	3800	3600	3750	3550	3300 ₁₀	3200 ₂₀	3050 ₂₀	2950 ₂₅
	75	4000	3500 ₅	3150 ₁₅	3650	3250 ₁₀	3000 ₂₀	3150 ₂₀	2900 ₂₅	2700 ₃₀
360x58	40	4750	4400	4100 ₁₀	4300 ₅	4050 ₁₀	3900 ₁₅	3800 ₃₀	3650 ₃₀	3500 ₃₅
	75	4550	4050 ₁₀	3750 ₂₅	4200 ₅	3850 ₂₀	3600 ₃₀	3700 ₃₀	3450 ₃₅	3250 ₄₅
400x58	40	5100	4750 ₅	4450 ₁₀	4650 ₅	4400 ₁₀	4200 ₂₀	4100 ₃₅	3950 ₄₀	3800 ₄₀
	75	4950	4400 ₁₅	4050 ₃₀	4550 ₁₀	4150 ₂₅	3900 ₄₀	4000 ₃₅	3800 ₄₅	3600 ₅₅
450x58	40	5600	5150 ₅	4850 ₁₅	5050 ₁₀	4800 ₁₅	4600 ₂₅	4450 ₄₀	4300 ₄₅	4200 ₅₀
	75	5350	4800 ₂₀	4400 ₃₅	4950 ₁₅	4500 ₃₀	4250 ₄₅	4400 ₄₅	4150 ₅₀	3950 ₅₅
300x75	40	4400	4050	3850	4000	3800	3600	3500 ₁₀	3300 ₁₀	3200 ₁₅
	75	4250	3750	3450 ₅	3900	3550	3250 ₁₀	3400 ₁₀	3150 ₁₅	2950 ₂₀
400x75	40	5450	5050	4750 ₅	4950	4700 ₅	4450 ₁₀	4350 ₂₀	4200 ₂₅	4050 ₃₀
	75	5250	4650 ₅	4300 ₂₀	4800	4400 ₁₀	4150 ₂₅	4300 ₂₅	4050 ₃₀	3850 ₄₀
525x75	40	6600	6150 ₅	5800 ₁₅	6050 ₁₀	5700 ₁₅	5450 ₂₀	5300 ₃₅	5150 ₄₀	5000 ₄₅
	75	6400	5700 ₁₅	5250 ₃₀	5900 ₁₀	5400 ₂₅	5050 ₄₀	5250 ₃₅	4950 ₄₅	4700 ₅₅

FLOOR BEARERS SUPPORTING SINGLE STOREY LOAD BEARING WALL - SHEET AND TILED ROOF

CONTINUOUS SPAN

Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Bearer span (mm)								
		Continuous span								
2/90x35	40	1900	1700	1550	1650	1550	1450	1400	1300	1250
	75	1800	1550	1350	1600	1400	1300	1350	1250	1150
2/120x35	40	2550	2250	2100	2200	2050	1900	1850	1750	1700 ₅
	75	2400	2050	1850	2150	1900	1750	1800	1650 ₅	1550 ₁₅
2/130x35	40	2750	2450	2250	2400	2200	2100	2000 ₅	1900 ₁₀	1850 ₁₀
	75	2600	2200	2000	2300	2050	1850 ₅	1950 ₅	1800 ₁₅	1700 ₂₅
2/140x35	40	2950	2650	2450	2600	2400	2250	2150 ₁₀	2050 ₁₅	2000 ₂₀
	75	2800	2400	2150 ₅	2500	2200	2000 ₁₅	2100 ₁₅	1950 ₂₀	1850 ₃₀
2/150x35	40	3150	2850	2600	2750	2550	2400	2300 ₂₀	2200 ₂₀	2100 ₂₅
	75	3000	2550	2300 ₁₀	2650	2350 ₅	2150 ₂₀	2250 ₂₀	2100 ₂₅	1950 ₄₀
2/170x35	40	3550	3200	2950	3150	2900	2750 ₁₀	2650 ₃₀	2500 ₃₅	2400 ₄₀
	75	3400	2900	2600 ₂₅	3000	2700 ₁₅	2450 ₃₅	2550 ₃₅	2400 ₄₀	2250 ₅₅
2/190x35	40	3900	3600	3300 ₁₀	3500	3250 ₁₀	3050 ₂₀	2950 ₄₅	2800 ₅₀	2700 ₅₅
	75	3750	3250 ₁₅	2900 ₃₅	3400 ₅	3000 ₂₅	2750 ₄₅	2850 ₄₅	2650 ₅₅	2450 ₇₀
2/200x35	40	4050	3700	3450 ₁₅	3650 ₅	3400 ₁₅	3200 ₂₅	3100 ₅₀	2950 ₅₅	2850 ₆₀
	75	3900	3400 ₂₀	3050 ₄₀	3550 ₁₀	3150 ₃₀	2900 ₅₅	3000 ₅₀	2800 ₆₀	2600 ₈₀
2/240x35	40	4600	4250 ₁₀	4000 ₃₀	4200 ₂₀	3950 ₃₀	3800 ₄₅	3650 ₇₅	3500 ₈₅	3350 ₉₀
	75	4450	3950 ₃₅	3650 ₆₅	4100 ₂₅	3750 ₅₀	3450 ₈₀	3600 ₈₀	3300 ₉₅	3050 ₁₀₅
2/290x35	40	5300	4900 ₂₅	4600 ₄₅	4800 ₃₅	4550 ₄₅	4350 ₆₅	4250 ₁₀₅	4100 ₁₁₀	3950 ₁₂₀
	75	5100 ₁₀	4550 ₅₀	4200 ₈₀	4700 ₄₀	4300 ₇₅	4000 ₁₁₀	4150 ₁₀₅	3950 ₁₂₀	3600 ₁₄₀
2/300x35	40	5450	5050 ₂₅	4750 ₅₀	4950 ₃₅	4650 ₅₀	4450 ₇₀	4350 ₁₀₅	4200 ₁₁₅	4050 ₁₂₅
	75	5250 ₁₅	4650 ₅₅	4300 ₈₅	4800 ₄₀	4400 ₇₅	4150 ₁₁₅	4250 ₁₁₀	4050 ₁₂₅	3700 ₁₄₅
90x42	40	1600	1450	1300	1400	1300	1200	1050	1000	NS
	75	1500	1300	1100	1350	1200	1000	1050	NS	NS
120x42	40	2150	1900	1750	1850	1750	1600 ₁₀	1400 ₂₀	1350 ₂₅	1250 ₂₅
	75	2050	1700	1450 ₁₅	1800	1550 ₁₀	1300 ₂₅	1400 ₂₅	1250 ₂₅	1100 ₃₀
130x42	40	2300	2050	1900 ₅	2050	1850 ₅	1700 ₁₅	1500 ₂₅	1450 ₃₀	1350 ₃₀
	75	2200	1850 ₁₀	1550 ₂₅	1950	1650 ₂₀	1450 ₃₀	1500 ₃₀	1350 ₃₅	1150 ₄₀
140x42	40	2500	2250	2050 ₁₀	2200 ₅	2000 ₁₀	1850 ₂₀	1650 ₃₅	1550 ₄₀	1450 ₄₀
	75	2350	2000 ₁₅	1700 ₃₀	2100 ₅	1800 ₂₅	1550 ₄₀	1600 ₃₅	1450 ₄₀	1250 ₄₅
150x42	40	2650	2400	2200 ₂₀	2350 ₁₀	2150 ₂₀	1950 ₃₀	1750 ₄₀	1650 ₄₅	1550 ₅₀
	75	2550	2100 ₂₀	1800 ₄₀	2250 ₁₅	1900 ₃₀	1650 ₄₅	1700 ₄₅	1550 ₅₀	1350 ₅₅
170x42	40	3050	2700 ₁₅	2450 ₃₀	2600 ₂₀	2450 ₃₀	2200 ₄₀	1950 ₅₅	1850 ₆₀	1750 ₆₅
	75	2850	2350 ₃₀	2000 ₅₀	2550 ₂₅	2150 ₄₅	1850 ₆₀	1900 ₆₀	1750 ₇₅	1500 ₇₅
190x42	40	3400	3050 ₂₅	2700 ₄₀	2900 ₃₀	2700 ₄₀	2450 ₅₅	2150 ₇₀	2050 ₈₀	1950 ₈₅
	75	3200 ₁₀	2600 ₄₅	2200 ₆₅	2800 ₃₅	2350 ₅₅	2050 ₈₀	2100 ₇₅	1950 ₈₅	1700 ₉₅
200x42	40	3550 ₅	3200 ₃₀	2850 ₄₅	3050 ₃₅	2800 ₄₅	2550 ₆₀	2250 ₈₀	2150 ₈₅	2050 ₉₅
	75	3400 ₂₀	2750 ₅₀	2350 ₇₅	2950 ₄₀	2450 ₆₅	2150 ₉₀	2200 ₈₅	2050 ₉₅	1800 ₁₀₅
240x42	40	4100 ₂₀	3750 ₅₀	3350 ₇₀	3600 ₆₀	3300 ₇₀	3000 ₉₀	2650 ₁₁₀	2550 ₁₁₅	2450 ₁₂₅
	75	3950 ₃₅	3250 ₇₅	2750 ₁₀₅	3450 ₆₅	2900 ₉₅	2550 ₁₁₅	2600 ₁₁₀	2400 ₁₂₅	2150 ₁₃₅
290x42	40	4700 ₃₅	4350 ₇₀	3950 ₁₀₀	4250 ₉₀	3900 ₁₀₀	3550 ₁₁₅	3150 ₁₄₀	3000 ₁₄₅	2900 ₁₅₅
	75	4500 ₅₀	3850 ₁₀₅	3250 ₁₃₅	4100 ₉₅	3450 ₁₂₀	3000 ₁₅₀	3100 ₁₄₅	2850 ₁₆₀	2600 ₁₇₅
300x42	40	4800 ₄₀	4450 ₇₅	4100 ₁₀₅	4350 ₉₅	4050 ₁₀₅	3650 ₁₂₀	3250 ₁₄₅	3100 ₁₅₅	3000 ₁₆₅
	75	4650 ₅₅	3950 ₁₁₀	3350 ₁₄₀	4200 ₁₀₀	3550 ₁₂₅	3100 ₁₅₅	3200 ₁₅₀	2950 ₁₆₅	2650 ₁₈₀
2/90x42	40	2000	1800	1650	1750	1650	1550	1450	1400	1350
	75	1900	1600	1450	1700	1500	1350	1450	1350	1250
2/120x42	40	2700	2400	2200	2350	2200	2050	1950	1900	1800
	75	2550	2150	1950	2250	2000	1850	1900	1800	1650 ₅
2/130x42	40	2900	2600	2400	2550	2350	2200	2150	2050	1950
	75	2750	2350	2100	2450	2200	2000	2100	1950	1800 ₁₀
2/140x42	40	3150	2800	2600	2750	2550	2400	2300	2200 ₅	2100 ₅
	75	2950	2550	2250	2650	2350	2150 ₅	2250	2100 ₁₀	1950 ₂₀
2/150x42	40	3350	3000	2750	2950	2700	2550	2450 ₅	2350 ₁₀	2250 ₁₅
	75	3200	2700	2450	2850	2500	2300 ₁₀	2400 ₁₀	2250 ₁₅	2100 ₂₅
2/170x42	40	3750	3400	3150	3300	3100	2900	2800 ₂₀	2650 ₂₅	2550 ₂₅
	75	3600	3050	2750 ₁₀	3200	2850 ₅	2600 ₂₀	2750 ₂₀	2500 ₃₀	2350 ₄₀
2/190x42	40	4050	3750	3500	3700	3450	3250 ₁₀	3100 ₃₀	2950 ₃₅	2850 ₄₀
	75	3900	3450	3100 ₂₅	3600	3200 ₁₅	2900 ₃₅	3050 ₃₀	2800 ₄₀	2650 ₅₅
2/200x42	40	4200	3900	3650	3850	3600 ₅	3400 ₁₅	3300 ₃₅	3150 ₄₀	3000 ₄₅
	75	4050	3600 ₅	3250 ₃₀	3750	3350 ₂₀	3050 ₄₀	3200 ₃₅	2950 ₄₅	2800 ₆₀
2/240x42	40	4800	4450	4200 ₁₅	4400 ₅	4150 ₁₅	3950 ₃₀	3850 ₅₅	3700 ₈₀	3600 ₇₀
	75	4650	4150 ₂₀	3800 ₄₅	4250 ₁₀	3900 ₃₅	3650 ₆₀	3800 ₆₀	3550 ₇₀	3350 ₈₅
2/290x42	40	5550	5100 ₁₀	4850 ₃₀	5050 ₂₀	4750 ₃₀	4550 ₄₅	4450 ₈₀	4250 ₈₅	4150 ₉₅
	75	5350	4750 ₃₅	4400 ₆₅	4900 ₂₅	4500 ₅₅	4200 ₈₅	4350 ₈₀	4100 ₁₀₀	3900 ₁₂₀
2/300x42	40	5700	5250 ₁₅	4950 ₃₀	5150 ₂₅	4900 ₃₅	4650 ₅₀	4550 ₈₅	4400 ₉₅	4250 ₁₀₀
	75	5450	4850 ₄₀	4500 ₇₀	5050 ₂₅	4600 ₅₅	4300 ₈₀	4450 ₈₅	4200 ₁₀₅	4000 ₁₂₅
2/360x42	40	6500 ₅	6000 ₃₀	5650 ₅₀	5900 ₃₅	5600 ₅₀	5350 ₇₀	5200 ₁₀₅	5000 ₁₁₅	4850 ₁₂₅
	75	6250 ₁₅	5550 ₃₅	5150 ₆₅	5750 ₄₀	5250 ₆₀	4950 ₁₁₅	5100 ₁₁₀	4800 ₁₂₅	4600 ₁₅₀
2/400x42	40	7000 ₁₀	6500 ₃₅	6100 ₆₀	6400 ₄₅	6050 ₆₀	5750 ₈₅	5600 ₁₂₀	5450 ₁₃₀	5250 ₁₄₀
	75	6750 ₂₅	6000 ₇₀	5550 ₁₁₀	6200 ₅₀	5700 ₇₅	5350 ₁₃₀	5550 ₁₂₅	5200 ₁₄₀	5000 ₁₇₀

FLOOR BEARERS SUPPORTING SINGLE STOREY LOAD BEARING WALL - SHEET AND TILED ROOF

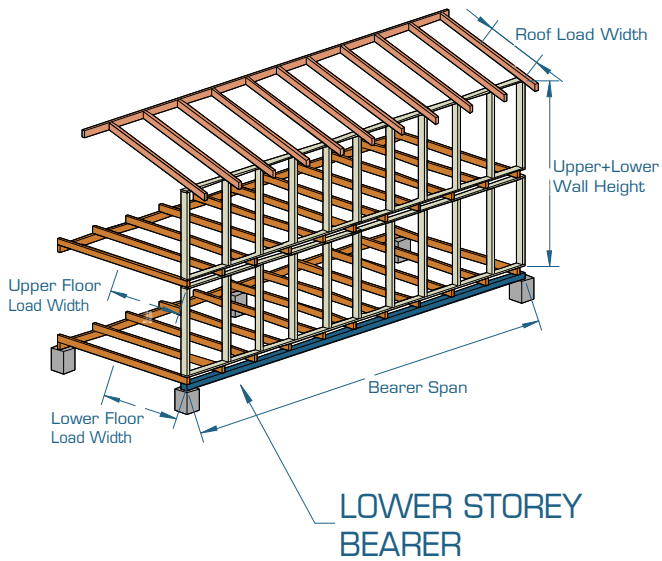
CONTINUOUS SPAN [Cont'd]

Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Bearer span (mm)								
		Continuous span								
90x58	40	1800	1600	1450	1550	1450	1350	1300	1250	1200
	75	1700	1450	1300	1500	1350	1200	1250	1150	1050
130x58	40	2600	2300	2100	2250	2100	1950	1800 ₁₀	1700 ₁₅	1650 ₂₀
	75	2450	2100	1850 ₁₀	2150	1900	1700 ₁₅	1750 ₁₅	1650 ₂₀	1500 ₃₀
150x58	40	2950	2650	2450	2600	2400	2250 ₁₀	2050 ₂₅	1950 ₃₀	1900 ₃₅
	75	2800	2400	2100 ₂₀	2500	2200 ₁₅	1950 ₃₀	2000 ₂₅	1850 ₃₅	1700 ₄₅
170x58	40	3350	3000	2800 ₁₀	2950 ₅	2750 ₁₀	2550 ₂₅	2300 ₃₅	2200 ₄₀	2100 ₄₅
	75	3200	2700 ₁₅	2350 ₃₅	2850 ₅	2500 ₂₅	2200 ₄₀	2250 ₄₀	2100 ₅₀	1900 ₈₀
200x58	40	3850	3550 ₁₀	3250 ₂₅	3450 ₂₀	3200 ₂₅	3000 ₄₀	2650 ₅₅	2550 ₆₀	2450 ₆₅
	75	3700	3200 ₃₀	2750 ₅₀	3350 ₂₀	2900 ₄₀	2550 ₆₀	2600 ₅₅	2400 ₇₀	2200 ₈₅
240x58	40	4400	4050 ₂₅	3850 ₄₅	4000 ₃₅	3800 ₄₅	3500 ₆₀	3100 ₈₀	3000 ₉₀	2850 ₉₅
	75	4250 ₁₀	3750 ₅₀	3200 ₇₅	3900 ₃₅	3400 ₆₅	3000 ₉₀	3050 ₈₅	2850 ₁₀₀	2600 ₁₁₀
300x58	40	5200 ₁₅	4800 ₄₀	4550 ₆₅	4750 ₅₅	4450 ₇₀	4250 ₉₅	3800 ₁₁₅	3650 ₁₂₅	3500 ₁₃₀
	75	5000 ₂₅	4450 ₇₅	3900 ₁₁₀	4600 ₆₀	4150 ₁₀₀	3650 ₁₂₅	3750 ₁₂₀	3450 ₁₃₀	3200 ₁₅₀
360x58	40	5950 ₃₀	5500 ₆₀	5200 ₉₅	5400 ₇₅	5100 ₉₅	4900 ₁₂₀	4400 ₁₄₅	4250 ₁₅₅	4050 ₁₆₀
	75	5750 ₄₀	5100 ₁₀₀	4550 ₁₄₀	5250 ₈₀	4800 ₁₂₅	4200 ₁₅₅	4350 ₁₅₀	4000 ₁₆₅	3700 ₁₈₅
400x58	40	6450 ₄₀	5950 ₇₀	5600 ₁₀₅	5850 ₉₀	5550 ₁₁₀	5300 ₁₃₅	4800 ₁₆₀	4600 ₁₇₀	4450 ₁₈₀
	75	6200 ₅₅	5500 ₁₁₅	4950 ₁₅₅	5700 ₉₅	5200 ₁₄₀	4600 ₁₇₀	4700 ₁₆₅	4400 ₁₈₅	4000 ₂₀₅
450x58	40	7000 ₅₀	6500 ₉₀	6100 ₁₂₀	6400 ₁₀₅	6050 ₁₂₅	5750 ₁₅₀	5300 ₁₈₅	5050 ₁₉₅	4900 ₂₀₅
	75	6750 ₆₅	6000 ₁₃₀	5450 ₁₇₅	6200 ₁₁₀	5700 ₁₆₀	5050 ₁₉₅	5200 ₁₉₀	4800 ₂₀₅	4400 ₂₃₀
300x75	40	5550	5100 ₂₀	4800 ₄₀	5050 ₃₀	4750 ₄₀	4550 ₆₅	4300 ₈₅	4150 ₁₀₀	4000 ₁₁₀
	75	5350 ₁₀	4750 ₅₀	4400 ₈₅	4900 ₃₅	4500 ₇₀	4100 ₁₀₀	4250 ₁₀₀	3950 ₁₁₀	3600 ₁₂₅
400x75	40	6850 ₂₀	6300 ₄₅	5950 ₇₅	6200 ₆₀	5900 ₇₅	5600 ₁₀₀	5450 ₁₃₅	5250 ₁₄₅	5050 ₁₅₀
	75	6600 ₃₀	5850 ₈₀	5400 ₁₂₅	6050 ₆₅	5550 ₁₁₀	5200 ₁₄₅	5350 ₁₄₀	4950 ₁₅₅	4550 ₁₇₅
525x75	40	8300 ₄₅	7700 ₈₀	7300 ₁₁₀	7600 ₉₅	7200 ₁₁₅	6850 ₁₄₀	6700 ₁₈₀	6450 ₁₉₀	6250 ₂₀₅
	75	8050 ₆₀	7150 ₁₂₀	6650 ₁₇₀	7400 ₁₀₀	6800 ₁₄₅	6350 ₁₉₀	6600 ₁₈₅	6200 ₂₀₅	5650 ₂₃₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on total ground floor mass of 40 (kg/m²) + 0.6 kPa of LL, wall mass of 37 (kg/m²), floor live load of 1.5 (kPa), floor point load of 1.8 (kN)
3. The above table was based on a wall height of 2700 mm
4. End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 42 mm at end supports and 58 mm at internal supports.
5. Restraint value for slenderness calculations is 600 mm
6. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE SPAN FLOOR BEARER SUPPORTING DOUBLE STOREY LOAD BEARING WALL SHEET & TILE ROOF



EXAMPLE:

sheet roof - 40 kg/m²
 roof load width = 1950 mm
 bearer span = 3100 mm (single span)
 lower floor load width = 3500 mm
 upper floor load width = 1500 mm

Enter single span table at 3600 mm in lower floor load width column, 1800 mm in upper floor width column, 4500 mm roof load width column, read down to a span equal to or greater than 3100 mm in the 40 kg/m² row.

ADOPT:

SmartLVL 15 — 2/300x35
 (Additional 15 mm bearing length required)

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m ²)	Single span											
		Maximum Bearer span (mm)											
2/90x35	40	1100	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	75	1050	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/120x35	40	1450	1350	1300	1300	1250	1200	1300	1250	1200	1200	1200	1150
	75	1400	1300	1200	1300	1200	1150	1300	1200	1100	1200	1150	1050
2/130x35	40	1550	1500	1400	1450	1350	1300	1400	1350	1300	1350	1300	1250
	75	1550	1400	1300	1400	1300	1200	1400	1300	1200	1300	1250	1150
2/140x35	40	1700	1600	1500	1550	1450	1400	1550	1450	1400	1450	1400	1350
	75	1650	1500	1400	1500	1400	1300	1500	1400	1300	1400	1300	1250
2/150x35	40	1800	1700	1650	1650	1600	1500	1650	1550	1500	1550	1500	1450
	75	1750	1600	1500	1600	1500	1400	1600	1500	1400	1500	1400	1350
2/170x35	40	2050	1950	1850	1900	1800	1750	1850	1800	1700	1750	1700	1650
	75	2000	1850	1700	1850	1700	1600	1850	1700	1600	1700	1600	1550 ₅
2/190x35	40	2300	2200	2050	2100	2000	1950	2100	2000	1900	1950	1900	1800
	75	2250	2050	1900	2050	1900	1800 ₅	2050	1900	1800 ₅	1900	1800 ₅	1700 ₁₀
2/200x35	40	2400	2300	2200	2200	2100	2050	2200	2100	2050	2050	2000	1900 ₅
	75	2350	2150	2000	2150	2000	1900 ₅	2150	2000	1900 ₅	2000	1900 ₅	1800 ₁₀
2/240x35	40	2900	2750	2600	2650	2550 ₅	2450 ₁₀	2650	2550 ₅	2450 ₁₀	2450 ₅	2400 ₁₀	2300 ₁₅
	75	2850	2600 ₅	2400 ₁₀	2600	2400 ₁₀	2250 ₁₅	2600	2400 ₁₀	2250 ₁₅	2450 ₁₀	2300 ₁₅	2150 ₂₀
2/290x35	40	3500	3300 ₅	3150 ₁₀	3200 ₁₀	3050 ₁₅	2950 ₁₅	3200 ₁₀	3050 ₁₅	2950 ₁₅	3000 ₁₅	2900 ₂₀	2800 ₂₅
	75	3400 ₅	3100 ₁₀	2900 ₂₀	3150 ₁₀	2900 ₂₀	2750 ₂₅	3100 ₁₀	2900 ₂₀	2750 ₂₅	2950 ₂₀	2750 ₂₅	2600 ₃₅
2/300x35	40	3600	3450 ₅	3250 ₁₀	3300 ₁₀	3150 ₁₅	3050 ₂₀	3300 ₁₀	3150 ₁₅	3050 ₂₀	3100 ₂₀	3000 ₂₅	2900 ₂₅
	75	3550 ₅	3250 ₁₅	3000 ₃₀	3250 ₁₅	3000 ₃₀	2850 ₃₀	3250 ₁₅	3000 ₃₀	2850 ₃₀	3050 ₂₀	2850 ₃₀	2700 ₃₅
90x42	40	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
120x42	40	1200	1150	1100	1100	1050	1000	1100	1050	1000	1050	1000	NS
	75	1200	1100	1000	1100	1000	NS	1100	1000	NS	1000	NS	NS
130x42	40	1300	1250	1200	1200	1150	1100	1200	1150	1100	1100	1100	1050
	75	1300	1150	1100	1200	1100	1050	1150	1100	1000	1100	1050	NS
140x42	40	1450	1350	1300	1300	1250	1200	1300	1250	1200	1200	1150	1100 ₅
	75	1400	1250	1150	1250	1200	1100 ₅	1250	1150	1100 ₅	1200	1100 ₅	1050 ₁₀
150x42	40	1550	1450	1350	1400	1350	1300	1400	1350	1250	1300	1250 ₅	1200 ₅
	75	1500	1350	1250 ₅	1350	1250 ₅	1200 ₁₀	1350	1250	1200 ₁₀	1250	1200 ₁₀	1150 ₁₅
170x42	40	1750	1650	1550	1600	1500 ₅	1450 ₅	1550	1500 ₅	1450 ₅	1450 ₅	1400 ₁₀	1350 ₁₅
	75	1700	1550	1450 ₁₀	1550	1450 ₁₀	1350 ₁₅	1550	1450 ₁₀	1350 ₁₅	1450 ₁₀	1350 ₁₅	1300 ₂₀
190x42	40	1950	1850	1750 ₅	1750 ₅	1700 ₁₀	1650 ₁₅	1750 ₅	1700 ₁₀	1600 ₁₀	1650 ₁₀	1600 ₁₅	1550 ₂₀
	75	1900	1700 ₅	1600 ₁₅	1750 ₅	1600 ₁₅	1500 ₂₀	1750 ₅	1600 ₁₅	1500 ₂₀	1600 ₁₅	1500 ₂₀	1450 ₂₅
200x42	40	2050	1950 ₅	1850 ₁₀	1850 ₅	1800 ₁₀	1700 ₁₅	1850 ₁₀	1750 ₁₀	1700 ₁₅	1750 ₁₅	1650 ₂₀	1600 ₂₀
	75	2000	1800 ₁₀	1700 ₁₅	1850 ₁₀	1700 ₁₅	1600 ₂₅	1800 ₁₀	1700 ₁₅	1600 ₂₅	1700 ₁₅	1600 ₂₅	1500 ₃₀
240x42	40	2450 ₅	2300 ₁₅	2200 ₂₀	2250 ₁₅	2150 ₂₀	2050 ₂₅	2250 ₂₀	2150 ₂₀	2050 ₂₅	2100 ₂₅	2000 ₃₀	1950 ₃₅
	75	2400 ₁₀	2200 ₂₀	2050 ₃₀	2200 ₂₀	2050 ₃₀	1900 ₃₅	2200 ₂₀	2050 ₃₀	1900 ₃₅	2050 ₂₅	1950 ₃₅	1850 ₄₅
290x42	40	2950 ₁₅	2800 ₂₅	2650 ₃₀	2700 ₃₀	2600 ₃₅	2500 ₄₀	2700 ₃₀	2600 ₃₅	2500 ₄₀	2500 ₄₀	2450 ₄₅	2350 ₅₀
	75	2900 ₂₀	2650 ₃₀	2450 ₄₅	2650 ₃₀	2450 ₄₀	2300 ₅₀	2650 ₃₀	2450 ₄₀	2300 ₅₀	2500 ₄₀	2350 ₅₀	2200 ₆₀
300x42	40	3050 ₂₀	2900 ₂₅	2750 ₃₀	2800 ₃₀	2700 ₃₅	2600 ₄₅	2800 ₃₀	2650 ₃₅	2550 ₄₅	2600 ₄₀	2500 ₄₅	2450 ₅₅
	75	3000 ₂₀	2750 ₃₅	2550 ₄₅	2750 ₃₅	2550 ₄₅	2400 ₅₅	2750 ₃₅	2550 ₄₅	2400 ₅₅	2550 ₄₅	2400 ₅₅	2300 ₆₅

SINGLE SPAN FLOOR BEARER SUPPORTING DOUBLE STOREY LOAD BEARING WALL SHEET & TILE ROOF [Cont'd]

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m ²)	Single span											
		Maximum Bearer span (mm)											
2/90x42	40	1150	1100	1050	1050	1000	NS	1050	1000	NS	NS	NS	NS
	75	1100	1000	NS	1050	NS	NS	1000	NS	NS	NS	NS	NS
2/120x42	40	1550	1450	1400	1400	1350	1300	1400	1350	1300	1300	1250	1200
	75	1500	1350	1250	1350	1250	1200	1350	1250	1200	1300	1200	1150
2/130x42	40	1650	1600	1500	1500	1450	1400	1500	1450	1400	1400	1350	1300
	75	1650	1500	1350	1500	1400	1300	1500	1400	1300	1400	1300	1250
2/140x42	40	1800	1700	1600	1650	1550	1500	1650	1550	1500	1500	1450	1400
	75	1750	1600	1500	1600	1500	1400	1600	1500	1400	1500	1400	1350
2/150x42	40	1950	1800	1750	1750	1700	1600	1750	1650	1600	1600	1600	1500
	75	1900	1700	1600	1700	1600	1500	1700	1600	1500	1600	1500	1450
2/170x42	40	2200	2050	1950	2000	1900	1850	2000	1900	1850	1850	1800	1750
	75	2150	1950	1800	1950	1800	1700	1950	1800	1700	1800	1700	1650
2/190x42	40	2450	2300	2200	2250	2150	2050	2200	2100	2050	2050	2000	1950
	75	2400	2150	2000	2200	2050	1900	2150	2000	1900	2050	1900	1800
2/200x42	40	2550	2450	2300	2350	2250	2150	2350	2250	2150	2200	2100	2050
	75	2500	2300	2150	2300	2150	2000	2300	2150	2000	2150	2000	1900 ₅
2/240x42	40	3100	2900	2800	2800	2700	2600	2800	2700	2600	2600	2550 ₅	2450 ₅
	75	3000	2750	2550 ₅	2750	2550 ₅	2400 ₁₀	2750	2550 ₅	2400 ₁₀	2600 ₅	2450 ₁₀	2300 ₁₅
2/290x42	40	3700	3500	3350 ₅	3400 ₅	3250 ₅	3150 ₁₀	3400 ₅	3250 ₅	3100 ₁₀	3150 ₁₀	3050 ₁₅	2950 ₁₅
	75	3600	3300 ₅	3100 ₁₅	3350 ₅	3100 ₁₀	2900 ₂₀	3300 ₅	3100 ₁₀	2900 ₂₀	3100 ₁₀	2950 ₂₀	2800 ₂₅
2/300x42	40	3800	3650	3450 ₅	3500 ₅	3350 ₁₀	3250 ₁₅	3500 ₅	3350 ₁₀	3250 ₁₅	3250 ₁₀	3150 ₁₅	3050 ₂₀
	75	3700	3400 ₅	3200 ₁₅	3450 ₅	3200 ₁₅	3000 ₂₀	3450 ₅	3200 ₁₅	3000 ₂₀	3200 ₁₅	3050 ₂₀	2900 ₂₅
2/360x42	40	4350 ₅	4150 ₁₀	4000 ₁₅	4050 ₁₀	3900 ₁₅	3800 ₂₀	4050 ₁₅	3900 ₁₅	3800 ₂₀	3850 ₂₀	3750 ₂₅	3650 ₃₀
	75	4250 ₅	3950 ₁₅	3750 ₂₅	4000 ₁₅	3800 ₂₅	3600 ₃₅	3950 ₁₅	3750 ₂₅	3600 ₃₅	3800 ₂₅	3650 ₃₅	3450 ₄₀
2/400x42	40	4700 ₅	4500 ₁₀	4350 ₂₀	4400 ₁₅	4250 ₂₀	4100 ₃₀	4350 ₁₅	4200 ₂₀	4100 ₂₅	4150 ₂₅	4050 ₃₀	3950 ₃₅
	75	4600 ₁₀	4300 ₂₀	4050 ₃₀	4300 ₂₀	4100 ₃₀	3900 ₄₀	4300 ₂₀	4050 ₃₀	3900 ₄₀	4100 ₃₀	3900 ₄₀	3750 ₅₀
90x58	40	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	75	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
130x58	40	1450	1400	1350	1350	1300	1250	1350	1300	1250	1250	1200	1150
	75	1450	1300	1200	1300	1200	1150	1300	1200	1150	1250	1150	1100
150x58	40	1700	1600	1550	1550	1500	1450	1550	1500	1400	1450	1400	1350
	75	1650	1500	1400	1500	1400	1350	1500	1400	1300	1400	1350	1250 ₅
170x58	40	1950	1850	1750	1750	1700	1600	1750	1700	1600	1650	1600	1550 ₅
	75	1900	1700	1600	1750	1600	1500 ₅	1700	1600	1500 ₅	1600	1500 ₅	1450 ₁₀
190x58	40	2150	2050	1950	1950	1900	1800 ₅	1950	1900	1800	1850	1750 ₅	1700 ₁₀
	75	2100	1900	1800 ₅	1950	1800 ₅	1700 ₁₀	1900	1800 ₅	1700 ₁₀	1800 ₅	1700 ₁₀	1600 ₁₅
200x58	40	2300	2150	2050	2100	2000	1900 ₅	2050	2000	1900 ₅	1950 ₅	1850 ₅	1800 ₁₀
	75	2200	2000	1900 ₅	2050	1900 ₅	1800 ₁₀	2000	1900 ₅	1750 ₁₀	1900 ₅	1800 ₁₀	1700 ₁₅
240x58	40	2750	2600 ₅	2450 ₅	2500 ₅	2400 ₁₀	2300 ₁₅	2500 ₅	2400 ₁₀	2300 ₁₅	2300 ₁₅	2250 ₁₅	2150 ₂₀
	75	2650	2450 ₁₀	2250 ₁₅	2450 ₁₀	2250 ₁₅	2150 ₂₀	2450 ₁₀	2250 ₁₅	2150 ₂₀	2300 ₁₅	2150 ₂₀	2050 ₃₀
300x58	40	3400 ₁₀	3250 ₁₅	3100 ₂₀	3100 ₁₅	3000 ₂₅	2850 ₂₅	3100 ₂₀	2950 ₂₀	2850 ₂₅	2900 ₂₅	2800 ₃₀	2700 ₃₅
	75	3300 ₁₀	3050 ₂₀	2800 ₃₀	3050 ₂₀	2850 ₃₀	2650 ₃₅	3050 ₂₀	2850 ₃₀	2650 ₃₅	2850 ₃₀	2700 ₃₅	2550 ₄₅
360x58	40	3950 ₁₅	3800 ₂₅	3650 ₃₀	3700 ₃₀	3550 ₃₅	3450 ₄₀	3700 ₃₀	3550 ₃₅	3450 ₄₀	3500 ₄₀	3350 ₄₅	3250 ₅₀
	75	3900 ₂₀	3650 ₃₅	3400 ₄₅	3650 ₃₀	3400 ₄₀	3200 ₅₅	3650 ₃₀	3400 ₄₀	3200 ₅₅	3400 ₄₀	3200 ₅₀	3050 ₆₀
400x58	40	4300 ₂₀	4100 ₃₀	3950 ₃₅	4000 ₃₅	3850 ₄₀	3750 ₅₀	4000 ₃₅	3850 ₄₀	3750 ₅₀	3800 ₄₅	3700 ₅₅	3600 ₆₀
	75	4200 ₂₅	3900 ₄₀	3700 ₅₀	3950 ₃₅	3750 ₅₀	3550 ₆₅	3950 ₃₅	3700 ₅₀	3550 ₆₅	3750 ₅₀	3550 ₆₀	3400 ₇₅
450x58	40	4650 ₂₅	4500 ₃₅	4350 ₄₅	4350 ₄₀	4250 ₅₀	4100 ₅₅	4350 ₄₀	4200 ₅₀	4100 ₅₅	4150 ₅₅	4050 ₆₅	3950 ₇₀
	75	4600 ₃₀	4300 ₄₅	4050 ₆₀	4300 ₄₅	4100 ₆₀	3900 ₇₅	4300 ₄₅	4050 ₆₀	3900 ₇₅	4100 ₆₀	3900 ₇₀	3750 ₈₅
300x75	40	3700	3500 ₅	3350 ₁₀	3400 ₁₀	3250 ₁₅	3100 ₁₅	3350 ₁₀	3250 ₁₅	3100 ₁₅	3150 ₁₅	3050 ₂₀	2950 ₂₅
	75	3600	3300 ₁₀	3050 ₂₀	3300 ₁₀	3100 ₂₀	2900 ₂₅	3300 ₁₀	3100 ₂₀	2900 ₂₅	3100 ₂₀	2900 ₂₅	2800 ₃₀
400x75	40	4550 ₁₀	4350 ₁₅	4200 ₂₅	4250 ₂₀	4100 ₂₅	4000 ₃₅	4250 ₂₀	4100 ₂₅	4000 ₃₅	4050 ₃₀	3950 ₄₀	3850 ₄₅
	75	4450 ₁₅	4200 ₂₅	3950 ₃₅	4200 ₂₅	4000 ₃₅	3800 ₄₅	4200 ₂₅	3950 ₃₅	3800 ₄₅	4000 ₃₅	3800 ₄₅	3650 ₅₅
525x75	40	5550 ₂₀	5350 ₃₀	5150 ₄₀	5200 ₃₅	5050 ₄₅	4900 ₅₀	5200 ₃₅	5050 ₄₅	4900 ₅₀	4950 ₅₀	4800 ₅₅	4700 ₆₀
	75	5450 ₂₅	5100 ₄₀	4850 ₅₅	5150 ₄₀	4850 ₅₅	4650 ₆₅	5100 ₄₀	4850 ₅₅	4650 ₆₅	4900 ₅₀	4650 ₆₅	4500 ₇₅

CONTINUOUS SPAN FLOOR BEARER SUPPORTING DOUBLE STOREY LOAD BEARING WALL SHEET & TILE ROOF

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m ²)	Continuous span											
		Maximum Bearer span (mm)											
2/90x35	40	1500	1400	1350	1350	1300	1250	1350	1300	1250	1250	1200	1150
	75	1450	1300	1200	1300	1200	1100	1300	1200	1100	1250	1100	1000
2/120x35	40	1950	1850	1800	1800	1700 ₅	1650 ₁₀	1800	1700 ₅	1650 ₁₀	1650 ₁₀	1600 ₁₅	1500 ₂₀
	75	1900	1750	1650 ₁₅	1750	1650 ₁₅	1450 ₂₀	1750	1650 ₁₅	1450 ₂₀	1650 ₁₀	1450 ₂₀	1300 ₂₅
2/130x35	40	2150	2000	1950 ₅	1950 ₅	1850 ₁₀	1800 ₂₀	1950 ₅	1850 ₁₀	1800 ₂₀	1800 ₁₅	1750 ₂₅	1650 ₃₀
	75	2100	1900 ₁₀	1750 ₂₀	1900 ₅	1750 ₂₀	1600 ₃₀	1900 ₅	1750 ₂₀	1600 ₃₀	1800 ₂₀	1600 ₂₅	1400 ₃₀
2/140x35	40	2300	2200 ₅	2050 ₁₀	2100 ₁₀	2000 ₂₀	1950 ₂₅	2100 ₁₀	2000 ₂₀	1950 ₂₅	1950 ₂₅	1900 ₃₀	1750 ₃₅
	75	2250	2050 ₁₅	1900 ₃₀	2050 ₁₅	1900 ₃₀	1700 ₃₅	2050 ₁₅	1900 ₃₀	1700 ₃₅	1900 ₂₅	1700 ₃₅	1500 ₄₀
2/150x35	40	2450	2350 ₁₀	2200 ₂₀	2250 ₁₅	2150 ₂₅	2050 ₃₅	2250 ₂₀	2150 ₂₅	2050 ₃₅	2100 ₃₀	2000 ₄₀	1900 ₄₀
	75	2400 ₅	2200 ₂₀	2050 ₃₅	2200 ₂₀	2050 ₃₅	1800 ₄₀	2200 ₂₀	2050 ₃₅	1800 ₄₀	2050 ₃₅	1850 ₄₅	1650 ₅₀
2/170x35	40	2800 ₁₀	2650 ₂₀	2500 ₃₀	2550 ₃₀	2450 ₄₀	2350 ₅₀	2550 ₃₀	2450 ₄₀	2350 ₅₀	2400 ₄₅	2250 ₅₅	2100 ₆₅
	75	2750 ₁₅	2500 ₃₅	2300 ₅₀	2500 ₃₅	2300 ₅₀	2050 ₆₀	2500 ₃₅	2300 ₅₀	2050 ₆₀	2350 ₅₀	2050 ₆₀	1850 ₆₅
2/190x35	40	3150 ₂₅	2950 ₃₅	2800 ₄₅	2850 ₄₀	2750 ₅₅	2600 ₆₀	2850 ₄₅	2700 ₅₀	2600 ₆₀	2650 ₆₀	2500 ₇₀	2350 ₇₅
	75	3050 ₂₅	2800 ₅₀	2550 ₆₅	2800 ₄₅	2550 ₆₅	2300 ₇₅	2800 ₄₅	2550 ₆₅	2300 ₇₅	2600 ₆₅	2300 ₇₅	2050 ₉₀
2/200x35	40	3300 ₂₅	3100 ₄₀	2950 ₅₀	3000 ₅₀	2900 ₆₀	2750 ₇₀	3000 ₅₀	2850 ₆₀	2700 ₇₀	2750 ₆₅	2600 ₇₅	2500 ₈₅
	75	3200 ₃₀	2950 ₅₅	2650 ₇₅	2950 ₅₅	2700 ₇₅	2400 ₈₅	2950 ₅₅	2700 ₇₅	2400 ₈₅	2700 ₇₀	2450 ₈₅	2150 ₉₀
2/240x35	40	3850 ₄₅	3700 ₆₀	3550 ₈₀	3600 ₇₅	3400 ₉₀	3200 ₁₀₀	3600 ₆₀	3400 ₉₀	3200 ₁₀₀	3250 ₉₅	3100 ₁₀₅	2950 ₁₁₅
	75	3800 ₅₅	3500 ₈₅	3150 ₁₀₅	3500 ₈₀	3150 ₁₀₀	2900 ₁₁₅	3500 ₈₀	3150 ₁₀₀	2900 ₁₁₅	3200 ₁₀₀	2900 ₁₁₅	2600 ₁₂₅
2/290x35	40	4450 ₆₅	4250 ₈₅	4100 ₁₀₅	4150 ₁₀₀	4000 ₁₁₅	3800 ₁₃₀	4150 ₁₀₅	4000 ₁₁₅	3800 ₁₃₀	3850 ₁₂₅	3650 ₁₃₅	3500 ₁₄₅
	75	4350 ₇₅	4050 ₁₁₀	3700 ₁₃₅	4100 ₁₁₀	3750 ₁₃₀	3400 ₁₅₀	4050 ₁₁₀	3750 ₁₃₀	3400 ₁₅₀	3750 ₁₃₀	3450 ₁₅₀	3100 ₁₆₀
2/300x35	40	4550 ₇₀	4350 ₉₀	4200 ₁₁₀	4250 ₁₀₅	4100 ₁₂₀	3950 ₁₃₅	4250 ₁₁₀	4100 ₁₂₀	3900 ₁₃₅	4000 ₁₃₀	3750 ₁₄₀	3600 ₁₅₀
	75	4450 ₈₀	4150 ₁₁₅	3850 ₁₄₀	4200 ₁₁₅	3900 ₁₄₀	3500 ₁₅₅	4150 ₁₁₀	3850 ₁₃₅	3500 ₁₅₅	3900 ₁₃₅	3550 ₁₅₅	3200 ₁₆₅
90x42	40	1250	1150	1050	1050	NS	NS	1050	NS	NS	NS	NS	NS
	75	1200	1000	NS	1000	NS	NS	1000	NS	NS	NS	NS	NS
120x42	40	1600 ₅	1500 ₁₅	1350 ₂₀	1400 ₂₀	1250 ₂₅	1150 ₂₅	1400 ₂₀	1250 ₂₅	1150 ₂₅	1200 ₂₅	1100 ₃₀	1050 ₃₅
	75	1550 ₁₀	1300 ₂₅	1150 ₃₀	1350 ₂₀	1150 ₃₀	1000 ₃₅	1350 ₂₅	1150 ₃₀	1000 ₃₅	1150 ₃₀	1000 ₃₅	NS
130x42	40	1750 ₁₅	1600 ₂₅	1500 ₃₀	1500 ₃₀	1400 ₃₅	1250 ₃₅	1500 ₃₀	1400 ₃₅	1250 ₃₅	1300 ₃₅	1200 ₃₅	1100 ₄₀
	75	1700 ₂₀	1450 ₃₀	1200 ₃₅	1450 ₃₀	1250 ₃₅	1100 ₄₅	1450 ₃₀	1250 ₃₅	1100 ₄₅	1250 ₃₅	1100 ₄₀	NS
140x42	40	1850 ₂₀	1700 ₃₀	1600 ₃₅	1600 ₃₅	1500 ₄₀	1350 ₄₅	1600 ₃₅	1500 ₄₀	1350 ₄₅	1400 ₄₀	1300 ₄₅	1200 ₅₀
	75	1800 ₂₅	1550 ₄₀	1300 ₄₅	1550 ₃₅	1300 ₄₅	1150 ₅₀	1550 ₄₀	1300 ₄₅	1150 ₅₀	1350 ₄₅	1150 ₅₀	1050 ₆₀
150x42	40	2000 ₂₅	1800 ₃₅	1700 ₄₅	1750 ₄₅	1600 ₅₀	1450 ₅₀	1700 ₄₅	1600 ₅₀	1450 ₅₀	1500 ₅₀	1350 ₅₅	1300 ₆₀
	75	1900 ₃₀	1650 ₄₅	1400 ₅₅	1650 ₄₅	1400 ₅₅	1250 ₆₀	1650 ₄₅	1400 ₅₅	1250 ₆₀	1450 ₅₅	1250 ₆₀	1150 ₇₀
170x42	40	2250 ₄₀	2050 ₅₀	1900 ₆₀	1950 ₅₅	1800 ₆₅	1650 ₇₀	1900 ₆₀	1800 ₆₅	1650 ₇₀	1700 ₇₀	1550 ₇₅	1450 ₈₀
	75	2150 ₄₅	1850 ₆₀	1600 ₇₅	1900 ₆₀	1600 ₇₀	1400 ₈₀	1850 ₆₀	1600 ₇₀	1400 ₈₀	1600 ₇₀	1400 ₈₀	1300 ₉₀
190x42	40	2450 ₅₀	2250 ₆₅	2100 ₇₅	2150 ₇₅	2000 ₈₅	1850 ₉₀	2100 ₇₅	2000 ₈₅	1850 ₉₀	1850 ₉₀	1750 ₉₅	1600 ₁₀₀
	75	2350 ₅₅	2050 ₈₀	1750 ₉₀	2100 ₈₀	1800 ₉₀	1550 ₁₀₀	2050 ₈₀	1800 ₉₀	1550 ₁₀₀	1800 ₉₀	1600 ₁₀₀	1450 ₁₁₀
200x42	40	2600 ₆₀	2350 ₇₀	2200 ₈₅	2250 ₈₅	2100 ₉₅	1950 ₁₀₀	2200 ₈₅	2100 ₉₅	1950 ₁₀₀	1950 ₉₅	1800 ₁₀₀	1700 ₁₀₅
	75	2500 ₆₅	2150 ₉₀	1850 ₁₀₀	2150 ₈₅	1900 ₁₀₀	1650 ₁₁₀	2150 ₈₅	1900 ₁₀₀	1650 ₁₁₀	1900 ₁₀₀	1650 ₁₁₀	1500 ₁₁₅
240x42	40	3050 ₈₅	2800 ₁₀₀	2600 ₁₁₅	2650 ₁₁₀	2450 ₁₂₀	2300 ₁₃₀	2600 ₁₁₀	2450 ₁₂₀	2300 ₁₃₀	2350 ₁₂₅	2200 ₁₃₅	2050 ₁₄₀
	75	2900 ₉₅	2550 ₁₁₅	2200 ₁₃₀	2550 ₁₁₅	2250 ₁₃₀	2000 ₁₄₀	2550 ₁₁₅	2250 ₁₃₀	2000 ₁₄₀	2300 ₁₃₀	2000 ₁₄₀	1800 ₁₅₀
290x42	40	3600 ₁₁₅	3300 ₁₃₀	3050 ₁₄₅	3150 ₁₄₀	2950 ₁₅₅	2750 ₁₆₅	3100 ₁₄₅	2950 ₁₅₅	2750 ₁₆₅	2800 ₁₆₀	2650 ₁₇₅	2450 ₁₇₅
	75	3450 ₁₂₀	3000 ₁₅₀	2700 ₁₇₀	3050 ₁₄₅	2700 ₁₇₀	2400 ₁₈₀	3050 ₁₄₅	2700 ₁₇₀	2400 ₁₈₀	2750 ₁₇₀	2400 ₁₈₀	2150 ₁₉₀
300x42	40	3700 ₁₂₀	3400 ₁₃₅	3150 ₁₅₀	3250 ₁₅₀	3000 ₁₆₀	2850 ₁₇₅	3200 ₁₅₀	3000 ₁₆₀	2850 ₁₇₅	2900 ₁₇₀	2700 ₁₈₀	2550 ₁₈₅
	75	3550 ₁₂₅	3100 ₁₅₅	2750 ₁₇₅	3150 ₁₅₅	2800 ₁₇₅	2450 ₁₉₀	3150 ₁₅₅	2800 ₁₇₅	2450 ₁₉₀	2850 ₁₇₅	2500 ₁₉₀	2250 ₂₀₀
2/90x42	40	1550	1500	1400	1450	1350	1300	1400	1350	1300	1350	1300	1250
	75	1550	1400	1300	1400	1300	1200	1400	1300	1200	1300	1250	1150
2/120x42	40	2100	2000	1900	1900	1850	1750	1900	1800	1750	1800	1700 ₅	1650 ₁₀
	75	2050	1850	1750 ₅	1850	1750	1650 ₁₅	1850	1750	1650 ₁₅	1750	1650 ₁₀	1500 ₂₀
2/130x42	40	2250	2150	2050	2050	2000	1900 ₅	2050	1950	1900 ₅	1950 ₅	1850 ₁₀	1800 ₂₀
	75	2200	2000	1900 ₁₀	2050	1900 ₁₀	1750 ₂₀	2000	1900 ₁₀	1750 ₂₀	1900 ₁₀	1800 ₂₀	1650 ₂₅
2/140x42	40	2450	2300	2200	2250	2150 ₅	2050 ₁₅	2200	2150 ₅	2050 ₁₅	2100 ₁₅	2000 ₂₀	1950 ₂₅
	75	2400	2150 ₅	2000 ₂₀	2200 ₅	2050 ₁₅	1900 ₃₀	2200 ₅	2000 ₁₅	1900 ₃₀	2050 ₁₅	1900 ₂₅	1750 ₃₅
2/150x42	40	2600	2500	2350 ₅	2400 ₅	2300 ₁₅	2200 ₂₀	2400 ₅	2300 ₁₅	2200 ₂₀	2250 ₂₀	2150 ₂₅	2100 ₃₅
	75	2550	2350 ₁₀	2150 ₂₅	2350 ₁₀	2200 ₂₅	2050 ₃₅	2350 ₁₀	2150 ₂₅	2050 ₃₅	2200 ₂₅	2050 ₃₅	1850 ₄₀
2/170x42	40	2950	2800 ₁₀	2700 ₂₀	2700 ₂₀	2600 ₂₅	2500 ₃₅	2700 ₂₀	2600 ₂₅	2500 ₃₅	2500 ₃₀	2450 ₄₀	2350 ₄₅
	75	2900 ₅	2650 ₂₅	2450 ₃₅	2650 ₂₀	2450 ₃₅	2300 ₅₀	2650 ₂₀	2450 ₃₅	2300 ₅₀	2500 ₃₅	2350 ₅₀	2100 ₅₅
2/190x42	40	3300 ₁₀	3150 ₂₀	3000 ₃₀	3050 ₃₀	2900 ₄₀	2800 ₄₅	3000 ₃₀	2900 ₃₅	2800 ₄₅	2800 ₄₅	2700 ₅₅	2600 ₆₀
	75	3250 ₁₅	2950 ₃₅	2750 ₅₀	2950 ₃₀	2750 ₅₀	2550 ₆₅	2950 ₃₀	2750 ₅₀	2550 ₆₅	2800 ₅₀	2600 ₆₅	2350 ₇₅
2/200x42	40	3500 ₁₅	3300 ₂₅	3150 ₃₅	3200 ₃₅	3050 ₄₅	2950 ₅₅	3150 ₃₅	3050 ₄₅	2950 ₅₅	2950 ₅₀	2850 ₆₀	2750 ₇₀
	75	3400 ₂₀	3100 ₄₀	2900 ₆₀	3150 ₄₀	2900 ₅₅	2700 ₇₅	3100 ₃₅	2900 ₅₅	2700 ₇₅	2900 ₅₅	2700 ₇₀	2500 ₈₅
2/240x42	40	4050 ₃₀											

CONTINUOUS SPAN FLOOR BEARER SUPPORTING DOUBLE STOREY LOAD BEARING WALL SHEET & TILE ROOF [Cont'd]

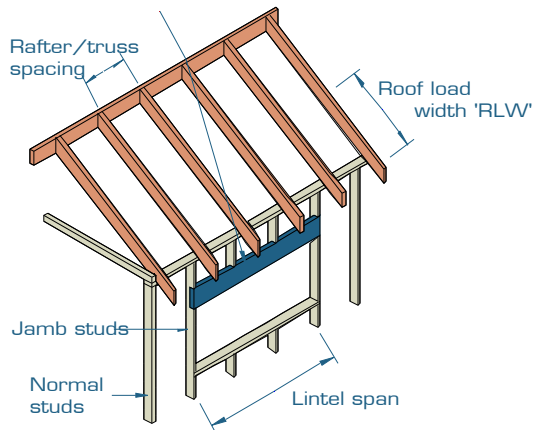
Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m ²)	Continuous span											
		Maximum Bearer span (mm)											
90x58	40	1400	1300	1250	1250	1200	1100	1250	1200	1100	1150	1050	NS
	75	1350	1200	1100	1250	1100	NS	1250	1100	NS	1100	NS	NS
130x58	40	2000	1900 ₅	1750 ₁₅	1800 ₁₀	1650 ₂₀	1550 ₂₅	1750 ₁₅	1650 ₂₀	1550 ₂₅	1600 ₂₅	1500 ₃₀	1400 ₃₀
	75	1950	1700 ₁₅	1550 ₂₅	1750 ₁₅	1550 ₂₅	1350 ₃₀	1750 ₁₅	1550 ₂₅	1350 ₃₀	1550 ₂₅	1400 ₃₀	1250 ₃₅
150x58	40	2300 ₁₀	2150 ₂₀	2000 ₂₅	2050 ₂₅	1900 ₃₀	1800 ₄₀	2000 ₂₅	1900 ₃₀	1800 ₄₀	1800 ₃₅	1700 ₄₀	1600 ₄₅
	75	2250 ₁₅	1950 ₃₀	1750 ₄₀	1950 ₃₀	1750 ₄₀	1550 ₅₀	1950 ₃₀	1750 ₄₀	1550 ₅₀	1750 ₄₀	1600 ₅₀	1400 ₅₅
170x58	40	2600 ₂₅	2400 ₃₀	2250 ₄₀	2250 ₃₅	2150 ₄₅	2000 ₅₀	2250 ₄₀	2150 ₄₅	2000 ₅₀	2050 ₅₀	1950 ₆₀	1850 ₆₅
	75	2500 ₂₅	2200 ₄₀	1950 ₅₅	2200 ₄₀	1950 ₅₅	1800 ₆₅	2200 ₄₀	1950 ₅₅	1800 ₆₅	2000 ₅₅	1800 ₆₅	1600 ₇₀
200x58	40	3000 ₄₀	2800 ₅₀	2600 ₆₀	2650 ₅₅	2450 ₆₅	2350 ₇₅	2600 ₅₅	2450 ₆₅	2350 ₇₅	2350 ₇₀	2250 ₈₀	2150 ₉₀
	75	2900 ₄₀	2550 ₆₀	2250 ₈₀	2550 ₆₀	2300 ₈₀	2100 ₉₅	2550 ₆₀	2300 ₈₀	2100 ₉₅	2300 ₇₅	2100 ₉₅	1900 ₁₀₀
240x58	40	3550 ₆₀	3250 ₇₀	3050 ₈₅	3100 ₈₀	2900 ₉₅	2750 ₁₀₅	3050 ₈₅	2900 ₉₅	2750 ₁₀₅	2800 ₁₀₀	2650 ₁₁₀	2500 ₁₂₀
	75	3400 ₆₅	3000 ₉₀	2650 ₁₀₅	3000 ₈₅	2700 ₁₀₅	2450 ₁₂₀	3000 ₈₅	2700 ₁₀₅	2450 ₁₂₀	2700 ₁₀₅	2500 ₁₂₀	2250 ₁₃₀
300x58	40	4350 ₈₅	4050 ₁₁₀	3750 ₁₂₀	3800 ₁₂₀	3550 ₁₃₀	3350 ₁₄₀	3750 ₁₂₀	3550 ₁₃₀	3350 ₁₄₀	3400 ₁₃₅	3200 ₁₄₅	3050 ₁₅₅
	75	4250 ₁₀₅	3650 ₁₂₅	3250 ₁₄₅	3700 ₁₂₅	3300 ₁₄₅	3000 ₁₆₀	3650 ₁₂₀	3300 ₁₄₅	3000 ₁₆₀	3300 ₁₄₀	3050 ₁₆₀	2800 ₁₇₅
360x58	40	5000 ₁₂₀	4750 ₁₄₀	4400 ₁₅₅	4500 ₁₅₀	4200 ₁₆₅	3900 ₁₇₅	4350 ₁₄₅	4100 ₁₆₀	3900 ₁₇₀	3950 ₁₇₀	3750 ₁₈₀	3550 ₁₉₀
	75	4900 ₁₃₀	4300 ₁₅₅	3800 ₁₈₀	4350 ₁₅₅	3850 ₁₇₅	3500 ₁₉₅	4250 ₁₅₀	3800 ₁₇₅	3500 ₁₉₅	3850 ₁₇₅	3500 ₁₉₅	3250 ₂₁₅
400x58	40	5400 ₁₃₅	5150 ₁₅₅	4850 ₁₇₅	4950 ₁₇₀	4600 ₁₈₅	4300 ₁₉₅	4700 ₁₆₅	4450 ₁₇₅	4200 ₁₉₀	4300 ₁₉₀	4050 ₂₀₀	3900 ₂₁₅
	75	5300 ₁₄₅	4750 ₁₈₀	4200 ₂₀₀	4800 ₁₇₅	4250 ₂₀₀	3850 ₂₂₅	4650 ₁₇₀	4150 ₁₉₅	3800 ₂₂₀	4200 ₁₉₅	3800 ₂₁₅	3550 ₂₄₀
450x58	40	5900 ₁₅₀	5650 ₁₈₀	5350 ₂₀₀	5500 ₁₉₅	5100 ₂₁₀	4800 ₂₂₅	5200 ₁₉₀	4900 ₂₀₀	4650 ₂₁₅	4700 ₂₁₀	4450 ₂₂₅	4250 ₂₄₀
	75	5750 ₁₆₀	5250 ₂₀₅	4650 ₂₃₀	5300 ₂₀₅	4700 ₂₃₀	4250 ₂₅₅	5100 ₁₉₅	4550 ₂₂₀	4200 ₂₅₀	4600 ₂₂₀	4200 ₂₄₅	3900 ₂₇₀
300x75	40	4650 ₈₀	4450 ₈₅	4300 ₁₀₀	4300 ₈₅	4100 ₁₁₀	3850 ₁₂₀	4250 ₁₀₀	4000 ₁₀₅	3800 ₁₁₅	3850 ₁₁₅	3650 ₁₂₅	3500 ₁₃₀
	75	4550 ₇₀	4200 ₁₀₅	3700 ₁₂₀	4250 ₁₀₅	3750 ₁₂₀	3400 ₁₃₅	4150 ₁₀₀	3750 ₁₂₀	3400 ₁₃₅	3750 ₁₁₅	3450 ₁₃₅	3200 ₁₅₀
400x75	40	5750 ₁₀₀	5500 ₁₂₀	5300 ₁₄₀	5350 ₁₃₅	5200 ₁₅₅	4950 ₁₇₀	5350 ₁₄₀	5050 ₁₅₀	4800 ₁₆₀	4850 ₁₆₀	4600 ₁₇₀	4400 ₁₈₀
	75	5600 ₁₁₀	5250 ₁₄₅	4850 ₁₇₅	5300 ₁₄₅	4850 ₁₇₅	4400 ₁₉₀	5250 ₁₄₅	4700 ₁₆₅	4300 ₁₈₅	4750 ₁₆₅	4350 ₁₈₅	4000 ₂₀₅
525x75	40	7000 ₁₃₅	6700 ₁₆₅	6500 ₁₈₅	6550 ₁₈₀	6350 ₂₀₅	6150 ₂₂₅	6500 ₁₈₀	6300 ₂₀₀	5950 ₂₁₅	6050 ₂₁₅	5750 ₂₃₀	5500 ₂₄₅
	75	6850 ₁₅₀	6400 ₁₉₅	6100 ₂₃₅	6450 ₁₉₀	6100 ₂₃₅	5600 ₂₆₀	6450 ₁₉₀	5850 ₂₂₀	5350 ₂₅₀	5900 ₂₂₀	5400 ₂₄₅	5000 ₂₇₀

NOTES:

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on total upper floor mass of 40 (kg/m²), total ground floor mass of 30 (kg/m²), floor live load of 1.5 kPa, floor point load of 1.8 kN, wall mass of 32 (kg/m²), & permanent floor live load of 0.6 kPa.
- The above table was based on a wall height of 5400 mm
- End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 42 mm at end supports and 58 mm at internal supports.
- Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE SPAN LINTELS IN SINGLE/UPPER STOREY WALLS AS 4055 CLASSIFICATION N1, N2 AND N3

Single/Upper storey lintel



EXAMPLE:

wind speed = N3
 sheet roof - 40 kg/m²
 rafter/truss spacing = 600 mm
 lintel span = 3500 mm
 roof load width = 3900 mm
 Enter span table at 4500 roof load width column, rafter/truss spacing 600 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 15 — 2/240x35

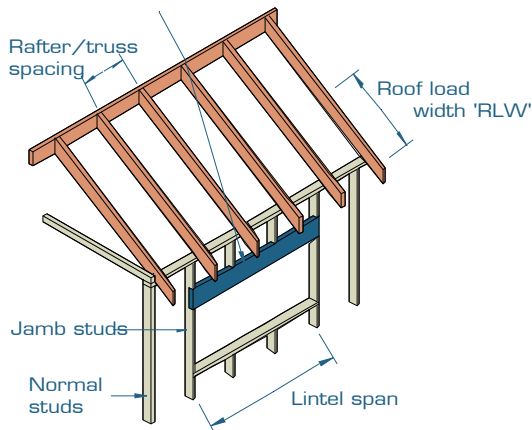
Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Lintel span (mm)									
		Single span									
120x35	40	2500	2600	2000	2000	1750	1700	1550	1200	1450 ₅	NS
	90	1900	1900	1500	1400	1350	1100	1200	NS	1100	NS
130x35	40	2700	2750	2150	2150	1900	1900	1700	1450 ₅	1550	NS
	90	2100	2050	1650	1550	1450	1250	1300	NS	1200 ₁₀	NS
140x35	40	2900	2900	2300	2350	2050	2000	1850	1600 ₅	1700	1000 ₅
	90	2250	2250	1750	1750	1550	1400 ₅	1400 ₅	1250 ₅	1300 ₁₀	NS
150x35	40	3100	3050	2500	2550	2200	2150	2000	1900 ₁₀	1800 ₅	1400 ₂₀
	90	2400	2450	1900	1900	1650	1550 ₅	1500 ₅	1350 ₅	1400 ₂₀	NS
170x35	40	3400	3350	2800	2850	2500	2500 ₅	2250 ₅	2200 ₁₀	2050 ₁₅	1650 ₁₅
	90	2700	2750	2150	2150	1900	1850 ₅	1700	1650 ₁₅	1600 ₁₅	1400 ₁₅
190x35	40	3650	3650	3100	3100	2750 ₅	2800 ₁₀	2500 ₁₀	2500 ₁₅	2350 ₁₀	2200 ₂₀
	90	3000	3000	2400	2450	2150 ₅	2100 ₁₀	1900 ₅	1900 ₁₅	1750 ₁₀	1600 ₃₀
200x35	40	3800	3800	3250	3200	2900	2900 ₁₀	2650 ₁₀	2650 ₁₅	2450 ₂₀	2300 ₂₀
	90	3150	3100	2550	2600	2250 ₅	2200 ₁₀	2050 ₅	2000 ₂₀	1850 ₁₅	1750 ₂₅
240x35	40	4350	4350	3700	3650	3350 ₁₀	3350 ₁₀	3150 ₁₀	3050 ₂₀	2850 ₃₀	2800 ₄₀
	90	3600	3550	3050	3050 ₅	2700 ₁₀	2750 ₂₀	2450 ₂₅	2400 ₃₅	2250 ₃₀	2200 ₃₅
2/120x35	40	3050	3050	2500	2600	2200	2200	2000	2000	1850	1850
	90	2400	2450	1900	1900	1650	1600	1500	1400	1400	1250
2/130x35	40	3250	3200	2700	2750	2350	2400	2150	2150	2000	2000
	90	2600	2650	2100	2050	1800	1800	1650	1550	1550	1400
2/140x35	40	3450	3400	2900	2900	2550	2650	2300	2350	2150	2150
	90	2800	2800	2250	2250	1950	1950	1750	1750	1650	1550
2/150x35	40	3600	3550	3100	3050	2750	2750	2500	2550	2300	2350
	90	3000	3000	2400	2450	2100	2100	1900	1900	1750	1700
2/170x35	40	3950	3900	3400	3350	3050	3050	2800	2850	2650	2700 ₅
	90	3300	3250	2700	2750	2400	2400	2150	2150	2000	2000
2/190x35	40	4250	4250	3650	3650	3350	3300	3100	3100	2950	2950
	90	3550	3550	3000	3000	2650	2700	2400	2450	2250	2200 ₅
2/200x35	40	4400	4400	3800	3800	3450	3450	3250	3200	3050	3050
	90	3700	3650	3150	3100	2800	2850	2550	2600	2350	2350 ₅
2/240x35	40	5050	5050	4350	4350	3950	3950	3700	3650	3500 ₅	3500 ₅
	90	4250	4250	3600	3550	3250	3250	3050	3050 ₅	2850 ₁₀	2850 ₁₅
2/290x35	40	5750	5700	5000	4950	4550	4550	4250	4250 ₅	4050 ₁₀	4000 ₅
	90	4850	4850	4150	4150	3750	3750	3500 ₅	3500 ₅	3350 ₅	3300 ₁₀
2/300x35	40	5900	5850	5100	5100	4650	4650	4350	4350 ₅	4150 ₁₀	4150 ₁₅
	90	4950	4950	4250	4250	3850	3850	3600 ₁₀	3550 ₅	3400 ₅	3400 ₁₅

SINGLE SPAN LINTELS IN SINGLE/UPPER STOREY WALLS AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Lintel span (mm)									
		Single span									
130x42	40	2850	2850	2300	2300	2000	2000	1800	1750	1700	1400 ₁₀
	90	2200	2200	1750	1700	1550	1400	1400	1200	1300 ₅	NS
140x42	40	3050	3050	2450	2550	2150	2150	1950	1950	1800	1550 ₅
	90	2350	2400	1900	1900	1650	1550	1500	1350	1400 ₁₀	1100 ₅
150x42	40	3200	3200	2650	2700	2300	2350	2100	2100 ₅	1950	1800 ₁₀
	90	2550	2600	2050	2000	1750	1700	1600	1500 ₁₀	1500 ₅	1350 ₁₀
170x42	40	3500	3500	3000	3000	2650	2700 ₅	2400	2400 ₁₀	2200 ₅	2200 ₁₅
	90	2900	2900	2300	2300	2000	2000	1800	1800 ₁₀	1700 ₅	1600 ₂₀
190x42	40	3800	3800	3250	3250	2950	2950	2700 ₁₀	2700 ₁₅	2500 ₁₀	2450 ₂₀
	90	3150	3150	2600	2650	2250	2200 ₅	2050	2000 ₁₀	1900 ₅	1850 ₂₀
200x42	40	3950	3950	3400	3350	3050	3050	2800 ₅	2850 ₁₅	2650 ₁₀	2600 ₂₀
	90	3300	3250	2700	2750	2350	2350 ₅	2150 ₁₀	2100 ₁₀	2000 ₁₀	1950 ₂₀
240x42	40	4500	4500	3850	3850	3500 ₅	3500 ₅	3300 ₅	3250 ₁₅	3100 ₁₅	3000 ₂₅
	90	3750	3750	3200	3150	2850 ₁₀	2850 ₁₅	2600 ₁₅	2600 ₂₅	2400 ₂₅	2350 ₂₅
290x42	40	5200	5200	4450	4400	4050 ₁₀	4000 ₅	3750 ₁₅	3750 ₂₀	3600 ₂₅	3550 ₃₀
	90	4300	4300	3650	3650	3350 ₅	3300 ₁₀	3100 ₂₀	3100 ₃₀	2900 ₃₅	2900 ₅₀
300x42	40	5300	5300	4550	4550	4150 ₁₀	4150 ₁₅	3850 ₁₅	3850 ₂₀	3650 ₂₅	3650 ₃₀
	90	4450	4400	3750	3750	3400 ₅	3400 ₁₅	3150 ₂₀	3150 ₃₀	3000 ₃₅	3000 ₅₀
2/130x42	40	3400	3350	2850	2850	2550	2600	2300	2300	2150	2100
	90	2750	2800	2200	2200	1900	1900	1750	1700	1600	1500
2/140x42	40	3550	3550	3050	3050	2700	2750	2450	2550	2300	2300
	90	2950	2950	2350	2400	2100	2050	1900	1900	1750	1700
2/150x42	40	3750	3700	3200	3200	2900	2900	2650	2700	2450	2500
	90	3150	3100	2550	2600	2250	2200	2050	2000	1850	1850
2/170x42	40	4100	4100	3500	3500	3200	3200	3000	3000	2800	2800
	90	3450	3400	2900	2900	2550	2600	2300	2300	2150	2100
2/190x42	40	4450	4400	3800	3800	3500	3450	3250	3250	3100	3050
	90	3700	3700	3150	3150	2850	2850	2600	2650	2400	2400 ₅
2/200x42	40	4600	4600	3950	3950	3600	3600	3400	3350	3200	3200
	90	3850	3850	3300	3250	2950	2950	2700	2750	2500	2550 ₅
2/240x42	40	5200	5200	4500	4500	4150	4100	3850	3850	3650	3650
	90	4400	4400	3750	3750	3400	3400	3200	3150	3000	3000 ₅
2/290x42	40	5950	5900	5200	5200	4750	4700	4450	4400	4200	4200 ₅
	90	5050	5050	4300	4300	3950	3900	3650	3650	3500 ₁₀	3450 ₅
2/300x42	40	6050	6050	5300	5300	4850	4850	4550	4550	4300	4300 ₅
	90	5150	5200	4450	4400	4050	4000	3750	3750	3550 ₁₀	3550 ₅
2/360x42	40	6850	6850	6050	6000	5550	5550	5200	5200	4950 ₁₀	4900 ₁₀
	90	5900	5850	5050	5050	4600	4600	4300 ₅	4300 ₁₀	4100 ₁₀	4050 ₁₀
2/400x42	40	7400	7350	6500	6500	6000	5950	5600 ₅	5600 ₁₀	5350 ₅	5350 ₁₀
	90	6350	6350	5450	5450	5000	4950 ₅	4650 ₅	4650 ₁₀	4400 ₁₅	4400 ₂₀
130x58	40	3100	3100	2550	2600	2250	2250	2050	2000	1850	1900
	90	2450	2550	1950	1950	1700	1650	1550	1400	1450	1250
150x58	40	3450	3450	2950	2950	2600	2650	2350	2350	2200	2150
	90	2800	2850	2250	2250	1950	1950	1800	1750	1650	1550 ₅
170x58	40	3800	3750	3250	3200	2900	2900	2650	2700	2450	2500 ₅
	90	3150	3100	2550	2650	2250	2200	2050	2000	1900	1850 ₅
200x58	40	4250	4250	3650	3600	3300	3300	3100	3100	2900	2900 ₁₀
	90	3550	3500	3000	3000	2650	2700	2400	2400 ₁₀	2250 ₅	2200 ₁₀
240x58	40	4850	4850	4150	4150	3800	3750	3550	3500 ₅	3350 ₁₀	3350 ₁₀
	90	4050	4050	3450	3400	3100	3100	2900 ₅	2900 ₁₅	2700 ₁₀	2700 ₂₀
300x58	40	5650	5650	4900	4900	4450	4450	4150 ₁₀	4150 ₁₅	3950 ₁₀	3950 ₁₅
	90	4750	4750	4050	4050	3700 ₅	3650 ₅	3450 ₁₅	3400 ₁₀	3250 ₁₀	3250 ₂₀
360x58	40	6450	6400	5600	5550	5100	5100 ₅	4800 ₁₅	4750 ₁₀	4550 ₁₅	4500 ₂₅
	90	5450	5450	4650	4600	4200 ₁₀	4200 ₁₅	3950 ₁₅	3900 ₁₅	3750 ₃₀	3700 ₂₅
400x58	40	6900	6900	6050	6000	5500 ₁₀	5500 ₁₀	5150 ₁₅	5150 ₁₅	4900 ₂₅	4900 ₃₀
	90	5850	5850	5000	5000 ₅	4550 ₅	4550 ₁₅	4250 ₂₅	4250 ₃₀	4050 ₃₀	4000 ₂₅
300x75	40	5950	5950	5200	5200	4750	4700	4450	4400	4200 ₅	4200 ₁₀
	90	5050	5050	4300	4300	3900	3900	3650 ₅	3600 ₅	3500 ₁₅	3450 ₁₀
400x75	40	7250	7200	6350	6350	5850	5800	5450 ₁₀	5450 ₁₅	5200 ₁₀	5200 ₁₅
	90	6200	6200	5300	5350	4850 ₅	4800 ₁₀	4550 ₁₀	4500 ₁₅	4300 ₂₀	4300 ₃₀
525x75	40	8650	8650	7650	7650	7100 ₅	7050 ₁₀	6650 ₁₀	6650 ₁₀	6350 ₂₅	6300 ₂₀
	90	7500	7500	6500	6500	5950 ₁₀	5900 ₁₅	5550 ₂₀	5550 ₂₅	5250 ₃₀	5250 ₃₅

SINGLE SPAN LINTELS IN SINGLE/UPPER STOREY WALLS AS 4055 CLASSIFICATION C1, C2 AND C3

Single/Upper storey lintel



EXAMPLE:

wind speed = C3
 sheet roof - 40 kg/m²
 rafter/truss spacing = 600 mm
 lintel span = 3500 mm
 roof load width = 3900 mm
 Enter span table at 4500 roof load width column, rafter/truss spacing 600 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 15 — 2/240x35

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Lintel span (mm)									
		Single span									
120x35	40	2250	2100	1500	NS	NS	NS	NS	NS	NS	NS
	90	1900	1900	1500	NS	1300 ₅	NS	NS	NS	NS	NS
130x35	40	2400	2300	1650	NS	1350	NS	NS	NS	NS	NS
	90	2100	2050	1650	1350	1400 ₁₀	NS	NS	NS	NS	NS
140x35	40	2600	2550	1750	1400	1400 ₅	NS	NS	NS	NS	NS
	90	2250	2250	1750	1500 ₅	1500 ₁₀	NS	NS	NS	NS	NS
150x35	40	2750	2700	1850	1500	1500 ₅	NS	NS	NS	NS	NS
	90	2400	2450	1900	1750 ₅	1600 ₁₀	NS	1050 ₅	NS	NS	NS
170x35	40	3050	2950	2150	2050	1700	NS	1450 ₂₀	NS	NS	NS
	90	2700	2750	2150 ₅	2150 ₁₀	1800 ₁₀	1050 ₅	1550 ₂₅	NS	1000 ₁₅	NS
190x35	40	3450	3250	2450	2300 ₅	1900 ₅	1200	1600 ₁₅	NS	1050 ₅	NS
	90	3000	3000	2400 ₁₀	2400 ₁₅	2000 ₁₀	1500 ₃₀	1700 ₂₀	NS	1500 ₄₅	NS
200x35	40	3600	3400	2550	2400 ₁₀	2000 ₅	1500 ₂₀	1700 ₁₅	NS	1150 ₅	NS
	90	3150	3100	2550 ₁₀	2550 ₁₅	2100 ₂₅	1600 ₂₅	1750 ₂₀	NS	1600 ₄₀	NS
240x35	40	4250	4150	2950 ₅	2850 ₁₅	2450 ₂₀	1850 ₁₅	1900 ₁₀	1300 ₁₀	1800 ₂₅	NS
	90	3600	3550	3050 ₁₅	3000 ₂₀	2550 ₃₀	2450 ₄₀	2200 ₃₀	1600 ₃₀	1900 ₃₅	1000 ₂₅
2/120x35	40	2950	2950	2350	2300	1900	1500	1550	NS	1450	NS
	90	2400	2450	1900	1900	1650	1600	1500	NS	1400 ₅	NS
2/130x35	40	3200	3150	2550	2550	2050	1900	1750	NS	1550	NS
	90	2600	2650	2100	2050	1800	1800	1650	1400 ₅	1550	NS
2/140x35	40	3450	3400	2750	2700	2250	2100	1900	1400	1600	NS
	90	2800	2800	2250	2250	1950	1950	1750	1500 ₅	1600	NS
2/150x35	40	3600	3550	2900	2850	2400	2250	2050	1500	1650	NS
	90	3000	3000	2400	2450	2100	2100	1900	1850 ₅	1750 ₅	1100 ₅
2/170x35	40	3950	3900	3300	3150	2700	2650	2350	2200 ₅	2050	1450 ₁₀
	90	3300	3250	2700	2750	2400	2400 ₅	2150 ₅	2150 ₁₀	2000 ₅	1550 ₁₅
2/190x35	40	4250	4250	3650	3500	2950	2850	2550	2450 ₁₀	2300 ₅	1650 ₅
	90	3550	3550	3000	3000	2650	2700 ₁₀	2400 ₁₀	2450 ₁₅	2250 ₁₅	2200 ₂₀
2/200x35	40	4400	4400	3800	3700	3100	3000	2700	2650 ₁₀	2400 ₁₀	1750 ₅
	90	3700	3650	3150	3100	2800 ₅	2850 ₁₀	2550 ₁₀	2600 ₁₅	2350 ₁₀	2350 ₂₀
2/240x35	40	5050	5050	4350	4350	3700 ₅	3500 ₅	3150 ₅	3050 ₁₅	2800 ₂₀	2750 ₂₀
	90	4250	4250	3600	3550	3250	3250 ₁₀	3050 ₁₅	3050 ₂₀	2850 ₃₀	2850 ₄₀
2/290x35	40	5750	5700	5000	4950	4400 ₅	4300 ₁₅	3800 ₁₅	3600 ₁₅	3400 ₁₅	3200 ₂₅
	90	4850	4850	4150	4150 ₅	3750 ₁₀	3750 ₁₀	3500 ₂₅	3500 ₂₅	3350 ₂₅	3300 ₃₅
2/300x35	40	5900	5850	5100	5100	4500 ₅	4500 ₁₀	3900 ₁₅	3750 ₂₀	3500 ₃₀	3300 ₂₅
	90	4950	4950	4250	4250 ₅	3850 ₁₀	3850 ₁₅	3600 ₂₅	3550 ₂₅	3400 ₂₅	3400 ₃₅

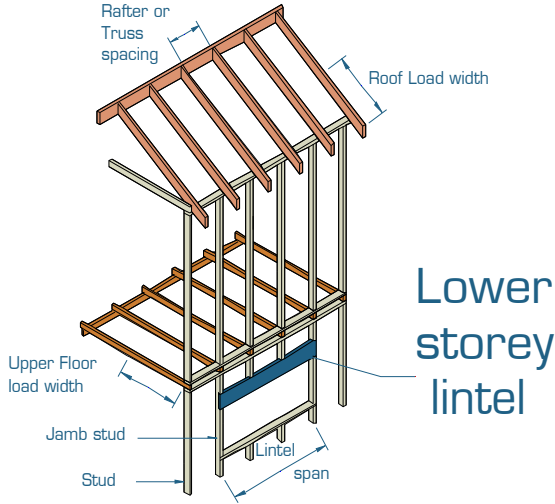
SINGLE SPAN LINTELS IN SINGLE/UPPER STOREY WALLS AS 4055 CLASSIFICATION C1, C2 AND C3 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafters/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Lintel span (mm)									
		Single span									
130x42	40	2650	2600	1800	1500	1450	NS	NS	NS	NS	NS
	90	2200	2200	1750	1650	1500	NS	1350 ₁₀	NS	NS	NS
140x42	40	2800	2750	1950	1700	1550	NS	1350	NS	NS	NS
	90	2350	2400	1900	1900	1600	NS	1400 ₁₅	NS	NS	NS
150x42	40	3000	2900	2100	1950	1650	NS	1450 ₁₀	NS	NS	NS
	90	2550	2600	2050	2000	1750	1100 ₅	1500 ₁₅	NS	1000 ₅	NS
170x42	40	3400	3250	2400	2250	1900	1450 ₁₀	1600 ₅	NS	1100	NS
	90	2900	2900	2300	2300 ₅	2000 ₅	1550 ₁₅	1700 ₁₀	NS	1500 ₃₀	NS
190x42	40	3750	3600	2650	2550	2100 ₁₀	1650 ₅	1750 ₅	NS	1600 ₂₀	NS
	90	3150	3150	2600	2650 ₁₀	2250 ₁₅	2150 ₂₀	1900 ₁₅	1200 ₁₀	1650 ₂₅	NS
200x42	40	3950	3800	2750	2700	2250 ₅	1750 ₅	1800 ₅	1100 ₅	1650 ₁₅	NS
	90	3300	3250	2700 ₁₀	2750 ₁₅	2350 ₁₀	2250 ₂₀	2000 ₁₅	1500 ₄₀	1750 ₂₅	NS
240x42	40	4500	4500	3250	3100 ₅	2650 ₁₀	2550 ₂₀	2300 ₂₀	1700 ₂₅	1900 ₁₅	1200 ₁₀
	90	3750	3750	3200 ₅	3150 ₁₀	2750 ₃₀	2700 ₃₀	2450 ₂₅	1850 ₃₀	2100 ₃₀	1550 ₂₅
290x42	40	5200	5200	3900 ₅	3750 ₁₀	3150 ₁₅	3000 ₃₀	2700 ₂₅	2650 ₃₅	2450 ₃₅	1800 ₄₀
	90	4300	4300	3650 ₁₅	3650 ₁₅	3300 ₂₅	3150 ₃₅	2850 ₅₀	2750 ₅₀	2550 ₅₀	1950 ₄₅
300x42	40	5300	5300	4000 ₅	3850 ₁₀	3250 ₁₅	3100 ₂₅	2800 ₂₅	2750 ₃₅	2550 ₃₅	1850 ₃₅
	90	4450	4400	3750 ₁₅	3750 ₁₅	3400 ₂₅	3250 ₃₅	2950 ₅₀	2850 ₅₀	2650 ₅₀	2000 ₄₅
2/130x42	40	3400	3350	2700	2750	2300	2150	1950	1500	1700	NS
	90	2750	2800	2200	2200	1900	1900	1750	1700	1600	1150
2/140x42	40	3550	3550	2900	2900	2450	2350	2100	1950	1850	1150
	90	2950	2950	2350	2400	2100	2050	1900	1900	1750	1450 ₁₀
2/150x42	40	3750	3700	3100	3100	2600	2600	2250	2150	2000	1450
	90	3150	3100	2550	2600	2250	2200	2050	2000	1850	1600 ₅
2/170x42	40	4100	4100	3500	3450	2900	2850	2550	2450	2300	1700
	90	3450	3400	2900	2900	2550	2600	2300	2300 ₅	2150 ₅	2100 ₁₀
2/190x42	40	4450	4400	3800	3800	3250	3100	2800	2750 ₁₀	2550 ₅	2400 ₁₀
	90	3700	3700	3150	3150	2850	2850	2600	2650 ₁₀	2400 ₁₀	2400 ₂₀
2/200x42	40	4600	4600	3950	3950	3450	3250	2950	2850 ₅	2650 ₅	2550 ₁₀
	90	3850	3850	3300	3250	2950	2950	2700 ₁₀	2750 ₁₅	2500 ₁₀	2550 ₂₀
2/240x42	40	5200	5200	4500	4500	4050	3900	3500 ₅	3350 ₅	3100 ₅	3000 ₁₅
	90	4400	4400	3750	3750	3400 ₅	3400 ₅	3200 ₅	3150 ₁₀	3000 ₁₅	3000 ₂₅
2/290x42	40	5950	5900	5200	5200	4750 ₁₀	4700 ₅	4150 ₁₅	4050 ₂₀	3700 ₁₅	3550 ₂₀
	90	5050	5050	4300	4300	3950 ₅	3900 ₅	3650 ₁₅	3650 ₁₅	3500 ₃₀	3450 ₂₅
2/300x42	40	6050	6050	5300	5300	4850 ₅	4850 ₁₀	4300 ₁₅	4200 ₂₀	3850 ₁₅	3650 ₂₀
	90	5150	5200	4450	4400	4050 ₅	4000 ₅	3750 ₁₅	3750 ₁₅	3550 ₃₀	3550 ₂₅
2/360x42	40	6850	6850	6050	6000	5550 ₁₀	5550 ₁₅	5000 ₂₀	4950 ₂₅	4450 ₂₅	4400 ₃₅
	90	5900	5850	5050	5050	4600 ₅	4600 ₁₅	4300 ₂₅	4300 ₃₀	4100 ₂₅	4050 ₃₀
2/400x42	40	7400	7350	6500	6500	6000 ₁₅	5950 ₁₅	5450 ₂₀	5350 ₂₅	4900 ₃₅	4850 ₄₀
	90	6350	6350	5450 ₅	5450 ₁₀	5000 ₁₅	4950 ₂₀	4650 ₂₀	4650 ₃₀	4400 ₄₀	4400 ₅₀
130x58	40	3000	3000	2200	2050	1700	1350	1500	NS	1350	NS
	90	2450	2550	1950	1950	1700	1500	1550	NS	1400 ₁₀	NS
150x58	40	3450	3400	2500	2400	2000	1800	1700	NS	1500 ₅	NS
	90	2800	2850	2250	2250	1950	1950 ₅	1800	1300 ₅	1600 ₁₀	NS
170x58	40	3800	3750	2800	2700	2300	2150	1900	1500 ₁₀	1700	NS
	90	3150	3100	2550	2650	2250	2200 ₅	2050 ₅	1600 ₁₀	1800 ₁₀	1000 ₅
200x58	40	4250	4250	3250	3100	2650	2600 ₅	2300 ₅	2200 ₁₀	2000 ₅	1500 ₂₀
	90	3550	3500	3000	3000	2650 ₅	2700 ₁₀	2400 ₁₅	2300 ₂₀	2100 ₂₅	1600 ₂₅
240x58	40	4850	4850	3850	3700	3100	3000 ₁₀	2700 ₁₀	2650 ₁₅	2450 ₂₀	1850 ₁₅
	90	4050	4050	3450	3400	3100 ₁₀	3100 ₁₅	2800 ₂₅	2750 ₂₅	2550 ₃₀	2450 ₄₀
300x58	40	5650	5650	4750 ₅	4700 ₅	3850 ₁₀	3700 ₁₀	3300 ₁₅	3150 ₂₅	2950 ₃₀	2850 ₃₀
	90	4750	4750	4050 ₁₀	4050 ₅	3700 ₂₀	3650 ₂₀	3450 ₄₀	3300 ₃₀	3100 ₄₀	2950 ₅₅
360x58	40	6450	6400	5500 ₁₀	5450 ₁₅	4450 ₁₅	4400 ₂₅	3850 ₂₅	3700 ₂₅	3450 ₂₅	3300 ₄₀
	90	5450	5450	4650 ₅	4600 ₁₀	4200 ₃₀	4200 ₄₀	3950 ₃₅	3900 ₄₀	3650 ₅₅	3450 ₅₀
400x58	40	6900	6900	6050 ₁₅	5900 ₁₅	4900 ₂₅	4900 ₃₀	4200 ₄₀	4100 ₃₀	3750 ₄₀	3600 ₃₅
	90	5850	5850	5000 ₁₅	5000 ₁₅	4550 ₂₅	4550 ₃₅	4250 ₅₀	4250 ₅₅	3950 ₅₅	3800 ₅₀
300x75	40	5950	5950	5200	5200	4400 ₅	4300 ₁₀	3800 ₁₀	3600 ₁₅	3400 ₁₀	3200 ₂₀
	90	5050	5050	4300	4300	3900 ₁₀	3900 ₁₀	3650 ₂₀	3600 ₂₀	3500 ₃₅	3400 ₃₀
400x75	40	7250	7200	6350 ₅	6350 ₅	5550 ₂₀	5500 ₂₅	4850 ₃₀	4850 ₃₀	4300 ₃₅	4200 ₂₅
	90	6200	6200	5300	5350 ₅	4850 ₂₅	4800 ₂₅	4550 ₃₀	4500 ₄₀	4300 ₅₀	4300 ₆₀
525x75	40	8650	8650	7650 ₁₅	7650 ₁₅	7000 ₃₀	6950 ₃₅	6050 ₄₀	5950 ₄₅	5350 ₄₅	5300 ₄₅
	90	7500	7500	6500 ₁₅	6500 ₁₀	5950 ₃₀	5900 ₃₅	5550 ₃₅	5550 ₄₅	5250 ₆₀	5250 ₆₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.
3. Restraint value for slenderness calculations is 600 mm.
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE SPAN LINTELS IN LOWER STOREY WALLS AS 4055 CLASSIFICATION N1, N2 , N3 & C1



EXAMPLE:

wind speed = N3
 sheet roof - 40 kg/m²
 rafter/truss spacing = 600 mm
 lintel span = 3500 mm
 roof load width = 3900 mm
 floor load width = 1200 mm
 Enter span table at 4500 roof load width column, floor load width 1200 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 15 — 2/290x35

Roof load width (mm)		1500			3000			4500			6000		
floor load width (mm)		1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Lintel span (mm)											
		Single span											
120x35	40	1650	1450	1300	1550	1350	1250	1450	1300	1200	1350	1250	1150
	90	1500	1350	1200	1300	1200	1150	1200	1100	1050	1100	1050	1000
130x35	40	1800	1550	1400	1650	1450	1350	1550	1400	1300	1450	1350	1250
	90	1650	1450	1300	1450	1300	1200	1300	1200	1150	1200	1150	1100 ₅
140x35	40	1950	1650	1500	1800	1600	1450	1650	1500	1400	1600	1450	1350
	90	1750	1550	1400	1550	1400	1300	1400	1300	1250 ₅	1300	1250 ₅	1200 ₅
150x35	40	2100	1800	1600	1900	1700	1550	1800	1600	1500	1700	1550	1450 ₅
	90	1900	1650	1550	1650	1500	1400 ₅	1500	1400	1350 ₅	1400	1350 ₅	1250 ₁₀
170x35	40	2350	2050	1800 ₅	2150	1900	1750 ₅	2050	1850	1700 ₅	1900	1750	1650 ₁₀
	90	2150	1900	1750 ₅	1900	1750	1600 ₁₀	1700	1600 ₅	1500 ₁₀	1600 ₅	1500 ₁₀	1450 ₁₅
190x35	40	2650	2250	2050 ₁₀	2450	2150	1950 ₁₀	2250	2050	1900 ₁₀	2150	1950 ₅	1850 ₁₅
	90	2400	2100	1950 ₁₀	2100	1950 ₅	1800 ₁₅	1900 ₅	1800 ₁₀	1700 ₁₅	1800 ₁₀	1700 ₁₅	1600 ₂₀
200x35	40	2750	2400	2150 ₁₀	2550	2250 ₅	2050 ₁₅	2400	2150 ₅	2000 ₁₅	2250	2050 ₅	1900 ₁₅
	90	2500	2250 ₅	2050 ₁₅	2200	2050 ₅	1900 ₁₅	2000 ₅	1900 ₁₅	1800 ₂₀	1850 ₁₅	1800 ₂₀	1700 ₂₅
240x35	40	3250	2850 ₁₀	2600 ₂₀	3050	2700 ₁₀	2500 ₂₀	2850	2600 ₁₀	2400 ₂₅	2700 ₅	2500 ₁₅	2300 ₂₅
	90	3000	2700 ₁₀	2450 ₂₀	2650 ₅	2450 ₁₅	2300 ₂₅	2400 ₁₅	2250 ₂₀	2150 ₃₀	2250 ₂₅	2150 ₃₀	2050 ₃₅
2/120x35	40	2100	1800	1600	1900	1700	1550	1800	1650	1500	1700	1550	1450
	90	1900	1700	1550	1650	1550	1450	1500	1400	1350	1400	1350	1250
2/130x35	40	2250	1950	1750	2100	1850	1700	1950	1750	1600	1850	1700	1550
	90	2050	1800	1650	1800	1650	1550	1650	1550	1450	1550	1450	1400
2/140x35	40	2450	2100	1900	2250	2000	1800	2100	1900	1750	2000	1800	1700
	90	2200	1950	1800	1950	1800	1650	1750	1650	1550	1650	1550	1500
2/150x35	40	2600	2250	2000	2400	2150	1950	2250	2050	1850	2150	1950	1800
	90	2350	2100	1950	2100	1900	1800	1900	1800	1700	1750	1700	1600
2/170x35	40	2950	2550	2300	2700	2400	2200	2550	2300	2150	2400	2200	2050
	90	2650	2400	2200	2350	2150	2050	2150	2000	1900	2000	1900	1800
2/190x35	40	3200	2850	2550	3000	2700	2450	2850	2600	2400	2700	2500	2300
	90	3000	2650	2450	2650	2450	2250	2400	2250	2150	2250	2150	2050
2/200x35	40	3350	3000	2700	3150	2850	2600	3000	2700	2500	2850	2600	2400
	90	3100	2800	2550	2800	2550	2400	2550	2400	2250	2350	2250	2150 ₅
2/240x35	40	3800	3450	3150	3600	3300	3100	3450	3200	3000 ₅	3300	3100	2900 ₅
	90	3550	3250	3050	3250	3050	2850 ₅	3050	2850	2700 ₅	2850 ₅	2700 ₅	2550 ₁₀
2/290x35	40	4400	3950	3650 ₅	4150	3800	3550 ₅	3950	3650	3450 ₁₀	3800	3550	3350 ₁₀
	90	4100	3750	3500 ₅	3750	3500	3350 ₁₀	3500 ₅	3300 ₁₀	3200 ₁₅	3300 ₁₀	3200 ₁₅	3050 ₂₀
2/300x35	40	4500	4050	3750 ₅	4250	3900	3650 ₁₀	4050	3750	3550 ₁₀	3900	3650	3450 ₁₀
	90	4200	3850	3600 ₁₀	3800	3600 ₅	3400 ₁₀	3600 ₅	3400 ₁₀	3250 ₁₅	3400 ₁₀	3250 ₁₅	3150 ₂₀

SINGLE SPAN LINTELS IN LOWER STOREY WALLS

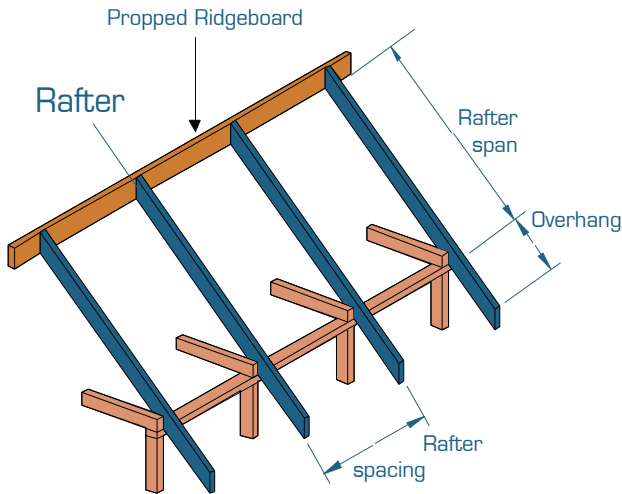
AS 4055 CLASSIFICATION N1, N2 , N3 & C1 [Cont'd]

Roof load width (mm)		1500			3000			4500			6000		
floor load width (mm)		1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Lintel span (mm)											
		Single span											
130x42	40	1900	1650	1500	1750	1550	1400	1650	1500	1350	1550	1450	1300
	90	1750	1550	1400	1500	1400	1300	1400	1300	1200	1300	1200	1150
140x42	40	2050	1750	1600	1900	1700	1550	1750	1600	1450	1700	1550	1450
	90	1850	1650	1500	1650	1500	1400	1500	1400	1300	1400	1300	1250
150x42	40	2200	1900	1700	2050	1800	1650	1900	1700	1600	1800	1650	1550
	90	2000	1800	1600	1750	1600	1500	1600	1500	1400	1500	1400	1350 ₅
170x42	40	2500	2150	1950	2300	2050	1850	2150	1950	1800	2050	1850	1750 ₅
	90	2250	2000	1850	2000	1850	1700 ₅	1800	1700	1600 ₅	1700	1600 ₅	1550 ₁₀
190x42	40	2800	2400	2150 ₅	2600	2300	2100 ₅	2400	2200	2000 ₅	2300	2100	1950 ₅
	90	2550	2250	2050 ₅	2250	2050	1900 ₁₀	2050	1900 ₅	1800 ₁₀	1900 ₅	1800 ₁₀	1700 ₁₅
200x42	40	2950	2550	2300 ₅	2700	2400	2200 ₁₀	2550	2300	2100 ₁₀	2400	2200	2050 ₁₀
	90	2650	2400	2150 ₁₀	2350	2150	2000 ₁₀	2150 ₅	2000 ₁₀	1900 ₁₅	2000 ₁₀	1900 ₁₅	1800 ₁₅
240x42	40	3400	3050 ₅	2750 ₁₅	3200	2900 ₅	2650 ₁₅	3050	2750 ₅	2550 ₁₅	2900	2650 ₁₀	2450 ₂₀
	90	3150	2850 ₅	2600 ₁₅	2800 ₅	2600 ₁₀	2400 ₂₀	2550 ₁₀	2400 ₁₅	2300 ₂₀	2400 ₁₅	2250 ₂₀	2150 ₂₅
290x42	40	3900	3500 ₁₀	3200 ₂₅	3650	3350 ₁₀	3150 ₂₅	3500 ₅	3250 ₁₅	3050 ₂₅	3350 ₅	3150 ₁₅	2950 ₃₀
	90	3600	3300 ₁₀	3100 ₂₅	3300 ₁₀	3100 ₂₀	2900 ₃₀	3100 ₂₀	2900 ₂₅	2750 ₃₅	2900 ₂₅	2750 ₃₅	2600 ₄₀
300x42	40	4000	3600 ₁₀	3300 ₂₅	3750	3450 ₁₅	3200 ₂₅	3600 ₅	3300 ₁₅	3100 ₂₀	3450 ₁₀	3200 ₁₅	3050 ₃₀
	90	3700	3400 ₁₅	3200 ₂₅	3400 ₁₀	3200 ₂₀	3000 ₃₀	3150 ₂₀	3000 ₃₀	2850 ₃₅	3000 ₃₀	2850 ₃₅	2700 ₄₅
2/130x42	40	2400	2050	1850	2200	1950	1800	2050	1850	1700	1950	1800	1650
	90	2150	1950	1750	1900	1750	1650	1750	1650	1550	1650	1550	1450
2/140x42	40	2600	2250	2000	2400	2100	1950	2250	2000	1850	2100	1950	1800
	90	2350	2100	1900	2050	1900	1750	1900	1750	1650	1750	1650	1600
2/150x42	40	2750	2400	2150	2550	2250	2050	2400	2150	2000	2250	2050	1950
	90	2500	2250	2050	2200	2050	1900	2000	1900	1800	1900	1800	1700
2/170x42	40	3100	2700	2450	2900	2550	2350	2700	2450	2250	2550	2350	2200
	90	2850	2550	2300	2500	2300	2150	2300	2150	2050	2150	2000	1950
2/190x42	40	3350	3000	2700	3150	2850	2600	3000	2750	2500	2850	2650	2450
	90	3100	2850	2600	2800	2600	2400	2550	2400	2250	2400	2250	2150
2/200x42	40	3500	3150	2850	3300	3000	2750	3150	2900	2650	3000	2750	2550
	90	3250	3000	2750	2950	2700	2550	2700	2550	2400	2500	2400	2250
2/240x42	40	4000	3600	3300	3750	3450	3200	3600	3350	3150	3450	3250	3050
	90	3700	3400	3200	3400	3200	3050	3150	3000	2850	3000	2850	2700 ₅
2/290x42	40	4550	4100	3800	4300	3950	3700	4100	3850	3600 ₅	3950	3700	3500 ₅
	90	4250	3900	3700	3900	3650	3500 ₅	3650	3500 ₅	3350 ₁₀	3450 ₅	3350 ₁₀	3200 ₁₀
2/300x42	40	4700	4200	3900	4400	4050	3800 ₅	4200	3950	3700 ₅	4050	3800	3600 ₅
	90	4350	4000	3750 ₅	4000	3750	3550 ₅	3750	3550 ₅	3400 ₁₀	3550 ₅	3400 ₁₀	3300 ₁₅
2/360x42	40	5350	4800	4450 ₅	5050	4650	4350 ₁₀	4800	4500	4250 ₁₀	4650	4350	4150 ₁₀
	90	5000	4600	4300 ₁₀	4550	4300 ₅	4100 ₁₀	4300 ₅	4100 ₁₀	3900 ₁₅	4050 ₁₀	3900 ₁₅	3750 ₂₀
2/400x42	40	5750	5200	4850 ₁₀	5450	5000	4700 ₁₀	5200	4850 ₅	4600 ₁₅	5000	4700 ₅	4450 ₁₅
	90	5400	4950	4650 ₁₀	4950	4650 ₅	4400 ₁₅	4600 ₅	4400 ₁₅	4250 ₂₀	4400 ₁₅	4200 ₂₀	4100 ₂₅
130x58	40	2100	1850	1650	1950	1750	1600	1850	1650	1500	1750	1600	1450
	90	1900	1700	1550	1700	1550	1450	1550	1450	1350	1450	1350	1300
150x58	40	2450	2100	1900	2250	2000	1850	2100	1900	1750	2000	1850	1700
	90	2200	2000	1800	1950	1800	1700	1800	1650	1600	1650	1550	1500
170x58	40	2750	2400	2150	2550	2250	2050	2400	2150	2000	2250	2100	1950
	90	2500	2250	2050	2200	2050	1900	2000	1900	1800	1900	1800	1700
200x58	40	3200	2800	2550	3000	2650	2450	2800	2550	2350	2650	2450	2300
	90	2950	2650	2400	2600	2400	2250	2400	2250	2100 ₅	2200	2100 ₅	2000 ₁₀
240x58	40	3650	3300	3050 ₅	3450	3150	2900 ₅	3300	3050	2800 ₅	3150	2950	2750 ₁₀
	90	3400	3100	2900 ₅	3100	2900	2700 ₁₀	2850	2700 ₅	2550 ₁₀	2650 ₅	2550 ₁₀	2400 ₁₅
300x58	40	4300	3850	3600 ₁₀	4050	3700 ₅	3450 ₁₅	3850	3600 ₅	3400 ₁₅	3700	3500 ₅	3300 ₁₅
	90	4000	3700 ₅	3450 ₁₅	3650	3450 ₁₀	3250 ₁₅	3400 ₁₀	3250 ₁₅	3100 ₂₀	3250 ₁₅	3100 ₂₀	3000 ₃₀
360x58	40	4900	4400 ₅	4100 ₂₀	4650	4250 ₁₀	4000 ₂₀	4400	4100 ₁₀	3850 ₂₀	4250 ₅	4000 ₁₀	3800 ₂₀
	90	4600	4200 ₁₀	3950 ₂₀	4200 ₅	3950 ₁₅	3750 ₂₅	3900 ₁₅	3750 ₂₅	3600 ₂₀	3700 ₂₅	3550 ₃₀	3450 ₃₅
400x58	40	5300	4800 ₁₀	4450 ₂₅	5000	4600 ₁₀	4300 ₂₅	4800 ₅	4450 ₁₅	4200 ₂₅	4600 ₁₀	4300 ₁₅	4100 ₃₀
	90	4950	4550 ₁₀	4250 ₂₅	4500 ₁₀	4250 ₂₀	4050 ₃₀	4250 ₂₀	4050 ₂₅	3850 ₃₅	4000 ₃₀	3850 ₃₅	3700 ₄₅
300x75	40	4550	4100	3800 ₅	4300	3950	3700 ₅	4100	3800	3600 ₅	3950	3700	3500 ₁₀
	90	4250	3900	3650 ₅	3900	3650	3500 ₁₀	3650	3450 ₅	3300 ₁₀	3450 ₁₀	3300 ₁₅	3200 ₂₀
400x75	40	5600	5100 ₅	4700 ₁₅	5300	4900 ₅	4550 ₁₅	5100	4700 ₅	4450 ₁₅	4900	4600 ₁₀	4350 ₂₀
	90	5250	4850 ₅	4550 ₁₅	4800 ₅	4550 ₁₀	4300 ₂₀	4500 ₁₀	4300 ₁₅	4100 ₂₅	4250 ₂₀	4100 ₂₅	3950 ₃₀
525x75	40	6850	6200 ₁₀	5750 ₂₅	6450	5950 ₁₅	5600 ₂₅	6200 ₅	5750 ₁₅	5450 ₃₀	5950 ₁₀	5600 ₂₀	5300 ₃₀
	90	6400	5900 ₁₅	5550 ₂₅	5850 ₁₀	5550 ₂₀	5250 ₃₀	5500 ₂₀	5250 ₃₀	5050 ₃₅	5200 ₃₀	5000 ₃₅	4850 ₄₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.
3. Restraint value for slenderness calculations is 600 mm.
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE/CONTINUOUS SPAN ROOF RAFTER AS 4055 CLASSIFICATION N1, N2 AND N3 WITH CEILING ATTACHED



Maximum Birdsmouth = 30% of rafter depth

EXAMPLE:

wind speed = N3
 sheet roof - 40 kg/m²
 rafter/truss spacing = 600 mm
 rafter span = 5800 mm (single span)
 Enter span table at rafter spacing of 600 mm, and
 read down to a span equal to or greater than 5800
 mm

ADOPT:

SmartLVL 15 — 240x35

Roof load width (mm)		450	600	900	1200	450	600	900	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum rafter span (mm)							
		Single span				Continuous span			
90x35	30	2300	2250	2200	2150	2800	2800	2800	2800
	40	2300	2250	2200	2000	2800	2800	2800	2750
	75	2250	2050	1800	1650	2800	2800	2450	2250
	90	2150	1950	1700	1550	2800	2650	2350	2100
130x35	30	3850	3800	3450	3150	4900	4900	4700	4300
	40	3850	3550	3150	2900	4900	4850	4300	3950
	75	3250	2950	2600	2400	4400	4000	3550	3250
	90	3050	2800	2450	2250	4150	3800	3350	3050
150x35	30	4750	4400	3950	3650	6050	6000	5350	4950
	40	4400	4100	3650	3350	6000	5550	4950	4550
	75	3700	3400	3000	2750	5050	4600	4100	3750
	90	3500	3200	2850	2600	4750	4350	3850	3500
170x35	30	5350	4950	4450	4100	6900	6550	6050	5550
	40	4950	4600	4100	3750	6550	6200	5550	5100
	75	4200	3850	3400	3100	5650	5200	4600	4200
	90	3950	3650	3200	2950	5400	4950	4350	4000
200x35	30	6100	5750	5200	4800	7700	7300	6750	6350
	40	5750	5350	4800	4400	7300	6900	6350	6000
	75	4900	4500	4000	3650	6450	6050	5400	4950
	90	4650	4250	3750	3450	6200	5800	5100	4650
240x35	30	6900	6600	6100	5700	8700	8300	7700	7250 ₅
	40	6600	6250	5700	5250	8300	7850	7250	6800 ₅
	75	5800	5350	4750	4350	7350	6900	6350	5900 ₅
	90	5500	5050	4500	4100	7100	6650	6100	5600 ₅
90x42	30	2500	2450	2400	2350	3100	3100	3100	3100
	40	2500	2450	2350	2150	3100	3100	3100	2900
	75	2400	2200	1900	1750	3100	2950	2600	2400
	90	2250	2050	1800	1650	3050	2800	2450	2250
130x42	30	4200	4050	3650	3350	5350	5350	4950	4550
	40	4050	3750	3350	3050	5350	5100	4550	4150
	75	3400	3150	2750	2550	4650	4250	3750	3450
	90	3250	2950	2600	2400	4400	4000	3550	3250
150x42	30	4950	4650	4150	3850	6550	6200	5650	5200
	40	4650	4300	3850	3550	6200	5850	5200	4800
	75	3900	3600	3200	2900	5300	4900	4300	3950
	90	3700	3400	3000	2750	5050	4600	4100	3750
170x42	30	5550	5200	4700	4300	7100	6750	6250	5850
	40	5200	4850	4300	4000	6750	6400	5850	5400
	75	4400	4050	3600	3300	5950	5500	4900	4450
	90	4200	3850	3400	3100	5650	5200	4600	4200
200x42	30	6300	6000	5450	5050	7950	7550	7000	6600
	40	6000	5600	5050	4650	7550	7150	6600	6250
	75	5150	4750	4200	3850	6700	6300	5700	5250
	90	4900	4500	4000	3650	6450	6050	5400	4950
240x42	30	7100	6800	6350	6000	8950	8550	7950	7500
	40	6800	6450	6000	5550	8550	8150	7500	7100
	75	6050	5650	5000	4600	7600	7200	6600	6200
	90	5800	5350	4750	4350	7350	6900	6350	5900
300x42	30	8200	7850	7350	7000	10300	9900	9250	8800 ₅
	40	7850	7500	7000	6600	9900	9450	8800	8300 ₅
	75	7050	6700	6150	5700	8900	8400	7750	7250 ₁₀
	90	6850	6450	5900	5400	8600	8100	7450	7000 ₁₀

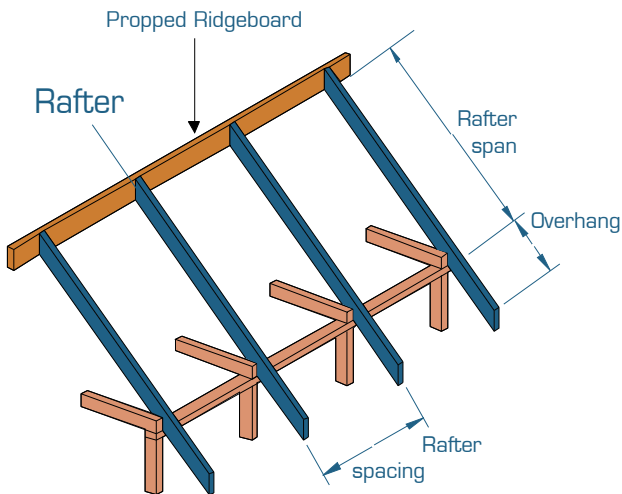
SINGLE/CONTINUOUS SPAN ROOF RAFTER AS 4055 CLASSIFICATION N1, N2 AND N3 WITH CEILING ATTACHED [Cont'd]

Roof load width (mm)		450	600	900	1200	450	600	900	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum rafter span (mm)							
		Single span				Continuous span			
90x58	30	2900	2850	2800	2600	3600	3600	3600	3500
	40	2900	2850	2600	2350	3600	3600	3500	3200
	75	2650	2400	2150	1950	3600	3300	2900	2650
	90	2500	2300	2000	1850	3400	3100	2750	2500
130x58	30	4700	4400	3950	3650	6300	5950	5400	5000
	40	4400	4100	3650	3400	5950	5550	5000	4600
	75	3750	3450	3050	2800	5050	4700	4150	3800
150x58	30	3550	3250	2900	2650	4800	4450	3900	3600
	40	5350	5000	4550	4200	6900	6600	6100	5700
	75	5000	4650	4200	3900	6600	6250	5700	5250
170x58	30	4300	3950	3500	3200	5800	5350	4750	4350
	40	4050	3750	3300	3050	5500	5100	4500	4150
	75	5950	5600	5100	4700	7500	7150	6650	6300
	90	5600	5250	4700	4350	7150	6800	6300	5900
200x58	30	4800	4450	3950	3650	6400	6000	5350	4950
	40	4600	4200	3750	3450	6150	5750	5100	4650
	75	6600	6350	5900	5500	8300	8000	7450	7050
	90	6350	6050	5500	5100	8000	7600	7050	6650
240x58	30	5600	5200	4600	4250	7150	6750	6200	5750
	40	5350	4950	4400	4000	6900	6500	5950	5450
	75	7450	7150	6700	6350	9350	9000	8400	8000
	90	7150	6850	6350	6050	9000	8600	8000	7600
300x58	30	6450	6100	5500	5050	8100	7650	7050	6650
	40	6250	5850	5200	4800	7850	7400	6800	6400
	75	8550	8250	7750	7400	10750	10350	9750	9300
	90	8250	7900	7400	7050	10350	9950	9300	8850
360x58	30	7500	7100	6600	6200	9400	8950	8300	7800
	40	7250	6900	6350	5950	9100	8650	7950	7500
	75	9550	9250	8750	8350	12000	11600	11000	10500
	90	9250	8900	8350	7950	11600	11200	10500	10000
400x58	30	8450	8050	7500	7050	10650	10150	9400	8850 ₅
	40	8200	7800	7200	6800	10300	9800	9050	8550 ₁₀
	75	10150	9850	9350	8950	12000	12000	11750	11300 ₅
	90	9850	9500	8950	8550	12000	11950	11300	10750 ₅
300x75	30	9050	8650	8050	7600	11400	10900	10100	9550 ₅
	40	8800	8400	7750	7300	11050	10550	9750 ₅	9200 ₁₅
	75	8800	8500	8050	7750	11050	10700	10150	9700
	90	8500	8200	7750	7350	10700	10300	9700	9250
400x75	30	7800	7450	6900	6550	9800	9350	8700	8200
	40	7600	7200	6700	6300	9550	9050	8400	7900
	75	10400	10150	9700	9300	12000	12000	12000	11700
	90	10150	9800	9300	8950	12000	12000	11700	11250
525x75	30	9400	9000	8450	8000	11850	11350	10600	10050
	40	9150	8750	8150	7700	11500	11000	10250	9700 ₅
	75	12000	11900	11450	11100	12000	12000	12000	12000
	90	11900	11600	11100	10650	12000	12000	12000	12000
300x75	30	11150	10750	10100	9650	12000	12000	12000	12000 ₁₅
	40	10900	10500	9800	9300	12000	12000	12000 ₁₀	11700 ₂₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values Indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at Internal supports
5. Construction loads shall not be applied to overhangs until a 190x19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. rafter spacing up to 1200 mm
7. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE/CONTINUOUS SPAN ROOF RAFTER AS 4055 CLASSIFICATION C1, C2 AND C3 WITH CEILING ATTACHED



Maximum Birdsmouth = 30% of rafter depth

EXAMPLE:

wind speed = C3
 tile roof - 75 kg/m²
 rafter/truss spacing = 600 mm
 rafter span = 5800 mm
 Enter span table at rafter spacing of 600 mm, and
 read down to a span equal to or greater than 5800
 mm

ADOPT:

SmartLVL 15 — 300x42

Roof load width (mm)		450	600	900	1200	450	600	900	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum rafter span (mm)							
		Single span				Continuous span			
90x35	30	2300	2250	2200	1950	2800	2800	2300	1950
	40	2300	2250	2200	1950	2800	2800	2350	1950
	75	2250	2050	1800	1650	2800	2800	2450	2050
	90	2150	1950	1700	1550	2800	2650	2350	2050
130x35	30	3850	3800	3300	2750	4900	4200	3350	2750
	40	3850	3550	3150	2800	4900	4250	3350	2800
	75	3250	2950	2600	2400	4400	4000	3500	2900
	90	3050	2800	2450	2250	4150	3800	3350	2950
150x35	30	4750	4400	3800	3200	5600	4800	3800	3200
	40	4400	4100	3650	3250	5650	4850	3850	3250
	75	3700	3400	3000	2750	5050	4600	4000	3350
	90	3500	3200	2850	2600	4750	4350	3850	3400
170x35	30	5350	4950	4300	3600	6300	5400	4300	3600
	40	4950	4600	4100	3650	6350	5450	4350	3650
	75	4200	3850	3400	3100	5650	5200	4500	3800 ₅
	90	3950	3650	3200	2950	5400	4950	4350	3850 ₁₀
200x35	30	6100	5750	5000	4250	7350	6300	5000	4250
	40	5750	5350	4800	4300	7300	6350	5050	4300 ₅
	75	4900	4500	4000	3650	6450	6050	5250 ₅	4450 ₁₅
	90	4650	4250	3750	3450	6200	5800	5100 ₁₀	4500 ₂₀
240x35	30	6900	6600	5950	5050	8700	7450	5950 ₅	5050 ₁₅
	40	6600	6250	5700	5100	8300	7500	6000 ₁₀	5100 ₁₅
	75	5800	5350	4750	4350	7350	6900	6250 ₂₀	5300 ₃₀
	90	5500	5050	4500	4100	7100	6650	6100 ₂₀	5350 ₃₅
90x42	30	2500	2450	2400	2150	3100	3100	2550	2150
	40	2500	2450	2350	2150	3100	3100	2600	2150
	75	2400	2200	1900	1750	3100	2950	2600	2250
	90	2250	2050	1800	1650	3050	2800	2450	2250
130x42	30	4200	4050	3550	3050	5350	4650	3650	3050
	40	4050	3750	3350	3050	5350	4650	3700	3100
	75	3400	3150	2750	2550	4650	4250	3750	3200
	90	3250	2950	2600	2400	4400	4000	3550	3250
150x42	30	4950	4650	4050	3550	6200	5300	4200	3550
	40	4650	4300	3850	3550	6200	5350	4250	3550
	75	3900	3600	3200	2900	5300	4900	4300	3700
	90	3700	3400	3000	2750	5050	4600	4100	3750
170x42	30	5550	5200	4600	4000	6950	5950	4750	4000
	40	5200	4850	4300	4000	6750	6000	4800	4050
	75	4400	4050	3600	3300	5950	5500	4900	4200
	90	4200	3850	3400	3100	5650	5200	4600	4200 ₅
200x42	30	6300	6000	5400	4700	7950	6900	5550	4700
	40	6000	5600	5050	4650	7550	7000	5600	4700
	75	5150	4750	4200	3850	6700	6300	5700	4900 ₁₀
	90	4900	4500	4000	3650	6450	6050	5400	4950 ₁₅
240x42	30	7100	6800	6350	5550	8950	8200	6550	5550 ₅
	40	6800	6450	6000	5550	8550	8150	6650 ₅	5650 ₁₀
	75	6050	5650	5000	4600	7600	7200	6600 ₁₀	5800 ₂₀
	90	5800	5350	4750	4350	7350	6900	6350 ₁₀	5900 ₂₅
300x42	30	8200	7850	7350	6900	10300	9900 ₅	8100 ₁₅	6900 ₂₅
	40	7850	7500	7000	6600	9900	9450 ₅	8150 ₂₀	6950 ₂₅
	75	7050	6700	6150	5700	8900	8400 ₅	7750 ₂₅	7200 ₄₀
	90	6850	6450	5900	5400	8600	8100 ₅	7450 ₂₅	7000 ₄₅

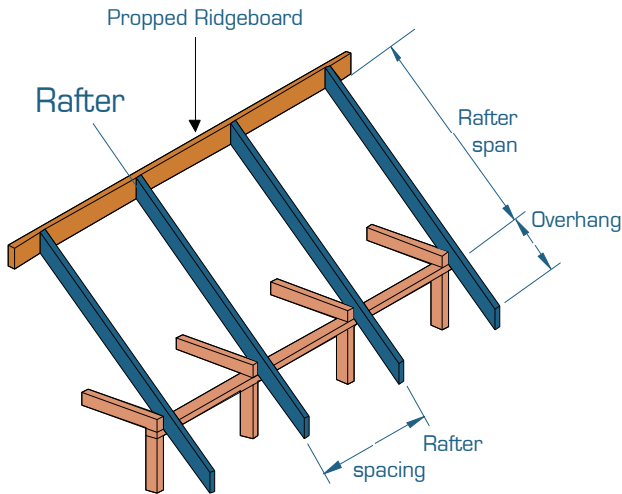
SINGLE/CONTINUOUS SPAN ROOF RAFTER AS 4055 CLASSIFICATION C1, C2 AND C3 WITH CEILING ATTACHED [Cont'd]

Roof load width (mm)		450	600	900	1200	450	600	900	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum rafter span (mm)							
		Single span				Continuous span			
90x58	30	2900	2850	2700	2450	3600	3600	3050	2550
	40	2900	2850	2600	2350	3600	3600	3100	2550
	75	2650	2400	2150	1950	3600	3300	2900	2650
	90	2500	2300	2000	1850	3400	3100	2750	2500
130x58	30	4700	4400	3950	3550	6300	5500	4350	3650
	40	4400	4100	3650	3400	5950	5550	4400	3700
	75	3750	3450	3050	2800	5050	4700	4150	3800
	90	3550	3250	2900	2650	4800	4450	3900	3600
150x58	30	5350	5000	4550	4100	6900	6250	5000	4200
	40	5000	4650	4200	3900	6600	6250	5050	4250
	75	4300	3950	3500	3200	5800	5350	4750	4350
	90	4050	3750	3300	3050	5500	5100	4500	4150
170x58	30	5950	5600	5100	4650	7500	7050	5600	4750
	40	5600	5250	4700	4350	7150	6800	5700	4800
	75	4800	4450	3950	3650	6400	6000	5350	4950
	90	4600	4200	3750	3450	6150	5750	5100	4650
200x58	30	6600	6350	5900	5500	8300	8000	6550	5550
	40	6350	6050	5500	5100	8000	7600	6600	5600
	75	5600	5200	4600	4250	7150	6750	6200	5750
	90	5350	4950	4400	4000	6900	6500	5950	5450
240x58	30	7450	7150	6700	6350	9350	9000	7800	6600
	40	7150	6850	6350	6050	9000	8600	7850	6700
	75	6450	6100	5500	5050	8100	7650	7050	6650 ₁₀
	90	6250	5850	5200	4800	7850	7400	6800	6400 ₁₀
300x58	30	8550	8250	7750	7400	10750	10350	9600 ₅	8200 ₁₅
	40	8250	7900	7400	7050	10350	9950	9300 ₅	8250 ₁₅
	75	7500	7100	6600	6200	9400	8950	8300 ₅	7800 ₂₀
	90	7250	6900	6350	5950	9100	8650	7950 ₅	7500 ₂₀
360x58	30	9550	9250	8750	8350	12000	11600	11000 ₁₅	9550 ₂₅
	40	9250	8900	8350	7950	11600	11200	10500 ₁₅	9650 ₃₀
	75	8450	8050	7500	7050	10650	10150	9400 ₁₅	8850 ₃₀
	90	8200	7800	7200	6800	10300	9800	9050 ₁₅	8550 ₃₅
400x58	30	10150	9850	9350	8950	12000	12000	11750 ₂₀	10450 ₃₅
	40	9850	9500	8950	8550	12000	11950	11300 ₂₀	10550 ₄₀
	75	9050	8650	8050	7600	11400	10900	10100 ₂₀	9550 ₄₀
	90	8800	8400	7750	7300	11050	10550	9750 ₂₀	9200 ₄₀
300x75	30	8800	8500	8050	7750	11050	10700	10150	9350 ₅
	40	8500	8200	7750	7350	10700	10300	9700	9250 ₅
	75	7800	7450	6900	6550	9800	9350	8700	8200 ₅
	90	7600	7200	6700	6300	9550	9050	8400	7900 ₁₀
400x75	30	10400	10150	9700	9300	12000	12000	12000 ₅	11700 ₂₅
	40	10150	9800	9300	8950	12000	12000	11700 ₅	11250 ₂₅
	75	9400	9000	8450	8000	11850	11350	10600 ₅	10050 ₂₅
	90	9150	8750	8150	7700	11500	11000	10250 ₁₀	9700 ₂₅
525x75	30	12000	11900	11450	11100	12000	12000	12000 ₁₀	12000 ₂₅
	40	11900	11600	11100	10650	12000	12000	12000 ₁₀	12000 ₃₀
	75	11150	10750	10100	9650	12000	12000	12000 ₂₀	12000 ₄₀
	90	10900	10500	9800	9300	12000	12000	12000 ₂₀	11700 ₄₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values Indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at Internal supports
5. Construction loads shall not be applied to overhangs until a 190x19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. rafter spacing up to 1200 mm
7. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE/CONTINUOUS SPAN ROOF RAFTER AS 4055 CLASSIFICATION N1, N2 AND N3 WITHOUT CEILING ATTACHED



Maximum Birdsmouth = 30% of rafter depth

EXAMPLE:

wind speed = N3
 sheet roof - 40 kg/m²
 rafter/truss spacing = 600 mm
 rafter span = 5800 mm (single span)
 Enter span table at rafter spacing of 600 mm, and
 read down to a span equal to or greater than 5800
 mm

ADOPT:

SmartLVL 15 — 240x35

Roof load width (mm)		450	600	900	1200	450	600	900	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum rafter span (mm)							
		Single span				Continuous span			
90x35	10	2300	2250	2200	2150	2800	2800	2800	2800
	20	2300	2250	2200	2150	2800	2800	2800	2800
	40	2300	2250	2200	2000	2800	2800	2800	2750
	60	2300	2200	1950	1800	2800	2800	2650	2400
130x35	10	3850	3800	3700	3450	4900	4900	4900	4200
	20	3850	3800	3700	3450	4900	4900	4900	4250
	40	3850	3550	3150	2900	4900	4850	4300	3950
	60	3450	3150	2800	2550	4700	4300	3800	3500
150x35	10	4750	4650	4350	3950	6050	6050	5700	4800
	20	4750	4650	4350	3950	6050	6050	5800	4900
	40	4400	4100	3650	3350	6000	5550	4950	4550
	60	3950	3650	3200	2950	5350	4950	4350	4000
170x35	10	5650	5550	4950	4500	7300	7300	6400	5400
	20	5650	5500	4950	4500	7300	7050	6500	5550
	40	4950	4600	4100	3750	6550	6200	5550	5100
	60	4450	4100	3650	3350	6050	5550	4950	4500
200x35	10	7100	6650	5800	5300	8950	8650	7450	6300
	20	6550	6250	5750	5300	8200	7850	7300	6450
	40	5750	5350	4800	4400	7300	6900	6350	6000
	60	5200	4800	4250	3900	6750	6350	5800	5300
240x35	10	7950	7700	6950	6350	10000	9700	8850	7500
	20	7350	7050	6600	6250	9200	8850	8300	7650
	40	6600	6250	5700	5250	8300	7850	7250	6800 _s
	60	6100	5700	5050	4650	7700	7250	6650	6250 _s
90x42	10	2500	2450	2400	2350	3100	3100	3100	3100
	20	2500	2450	2400	2350	3100	3100	3100	3100
	40	2500	2450	2350	2150	3100	3100	3100	2900
	60	2500	2350	2050	1900	3100	3100	2800	2550
130x42	10	4200	4150	4000	3650	5350	5350	5350	4600
	20	4200	4150	4000	3650	5350	5350	5350	4700
	40	4050	3750	3350	3050	5350	5100	4550	4150
	60	3650	3350	2950	2700	4950	4550	4000	3700
150x42	10	5150	5050	4650	4200	6600	6600	6250	5300
	20	5150	5050	4650	4200	6600	6600	6200	5400
	40	4650	4300	3850	3550	6200	5850	5200	4800
	60	4150	3850	3400	3100	5650	5200	4600	4250
170x42	10	6150	6000	5250	4750	8000	8000	7050	5950
	20	6050	5700	5200	4750	7600	7250	6750	6100
	40	5200	4850	4300	4000	6750	6400	5850	5400
	60	4700	4300	3850	3500	6250	5850	5200	4800
200x42	10	7250	7050	6150	5600	9100	8850	8200	6950
	20	6700	6400	6000	5600	8400	8100	7550	7100
	40	6000	5600	5050	4650	7550	7150	6600	6250
	60	5450	5050	4500	4100	7000	6600	6050	5600
240x42	10	8050	7850	7400	6750	10150	9900	9450	8300
	20	7500	7250	6800	6450	9450	9100	8550	8150
	40	6800	6450	6000	5550	8550	8150	7500	7100
	60	6350	6000	5350	4900	7950	7500	6900	6500
300x42	10	9150	8950	8600	8350	11550	11250	10850	10250 _s
	20	8600	8350	7850	7500	10850	10450	9900	9450 _s
	40	7850	7500	7000	6600	9900	9450	8800	8300 _s
	60	7350	7000	6450	6050	9250	8800	8100	7650 _s

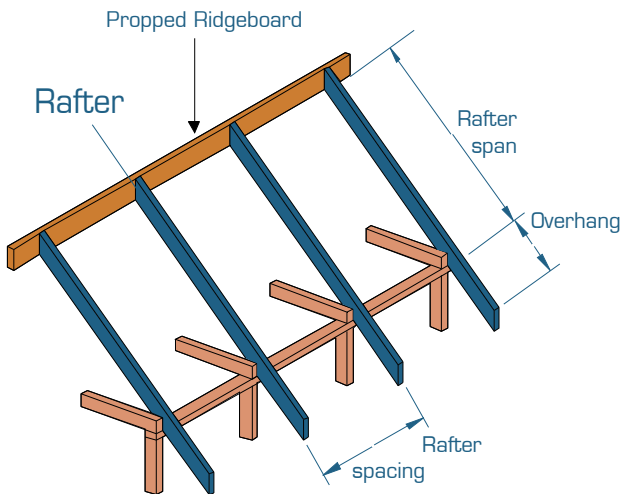
SINGLE/CONTINUOUS SPAN ROOF RAFTER AS 4055 CLASSIFICATION N1, N2 AND N3 WITHOUT CEILING ATTACHED [Cont'd]

Roof load width (mm)		450	600	900	1200	450	600	900	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum rafter span (mm)							
		Single span				Continuous span			
90x58	10	2900	2850	2800	2750	3600	3600	3600	3600
	20	2900	2850	2800	2750	3600	3600	3600	3600
	40	2900	2850	2600	2350	3600	3600	3500	3200
	60	2800	2600	2300	2100	3600	3500	3100	2850
130x58	10	4900	4800	4450	4050	6300	6300	6050	5500
	20	4900	4800	4400	4050	6300	6300	5950	5500
	40	4400	4100	3650	3400	5950	5550	5000	4600
	60	3950	3650	3250	3000	5400	5000	4450	4050
150x58	10	6000	5850	5150	4700	7800	7700	7000	6300
	20	5750	5450	5000	4650	7350	7050	6600	6250
	40	5000	4650	4200	3900	6600	6250	5700	5250
	60	4550	4200	3750	3450	6100	5700	5100	4650
170x58	10	6750	6600	5850	5300	8500	8300	7950	7100
	20	6300	6050	5600	5250	7950	7650	7150	6800
	40	5600	5250	4700	4350	7150	6800	6300	5900
	60	5100	4700	4200	3900	6650	6300	5750	5250
200x58	10	7450	7250	6850	6250	9350	9150	8750	8300
	20	6950	6750	6350	6050	8750	8450	8000	7600
	40	6350	6050	5500	5100	8000	7600	7050	6650
	60	5900	5500	4950	4550	7450	7050	6500	6100
240x58	10	8250	8100	7800	7500	10400	10150	9800	9500
	20	7800	7550	7150	6850	9800	9500	9000	8600
	40	7150	6850	6350	6050	9000	8600	8000	7600
	60	6700	6350	5850	5400	8400	8000	7400	6950
300x58	10	9350	9200	8900	8650	11750	11550	11200	10900
	20	8900	8650	8250	7900	11200	10900	10350	9950
	40	8250	7900	7400	7050	10350	9950	9300	8850
	60	7750	7400	6900	6500	9750	9300	8650	8150
360x58	10	10350	10200	9900	9650	12000	12000	12000	12000
	20	9900	9650	9250	8900	12000	12000	11600	11200
	40	9250	8900	8350	7950	11600	11200	10500	10000
	60	8750	8350	7800	7400	11000	10500	9800	9300
400x58	10	10950	10800	10500	10300	12000	12000	12000	12000
	20	10500	10300	9850	9500	12000	12000	12000	11950 _s
	40	9850	9500	8950	8550	12000	11950	11300	10750 _s
	60	9350	8950	8400	7950	11750	11300	10550	10000 _s
300x75	10	9450	9350	9100	8900	11900	11750	11450	11150
	20	9100	8900	8500	8200	11450	11150	10700	10300
	40	8500	8200	7750	7350	10700	10300	9700	9250
	60	8050	7750	7200	6850	10150	9700	9050	8600
400x75	10	11050	10950	10700	10500	12000	12000	12000	12000
	20	10700	10500	10150	9800	12000	12000	12000	12000
	40	10150	9800	9300	8950	12000	12000	11700	11250
	60	9700	9300	8750	8350	12000	11700	11000	10500
525x75	10	12000	12000	12000	12000	12000	12000	12000	12000
	20	12000	12000	11900	11600	12000	12000	12000	12000
	40	11900	11600	11100	10650	12000	12000	12000	12000
	60	11450	11100	10500	10000	12000	12000	12000	12000 _s

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values Indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at Internal supports
5. Construction loads shall not be applied to overhangs until a 190x19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. rafter spacing up to 1200 mm
7. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE/CONTINUOUS SPAN ROOF RAFTER AS 4055 CLASSIFICATION C1, C2 AND C3 WITHOUT CEILING ATTACHED



Maximum Birdsmouth = 30% of rafter depth

EXAMPLE:

wind speed = C3
 sheet roof - 40 kg/m²
 rafter/truss spacing = 600 mm
 rafter span = 5800 mm
 Enter span table at rafter spacing of 600 mm, and
 read down to a span equal to or greater than 5800
 mm

ADOPT:

SmartLVL 15 — 240x35

Roof load width (mm)		450	600	900	1200	450	600	900	1200	
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum rafter span (mm)								
		Single span				Continuous span				
90x35	10	2300	2250	2200	1900	2800	2800	2250	1900	
	20	2300	2250	2200	1950	2800	2800	2300	1950	
	40	2300	2250	2200	1950	2800	2800	2350	1950	
	60	2300	2200	1950	1800	2800	2800	2400	2000	
	130x35	10	3850	3800	3250	2700	4850	4150	3250	2700
		20	3850	3800	3300	2750	4900	4150	3300	2750
		40	3850	3550	3150	2800	4900	4250	3350	2800
	150x35	60	3450	3150	2800	2550	4700	4300	3450	2850
		10	4750	4400	3750	3150	5500	4700	3750	3150
		20	4750	4400	3800	3150	5550	4750	3800	3150
	170x35	40	4400	4100	3650	3250	5650	4850	3850	3250
		60	3950	3650	3200	2950	5350	4950	3950	3300
10		5450	4950	4250	3550	6200	5300	4250	3550	
200x35	20	5450	4950	4250	3600	6250	5350	4250	3600	
	40	4950	4600	4100	3650	6350	5450	4350	3650	
	60	4450	4100	3650	3350	6050	5550	4450	3750	
240x35	10	6450	5850	4950	4150	7200	6150	4950	4150	
	20	6450	5850	5000	4200	7250	6250	5000	4200	
	40	5750	5350	4800	4300	7300	6350	5050	4300 ₅	
90x42	60	5200	4800	4250	3900	6750	6350	5150 ₅	4350 ₁₀	
	10	7700	7000	5850	4950	8550	7300	5850	4950 ₅	
	20	7350	7000	5900	5000	8600	7400	5900 ₅	5000 ₁₀	
130x42	40	6600	6250	5700	5100	8300	7500	6000 ₁₀	5100 ₁₅	
	60	6100	5700	5050	4650	7700	7250	6150 ₁₅	5200 ₂₅	
	10	2500	2450	2400	2100	3100	3100	2500	2100	
150x42	20	2500	2450	2400	2100	3100	3100	2550	2100	
	40	2500	2450	2350	2150	3100	3100	2600	2150	
	60	2500	2350	2050	1900	3100	3100	2650	2200	
170x42	10	4200	4050	3550	3000	5300	4550	3600	3000	
	20	4200	4050	3550	3050	5350	4600	3650	3050	
	40	4050	3750	3350	3050	5350	4650	3700	3100	
190x42	60	3650	3350	2950	2700	4950	4550	3800	3150	
	10	5150	4650	4050	3450	6050	5200	4150	3450	
	20	5150	4650	4050	3500	6100	5250	4150	3500	
210x42	40	4650	4300	3850	3550	6200	5350	4250	3550	
	60	4150	3850	3400	3100	5650	5200	4350	3650	
	10	5800	5300	4600	3900	6800	5850	4650	3900	
230x42	20	5800	5300	4600	3950	6900	5900	4700	3950	
	40	5200	4850	4300	4000	6750	6000	4800	4050	
	60	4700	4300	3850	3500	6250	5850	4900	4100	
250x42	10	6850	6200	5400	4600	7900	6800	5450	4600	
	20	6700	6200	5400	4650	8000	6850	5500	4650	
	40	6000	5600	5050	4650	7550	7000	5600	4700	
270x42	60	5450	5050	4500	4100	7000	6600	5700	4800 ₅	
	10	8050	7450	6450	5450	9400	8050	6450	5450	
	20	7500	7250	6500	5500	9450	8100	6500	5500 ₅	
290x42	40	6800	6450	6000	5550	8550	8150	6650 ₅	5650 ₁₀	
	60	6300	6000	5350	4900	7950	7500	6750 ₁₀	5750 ₁₅	
	10	9150	8950	7950	6750	11550	9900	7950 ₁₀	6750 ₁₅	
300x42	20	8600	8350	7850	6850	10850	10000	8000 ₁₀	6850 ₂₀	
	40	7850	7500	7000	6600	9900	9450 ₅	8150 ₂₀	6950 ₂₅	
	60	7350	7000	6450	6050	9250	8800	8100 ₂₅	7100 ₃₅	

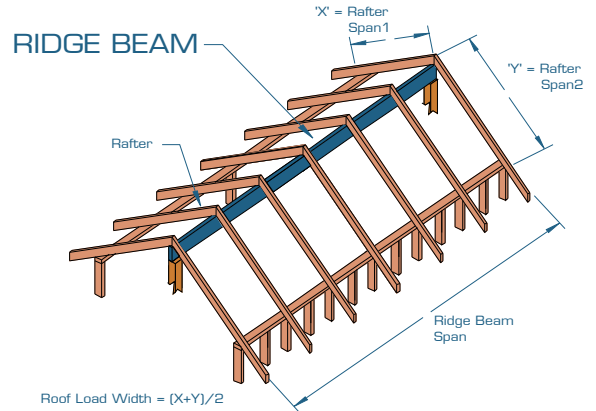
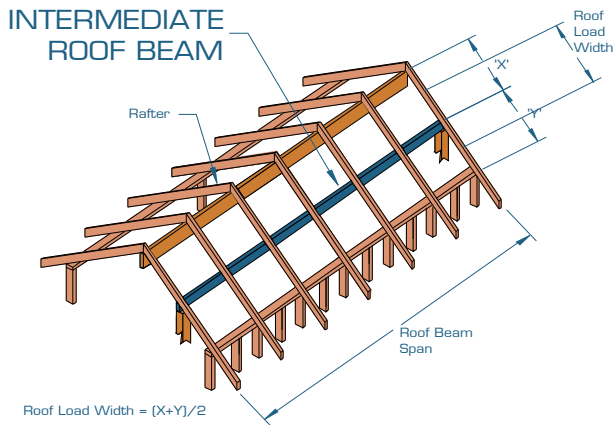
SINGLE/CONTINUOUS SPAN ROOF RAFTER AS 4055 CLASSIFICATION C1, C2 AND C3 WITHOUT CEILING ATTACHED [Cont'd]

Roof load width (mm)		450	600	900	1200	450	600	900	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum rafter span (mm)							
		Single span				Continuous span			
90x58	10	2900	2850	2700	2450	3600	3600	3000	2500
	20	2900	2850	2700	2450	3600	3600	3050	2500
	40	2900	2850	2600	2350	3600	3600	3100	2550
	60	2800	2600	2300	2100	3600	3500	3100	2600
130x58	10	4900	4500	3950	3550	6300	5400	4300	3600
	20	4900	4500	3950	3550	6300	5450	4300	3650
	40	4400	4100	3650	3400	5950	5550	4400	3700
	60	3950	3650	3250	3000	5400	5000	4450	3800
150x58	10	5700	5200	4550	4100	7200	6150	4900	4150
	20	5700	5200	4550	4100	7250	6200	4950	4200
	40	5000	4650	4200	3900	6600	6250	5050	4250
	60	4550	4200	3750	3450	6100	5700	5100	4350
170x58	10	6450	5900	5150	4650	8050	6900	5500	4650
	20	6300	5900	5150	4650	7950	6950	5550	4700
	40	5600	5250	4700	4350	7150	6800	5700	4800
	60	5100	4700	4200	3900	6650	6300	5750	4900
200x58	10	7450	6900	6050	5450	9350	8050	6450	5450
	20	6950	6750	6050	5500	8750	8100	6500	5500
	40	6350	6050	5500	5100	8000	7600	6600	5600
	60	5900	5500	4950	4550	7450	7050	6500	5750
240x58	10	8250	8100	7250	6500	10400	9500	7650	6500
	20	7800	7550	7150	6550	9800	9500	7700	6550
	40	7150	6850	6350	6050	9000	8600	7850	6700
	60	6700	6350	5850	5400	8400	8000	7400	6800 ₅
300x58	10	9350	9200	8900	8050	11750	11550	9400	8050 ₅
	20	8900	8650	8250	7900	11200	10900	9500 ₅	8100 ₁₀
	40	8250	7900	7400	7050	10350	9950	9300 ₅	8250 ₁₅
	60	7750	7400	6900	6500	9750	9300	8650 ₅	8150 ₂₀
360x58	10	10350	10200	9900	9400	12000	12000	11000 ₁₀	9400 ₂₀
	20	9900	9650	9250	8900	12000	12000	11100 ₁₅	9450 ₂₀
	40	9250	8900	8350	7950	11600	11200	10500 ₁₅	9650 ₃₀
	60	8750	8350	7800	7400	11000	10500	9800 ₁₅	9300 ₃₀
400x58	10	10950	10800	10500	10250	12000	12000	12000 ₂₀	10250 ₂₅
	20	10500	10300	9850	9500	12000	12000	12000 ₂₀	10350 ₃₀
	40	9850	9500	8950	8550	12000	11950	11300 ₂₀	10550 ₄₀
	60	9350	8950	8400	7950	11750	11300	10550 ₂₀	10000 ₄₀
300x75	10	9450	9350	9100	8900	11900	11750	10800	9200
	20	9100	8900	8500	8200	11450	11150	10700	9300 ₅
	40	8500	8200	7750	7350	10700	10300	9700	9250 ₅
	60	8050	7750	7200	6850	10150	9700	9050	8600 ₅
400x75	10	11050	10950	10700	10500	12000	12000	12000	11750 ₂₀
	20	10700	10500	10150	9800	12000	12000	12000 ₅	11900 ₂₀
	40	10150	9800	9300	8950	12000	12000	11700 ₅	11250 ₂₅
	60	9700	9300	8750	8350	12000	11700	11000 ₅	10500 ₂₅
525x75	10	12000	12000	12000	12000	12000	12000	12000 ₅	12000 ₂₀
	20	12000	12000	11900	11600	12000	12000	12000 ₅	12000 ₂₅
	40	11900	11600	11100	10650	12000	12000	12000 ₁₀	12000 ₃₀
	60	11450	11100	10500	10000	12000	12000	12000 ₁₅	12000 ₃₅

NOTES:

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a batten spacing of 900 mm
- Maximum birdsmouth depth = 30 % of rafter depth
- End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values Indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at Internal supports
- Construction loads shall not be applied to overhangs until a 190x19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
- rafter spacing up to 1200 mm
- Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION N1, N2 AND N3



EXAMPLE:

wind speed = N3
 sheet roof - 40 kg/m²
 beam span = 4500 mm (single span)
 X = 2000 mm Y = 3000 mm
 roof load width = $(X+Y)/2 = 2500$ mm

Enter single span table at 3000 roof load width with column and read down to span equal to or greater than 4500 mm

ADOPT:

SmartLVL 15 — 2/240x35

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Ridge span (mm)					
		Single span					
150x35	40	2850	2400	2100	1900	1750	1650
	75	2400	2000	1750	1600	1500	1400 ₅
170x35	40	3250	2700	2400	2150	2000 ₅	1850 ₅
	75	2700	2250	2000	1800	1700 ₅	1600 ₁₀
190x35	40	3600	3000	2650	2400	2250 ₅	2100 ₁₀
	75	3000	2500	2250	2050 ₅	1900 ₁₀	1750 ₁₀
200x35	40	3800	3200	2800	2550 ₅	2350 ₁₀	2200 ₁₅
	75	3150	2650	2350	2150 ₅	2000 ₁₀	1850 ₁₅
240x35	40	4550	3800	3350 ₅	3050 ₁₀	2800 ₁₅	2650 ₂₅
	75	3800	3200	2800 ₅	2550 ₁₀	2400 ₂₀	2250 ₂₅
2/150x35	40	3550	3000	2650	2400	2200	2050
	75	2950	2500	2200	2000	1850	1750
2/170x35	40	4000	3350	3000	2700	2500	2350
	75	3350	2800	2500	2300	2100	2000
2/190x35	40	4450	3750	3350	3050	2800	2600
	75	3750	3150	2800	2550	2350	2250
2/200x35	40	4650	3950	3500	3200	2950	2750
	75	3900	3300	2950	2700	2500	2350
2/240x35	40	5550	4700	4200	3800	3500	3300 ₅
	75	4700	3950	3550	3250	3000	2800 ₅
2/290x35	40	6450	5650	5050	4600	4250 ₅	3950 ₁₀
	75	5600	4750	4250	3900	3600 ₅	3400 ₁₀
2/300x35	40	6650	5850	5200	4750	4400 ₅	4100 ₁₀
	75	5800	4950	4400	4000	3750 ₁₀	3500 ₁₀

SINGLE SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Ridge span (mm)					
		Single span					
150x42	40	3050	2550	2250	2050	1850	1750
	75	2500	2100	1850	1700	1600	1500
170x42	40	3450	2850	2550	2300	2100	1950
	75	2850	2400	2100	1950	1800	1700 ₅
190x42	40	3800	3200	2850	2550	2350	2200 ₅
	75	3200	2700	2350	2150	2000 ₅	1900 ₁₀
200x42	40	4000	3350	3000	2700	2500 ₅	2350 ₁₀
	75	3350	2800	2500	2300	2100 ₅	2000 ₁₀
240x42	40	4800	4050	3550	3250 ₅	3000 ₁₀	2800 ₁₅
	75	4000	3350	3000	2750 ₅	2550 ₁₅	2400 ₂₀
290x42	40	5750	4850	4300 ₅	3900 ₁₅	3600 ₂₀	3350 ₂₅
	75	4800	4050	3600 ₁₀	3300 ₁₅	3050 ₂₀	2850 ₃₀
300x42	40	5950	5000	4450 ₁₀	4050 ₁₅	3750 ₂₅	3500 ₃₀
	75	5000	4200	3750 ₁₀	3400 ₁₅	3150 ₂₅	2950 ₃₀
2/150x42	40	3750	3150	2800	2550	2350	2200
	75	3150	2650	2350	2150	2000	1850
2/170x42	40	4200	3550	3150	2900	2650	2500
	75	3550	3000	2650	2450	2250	2100
2/190x42	40	4700	3950	3550	3200	2950	2750
	75	3950	3350	2950	2700	2500	2350
2/200x42	40	4900	4200	3700	3400	3100	2900
	75	4150	3500	3150	2850	2650	2500
2/240x42	40	5850	5000	4450	4050	3750	3500
	75	4950	4200	3750	3400	3200	3000
2/290x42	40	6700	5950	5300	4850	4500	4200 ₅
	75	5950	5050	4500	4100	3850	3600 ₅
2/300x42	40	6850	6100	5500	5000	4650	4350 ₅
	75	6100	5200	4650	4250	3950 ₅	3700 ₅
2/360x42	40	7800	6950	6400	6000 ₅	5550 ₁₀	5200 ₁₅
	75	6950	6150	5550	5100 ₅	4750 ₁₀	4450 ₁₅
2/400x42	40	8350	7500	6900	6450 ₅	6100 ₁₅	5750 ₂₀
	75	7450	6650	6100	5650 ₁₀	5250 ₁₅	4950 ₂₀
150x58	40	3350	2800	2500	2250	2100	1950
	75	2800	2350	2100	1900	1750	1650
170x58	40	3800	3200	2800	2550	2350	2200
	75	3150	2650	2350	2150	2000	1850
200x58	40	4400	3750	3300	3000	2750	2600
	75	3700	3100	2800	2550	2350	2200
240x58	40	5250	4450	3950	3600	3300 ₅	3100 ₅
	75	4400	3750	3300	3050	2800 ₅	2650 ₁₀
300x58	40	6400	5550	4900	4450 ₅	4150 ₁₀	3850 ₁₅
	75	5500	4650	4150	3800 ₅	3500 ₁₅	3300 ₂₀
360x58	40	7250	6450	5850 ₅	5350 ₁₅	4950 ₂₀	4650 ₂₅
	75	6400	5550	4950 ₁₀	4550 ₁₅	4200 ₂₀	3950 ₃₀
400x58	40	7800	6950	6350 ₁₀	5950 ₂₀	5500 ₂₅	5150 ₃₅
	75	6900	6100 ₅	5500 ₁₀	5050 ₂₀	4700 ₃₀	4400 ₃₅
450x58	40	8450	7550 ₅	6950 ₁₅	6500 ₂₅	6100 ₃₅	5750 ₄₀
	75	7500	6650 ₅	6150 ₂₀	5650 ₂₅	5250 ₃₅	4950 ₄₅
300x75	40	6700	5950	5300	4850	4500 ₅	4200 ₁₀
	75	5900	5050	4500	4100	3800 ₅	3600 ₁₀
400x75	40	8200	7350	6750 ₅	6300 ₁₀	5950 ₁₅	5550 ₂₅
	75	7300	6500	5950 ₅	5450 ₁₀	5100 ₂₀	4750 ₂₅
525x75	40	9850	8900	8200 ₁₀	7700 ₂₀	7250 ₃₀	6900 ₃₅
	75	8850	7900 ₅	7300 ₁₅	6800 ₂₅	6450 ₃₅	6200 ₄₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. rafter spacing up to 1200 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

CONTINUOUS SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION N1, N2 AND N3

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Ridge span (mm)					
		Continuous span					
150x35	40	3900	3050	2600	2300	2050 ₁₀	1850 ₂₀
	75	3250	2700	2400	2100 ₁₀	1850 ₂₀	1700 ₃₀
170x35	40	4400	3400	2900	2550 ₁₅	2300 ₂₅	2100 ₃₅
	75	3650	3050	2650 ₁₀	2350 ₂₅	2100 ₃₅	1900 ₄₅
190x35	40	4900	3800	3200 ₁₀	2850 ₂₅	2550 ₃₅	2300 ₄₅
	75	4100	3400	2950 ₂₀	2600 ₃₅	2300 ₅₀	2100 ₆₀
200x35	40	5150	3950	3350 ₁₅	2950 ₃₀	2650 ₄₀	2450 ₅₅
	75	4300	3600 ₅	3100 ₂₅	2700 ₄₀	2450 ₅₅	2200 ₇₀
240x35	40	6100	4700 ₁₅	3950 ₃₀	3500 ₅₀	3150 ₇₀	2850 ₈₅
	75	5150	4300 ₂₅	3600 ₄₅	3200 ₆₅	2850 ₈₅	2600 ₁₀₀
2/150x35	40	4800	4050	3600	3250	3000	2800
	75	4000	3400	3000	2750	2550	2400
2/170x35	40	5450	4600	4050	3700	3400	3150 ₅
	75	4550	3850	3400	3100	2900	2700 ₅
2/190x35	40	6050	5100	4500	4100	3800 ₅	3500 ₁₅
	75	5050	4300	3800	3450	3200 ₅	3050 ₂₀
2/200x35	40	6250	5350	4750	4300	4000 ₁₀	3650 ₂₀
	75	5300	4500	4000	3650	3400 ₁₀	3200 ₂₅
2/240x35	40	7100	6300	5700	5150 ₁₅	4700 ₂₅	4300 ₄₀
	75	6250	5400	4800	4400 ₁₅	4050 ₃₀	3800 ₄₅
2/290x35	40	8150	7200	6600 ₁₅	6150 ₃₅	5600 ₅₀	5100 ₆₅
	75	7200	6350	5750 ₂₀	5300 ₄₀	4900 ₅₅	4600 ₈₀
2/300x35	40	8350	7400	6800 ₁₅	6350 ₄₀	5750 ₅₅	5250 ₇₀
	75	7350	6500	5950 ₂₀	5450 ₄₀	5050 ₅₅	4750 ₈₅
150x42	40	4100	3350	2850	2500	2250 ₅	2050 ₁₀
	75	3400	2850	2550	2300	2050 ₁₀	1850 ₂₀
170x42	40	4650	3750	3200	2800 ₅	2500 ₁₅	2300 ₂₅
	75	3850	3250	2900	2550 ₁₅	2300 ₂₅	2100 ₃₅
190x42	40	5200	4150	3500	3100 ₁₅	2800 ₂₅	2550 ₃₅
	75	4300	3650	3200 ₁₀	2800 ₂₅	2550 ₃₅	2300 ₄₅
200x42	40	5450	4350	3700 ₅	3250 ₂₀	2900 ₃₀	2650 ₄₀
	75	4550	3800	3350 ₁₅	2950 ₃₀	2650 ₄₀	2450 ₅₅
240x42	40	6350	5150 ₅	4350 ₂₀	3800 ₃₅	3450 ₅₅	3150 ₇₀
	75	5450	4550 ₁₀	3950 ₃₀	3500 ₅₀	3150 ₇₀	2850 ₈₅
290x42	40	7300	6100 ₂₀	5150 ₄₀	4550 ₆₅	4050 ₈₅	3700 ₉₅
	75	6400	5500 ₃₀	4700 ₅₅	4150 ₈₀	3700 ₉₅	3400 ₁₁₅
300x42	40	7500	6350 ₂₅	5300 ₄₅	4650 ₇₀	4200 ₉₀	3850 ₁₀₅
	75	6550	5700 ₃₅	4850 ₆₀	4250 ₈₅	3850 ₁₀₅	3500 ₁₂₀
2/150x42	40	5100	4300	3800	3450	3200	3000
	75	4250	3600	3200	2900	2700	2550
2/170x42	40	5700	4850	4300	3900	3600	3350
	75	4800	4050	3600	3300	3050	2900
2/190x42	40	6250	5400	4800	4350	4050	3750 ₅
	75	5350	4550	4050	3700	3400	3200 ₅
2/200x42	40	6500	5650	5050	4600	4250	3950 ₁₀
	75	5650	4750	4250	3900	3600	3400 ₁₀
2/240x42	40	7400	6550	6000	5500 ₅	5050 ₁₅	4700 ₂₅
	75	6500	5700	5100	4650 ₅	4300 ₂₀	4050 ₃₀
2/290x42	40	8450	7500	6900	6450 ₂₀	6100 ₃₅	5600 ₅₀
	75	7500	6600	6100 ₅	5600 ₂₅	5200 ₄₀	4900 ₅₅
2/300x42	40	8650	7700	7050	6600 ₂₀	6250 ₄₀	5750 ₅₅
	75	7650	6800	6250 ₁₀	5800 ₂₅	5400 ₄₅	5050 ₆₀
2/360x42	40	9800	8750	8050 ₁₅	7550 ₄₀	7100 ₆₀	6700 ₈₀
	75	8700	7750	7150 ₂₅	6700 ₄₅	6300 ₇₀	6050 ₉₅
2/400x42	40	10550	9450	8700 ₂₅	8150 ₅₀	7700 ₇₅	7250 ₉₅
	75	9400	8350 ₅	7700 ₃₀	7200 ₆₀	6850 ₈₅	6550 ₁₁₀

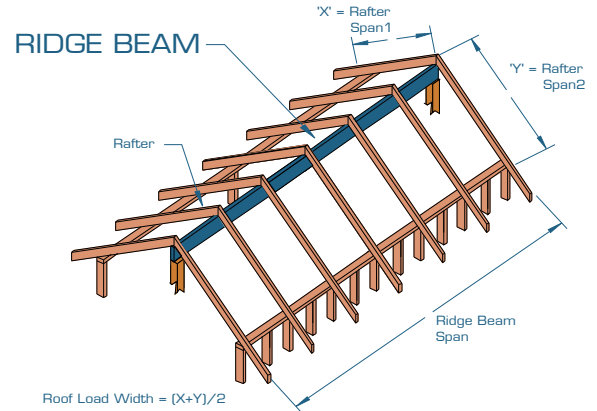
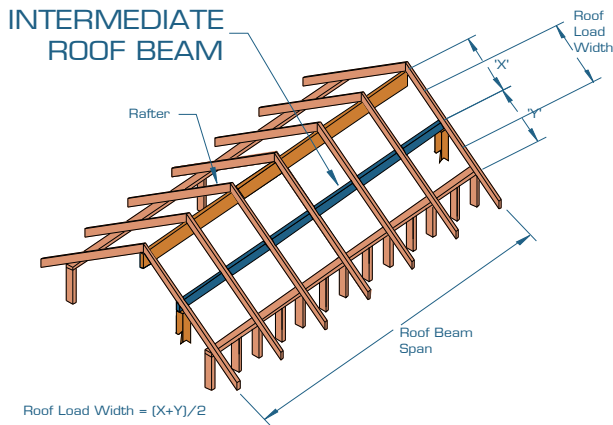
CONTINUOUS SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Ridge span (mm)					
		Continuous span					
150x58	40	4550	3800	3350	2950	2650	2400
	75	3800	3200	2850	2600	2400	2200 ₅
170x58	40	5150	4300	3750	3300	2950	2700 ₁₀
	75	4300	3600	3200	2950	2700 ₁₀	2450 ₁₅
200x58	40	6000	5050	4350	3800	3400 ₁₅	3150 ₂₅
	75	5000	4250	3750	3450 ₁₀	3100 ₂₀	2850 ₃₀
240x58	40	6850	6050	5100 ₅	4500 ₂₀	4050 ₃₀	3700 ₄₀
	75	6000	5050	4500 ₁₀	4100 ₃₀	3700 ₄₅	3350 ₅₅
300x58	40	8000	7100 ₅	6250 ₂₅	5450 ₄₅	4900 ₆₀	4500 ₇₅
	75	7050	6250 ₁₀	5600 ₃₅	5000 ₅₅	4500 ₇₅	4100 ₉₀
360x58	40	9100	8100 ₂₀	7200 ₄₅	6350 ₆₅	5700 ₈₅	5200 ₁₀₀
	75	8050	7100 ₂₅	6550 ₆₀	5800 ₈₅	5200 ₁₀₀	4750 ₁₁₅
400x58	40	9800	8750 ₂₅	7850 ₆₀	6900 ₈₅	6200 ₁₀₀	5700 ₁₁₅
	75	8700	7700 ₃₅	7050 ₇₅	6300 ₁₀₀	5650 ₁₁₅	5200 ₁₃₅
450x58	40	10650	9500 ₄₀	8650 ₈₀	7600 ₁₀₀	6850 ₁₂₀	6250 ₁₃₅
	75	9450 ₅	8400 ₄₅	7700 ₉₀	6950 ₁₁₅	6250 ₁₃₅	5700 ₁₅₅
300x75	40	8450	7500	6900 ₁₀	6200 ₂₅	5600 ₄₀	5100 ₅₅
	75	7450	6600	6050 ₁₅	5600 ₃₅	5100 ₅₅	4650 ₇₀
400x75	40	10300	9200 ₁₀	8500 ₃₅	7800 ₆₀	7050 ₈₀	6450 ₉₅
	75	9200	8150 ₁₅	7500 ₄₀	7050 ₇₅	6450 ₉₅	5900 ₁₁₀
500x75	40	12000	11150 ₃₀	10300 ₆₅	9650 ₁₀₀	8750 ₁₂₀	8050 ₁₃₅
	75	11100	9900 ₃₅	9150 ₇₅	8600 ₁₁₀	8000 ₁₃₅	7300 ₁₅₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. after spacing up to 1200 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION C1, C2 AND C3



EXAMPLE:

wind speed = C3
 sheet roof - 40 kg/m²
 beam span = 4500 mm
 X = 2000 mm Y = 3000 mm
 roof load width = $(X+Y)/2 = 2500$ mm

Enter single span table at 3000 roof load width with column
 And read down to span equal to or greater than 4500 mm

ADOPT:

SmartLVL 15 — 2/240x35

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Ridge span (mm)					
		Single span					
150x35	40	2550	2000	1650	1450	1350 ₅	1250 ₁₀
	75	2400	2000	1750 ₅	1500 ₅	1400 ₁₀	1250 ₁₅
170x35	40	2850	2200	1850	1650 ₅	1500 ₁₀	1400 ₁₅
	75	2700	2250	1950 ₅	1700 ₁₀	1550 ₁₅	1400 ₂₀
190x35	40	3150	2450	2050 ₅	1850 ₁₀	1650 ₁₅	1500 ₂₀
	75	3000	2500 ₅	2150 ₁₀	1900 ₁₅	1700 ₂₅	1600 ₃₀
200x35	40	3300	2550	2150 ₅	1900 ₁₀	1750 ₁₅	1600 ₂₀
	75	3150	2650 ₅	2250 ₁₅	2000 ₂₀	1800 ₂₅	1650 ₃₀
240x35	40	3950	3050 ₅	2550 ₁₅	2250 ₂₀	2050 ₂₅	1900 ₃₀
	75	3800	3150 ₁₅	2650 ₂₀	2350 ₃₀	2100 ₃₅	1950 ₄₀
2/150x35	40	3550	3000	2550	2250	2050	1850
	75	2950	2500	2200	2000	1850	1750
2/170x35	40	4000	3350	2850	2500	2250	2100 ₅
	75	3350	2800	2500	2300	2100	2000 ₅
2/190x35	40	4450	3700	3150	2800	2500 ₅	2300 ₅
	75	3750	3150	2800	2550	2350 ₅	2250 ₁₀
2/200x35	40	4650	3900	3300	2900	2650 ₅	2450 ₁₀
	75	3900	3300	2950	2700 ₅	2500 ₁₀	2350 ₁₀
2/240x35	40	5550	4600	3900 ₅	3450 ₁₀	3100 ₁₀	2850 ₁₅
	75	4700	3950	3550 ₅	3250 ₁₀	3000 ₁₅	2800 ₂₀
2/290x35	40	6450	5450 ₅	4600 ₁₀	4050 ₁₅	3700 ₂₀	3400 ₂₅
	75	5600	4750	4250 ₁₀	3900 ₂₀	3600 ₂₅	3400 ₃₅
2/300x35	40	6650	5600 ₅	4750 ₁₀	4200 ₁₅	3800 ₂₀	3500 ₂₅
	75	5800	4950 ₅	4400 ₁₀	4000 ₂₀	3750 ₃₀	3500 ₃₅

SINGLE SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION C1, C2 AND C3 [Cont'd]

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Ridge span (mm)					
		Single span					
150x42	40	2800	2150	1850	1600	1450	1350 ₅
	75	2500	2100	1850	1650 ₅	1500 ₁₀	1400 ₁₀
170x42	40	3150	2450	2050	1800 ₅	1650 ₅	1500 ₁₀
	75	2850	2400	2100 ₅	1850 ₁₀	1700 ₁₅	1550 ₁₅
190x42	40	3450	2700	2250	2000 ₅	1800 ₁₀	1650 ₁₅
	75	3200	2700	2350 ₅	2100 ₁₅	1900 ₂₀	1750 ₂₅
200x42	40	3650	2800	2400 ₅	2100 ₁₀	1900 ₁₅	1750 ₁₅
	75	3350	2800	2450 ₁₀	2150 ₁₅	1950 ₂₀	1800 ₂₅
240x42	40	4400	3300 ₅	2800 ₁₀	2500 ₁₅	2250 ₂₀	2050 ₂₅
	75	4000	3350 ₁₀	2900 ₁₅	2550 ₂₅	2350 ₃₀	2150 ₃₅
290x42	40	5300	3950 ₁₀	3350 ₂₀	2950 ₂₅	2650 ₃₀	2450 ₃₅
	75	4800	4050 ₁₅	3450 ₂₅	3050 ₃₅	2750 ₄₀	2550 ₅₀
300x42	40	5500 ₅	4050 ₁₀	3450 ₂₀	3050 ₂₅	2750 ₃₅	2550 ₄₀
	75	5000 ₅	4200 ₂₀	3550 ₂₅	3150 ₃₅	2850 ₄₅	2650 ₅₀
2/150x42	40	3750	3150	2800	2450	2200	2050
	75	3150	2650	2350	2150	2000	1850
2/170x42	40	4200	3550	3100	2750	2500	2300
	75	3550	3000	2650	2450	2250	2100
2/190x42	40	4700	3950	3450	3050	2750	2550 ₅
	75	3950	3350	2950	2700	2500	2350 ₅
2/200x42	40	4900	4200	3600	3200	2900	2650 ₅
	75	4150	3500	3150	2850	2650 ₅	2500 ₅
2/240x42	40	5850	5000	4250	3750 ₅	3400 ₁₀	3150 ₁₀
	75	4950	4200	3750	3400 ₅	3200 ₁₀	3000 ₁₅
2/290x42	40	6700	5950	5050 ₅	4450 ₁₀	4050 ₁₅	3700 ₂₀
	75	5950	5050	4500 ₅	4100 ₁₅	3850 ₂₀	3600 ₂₅
2/300x42	40	6850	6100	5200 ₅	4600 ₁₀	4150 ₁₅	3850 ₂₀
	75	6100	5200	4650 ₅	4250 ₁₅	3950 ₂₀	3700 ₂₅
2/360x42	40	7800	6950 ₅	6050 ₁₅	5350 ₂₀	4850 ₂₅	4450 ₃₀
	75	6950	6150 ₅	5550 ₁₅	5100 ₂₅	4750 ₃₀	4450 ₄₀
2/400x42	40	8350	7500 ₁₀	6600 ₂₀	5800 ₂₅	5250 ₃₀	4850 ₃₅
	75	7450	6650 ₁₀	6100 ₂₀	5650 ₃₀	5250 ₄₀	4950 ₄₅
150x58	40	3300	2550	2150	1900	1700	1600
	75	2800	2350	2100	1900	1750	1650 ₅
170x58	40	3700	2850	2400	2150	1950	1800 ₅
	75	3150	2650	2350	2150	2000 ₅	1850 ₁₀
200x58	40	4400	3300	2800	2500	2250 ₅	2050 ₁₀
	75	3700	3100	2800	2550 ₁₀	2300 ₁₀	2150 ₁₅
240x58	40	5250	3900	3300 ₅	2900 ₁₀	2650 ₁₅	2450 ₂₀
	75	4400	3750	3300 ₁₀	3000 ₁₅	2750 ₂₀	2500 ₂₅
300x58	40	6400	4800 ₅	4050 ₁₀	3600 ₂₀	3250 ₂₅	3000 ₃₀
	75	5500	4650 ₁₀	4150 ₂₀	3700 ₂₅	3350 ₃₅	3100 ₄₀
360x58	40	7250	5550 ₁₀	4700 ₂₀	4150 ₂₅	3750 ₃₅	3450 ₄₀
	75	6400	5550 ₁₅	4850 ₂₅	4300 ₃₅	3900 ₄₅	3600 ₅₀
400x58	40	7800 ₅	6050 ₁₅	5150 ₂₅	4550 ₃₀	4100 ₄₀	3800 ₄₅
	75	6900 ₅	6100 ₂₀	5300 ₃₅	4700 ₄₀	4250 ₅₀	3900 ₆₀
450x58	40	8450 ₁₀	6800 ₂₀	5650 ₃₀	5000 ₄₀	4500 ₄₅	4150 ₅₅
	75	7500 ₅	6650 ₂₅	5850 ₄₀	5150 ₅₀	4650 ₆₀	4300 ₆₅
300x75	40	6700	5450	4600 ₅	4050 ₁₀	3700 ₁₅	3400 ₂₀
	75	5900	5050	4500 ₁₀	4100 ₂₀	3800 ₂₅	3500 ₃₀
400x75	40	8200	7050 ₁₀	5850 ₁₅	5150 ₂₅	4650 ₃₀	4300 ₃₅
	75	7300	6500 ₁₀	5950 ₂₅	5350 ₃₅	4850 ₄₀	4450 ₄₅
525x75	40	9850 ₅	8900 ₂₀	7300 ₃₀	6450 ₄₀	5850 ₄₅	5400 ₅₅
	75	8850 ₅	7900 ₂₀	7300 ₄₀	6800 ₂₅	6450 ₃₅	6200 ₄₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
3. rafter spacing up to 1200 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

CONTINUOUS SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION C1, C2 AND C3

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Ridge span (mm)					
		Continuous span					
150x35	40	2550	2000	1650	1400	1200 ₁₀	1100 ₁₅
	75	2650	2050	1750 ₁₀	1450 ₁₅	1250 ₂₅	1150 ₃₅
170x35	40	2850	2200	1850 ₅	1600 ₁₅	1400 ₂₀	1250 ₃₀
	75	2950	2300	1950 ₂₀	1650 ₃₀	1450 ₄₀	1300 ₅₀
190x35	40	3150	2450	2050 ₁₅	1750 ₂₅	1550 ₃₅	1400 ₄₅
	75	3250	2550 ₁₀	2150 ₃₀	1850 ₄₅	1600 ₅₅	1450 ₆₅
200x35	40	3300	2550	2150 ₂₀	1850 ₃₀	1600 ₄₀	1450 ₅₀
	75	3450	2650 ₁₅	2250 ₃₅	1950 ₅₀	1700 ₆₅	1500 ₇₅
240x35	40	3950	3050 ₂₀	2550 ₄₀	2200 ₅₅	1950 ₆₅	1750 ₈₀
	75	4100 ₁₀	3150 ₃₅	2650 ₆₀	2350 ₈₅	2000 ₉₅	1800 ₁₀₅
2/150x35	40	3900	3000	2550	2250	2050	1800
	75	4000	3100	2600	2300	2100 ₅	1900 ₁₀
2/170x35	40	4400	3350	2850	2500	2250	2050 ₁₀
	75	4550	3450	2950	2600 ₅	2350 ₁₅	2150 ₂₅
2/190x35	40	4900	3700	3150	2800	2500 ₁₀	2250 ₂₀
	75	5050	3850	3250	2850 ₁₅	2600 ₂₅	2400 ₄₀
2/200x35	40	5150	3900	3300	2900 ₅	2650 ₁₅	2400 ₂₅
	75	5300	4000	3400 ₅	3000 ₂₀	2700 ₃₀	2500 ₄₅
2/240x35	40	6100	4600	3900 ₁₀	3450 ₂₀	3100 ₃₅	2850 ₄₅
	75	6250	4750 ₅	4000 ₂₅	3550 ₄₀	3200 ₅₅	2950 ₇₀
2/290x35	40	7350	5450 ₁₀	4600 ₂₅	4050 ₄₀	3700 ₆₀	3400 ₇₅
	75	7200	5650 ₂₅	4750 ₄₅	4200 ₆₅	3800 ₈₅	3500 ₁₀₀
2/300x35	40	7550	5600 ₁₀	4750 ₃₀	4200 ₄₅	3800 ₆₅	3500 ₈₀
	75	7350	5800 ₂₅	4900 ₅₀	4350 ₇₀	3950 ₉₀	3600 ₁₀₅
150x42	40	2800	2150	1850	1600	1400 ₅	1250 ₁₀
	75	2900	2250	1900	1650 ₁₀	1450 ₂₀	1300 ₂₅
170x42	40	3150	2450	2050	1800 ₁₀	1550 ₁₅	1400 ₂₀
	75	3250	2500	2150 ₁₀	1850 ₂₅	1650 ₃₅	1450 ₄₀
190x42	40	3450	2700	2250 ₅	2000 ₂₀	1750 ₂₅	1550 ₃₅
	75	3600	2800 ₅	2350 ₂₀	2100 ₃₅	1850 ₅₀	1650 ₅₅
200x42	40	3650	2800	2400 ₁₀	2100 ₂₅	1850 ₃₀	1650 ₄₀
	75	3800	2900 ₁₀	2450 ₂₅	2200 ₄₅	1950 ₅₅	1700 ₆₅
240x42	40	4400	3300 ₁₀	2800 ₂₅	2500 ₄₅	2200 ₅₅	1950 ₆₅
	75	4550	3450 ₂₅	2900 ₄₅	2550 ₇₀	2300 ₈₅	2050 ₉₅
290x42	40	5300 ₅	3950 ₂₅	3350 ₅₀	2950 ₇₀	2650 ₉₀	2350 ₁₀₀
	75	5500 ₂₀	4100 ₄₅	3450 ₇₅	3050 ₁₀₀	2750 ₁₁₅	2450 ₁₃₀
300x42	40	5500 ₁₀	4050 ₃₀	3450 ₅₅	3050 ₈₀	2750 ₉₅	2450 ₁₀₅
	75	5700 ₂₅	4200 ₅₀	3550 ₈₀	3150 ₁₀₅	2850 ₁₂₅	2550 ₁₃₅
2/150x42	40	4300	3300	2800	2450	2200	2050
	75	4250	3400	2850	2550	2300	2100 ₅
2/170x42	40	4850	3700	3100	2750	2500	2300
	75	4800	3800	3200	2850	2600 ₁₀	2350 ₁₅
2/190x42	40	5400	4050	3450	3050	2750	2550 ₁₀
	75	5350	4200	3550	3150 ₅	2850 ₁₅	2650 ₃₀
2/200x42	40	5650	4250	3600	3200	2900 ₁₀	2650 ₁₅
	75	5650	4400	3750	3300 ₁₀	3000 ₂₀	2750 ₃₀
2/240x42	40	6750	5050	4250	3750 ₁₅	3400 ₂₅	3150 ₃₅
	75	6500	5200	4400 ₁₅	3900 ₃₀	3500 ₄₀	3250 ₅₅
2/290x42	40	8050	5950	5050 ₁₅	4450 ₃₀	4050 ₄₅	3700 ₆₀
	75	7500	6200 ₁₅	5200 ₃₅	4600 ₅₀	4200 ₇₀	3850 ₈₅
2/300x42	40	8350	6150 ₅	5200 ₂₀	4600 ₃₅	4150 ₅₀	3850 ₆₅
	75	7650	6400 ₂₀	5400 ₄₀	4750 ₅₅	4300 ₇₅	3950 ₉₀
2/360x42	40	9750	7250 ₂₀	6050 ₄₀	5350 ₅₅	4850 ₇₅	4450 ₉₀
	75	8700	7500 ₄₀	6250 ₆₀	5500 ₈₅	5000 ₁₀₀	4600 ₁₁₅
2/400x42	40	10550 ₁₀	7950 ₃₀	6600 ₅₀	5800 ₇₀	5250 ₉₀	4850 ₁₀₅
	75	9400 ₁₀	8250 ₅₀	6800 ₇₅	6000 ₁₀₀	5450 ₁₁₅	5050 ₁₃₅

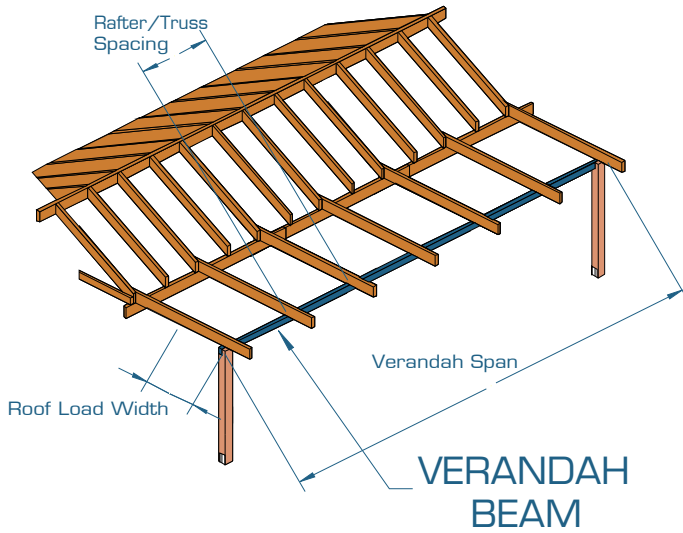
CONTINUOUS SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION C1, C2 AND C3 [Cont'd]

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Ridge span (mm)					
		Continuous span					
150x58	40	3300	2550	2150	1900	1700	1550
	75	3400	2650	2250	1950	1800 ₁₀	1650 ₁₅
170x58	40	3700	2850	2400	2150	1950 ₅	1750 ₁₀
	75	3850	2950	2500	2200 ₁₀	2000 ₂₀	1850 ₃₀
200x58	40	4400	3300	2800	2500 ₁₀	2250 ₂₀	2050 ₃₀
	75	4550	3400	2900 ₁₀	2550 ₂₅	2300 ₃₅	2150 ₅₀
240x58	40	5250	3900	3300 ₁₀	2900 ₂₅	2650 ₃₅	2450 ₅₀
	75	5450	4050 ₁₀	3400 ₂₅	3000 ₄₅	2750 ₆₀	2500 ₇₅
300x58	40	6550	4800 ₁₅	4050 ₃₀	3600 ₅₀	3250 ₇₀	3000 ₈₅
	75	6800 ₁₀	4950 ₃₀	4200 ₅₅	3700 ₇₅	3350 ₉₅	3100 ₁₁₀
360x58	40	7650 ₁₀	5550 ₃₀	4700 ₅₅	4150 ₇₅	3750 ₉₅	3450 ₁₁₀
	75	7950 ₂₅	5750 ₅₀	4850 ₈₀	4300 ₁₀₅	3900 ₁₂₀	3600 ₁₄₀
400x58	40	8400 ₂₀	6050 ₄₀	5150 ₇₀	4550 ₉₅	4100 ₁₁₀	3800 ₁₃₀
	75	8700 ₄₀	6300 ₆₅	5300 ₉₅	4700 ₁₂₀	4250 ₁₄₀	3900 ₁₆₀
450x58	40	9300 ₃₅	6800 ₆₀	5650 ₈₅	5000 ₁₁₀	4500 ₁₃₀	4150 ₁₄₅
	75	9450 ₅₀	7050 ₈₅	5850 ₁₁₀	5150 ₁₃₅	4650 ₁₆₀	4300 ₁₈₀
300x75	40	7500	5450	4600 ₂₀	4050 ₃₅	3700 ₅₀	3400 ₆₅
	75	7450	5650 ₁₅	4750 ₃₅	4200 ₅₅	3800 ₇₅	3500 ₉₀
400x75	40	9650 ₁₀	7050 ₃₀	5850 ₅₀	5150 ₇₀	4650 ₉₀	4300 ₁₀₅
	75	9200 ₁₅	7300 ₅₀	6050 ₇₅	5350 ₉₅	4850 ₁₁₅	4450 ₁₃₀
525x75	40	9850	8900	8200 ₁₀	7700 ₂₀	7250 ₃₀	6900 ₃₅
	75	8850	7900 ₅	7300 ₁₅	6800 ₂₅	6450 ₃₅	6200 ₄₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
3. rafter spacing up to 1200 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE SPAN VERANDAH BEAM AS 4055 CLASSIFICATION N1, N2 AND N3



EXAMPLE:

wind speed = N3
 sheet roof - 40 kg/m²
 rafter/truss spacing = 600 mm
 verandah span = 3500 mm
 roof load width = 3900 mm
 Enter span table at 4500 roof load width column, rafter spacing of 1200 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 15 — 2/240x35

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Verandah span (mm)									
		Single span									
150x35	40	2800	2800	2200	2200	1900	1900	1800	1600	1600	NS
	75	2300	2300	1800	1800	1600	1500	1400	1300	1300 ₅	1100 ₅
170x35	40	3200	3100	2500	2600	2200	2200	2000	2000	1900	1500 ₅
	75	2600	2600	2100	2000	1800	1800	1600	1500 ₁₀	1500 ₅	1400 ₅
190x35	40	3500	3500	2800	2800	2500	2500	2200	2200	2100 ₅	1700
	75	2900	2900	2300	2300	2000	2000	1800	1800 ₅	1700 ₅	1600 ₂₀
200x35	40	3700	3700	3000	3000	2600	2700	2400	2400 ₅	2200	2200 ₅
	75	3000	3000	2400	2400	2100	2100	1900	1900 ₁₀	1800 ₅	1800 ₁₅
240x35	40	4300	4300	3600	3500	3100	3100	2900	2900 ₁₀	2700 ₁₀	2600 ₁₅
	75	3700	3600	2900	2900	2600 ₅	2600 ₁₀	2300 ₁₀	2300 ₁₀	2200 ₂₅	2100 ₂₀
2/150x35	40	3500	3400	2800	2800	2500	2500	2200	2200	2100	2100
	75	2800	2900	2300	2300	2000	2000	1800	1800	1700	1600
2/170x35	40	3900	3900	3200	3100	2800	2800	2500	2600	2300	2400
	75	3200	3200	2600	2600	2300	2300	2100	2000	1900	1900
2/190x35	40	4200	4200	3500	3500	3100	3100	2800	2800	2600	2700
	75	3600	3600	2900	2900	2500	2600	2300	2300	2100	2100
2/200x35	40	4400	4400	3700	3700	3300	3200	3000	3000	2800	2800
	75	3800	3800	3000	3000	2700	2700	2400	2400	2200	2200
2/240x35	40	5000	5000	4300	4300	3900	3900	3600	3500	3300	3300
	75	4400	4400	3700	3600	3200	3200	2900	2900	2700	2700 ₁₀
2/290x35	40	5700	5700	5000	4900	4500	4500	4200	4200	4000	4000
	75	5000	5000	4300	4300	3900	3800	3500	3500	3300	3200 ₅
2/300x35	40	5900	5800	5100	5100	4600	4600	4300	4300	4100	4100 ₅
	75	5100	5200	4400	4400	4000	4000	3700	3600	3400	3400 ₅

SINGLE SPAN VERANDAH BEAM AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Verandah span (mm)									
		Single span									
150x42	40	3000	3000	2400	2400	2100	2100	1900	1900	1700	1500
	75	2400	2500	1900	1900	1700	1600	1500	1400 ₅	1400	1200
170x42	40	3300	3300	2700	2700	2300	2400	2100	2100	2000	2000
	75	2700	2800	2200	2200	1900	1900	1700	1700	1600	1500 ₁₀
190x42	40	3700	3700	3000	3000	2600	2700	2400	2400	2200	2200
	75	3100	3000	2400	2500	2100	2100	1900	1900	1800	1800 ₁₀
200x42	40	3900	3900	3200	3100	2800	2800	2500	2600	2300	2300
	75	3200	3200	2600	2600	2200	2200	2000	2000 ₅	1900	1900 ₁₀
240x42	40	4500	4500	3800	3800	3300	3300	3000	3000	2800 ₅	2800 ₁₀
	75	3900	3800	3100	3100	2700	2700 ₁₀	2500 ₁₀	2500 ₁₅	2300 ₁₀	2200 ₁₅
290x42	40	5200	5200	4400	4400	4000	4000	3700 ₅	3600 ₅	3400 ₁₅	3400 ₁₀
	75	4500	4500	3800	3700	3300	3200 ₅	3000 ₁₀	3000 ₂₀	2800 ₂₀	2800 ₃₀
300x42	40	5300	5300	4500	4500	4100	4100 ₅	3800 ₅	3800 ₅	3500 ₁₀	3500 ₁₀
	75	4600	4600	3900	3800	3400	3400 ₅	3100 ₁₀	3100 ₂₀	2900 ₂₅	2900 ₃₅
2/150x42	40	3600	3600	3000	3000	2600	2700	2400	2400	2200	2200
	75	3000	3000	2400	2500	2100	2100	1900	1900	1800	1800
2/170x42	40	4100	4100	3300	3300	2900	2900	2700	2700	2500	2600
	75	3400	3400	2700	2800	2400	2400	2200	2200	2000	2000
2/190x42	40	4400	4400	3700	3700	3300	3300	3000	3000	2800	2800
	75	3800	3800	3100	3000	2700	2700	2400	2500	2300	2300
2/200x42	40	4600	4600	3900	3900	3500	3400	3200	3100	2900	2900
	75	4000	4000	3200	3200	2800	2800	2600	2600	2400	2400
2/240x42	40	5200	5200	4500	4500	4100	4100	3800	3800	3500	3500
	75	4600	4500	3900	3800	3400	3400	3100	3100	2900	2900
2/290x42	40	5900	5900	5200	5200	4700	4700	4400	4400	4200	4200
	75	5200	5200	4500	4500	4100	4100	3800	3700	3500	3400
2/300x42	40	6100	6000	5300	5300	4800	4800	4500	4500	4300	4300
	75	5300	5300	4600	4600	4200	4200	3900	3800	3600 ₅	3600
2/360x42	40	6900	6800	6000	6000	5500	5500	5200	5200	4900	4900
	75	6100	6100	5200	5300	4800	4800	4500	4500	4200 ₅	4200 ₁₅
2/400x42	40	7400	7300	6500	6500	6000	5900	5600	5600	5300	5300
	75	6600	6600	5700	5600	5200	5200	4800 ₅	4800 ₁₀	4600 ₅	4600 ₁₀
150x58	40	3300	3200	2600	2700	2300	2300	2100	2100	1900	1900
	75	2700	2700	2100	2100	1900	1900	1700	1600	1600	1500
170x58	40	3700	3700	3000	3000	2600	2700	2400	2400	2200	2200
	75	3000	3000	2400	2500	2100	2100	1900	1900	1800	1800
190x58	40	4100	4100	3300	3300	2900	2900	2700	2700	2500	2500
	75	3400	3400	2700	2800	2400	2400	2200	2100	2000	2000
200x58	40	4200	4200	3500	3500	3100	3100	2800	2800	2600	2700
	75	3600	3500	2900	2900	2500	2500	2300	2300	2100	2100
240x58	40	4800	4800	4100	4100	3700	3700	3400	3300	3100	3100
	75	4200	4200	3400	3400	3000	3000	2700	2800 ₅	2500 ₅	2600 ₁₀
290x58	40	5500	5500	4800	4700	4300	4300	4000	4000	3800	3800
	75	4800	4800	4100	4100	3700	3600	3300	3300 ₅	3100 ₅	3100 ₁₅
300x58	40	5600	5600	4900	4900	4400	4400	4100	4100	3900	3900
	75	4900	4900	4200	4200	3800	3700	3500 ₅	3400 ₅	3200 ₅	3200 ₁₅
360x58	40	6400	6400	5600	5500	5100	5100	4800 ₅	4700	4500 ₅	4500 ₁₀
	75	5600	5600	4800	4800	4400	4400 ₅	4100 ₁₀	4100 ₁₀	3800 ₂₀	3800 ₁₅
400x58	40	6900	6900	6000	6000	5500	5500	5100 ₅	5100 ₅	4900 ₁₀	4900 ₁₅
	75	6100	6100	5200	5200	4800 ₁₀	4700 ₅	4400 ₁₅	4400 ₂₀	4200 ₂₀	4200 ₂₀
450x58	40	7500	7500	6500	6500	6000	6000	5600 ₅	5600 ₁₀	5300 ₁₀	5300 ₁₅
	75	6600	6600	5700	5700	5200 ₁₀	5200 ₁₅	4800 ₂₀	4800 ₂₅	4600 ₂₅	4600 ₃₀
300x75	40	5900	5900	5200	5200	4700	4700	4400	4400	4200	4200
	75	5200	5200	4500	4500	4100	4100	3700	3700	3500 ₅	3400 ₅
400x75	40	7200	7200	6300	6300	5800	5800	5400	5400	5200	5200 ₅
	75	6400	6400	5500	5500	5000	5000 ₅	4700	4700 ₅	4500 ₁₀	4400 ₁₅
500x75	40	8700	8600	7700	7600	7100	7000	6600	6600	6300 ₁₀	6300 ₅
	75	7800	7700	6700	6700	6200 ₁₀	6100 ₅	5800 ₁₅	5700 ₂₀	5500 ₂₀	5400 ₂₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

CONTINUOUS SPAN VERANDAH BEAM AS 4055 CLASSIFICATION N1, N2 AND N3

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Verandah span (mm)									
		Continuous span									
150x35	40	3800	3800	2800	2800	2300	2200	2000	1600	1600	1300
	75	3100	3100	2500	2500	2100	2100	1900	1900 ₁₀	1600	1500 ₅
170x35	40	4200	4200	3200	3200	2600	2700	2200	1700	1700	1400
	75	3500	3500	2800	2800	2400	2400 ₅	2200 ₁₀	2100 ₁₀	2000 ₂₅	1600 ₁₅
190x35	40	4500	4500	3500	3400	2900	2900	2400	2600	2100	1600
	75	3900	3900	3100	3100	2700 ₅	2700 ₅	2500 ₂₀	2500 ₂₀	2300 ₄₀	1700 ₁₀
200x35	40	4700	4700	3700	3600	3000	2900	2600	2700	2200	1700
	75	4100	4100	3300	3200	2900 ₁₀	2900 ₁₀	2600 ₃₀	2600 ₂₅	2300 ₄₅	2100 ₃₀
240x35	40	5400	5400	4400	4400	3500	3500	3100 ₅	3000 ₅	2500 ₅	2800 ₁₅
	75	4700	4600	3900	3900	3400 ₂₅	3400 ₂₅	3100 ₅₅	3100 ₅₀	2900 ₈₀	2900 ₈₀
2/150x35	40	4500	4400	3800	3800	3300	3300	3000	3000	2700	2700
	75	3800	3800	3100	3100	2700	2700	2500	2500	2300	2200
2/170x35	40	4900	4900	4200	4200	3700	3700	3400	3300	3000	2900
	75	4300	4200	3500	3500	3100	3000	2800	2800	2600	2600
2/190x35	40	5300	5300	4500	4500	4200	4200	3800	3700	3400	3300
	75	4600	4600	3900	3900	3400	3400	3100	3100	2900	2900
2/200x35	40	5500	5500	4700	4700	4300	4300	4000	3900	3500	3400
	75	4800	4800	4100	4100	3600	3600	3300	3200	3100	3000
2/240x35	40	6200	6200	5400	5400	4900	4900	4600	4600	4200	4200
	75	5500	5500	4700	4600	4200	4200	3900	3900	3700 ₁₅	3600 ₁₅
2/290x35	40	7000	7100	6200	6200	5700	5700	5300	5300	5000 ₅	5000 ₅
	75	6300	6300	5400	5400	4900	4900	4600 ₁₅	4500 ₁₅	4300 ₃₅	4300 ₃₅
2/300x35	40	7100	7300	6300	6300	5800	5800	5400	5400	5100 ₁₀	5100 ₁₀
	75	6400	6400	5500	5500	5000	5000	4700 ₂₀	4700 ₂₀	4400 ₃₅	4400 ₃₅
150x42	40	4000	4000	3100	3100	2500	2600	2200	2100	1600	1600
	75	3300	3200	2600	2600	2300	2200	2100	2000	1900	1600 ₅
170x42	40	4400	4300	3500	3400	2800	2800	2400	2600	2200	1600
	75	3700	3700	3000	3000	2600	2600	2300	2300	2200 ₁₅	2100 ₁₀
190x42	40	4700	4700	3900	3800	3100	3100	2700	2800	2300	2100
	75	4100	4100	3300	3300	2900	2900	2600 ₁₀	2600 ₁₀	2400 ₂₅	2400 ₂₅
200x42	40	4900	5000	4100	4000	3300	3200	2800	2800	2500	2600
	75	4300	4200	3500	3500	3100	3000	2800 ₁₅	2800 ₁₅	2600 ₃₀	2600 ₃₀
240x42	40	5600	5600	4800	4800	3900	3900	3400	3300	3000 ₅	3000 ₅
	75	4900	4900	4100	4100	3700 ₁₅	3600 ₁₅	3300 ₃₅	3300 ₃₅	3100 ₈₀	3100 ₅₅
290x42	40	6400	6400	5500	5500	4700	4600	4000 ₁₅	4000 ₁₅	3600 ₂₅	3200 ₁₅
	75	5600	5600	4800 ₅	4700 ₅	4300 ₃₅	4300 ₃₅	4000 ₆₅	4000 ₆₅	3700 ₉₀	3700 ₉₀
300x42	40	6500	6600	5700	5700	4800	4700	4100 ₁₅	4100 ₁₅	3700 ₂₅	3300 ₁₅
	75	5700	5700	4900 ₅	4900 ₅	4400 ₃₅	4400 ₃₅	4100 ₇₀	4100 ₇₀	3900 ₈₅	3800 ₈₅
2/150x42	40	4600	4600	4000	4000	3500	3500	3200	3100	2900	2900
	75	4100	4000	3300	3200	2900	2900	2600	2600	2400	2400
2/170x42	40	5100	5100	4400	4300	4000	3900	3600	3600	3300	3300
	75	4400	4400	3700	3700	3200	3200	3000	3000	2800	2700
2/190x42	40	5500	5500	4700	4700	4300	4300	4000	4000	3700	3600
	75	4800	4800	4100	4100	3600	3600	3300	3300	3100	3100
2/200x42	40	5700	5700	4900	5000	4500	4500	4200	4200	3900	3800
	75	5000	5000	4300	4200	3800	3800	3500	3500	3200	3200
2/240x42	40	6400	6500	5600	5600	5100	5200	4800	4800	4600	4500
	75	5700	5700	4900	4900	4400	4400	4100	4100	3900 ₅	3900 ₅
2/290x42	40	7200	7400	6400	6400	5900	5900	5500	5500	5200	5200
	75	6500	6500	5600	5600	5100	5100	4800 ₅	4700 ₅	4500 ₂₀	4500 ₂₀
2/300x42	40	7300	7600	6500	6600	6000	6000	5700	5700	5400	5400
	75	6600	6700	5700	5700	5200	5200	4900 ₅	4900 ₅	4600 ₂₀	4600 ₂₀
2/360x42	40	8200	8600	7300	7500	6800	6900	6400	6400	6100 ₁₀	6100 ₁₀
	75	7400	7600	6500	6500	6000	6000	5600 ₂₀	5600 ₂₀	5300 ₄₀	5300 ₄₀
2/400x42	40	8700	9200	7700	8100	7200	7400	6900	7000	6600 ₁₅	6600 ₁₅
	75	7800	8200	7000	7100	6400 ₁₀	6400 ₁₀	6000 ₃₀	6100 ₃₀	5700 ₅₀	5700 ₅₀

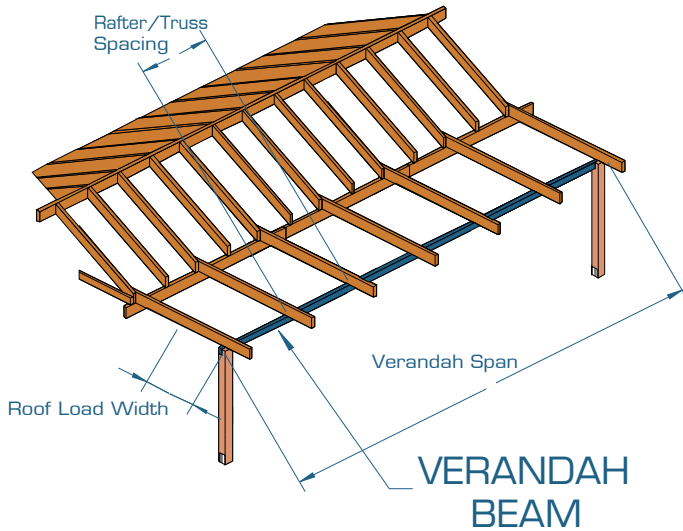
CONTINUOUS SPAN VERANDAH BEAM AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Verandah span (mm)									
		Continuous span									
150x58	40	4300	4300	3500	3500	3000	3000	2600	2700	2300	2200
	75	3600	3600	2900	2900	2600	2500	2300	2200	2100	2100
170x58	40	4700	4700	4000	4000	3400	3300	2900	2900	2600	2700
	75	4100	4100	3300	3200	2900	2900	2600	2600	2400	2400 ₅
200x58	40	5300	5300	4500	4500	3900	3800	3400	3300	3000	2900
	75	4600	4600	3900	3900	3400	3300	3100	3100	2900 ₁₀	2900 ₁₀
240x58	40	6000	6000	5200	5200	4600	4500	4000	4000	3500	3500
	75	5200	5200	4500	4400	4000	4000	3700 ₁₅	3700 ₁₀	3400 ₃₀	3400 ₂₅
300x58	40	6900	7000	6100	6100	5500	5600	4900	4900	4300 ₁₀	4300 ₁₀
	75	6200	6200	5300	5300	4800 ₁₀	4800 ₁₀	4500 ₃₅	4400 ₃₀	4200 ₅₅	4200 ₅₅
360x58	40	7700	8000	6800	6900	6300	6300	5700 ₁₅	5700 ₁₅	5100 ₂₅	5100 ₂₅
	75	6900	7000	6000	6000	5500 ₂₅	5500 ₂₅	5100 ₅₅	5100 ₅₀	4800 ₈₅	4800 ₈₅
400x58	40	8200	8600	7300	7500	6800 ₅	6800 ₅	6200 ₂₅	6100 ₂₅	5500 ₄₀	5500 ₄₀
	75	7400	7600	6500 ₅	6500 ₅	5900 ₃₅	6000 ₄₀	5500 ₆₅	5500 ₆₅	5200 ₉₅	5200 ₁₀₀
450x58	40	8800	9300	7800	8100	7300 ₁₅	7400 ₁₅	6800 ₃₅	6800 ₃₅	6100 ₅₀	6000 ₃₀
	75	7900	8300	7000 ₁₅	7100 ₁₅	6500 ₃₀	6400 ₅₀	6000 ₈₅	6100 ₈₅	5700 ₁₁₀	5700 ₁₁₀
300x75	40	7200	7400	6400	6400	5900	5900	5500	5500	5000	5000
	75	6500	6500	5600	5600	5100	5100	4700 ₁₅	4700 ₁₅	4500 ₃₀	4500 ₃₀
400x75	40	8500	9000	7600	7900	7100	7200	6700 ₁₀	6800 ₁₀	6300 ₂₅	6300 ₂₅
	75	7700	8000	6800	6900	6300 ₁₅	6300 ₁₅	5900 ₄₀	5900 ₄₀	5600 ₆₅	5600 ₆₅
525x75	40	10000	10800	8900	9500	8300 ₅	8800 ₁₀	7900 ₂₅	8300 ₃₀	7600 ₅₀	7900 ₅₅
	75	9000	9700	8000 ₅	8400 ₁₀	7400 ₃₅	7700 ₄₀	7100 ₇₀	7200 ₇₅	6800 ₁₀₀	6800 ₁₀₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

SINGLE SPAN VERANDAH BEAM AS 4055 CLASSIFICATION C1, C2 AND C3



EXAMPLE:

wind speed = C3
 sheet roof - 40 kg/m²
 rafter/truss spacing = 600 mm
 verandah span = 3500 mm
 roof load width = 3900 mm
 Enter span table at 4500 roof load width column, rafter spacing of 600 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 15 — 2/240x35

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Verandah span (mm)									
		Single span									
150x35	40	2800	2800	2200	2100	1800	1300	1500	NS	1000	NS
	75	2300	2300	1800	1800	1600	1500	1400 ₅	NS	1300 ₅	NS
170x35	40	3200	3100	2500	2400	2000	1600	1700	NS	1500	NS
	75	2600	2600	2100	2000	1800	1800	1600	1100	1500 ₁₀	NS
190x35	40	3500	3500	2800	2700	2300	2200	1900	1300	1700	NS
	75	2900	2900	2300	2300	2000	2000	1800	1500 ₁₅	1700 ₁₀	NS
200x35	40	3700	3700	2900	2800	2400	2300	2000	1500 ₅	1700	NS
	75	3000	3000	2400	2400	2100 ₅	2100 ₅	1900	1600 ₁₅	1700 ₅	1100 ₅
240x35	40	4300	4300	3500	3300	2800 ₅	2700 ₅	2400 ₁₀	2300 ₁₀	2200 ₁₅	1600 ₂₀
	75	3700	3600	2900	2900	2600 ₅	2600 ₁₅	2300 ₁₀	2300 ₁₅	2200 ₂₅	1700 ₂₅
2/150x35	40	3500	3400	2800	2800	2500	2500	2200	2200	2100	2000
	75	2800	2900	2300	2300	2000	2000	1800	1800	1700	1600
2/170x35	40	3900	3900	3200	3100	2800	2800	2500	2600	2300	2300
	75	3200	3200	2600	2600	2300	2300	2100	2000	1900	1900
2/190x35	40	4200	4200	3500	3500	3100	3100	2800	2800	2600	2600
	75	3600	3600	2900	2900	2500	2600	2300	2300	2100	2100
2/200x35	40	4400	4400	3700	3700	3300	3200	3000	3000	2800	2700 ₅
	75	3800	3800	3000	3000	2700	2700	2400	2400	2200	2200
2/240x35	40	5000	5000	4300	4300	3900	3900	3600	3500	3300	3200
	75	4400	4400	3700	3600	3200	3200	2900	2900	2700	2700 ₁₀
2/290x35	40	5700	5700	5000	4900	4500	4500	4200	4200 ₅	3900 ₅	3800 ₅
	75	5000	5000	4300	4300	3900	3800	3500	3500	3300	3200 ₅
2/300x35	40	5900	5800	5100	5100	4600	4600	4300	4300 ₅	4100 ₁₀	3900 ₅
	75	5100	5200	4400	4400	4000	4000	3700 ₅	3600	3400	3400 ₁₀

SINGLE SPAN VERANDAH BEAM AS 4055 CLASSIFICATION C1, C2 AND C3 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Verandah span (mm)									
		Single span									
150x42	40	3000	3000	2400	2400	2000	1800	1700	NS	1500	NS
	75	2400	2500	1900	1900	1700	1600	1500	1200	1400 ₅	NS
170x42	40	3300	3300	2700	2700	2300	2100	1900	1400	1700	NS
	75	2700	2800	2200	2200	1900	1900	1700	1600 ₅	1600	1000
190x42	40	3700	3700	3000	2900	2500	2400	2100	1600	1800	1200
	75	3100	3000	2400	2500	2100	2100	1900	1900 ₅	1800	1500 ₂₀
200x42	40	3900	3900	3200	3100	2600	2500	2300	2100	2000	1400
	75	3200	3200	2600	2600	2200	2200	2000	2000 ₅	1900	1600 ₁₅
240x42	40	4500	4500	3800	3700	3100	3000	2700 ₅	2600 ₁₀	2400 ₁₀	1800 ₅
	75	3900	3800	3100	3100	2700	2700 ₁₀	2500 ₁₀	2500 ₂₀	2300 ₁₅	2200 ₂₀
290x42	40	5200	5200	4400	4400	3700 ₅	3500	3200 ₅	3000 ₁₅	2800 ₂₀	2700 ₂₀
	75	4500	4500	3800	3700	3300	3200 ₅	3000 ₁₅	3000 ₂₅	2800 ₂₀	2800 ₃₅
300x42	40	5300	5300	4500	4500	3800 ₅	3700 ₅	3300 ₅	3100 ₁₀	2900 ₁₅	2800 ₂₀
	75	4600	4600	3900	3800	3400	3400 ₁₀	3100 ₁₅	3100 ₂₅	2900 ₃₀	2900 ₄₀
2/150x42	40	3600	3600	3000	3000	2600	2700	2400	2400	2200	2200
	75	3000	3000	2400	2500	2100	2100	1900	1900	1800	1800
2/170x42	40	4100	4100	3300	3300	2900	2900	2700	2700	2500	2600
	75	3400	3400	2700	2800	2400	2400	2200	2200	2000	2000
2/190x42	40	4400	4400	3700	3700	3300	3300	3000	3000	2800	2800
	75	3800	3800	3100	3000	2700	2700	2400	2500	2300	2300
2/200x42	40	4600	4600	3900	3900	3500	3400	3200	3100	2900	2900
	75	4000	4000	3200	3200	2800	2800	2600	2600	2400	2400
2/240x42	40	5200	5200	4500	4500	4100	4100	3800	3800	3500	3500
	75	4600	4500	3900	3800	3400	3400	3100	3100	2900	2900 ₅
2/290x42	40	5900	5900	5200	5200	4700	4700	4400	4400	4200	4200 ₅
	75	5200	5200	4500	4500	4100	4100	3800	3700	3500 ₅	3400
2/300x42	40	6100	6000	5300	5300	4800	4800	4500	4500	4300	4300 ₅
	75	5300	5300	4600	4600	4200	4200	3900	3800	3600 ₅	3600 ₅
2/360x42	40	6900	6800	6000	6000	5500	5500	5200	5200 ₅	4900 ₁₀	4900 ₁₀
	75	6100	6100	5200	5300	4800	4800	4500	4500 ₅	4200 ₁₀	4200 ₁₅
2/400x42	40	7400	7300	6500	6500	6000	5900	5600	5600 ₅	5300 ₁₀	5300 ₁₀
	75	6600	6600	5700	5600	5200	5200	4800 ₅	4800 ₁₀	4600 ₁₀	4600 ₁₅
150x58	40	3300	3200	2600	2700	2300	2200	2000	1800	1700	1300
	75	2700	2700	2100	2100	1900	1900	1700	1600	1600	1500
170x58	40	3700	3700	3000	3000	2600	2600	2300	2200	2000	1600
	75	3000	3000	2400	2500	2100	2100	1900	1900	1800	1800
200x58	40	4200	4200	3500	3500	3100	3000	2700	2600	2400	2300
	75	3600	3500	2900	2900	2500	2500	2300	2300	2100 ₅	2100 ₅
240x58	40	4800	4800	4100	4100	3700	3500	3100	3000	2800 ₅	2700 ₅
	75	4200	4200	3400	3400	3000	3000	2700 ₅	2800 ₁₀	2500 ₅	2600 ₁₅
300x58	40	5600	5600	4900	4900	4400	4400	3900 ₅	3700	3500 ₁₀	3300 ₅
	75	4900	4900	4200	4200	3800	3700	3500 ₁₀	3400 ₅	3200 ₁₀	3200 ₁₅
360x58	40	6400	6400	5600	5500	5100 ₅	5100 ₅	4500 ₅	4500 ₁₀	4000 ₁₅	3900 ₁₀
	75	5600	5600	4800	4800	4400 ₅	4400 ₁₀	4100 ₁₀	4100 ₁₀	3800 ₂₅	3800 ₂₀
400x58	40	6900	6900	6000	6000	5500 ₅	5500 ₁₀	5000 ₁₅	4900 ₂₀	4400 ₁₅	4300 ₂₅
	75	6100	6100	5200	5200	4800 ₁₀	4700 ₅	4400 ₁₅	4400 ₂₅	4200 ₂₅	4200 ₂₀
450x58	40	7500	7500	6500	6500	6000 ₅	6000 ₁₀	5400 ₂₀	5400 ₂₀	4900 ₂₅	4900 ₃₀
	75	6600	6600	5700	5700 ₅	5200 ₁₀	5200 ₁₅	4800 ₂₅	4800 ₃₀	4600 ₃₀	4600 ₃₅
300x75	40	5900	5900	5200	5200	4700	4700	4400	4400	3900	3800
	75	5200	5200	4500	4500	4100	4100	3700	3700	3500 ₁₀	3400 ₅
400x75	40	7200	7200	6300	6300	5800	5800	5400 ₅	5400 ₁₀	5000 ₁₅	5000 ₂₀
	75	6400	6400	5500	5500	5000	5000 ₅	4700 ₅	4700 ₁₀	4500 ₁₅	4400 ₂₀
525x75	40	8700	8600	7700	7600	7100 ₅	7000 ₅	6600 ₁₀	6600 ₁₀	6300 ₂₅	6200 ₂₀
	75	7700	7800	6700	6700	6200 ₁₀	6100 ₅	5800 ₁₅	5700 ₂₀	5500 ₂₅	5400 ₃₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

CONTINUOUS SPAN VERANDAH BEAM AS 4055 CLASSIFICATION C1, C2 AND C3

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Verandah span (mm)									
		Continuous span									
150x35	40	3200	3200	2300	2100	1600	1400	1400	NS	1000	NS
	75	3100	3100	2400	2500	1600	1500	1500	NS	1300	NS
170x35	40	3600	3500	2600	2600	1700	1600	1500	1000	1200	NS
	75	3500	3500	2700	2700	2200	1600	1600	1300	1400	NS
190x35	40	4000	4000	2800	2800	2200	1700	1600	1300	1400	NS
	75	3900	3900	2900	2900	2300	1900	1700	1400	1500 ₅	1000
200x35	40	4200	4200	2900	2900	2300	1700	1700	1400	1500	1000
	75	4100	4100	3100	3100	2500	2600 ₁₀	1700	1500	1600 ₁₀	1200
240x35	40	5000	5000	3500	3400	2800	2800	2200	1900	1900 ₅	1900 ₅
	75	4700	4600	3700	3600	3000 ₂₀	3000 ₂₀	2500 ₃₀	2700 ₄₀	1900 ₂₅	1900 ₃₀
2/150x35	40	4500	4400	3500	3400	2800	2800	2400	2600	2100	1600
	75	3800	3800	3100	3100	2700	2700	2500	2500	2200	1600
2/170x35	40	4900	4900	3900	3800	3200	3100	2700	2800	2300	1800
	75	4300	4200	3500	3500	3100	3000	2800	2800	2600	2600
2/190x35	40	5300	5300	4300	4300	3500	3400	3000	2900	2600	2700
	75	4600	4600	3900	3900	3400	3400	3100	2900	2800	2800
2/200x35	40	5500	5500	4500	4500	3700	3600	3200	2900	2700	2800
	75	4800	4800	4100	4100	3600	3600	3300	3100	2900	2900
2/240x35	40	6200	6200	5300	5300	4300	4300	3700	3700	3300	3100
	75	5500	5500	4700	4600	4200	4200	3900 ₅	3900 ₅	3500 ₂₀	3100 ₅
2/290x35	40	7000	7100	6200	6200	5200	5200	4500	4400	4000 ₁₀	4000 ₁₀
	75	6300	6300	5400	5400	4900	4900	4600 ₂₅	4500 ₂₀	4100 ₃₅	4100 ₄₀
2/300x35	40	7100	7300	6300	6300	5300	5300	4600	4500	4100 ₁₅	4100 ₁₅
	75	6400	6400	5500	5500	5000 ₅	5000 ₅	4700 ₂₅	4700 ₂₅	4300 ₄₀	4300 ₄₀
150x42	40	3500	3500	2500	2600	2000	1600	1600	1200	1400	NS
	75	3300	3200	2600	2600	2100	2000	1600	1300	1500	NS
170x42	40	4000	4000	2800	2800	2200	2100	1700	1400	1500	NS
	75	3700	3700	2900	2900	2400	2400	1700	1600	1600	1200
190x42	40	4400	4400	3100	3100	2500	2600	1800	1600	1600	1200
	75	4100	4100	3200	3200	2600	2700	2200	1600	1700	1400 ₅
200x42	40	4600	4600	3300	3200	2600	2700	2200	1700	1600	1300
	75	4300	4200	3400	3300	2800	2800	2300 ₁₀	1700	1700	1400
240x42	40	5500	5500	3900	3800	3100	3100	2500	2700 ₅	2000	1600 ₅
	75	4900	4900	4000	4000	3300 ₁₀	3100 ₅	2800 ₂₅	2800 ₃₀	2300 ₂₅	1900 ₁₀
290x42	40	6400	6400	4600	4500	3700 ₅	3600	3200 ₁₅	3200 ₁₅	2500 ₁₅	2800 ₂₅
	75	5600	5600	4800 ₁₀	4700 ₁₀	3900 ₃₀	3900 ₃₀	3300 ₄₅	3200 ₄₅	3000 ₆₅	2900 ₆₅
300x42	40	6500	6600	4700	4700	3800 ₁₀	3700 ₅	3300 ₂₀	3200 ₁₅	2900 ₃₀	2800 ₃₀
	75	5700	5700	4900 ₁₀	4900 ₁₀	4000 ₃₅	4000 ₃₅	3500 ₅₀	3200 ₄₅	3100 ₇₀	3000 ₆₅
2/150x42	40	4600	4600	3800	3700	3100	3100	2700	2700	2400	2500
	75	4100	4000	3300	3200	2900	2900	2600	2600	2400	2400
2/170x42	40	5100	5100	4300	4300	3500	3400	3000	2900	2700	2700
	75	4400	4400	3700	3700	3200	3200	3000	3000	2800	2700
2/190x42	40	5500	5500	4700	4700	3800	3800	3300	3300	2900	2900
	75	4800	4800	4100	4100	3600	3600	3300	3300	3100	2900
2/200x42	40	5700	5700	4900	5000	4000	4000	3500	3400	3100	2900
	75	5000	5000	4300	4200	3800	3800	3500	3500	3200	2900
2/240x42	40	6400	6500	5600	5600	4800	4700	4100	4100	3700	3600
	75	5700	5700	4900	4900	4400	4400	4100	4100	3800 ₁₀	3800 ₁₀
2/290x42	40	7200	7400	6400	6400	5700	5600	4900	4900	4400	4400
	75	6500	6500	5600	5600	5100	5100	4800 ₁₀	4700 ₁₀	4500 ₂₅	4500 ₂₅
2/300x42	40	7300	7600	6500	6600	5800	5800	5000	5100	4500 ₅	4400 ₅
	75	6600	6700	5700	5700	5200	5200	4900 ₁₀	4900 ₁₀	4600 ₃₀	4600 ₃₀
2/360x42	40	8200	8600	7300	7500	6800	6800	5900 ₁₀	5800 ₁₀	5200 ₂₀	5300 ₂₀
	75	7400	7600	6500	6500	6000 ₅	6000 ₅	5600 ₂₅	5600 ₂₅	5300 ₄₅	5300 ₄₅
2/400x42	40	8700	9200	7700	8100	7200 ₅	7400 ₅	6400 ₂₀	6400 ₂₀	5700 ₃₀	5700 ₃₀
	75	7800	8200	7000	7100	6400 ₁₀	6400 ₁₀	6000 ₃₅	6100 ₃₅	5700 ₆₀	5700 ₆₀

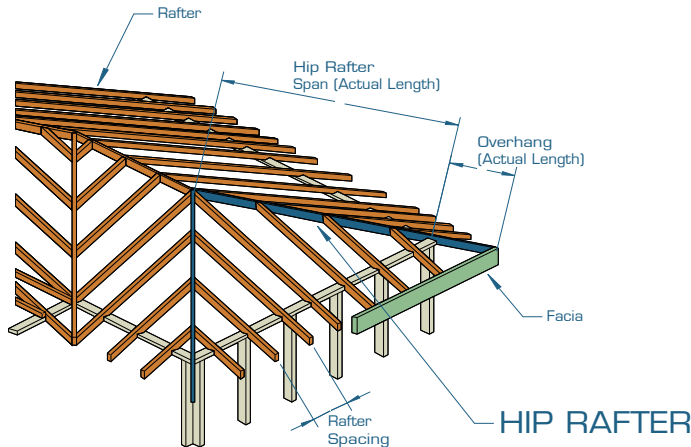
CONTINUOUS SPAN VERANDAH BEAM AS 4055 CLASSIFICATION C1, C2 AND C3 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Verandah span (mm)									
		Continuous span									
150x58	40	4200	4200	2900	2900	2400	2500	2100	1600	1600	1400
	75	3600	3600	2900	2900	2500	2500	2200	2000	1600	1500
170x58	40	4700	4700	3300	3200	2700	2700	2300	2100	1700	1600
	75	4100	4100	3300	3200	2800	2800	2400	2600	2200	1700
200x58	40	5300	5300	3800	3800	3100	3100	2700	2700	2300	1700
	75	4600	4600	3900	3900	3300	3200	2800	2800	2300	2100
240x58	40	6000	6000	4500	4500	3700	3600	3200	3100	2800	2800
	75	5200	5200	4500	4400	3900	3800	3300 ₁₀	3100	3000 ₂₀	3000 ₂₀
300x58	40	6900	7000	5600	5600	4500	4500	3900 ₅	3900 ₅	3500 ₁₅	3200 ₁₀
	75	6200	6200	5300	5300	4800 ₁₅	4700 ₁₅	4100 ₃₀	4100 ₃₀	3600 ₄₅	3300 ₃₀
360x58	40	7700	8000	6500	6500	5300 ₁₀	5300 ₁₀	4600 ₂₀	4500 ₂₀	4100 ₃₅	4000 ₃₀
	75	6900	7000	6000	6000	5500 ₃₅	5500 ₃₅	4800 ₅₀	4700 ₅₀	4200 ₇₀	4200 ₇₀
400x58	40	8200	8600	7100	7000	5700 ₁₅	5700 ₁₅	5000 ₃₀	4900 ₃₀	4400 ₄₅	4400 ₄₅
	75	7400	7600	6500 ₁₀	6500 ₁₀	5900 ₄₀	6000 ₄₅	5200 ₆₅	5200 ₆₅	4700 ₉₀	4600 ₈₅
450x58	40	8800	9300	7800 ₁₀	7800 ₁₀	6300 ₂₅	6300 ₂₅	5500 ₄₅	5500 ₄₅	4900 ₆₀	4800 ₆₀
	75	7900	8300	7000 ₁₅	7100 ₂₀	6500 ₅₅	6400 ₅₅	5700 ₈₅	5700 ₈₅	5100 ₁₀₀	5100 ₁₀₀
300x75	40	7200	7400	6300	6300	5200	5200	4500	4400	4000 ₅	4000 ₅
	75	6500	6500	5600	5600	5100	5100	4700 ₂₀	4600 ₁₅	4100 ₃₀	4100 ₃₀
400x75	40	8500	9000	7600	7900	6500 ₅	6500 ₅	5700 ₁₅	5600 ₁₅	5100 ₃₀	5100 ₃₀
	75	7700	8000	6800	6900	6300 ₂₀	6300 ₂₀	5900 ₄₅	5900 ₄₅	5300 ₆₅	5300 ₆₅
525x75	40	10000	10800	8900	9500 ₅	8200 ₃₀	8200 ₃₀	7100 ₄₅	7100 ₄₅	6300 ₆₀	6300 ₆₀
	75	9000	9700	8000 ₁₀	8400 ₁₀	7400 ₄₀	7700 ₄₅	7100 ₆₀	7200 ₆₅	6600 ₁₀₀	6600 ₁₀₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

HIP RAFTER - SHEET AND TILE ROOF AS 4055 WIND CLASSIFICATION N1, N2, N3, C1, C2 & C3



EXAMPLE:

wind speed = N3
 roof load = 40 kg/m² (sheet roof)
 hip rafter span = 4500 mm (single span)
 rafter spacing = 600 mm

Enter column at (N1, N2 & N3) wind speed, 600 mm rafter spacing and read down to span equal to or greater than 4500 mm for a 40 kg/m² roof load

ADOPT:

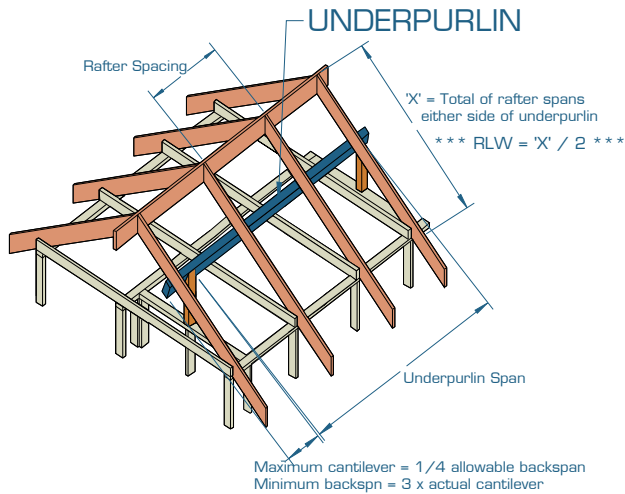
SmartLVL 15 — 290x42

Wind speed		N1, N2 & N3				C1, C2 & C3			
Rafter spacing (mm)		600		1200		600		1200	
		Maximum rafter span + overhang span (mm)							
Member size DxB (mm)	Roof & ceiling mass (kg/m ²)	span	overhang	span	overhang	span	overhang	span	overhang
		Single span				Single span			
130x42	40	2950	475	2950	325	2700	375	2700	250
	75	2700	500	2700	350	2700	375	2700	250
140x42	40	3050	500	3050	350	2850	375	2850	275
	75	2800	525	2800	350	2800	400	2800	275
150x42	40	3200	525	3200	375	2950	400	2950	275
	75	2950	550	2950	375	2950	425	2950	275
170x42	40	3450	600	3450	400	3200	450	3200	300
	75	3150	625	3150	425	3150	475	3150	325
190x42	40	3700	650	3700	450	3400	500	3400	325
	75	3400	675	3400	450	3400	500	3400	350
200x42	40	3800	675	3800	450	3550	525	3550	350
	75	3500	700	3500	475	3500	525	3500	350
240x42	40	4250	775	4250	525	3950	600	3950	400
	75	3900	775	3900	550	3900	600	3900	425
290x42	40	4750	900	4750	625	4400 _s	700	4400 _s	475
	75	4350	850	4350	650	4350 _s	700	4350 _s	475
300x42	40	4850	925	4850	650	4500 _s	725	4500 _s	475
	75	4450	850	4450	675	4450 ₁₀	725	4450 ₁₀	500
130x58	40	3150	575	3150	400	2900	425	2900	300
	75	2850	550	2850	400	2850	450	2850	300
150x58	40	3400	625	3400	450	3150	500	3150	325
	75	3150	625	3150	450	3150	500	3150	350
170x58	40	3700	700	3700	475	3400	550	3400	375
	75	3350	650	3350	500	3350	550	3350	375
200x58	40	4050	800	4050	550	3750	625	3750	425
	75	3700	700	3700	575	3700	625	3700	425
240x58	40	4550	900	4550	650	4200	725	4200	475
	75	4150	825	4150	675	4150	725	4150	500
300x58	40	5200	1000	5200	775	4800	850	4800	575
	75	4700	900	4700	800	4700	875	4700	600
360x58	40	5800	1150	5800	900	5350 _s	1000	5350 _s	675
	75	5250	1050	5250	925	5250 ₁₀	1025	5250 ₁₀	700
400x58	40	6150	1225	6150	975	5700 ₁₀	1075	5700 ₁₀	725
	75	5600	1100	5600	1000	5600 ₁₅	1100	5600 ₁₅	750
300x75	40	5450	1050	5450	875	5050	975	5050	675
	75	4950	950	4950	925	4950	950	4950	700
400x75	40	6500	1300	6500	1125	6000 _s	1200	6000 _s	650
	75	5850	1150	5850	1150	5850 ₁₀	1150	5700 _s	650

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Minimum backspan = 200% of overhang
4. Maximum birdsmouth depth = 30% of depth
5. End bearing length = 35 at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end support
6. Construction loads shall not be applied to overhangs until a 190x19 mm (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
7. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

UNDERPURLINS - SHEET AND TILED ROOF AS 4055 WIND CLASSIFICATION N1, N2 & N3



EXAMPLE:

wind speed = N3
 rafter spacing = 1200 mm
 roof load = 20 kg/m² (sheet roof)
 underpurlin span = 3500 mm (single span)

'X' (total of rafter span) = 5400 mm
 roof load width = 'X' / 2 = 5400 / 2 = 2700 mm

Enter single span table at 2700 mm roof load width column, 1200 rafter spacing and read down to span equal to or greater than 3500 mm in a 20 kg/m² row

ADOPT:

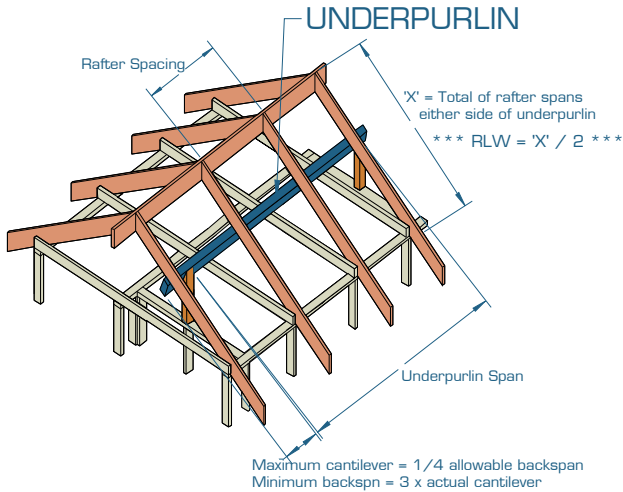
SmartLVL 15 — 170x58

Roof load width (mm)		1800		2700		3600		1800		2700		3600	
rafter spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Single span						Continuous span					
		Maximum Underpurlin span (mm)											
90x35	20	2000	2000	1800	1600	1600	1200	2300	2500	1900	1900	1600	1400
	60	1400	1200	1300	1000	1100	NS	1900	1900	1600	1500	1500	1300
120x35	20	2700	2700	2400	2400	2100	2000	3000	3000	2500	2600	2100	2100
	60	1900	1900	1600	1600	1500	1400	2600	2600	2200	2100	2000	2000
130x35	20	2900	2900	2600	2600	2300	2200	3300	3200	2700	2700	2300	2200
	60	2100	2000	1800	1800	1600	1500	2800	2800	2400	2400	2200 ₅	2100 ₅
90x42	20	2200	2200	1900	1900	1700	1400	2600	2700	2100	2000	1800	1800
	60	1500	1400	1300	1100	1200	1000	2000	2000	1800	1800	1600	1400
120x42	20	2900	2900	2500	2600	2300	2200	3400	3300	2700	2700	2300	2500
	60	2000	2000	1700	1700	1600	1500	2700	2700	2400	2400	2100	2100
130x42	20	3100	3100	2700	2800	2500	2400	3600	3500	2900	2900	2600	2600
	60	2200	2200	1900	1900	1700	1700	3000	3000	2600	2600	2300	2300
140x42	20	3300	3300	2900	2900	2700	2600	3900	3800	3100	3100	2700	2800
	60	2300	2400	2100	2000	1900	1900	3200	3100	2800	2800	2500 ₅	2500
150x42	20	3600	3500	3200	3100	2800	2800	4100	4100	3400	3300	2900	2900
	60	2500	2600	2200	2200	2000	2000	3400	3400	3000	3000	2700 ₁₀	2700 ₁₀
90x58	20	2400	2500	2100	2100	1900	1900	3000	3000	2500	2600	2100	2100
	60	1700	1600	1500	1300	1300	1100	2300	2200	2000	1900	1800	1800
130x58	20	3400	3400	3000	3000	2800	2800	4300	4300	3500	3400	3000	3000
	60	2400	2500	2100	2100	1900	1900	3300	3200	2900	2900	2600	2600
150x58	20	3900	3900	3500	3400	3200	3200	4900	5000	4000	4000	3400	3300
	60	2800	2800	2500	2500	2200	2200	3800	3800	3300	3300	3000	3000
170x58	20	4400	4400	3900	3900	3600	3600	5500	5500	4400	4400	3800	3800
	60	3200	3100	2800	2800	2500	2600	4300	4300	3800	3700	3400	3400
200x58	20	5200	5200	4600	4600	4200	4200	6000	6000	5200	5200	4500	4400
	60	3700	3700	3300	3200	3000	3000	5000	5100	4400	4400	4000 ₁₅	4000 ₁₅
300x75	20	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000 ₅	6000 ₅
	60	6000	6000	5300	5300	4900	4900	6000	6000	6000 ₅	6000 ₅	6000 ₃₀	6000 ₃₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Maximum cantilever = 1/4 allowable backspan
3. Minimum backspan = 3 x actual cantilever
4. End bearing length = 45 mm at end supports and 45 mm at internal for continuous member. Subscript values indicate the minimum additional bearing length where required to be greater than 45 mm at end support and 45 mm at internal for continuous member
5. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

UNDERPURLINS - SHEET AND TILED ROOF AS 4055 WIND CLASSIFICATION C1, C2 & C3



EXAMPLE:

wind speed = C3
rafter spacing = 1200 mm
roof load = 20 kg/m² (sheet roof)
underpurlin span = 3500 mm (single span)

'X' (total of rafter span) = 5400 mm
roof load width = 'X' / 2 = 5400 / 2 = 2700 mm

Enter single span table at 2700 mm roof load width column, 1200 rafter spacing and read down to span equal to or greater than 3500 mm in a 20 kg/m² row

ADOPT:

SmartLVL 15 — 190x58

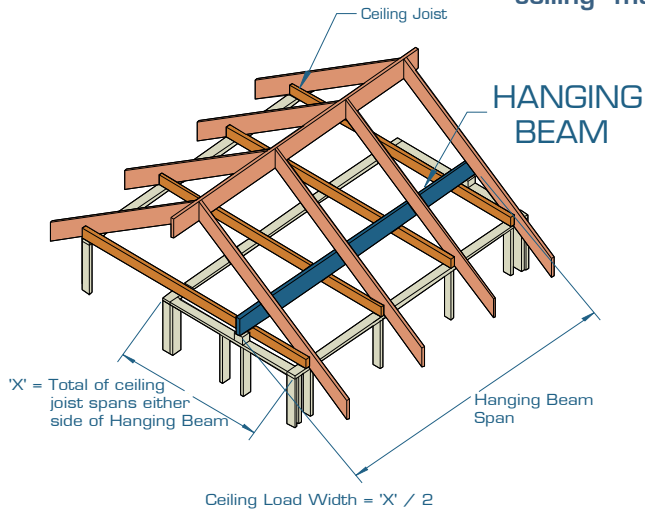
Roof load width (mm)		1800		2700		3600		1800		2700		3600	
rafter spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m ²)	Single span						Continuous span					
		Maximum Underpurlin span (mm)											
90x35	20	1800	1500	1500	1000	1300	NS	1900	1900	1400	1400	1300	NS
	60	1400	1200	1300	1000	1100	NS	1900	1900	1600	1400	1400	NS
120x35	20	2400	2400	1900	1700	1600	1300	2500	2600	2000	1800	1500	1500
	60	1900	1900	1600	1600	1500	1400	2600	2600	2100	2000	1600 ₅	1500
130x35	20	2600	2600	2100	2000	1800	1500	2700	2700	2200	2100	1700	1500
	60	2100	2000	1800	1800	1600	1500	2700	2800	2200 ₅	2100 ₅	1800 ₁₅	1500 ₅
90x42	20	2000	1900	1600	1200	1400	NS	2100	2000	1700	1400	1400	1000
	60	1500	1400	1300	1100	1200	NS	2000	2000	1700	1700	1400	1300
120x42	20	2700	2600	2200	2000	1800	1500	2700	2700	2200	2100	1900	1500
	60	2000	2000	1700	1700	1600	1500	2700	2700	2200	2200	1900 ₅	1500
130x42	20	2900	2800	2400	2200	2000	1800	2900	2900	2400	2500	2000	2000
	60	2200	2200	1900	1900	1700	1700	3000	3000	2400	2600	2100 ₁₀	2000 ₅
140x42	20	3100	3000	2500	2400	2200	2000	3100	3100	2600	2600	2200	2100
	60	2300	2400	2100	2000	1900	1900	3200	3100	2600 ₅	2700 ₅	2200 ₁₅	2100 ₁₀
150x42	20	3300	3100	2700	2600	2300	2200	3300	3300	2700	2700	2300	2200
	60	2500	2600	2200	2200	2000	2000	3400	3300	2800 ₁₀	2800 ₁₀	2400 ₂₀	2500 ₂₅
90x58	20	2400	2400	1900	1700	1600	1300	2500	2600	2000	1900	1700	1700
	60	1700	1600	1500	1300	1300	1100	2300	2200	2000	1900	1700	1700
130x58	20	3400	3300	2800	2700	2400	2300	3400	3400	2800	2800	2400	2600
	60	2400	2500	2100	2100	1900	1900	3300	3200	2900	2900	2500	2600
150x58	20	3900	3800	3200	3000	2700	2700	3900	3900	3200	3200	2800	2800
	60	2800	2800	2500	2500	2200	2200	3800	3800	3300	3200	2800 ₁₀	2800 ₁₀
170x58	20	4400	4300	3600	3400	3000	2900	4400	4400	3600	3500	3100	3100
	60	3200	3100	2800	2800	2500	2600	4300	4300	3700 ₅	3600 ₅	3200 ₁₅	3100 ₁₅
200x58	20	5100	5100	4100	4000	3600	3400	5100	5200	4200	4200	3600 ₁₀	3500 ₁₀
	60	3700	3700	3300	3200	3000	3000	5000	5100	4200 ₁₅	4200 ₁₅	3700 ₃₀	3600 ₃₀
300x75	20	6000	6000	6000	6000	5900	5800	6000	6000	6000 ₁₀	6000 ₁₀	6000 ₃₅	5900 ₃₅
	60	6000	6000	5300	5300	4900	4900	6000	6000	6000 ₂₅	6000 ₂₅	6000 ₅₅	6000 ₅₅

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Maximum cantilever = 1/4 allowable backspan
3. Minimum backspan = 3 x actual cantilever
4. End bearing length = 45 mm at end supports and 45 mm at internal for continuous member. Subscript values indicate the minimum additional bearing length where required to be greater than 45 mm at end support and 45 mm at internal for continuous member
5. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

HANGING BEAM SUPPORTING CEILING LOADS ONLY AS 4055 CLASSIFICATION N1, N2 AND N3

ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = N3
hanging beam span = 4200 mm
X = 5000 mm

ceiling load width = $X/2 = 5000/2 = 2500$ mm

Enter column at 3000 mm ceiling load width & read down to a span greater than or equal to 4200 mm

ADOPT:

SmartLVL 15 — 2/190x35

Ceiling load width (mm)	1800	2400	3000	3600	4200	4800
Member size DxB (mm)	Maximum Hanging Beam span (mm)					
150x35	3450	3100	2850	2650	2500	2350
170x35	3900	3550	3250	3000	2850	2700
190x35	4350	3950	3600	3350	3150	3000
200x35	4550	4150	3800	3550	3350	3150
240x35	5200	4800	4550	4250	4000	3750
2/150x35	4200	3850	3550	3300	3100	2950
2/170x35	4700	4350	4000	3750	3500	3350
2/190x35	5050	4750	4450	4150	3900	3700
2/200x35	5250	4900	4650	4400	4100	3900
2/240x35	5950	5550	5250	5000	4800	4600
2/290x35	6750	6350	6050	5750	5500	5300
2/300x35	6900	6500	6150	5900	5650	5450
150x42	3650	3300	3050	2850	2650	2500
170x42	4100	3750	3450	3200	3000	2850
190x42	4550	4150	3850	3550	3350	3150
200x42	4750	4350	4000	3750	3500	3350
240x42	5400	5000	4700	4500	4200	4000
290x42	6150	5750	5400	5150	4900	4700
300x42	6300	5900	5550	5250	5050	4850
2/150x42	4450	4050	3750	3500	3300	3150
2/170x42	4850	4550	4200	3950	3700	3550
2/190x42	5250	4900	4650	4400	4150	3950
2/200x42	5450	5100	4800	4600	4350	4150
2/240x42	6150	5800	5500	5200	5000	4800
2/290x42	6950	6600	6250	5950	5750	5500
2/300x42	7150	6750	6400	6100	5850	5650
2/360x42	8050	7600	7250	6950	6700	6450
2/400x42	8600	8150	7800	7450	7200	6950
150x58	4000	3650	3350	3150	2950	2800
170x58	4500	4100	3800	3550	3300	3150
200x58	5050	4700	4450	4150	3900	3700
240x58	5750	5350	5050	4800	4600	4400
300x58	6700	6300	5950	5650	5400	5200
360x58	7550	7100	6750	6450	6200	5950
400x58	8100	7650	7250	6950	6650	6400
450x58	8800	8300	7900	7550	7250	7000
300x75	7000	6600	6250	6000	5750	5500
400x75	8450	8000	7650	7300	7050	6800
525x75	10100	9600	9200	8800	8500	8200

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum ceiling mass of 20 (kg/m²).
3. Minimum bearing length = 70 mm at end supports.
4. Restraint value for slenderness calculations is 1500 mm
5. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

HANGING BEAM SUPPORTING CEILING LOADS ONLY AS 4055 CLASSIFICATION C1, C2 AND C3

ceiling mass - 20 kg/m²

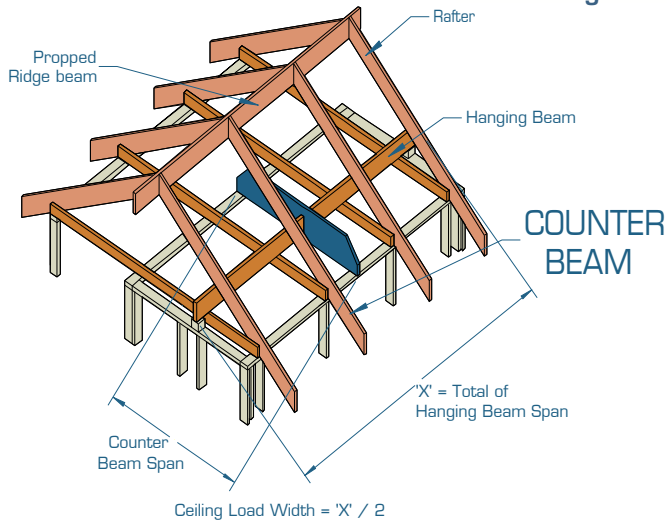
ceiling load width (mm)	1800	2400	3000	3600	4200	4800
Member size DxB (mm)	Maximum Hanging Beam span (mm)					
150x35	3150	2750	2450	2250	2050	1950
170x35	3550	3100	2750	2500	2350	2150
190x35	3950	3400	3050	2800	2550	2400
200x35	4150	3600	3200	2900	2700	2500
240x35	4850	4200	3750	3450	3150	2950
2/150x35	3950	3600	3350	3150	3000	2850
2/170x35	4500	4050	3800	3550	3400	3250
2/190x35	5000	4550	4200	3950	3750	3600
2/200x35	5250	4800	4450	4200	3950	3800
2/240x35	5950	5550	5250	5000	4750	4450
2/290x35	6750	6350	6050	5750	5500	5300
2/300x35	6900	6500	6150	5900	5650	5450
150x42	3350	3050	2700	2450	2250	2100
170x42	3800	3400	3000	2750	2550	2400
190x42	4200	3750	3350	3050	2800	2650
200x42	4450	3900	3500	3200	2950	2750
240x42	5300	4600	4100	3750	3450	3250
290x42	6150	5450	4900	4450	4100	3850
300x42	6300	5650	5050	4600	4250	3950
2/150x42	4200	3800	3550	3350	3150	3050
2/170x42	4750	4300	4000	3800	3600	3450
2/190x42	5250	4850	4500	4200	4000	3850
2/200x42	5450	5100	4700	4450	4200	4050
2/240x42	6150	5800	5500	5200	5000	4800
2/290x42	6950	6600	6250	5950	5750	5500
2/300x42	7150	6750	6400	6100	5850	5650
2/360x42	8050	7600	7250	6950	6700	6450
2/400x42	8600	8150	7800	7450	7200	6950
150x58	3700	3350	3150	2900	2650	2500
170x58	4200	3800	3550	3250	3000	2800
200x58	4950	4500	4100	3750	3450	3250
240x58	5750	5350	4850	4400	4050	3800
300x58	6700	6300	5900	5400	5000	4650
360x58	7550	7100	6750	6250	5750	5400
400x58	8100	7650	7250	6800	6300	5850 ₅
450x58	8800	8300	7900	7450	6900 ₅	6450 ₁₀
300x75	7000	6600	6250	6000	5650	5300
400x75	8450	8000	7650	7300	7050	6650
525x75	10100	9600	9200	8800	8500 ₅	8200 ₁₀

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum ceiling mass of 20 (kg/m²).
3. Minimum bearing length = 70 mm at end supports.
4. Restraint value for slenderness calculations is 1500 mm
5. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering
6. Values in subscript indicate extra bearing length in excess of the min 70 mm

COUNTER BEAM SUPPORTING HANGING BEAM AS 4055 CLASSIFICATION N1, N2 AND N3

ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = N3
total of hanging beam span = 6400 mm
ceiling load width = 'X' / 2 = 6400 / 2 = 3200 mm

counter beam span = 4500 mm

Enter column at 3600 mm ceiling load width and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLVL 15 — 2/190x35

Ceiling load width (mm)	600	1800	2400	3000	3600	4200	4800	5400	6600
Member size DxB (mm)	Maximum Counter Beam span (mm)								
150x35	5000	3900	3550	3350	3150	3000	2900	2800	2500
170x35	5400	4350	4050	3750	3550	3400	3250	3100	2800
190x35	5800	4750	4500	4200	3950	3800	3650	3450	3100
200x35	6000	4950	4650	4400	4200	4000	3800	3600	3250
240x35	6750	5600	5300	5050	4850	4700	4500	4250	3850
2/150x35	5500	4650	4350	4100	3900	3700	3550	3450	3250
2/170x35	5950	5050	4800	4550	4350	4200	4050	3900	3650
2/190x35	6400	5450	5150	4950	4750	4600	4500	4350	4100
2/200x35	6600	5650	5350	5100	4950	4800	4650	4550	4300
2/240x35	7350	6350	6050	5800	5600	5450	5300	5150	4950
2/290x35	8200	7200	6900	6600	6400	6200	6050	5900	5650
2/300x35	8350	7350	7050	6750	6550	6350	6200	6050	5800
150x42	5150	4100	3750	3550	3350	3200	3050	2950	2750
170x42	5550	4550	4250	4000	3750	3600	3450	3350	3100
190x42	6000	4950	4650	4450	4200	4000	3850	3700	3400
200x42	6200	5100	4850	4600	4400	4200	4050	3900	3550
240x42	6950	5800	5500	5250	5050	4900	4750	4600	4200
290x42	7800	6600	6250	6000	5800	5600	5450	5300	5000
300x42	7950	6750	6400	6150	5900	5750	5550	5450	5150
2/150x42	5650	4800	4550	4300	4100	3900	3750	3650	3450
2/170x42	6100	5200	4950	4750	4550	4400	4250	4100	3850
2/190x42	6500	5600	5350	5100	4950	4800	4650	4550	4300
2/200x42	6700	5800	5550	5300	5100	4950	4850	4700	4500
2/240x42	7450	6550	6250	6000	5800	5650	5500	5350	5150
2/290x42	8350	7400	7100	6850	6600	6450	6250	6150	5900
2/300x42	8500	7550	7250	7000	6750	6600	6400	6300	6050
2/360x42	9400	8500	8150	7900	7650	7450	7300	7100	6850
2/400x42	10000	9050	8750	8450	8200	8000	7800	7650	7350
150x58	5400	4450	4150	3900	3700	3500	3400	3250	3050
170x58	5800	4850	4600	4350	4150	3950	3800	3700	3450
200x58	6450	5450	5150	4950	4750	4600	4450	4300	4050
240x58	7200	6150	5850	5600	5400	5250	5100	4950	4750
300x58	8250	7150	6800	6550	6300	6150	5950	5800	5550
360x58	9150	8050	7700	7400	7150	6950	6800	6600	6350
400x58	9750	8650	8250	7950	7700	7500	7300	7150	6850
450x58	10450	9300	8950	8600	8350	8100	7900	7750	7450
300x75	8400	7450	7100	6850	6650	6450	6300	6150	5900
400x75	9900	8950	8600	8300	8050	7850	7650	7500	7200
525x75	11550	10600	10200	9900	9650	9400	9200	9050	8700

COUNTER BEAM SUPPORTING HANGING BEAM AS 4055 CLASSIFICATION C1, C2 AND C3

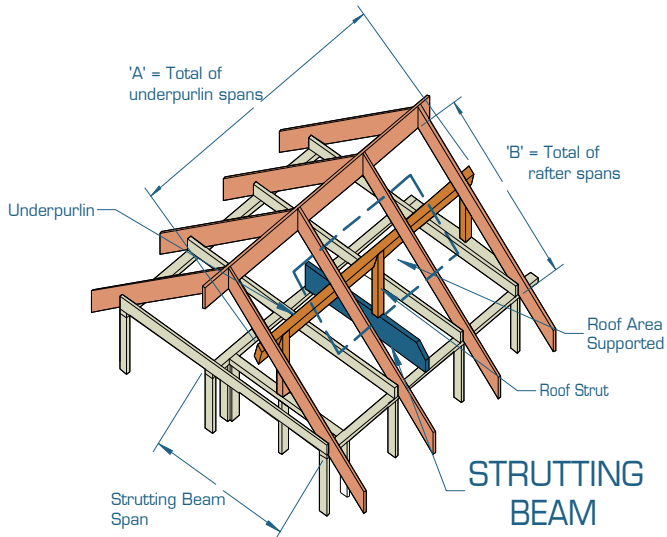
ceiling mass - 20 kg/m²

Ceiling load width (mm)	600	1800	2400	3000	3600	4200	4800	5400	6600
Member size DxB (mm)	Maximum Counter Beam span (mm)								
150x35	5000	3200	2750	2500	2250	2100	1950	1850	1650
170x35	5400	3600	3100	2800	2550	2350	2200	2050	1850
190x35	5800	3950	3450	3050	2800	2600	2400	2300	2050
200x35	6000	4150	3600	3200	2950	2700	2550	2400	2150
240x35	6750	4900	4250	3800	3450	3200	3000	2800	2550
2/150x35	5500	4650	4200	3750	3400	3150	2950	2800	2500
2/170x35	5950	5050	4700	4200	3850	3550	3300	3100	2800
2/190x35	6400	5450	5150	4650	4250	3900	3650	3450	3100
2/200x35	6600	5650	5350	4850	4450	4100	3850	3600	3250
2/240x35	7350	6350	6050	5700	5250	4850	4550	4250	3850
2/290x35	8200	7200	6900	6600	6200	5750	5400	5050	4600
2/300x35	8350	7350	7050	6750	6400	5900	5550	5200	4700
150x42	5150	3500	3050	2700	2500	2300	2150	2000	1800
170x42	5550	3950	3400	3050	2800	2550	2400	2250	2050
190x42	6000	4350	3750	3350	3050	2850	2650	2500	2250
200x42	6200	4550	3950	3500	3200	3000	2800	2600	2350
240x42	6950	5350	4650	4150	3800	3500	3300	3100	2800
290x42	7800	6350	5500	4950	4500	4150	3900	3650	3300
300x42	7950	6550	5700	5100	4650	4300	4000	3800	3400
2/150x42	5650	4800	4550	4100	3750	3450	3250	3050	2750
2/170x42	6100	5200	4950	4600	4200	3900	3650	3400	3100
2/190x42	6500	5600	5350	5100	4650	4300	4000	3800	3400
2/200x42	6700	5800	5550	5300	4850	4500	4200	3950	3600
2/240x42	7450	6550	6250	6000	5700	5300	4950	4700	4250
2/290x42	8350	7400	7100	6850	6600	6300	5900	5550	5000
2/300x42	8500	7550	7250	7000	6750	6450	6050	5700	5200
2/360x42	9400	8500	8150	7900	7650	7450	7000	6650	6000
2/400x42	10000	9050	8750	8450	8200	8000	7650	7200	6550
150x58	5400	4150	3600	3200	2900	2700	2500	2400	2150
170x58	5800	4600	4000	3600	3250	3000	2800	2650	2400
200x58	6450	5350	4650	4150	3800	3500	3250	3100	2800
240x58	7200	6150	5450	4900	4450	4150	3850	3650	3300
300x58	8250	7150	6650	5950	5450	5050	4700	4450	4000
360x58	9150	8050	7700	6900	6300	5850	5500	5150	4650
400x58	9750	8650	8250	7500	6900	6400	6000	5650	5100
450x58	10450	9300	8950	8250	7550	7000	6550	6200	5600
300x75	8400	7450	7100	6750	6200	5750	5350	5050	4600
400x75	9900	8950	8600	8300	7800	7250	6800	6400	5800
525x75	11550	10600	10200	9900	9650	9000	8450	7950	7250

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
3. The above table was based on a maximum ceiling mass of 20 (kg/m²).
4. Minimum bearing length = 70 mm at end supports.
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering
5. Top edge of Counter beams with D/B > 3 shall be laterally restrained as per details on page 5

STRUTTING BEAM SUPPORTING UNDERPURLINS AS 4055 CLASSIFICATION N1, N2 AND N3



EXAMPLE:

wind speed = N3
 sheet roof = 40 kg/m²
 total of underpurlin span 'A' = 5000 mm
 total of rafter span 'B' = 4200 mm
 roof area supported = (A/2) x (B/2)
 = (5000/2) x (4200/2)
 = 5250000 mm² [Convert to m²]
 = 5250000/1000000 = 5.25 m²

strutting beam span = 4500 mm

Enter column at 6 m² roof area supported and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLVL 15 — 2/240x35

Roof area supported (m ²)		2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting Beam span (mm)					
130x35	20	3050	2500	1650	NS	NS	NS
	60	2350	1650	1350	NS	NS	NS
140x35	20	3400	2800	1900	1450	NS	NS
	60	2600	1850	1550	NS	NS	NS
150x35	20	3750	3100	2150	1600	NS	NS
	60	2900	2050	1700	1150	NS	NS
170x35	20	4550	3700	2750	2050	1500	NS
	60	3450	2500	2050	1750	NS	NS
190x35	20	5250	4300	3350	2500	2000	1250
	60	4000	2950	2400	2100	1550	NS
200x35	20	5500	4600	3650	2750	2200	1600
	60	4300	3150	2600	2250	2000	1050
240x35	20	6600	5850	4950	3800	3050	2550
	60	5500	4100	3400	2950	2650	2300
2/120x35	20	3800	3050	2550	2250	2000	1650
	60	2850	2100	1700	1500	1300	1200
2/130x35	20	4300	3400	2850	2500	2250	1900
	60	3200	2350	1900	1650	1500	1350
2/140x35	20	4800	3750	3200	2800	2500	2200
	60	3550	2600	2150	1850	1650	1550
2/150x35	20	5200	4100	3500	3100	2800	2500
	60	3900	2900	2400	2050	1850	1700
2/170x35	20	5900	4850	4150	3700	3350	3050
	60	4550	3450	2850	2500	2250	2050
2/190x35	20	6500	5550	4800	4300	3900	3600
	60	5250	4000	3350	2950	2650	2400
2/200x35	20	6750	5900	5150	4600	4200	3850
	60	5600	4300	3600	3150	2850	2600
2/240x35	20	7650	6850	6300	5850	5350	4950
	60	6650	5500	4650	4100	3700	3400
2/290x35	20	8700	7950	7400	6950	6550	6250
	60	7750	6700	6000	5350	4850	4450
2/300x35	20	8900	8150	7600	7150	6750	6450
	60	7950	6900	6200	5600	5100	4700

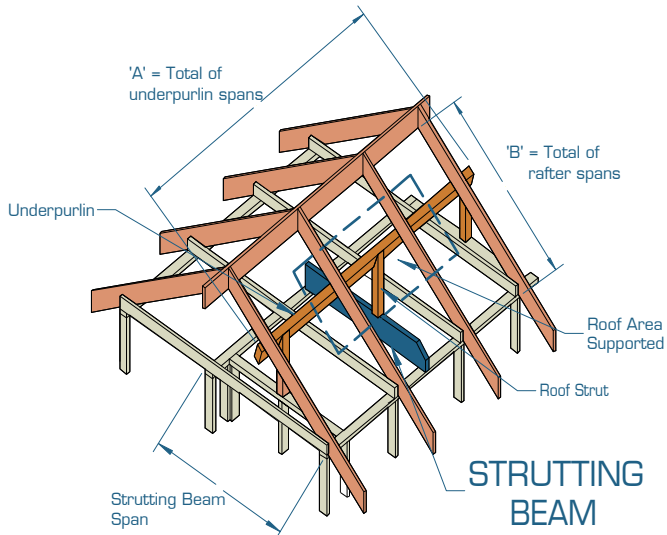
STRUTTING BEAM SUPPORTING UNDERPURLINS AS 4055 CLASSIFICATION N1, N2 AND N3 (Cont'd)

Roof area supported (m ²)		2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting Beam span (mm)					
130x42	20	3350	2750	2000	1500	NS	NS
	60	2550	1850	1500	1200	NS	NS
140x42	20	3700	3050	2300	1700	1150	NS
	60	2850	2050	1650	1450	NS	NS
150x42	20	4100	3350	2600	1950	1550	NS
	60	3100	2250	1850	1600	NS	NS
170x42	20	5000	3950	3300	2450	1950	1500
	60	3700	2700	2250	1950	1750	NS
190x42	20	5550	4600	3900	3000	2400	2000
	60	4350	3200	2650	2300	2050	1550
200x42	20	5850	4950	4200	3300	2650	2200
	60	4650	3450	2850	2450	2200	2000
240x42	20	7050	6150	5350	4600	3650	3050
	60	5900	4450	3700	3250	2900	2650
290x42	20	8200	7200	6550	6100	5200	4300
	60	6950	5750	4850	4250	3850	3500
300x42	20	8400	7400	6750	6300	5500	4600
	60	7150	6050	5100	4450	4000	3700
2/130x42	20	4650	3650	3100	2750	2450	2250
	60	3450	2550	2100	1850	1650	1500
2/140x42	20	5050	4050	3450	3050	2750	2500
	60	3800	2850	2350	2050	1850	1650
2/150x42	20	5450	4400	3750	3350	3050	2800
	60	4150	3100	2600	2250	2050	1850
2/170x42	20	6150	5150	4450	3950	3600	3350
	60	4900	3700	3100	2700	2450	2250
2/190x42	20	6700	5900	5150	4600	4200	3900
	60	5600	4350	3650	3200	2850	2650
2/200x42	20	6900	6150	5500	4950	4500	4200
	60	5950	4650	3900	3450	3100	2850
2/240x42	20	7850	7100	6550	6150	5750	5350
	60	6900	5900	5050	4450	4000	3700
2/290x42	20	8850	8200	7650	7200	6850	6550
	60	8000	6950	6300	5750	5250	4850
2/300x42	20	9050	8400	7850	7400	7050	6750
	60	8200	7150	6500	6050	5500	5100
2/360x42	20	10150	9500	9000	8550	8200	7900
	60	9350	8300	7600	7100	6700	6350
2/400x42	20	10800	10200	9700	9300	8950	8600
	60	10050	9050	8350	7800	7350	7000
130x58	20	3900	3150	2650	2100	1650	1400
	60	2950	2150	1750	1500	1350	NS
150x58	20	4850	3850	3200	2700	2150	1800
	60	3600	2650	2150	1900	1700	1550
170x58	20	5550	4500	3850	3400	2700	2250
	60	4250	3150	2600	2250	2050	1850
200x58	20	6550	5550	4800	4250	3650	3050
	60	5250	3950	3300	2900	2600	2350
240x58	20	7500	6600	6050	5450	4950	4250
	60	6400	5100	4300	3750	3400	3100
300x58	20	8750	7900	7300	6800	6450	6150
	60	7650	6550	5850	5150	4650	4300
360x58	20	9850	9050	8450	7950	7550	7250
	60	8850	7700	6950	6450	6050	5550
400x58	20	10500	9750	9150	8650	8250	7950
	60	9550	8400	7650	7100	6650	6300
300x75	20	8950	8250	7700	7250	6900	6600
	60	8050	7000	6300	5750	5250	4850
400x75	20	10700	10100	9550	9100	8750	8400
	60	9900	8850	8100	7550	7150	6800
525x75	20	12000	12000	11550	11150	10750	10450
	60	11850	10900	10150	9550	9100	8700

NOTES:

- 1) D = member depth, B = member breadth, NS = not suitable.
- 2) Minimum bearing length = 70 mm at end supports.
- 3) Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering
- 4) Top edge of strutting beams with D/B > 3 shall be laterally restrained as per details on page 5

STRUTTING BEAM SUPPORTING UNDERPURLINS AS 4055 CLASSIFICATION C1, C2 AND C3



EXAMPLE:

wind speed = C3
 sheet roof = 40 kg/m²
 total of underpurlin span 'A' = 5000 mm
 total of rafter span 'B' = 4200 mm
 roof area supported = (A/2) x (B/2)
 = (5000/2) x (4200/2)
 = 5250000 mm² { Convert to m² }
 = 5250000/1000000 = 5.25 m²

strutting beam span = 4500 mm

Enter column at 6 m² roof area supported and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLVL 15 — 2/240x35

Roof area supported (m ²)		2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting Beam span (mm)					
130x35	20	3050	1650	NS	NS	NS	NS
	60	2350	1650	NS	NS	NS	NS
140x35	20	3400	1900	NS	NS	NS	NS
	60	2600	1850	NS	NS	NS	NS
150x35	20	3750	2150	1100	NS	NS	NS
	60	2900	2050	1300	NS	NS	NS
170x35	20	4550	2700	1800	NS	NS	NS
	60	3450	2500	1900	NS	NS	NS
190x35	20	5250	3300	2200	1150	NS	NS
	60	4000	2950	2300	1350	NS	NS
200x35	20	5500	3600	2400	1500	NS	NS
	60	4300	3150	2550	1750	NS	NS
240x35	20	6600	5050	3350	2500	1550	NS
	60	5500	4100	3400	2650	1750	1050
2/120x35	20	3800	3050	2150	1600	NS	NS
	60	2850	2100	1700	1500	NS	NS
2/130x35	20	4300	3400	2500	1850	1150	NS
	60	3200	2350	1900	1650	1400	NS
2/140x35	20	4800	3750	2850	2150	1700	NS
	60	3550	2600	2150	1850	1650	NS
2/150x35	20	5200	4100	3250	2450	1950	1100
	60	3900	2900	2400	2050	1850	1300
2/170x35	20	5900	4850	4100	3050	2450	2050
	60	4550	3450	2850	2500	2250	2050
2/190x35	20	6500	5550	4800	3750	3000	2500
	60	5250	4000	3350	2950	2650	2400
2/200x35	20	6750	5900	5150	4100	3300	2750
	60	5600	4300	3600	3150	2850	2600
2/240x35	20	7650	6850	6300	5750	4550	3800
	60	6650	5500	4650	4100	3700	3400
2/290x35	20	8700	7950	7400	6950	6450	5350
	60	7750	6700	6000	5350	4850	4450
2/300x35	20	8900	8150	7600	7150	6750	5700
	60	7950	6900	6200	5600	5100	4700

STRUTTING BEAM SUPPORTING UNDERPURLINS AS 4055 CLASSIFICATION C1, C2 AND C3 (Cont'd)

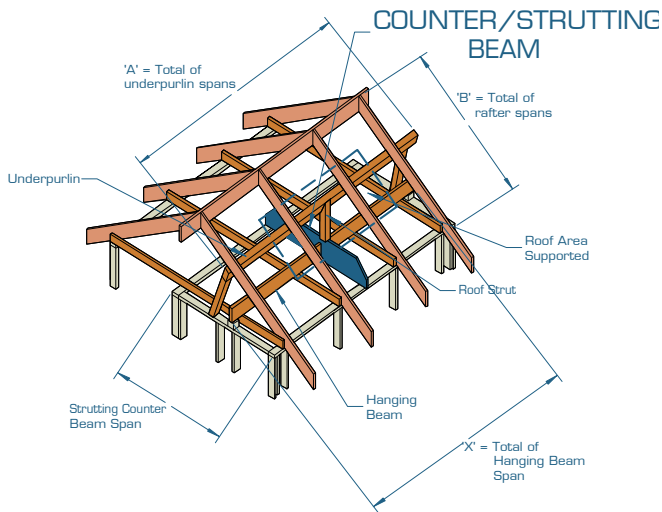
Roof area supported (m ²)		2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting Beam span (mm)					
130x42	20	3350	2000	1150	NS	NS	NS
	60	2550	1850	1400	NS	NS	NS
140x42	20	3700	2250	1500	NS	NS	NS
	60	2850	2050	1600	NS	NS	NS
150x42	20	4100	2550	1700	NS	NS	NS
	60	3100	2250	1800	NS	NS	NS
170x42	20	5000	3200	2150	1400	NS	NS
	60	3700	2700	2250	1650	NS	NS
190x42	20	5550	3950	2600	1950	1050	NS
	60	4350	3200	2650	2100	1150	NS
200x42	20	5850	4350	2850	2150	1300	NS
	60	4650	3450	2850	2300	1450	NS
240x42	20	7050	6050	4000	3000	2400	1550
	60	5900	4450	3700	3200	2550	1750
290x42	20	8200	7200	5650	4250	3350	2800
	60	6950	5750	4850	4250	3550	3000 ₅
300x42	20	8400	7400	6050	4500	3600	3000
	60	7150	6050	5100	4450	3800	3150 ₅
2/130x42	20	4650	3650	3000	2250	1800	1150
	60	3450	2550	2100	1850	1650	1400
2/140x42	20	5050	4050	3450	2600	2050	1700
	60	3800	2850	2350	2050	1850	1650
2/150x42	20	5450	4400	3750	2950	2350	1950
	60	4150	3100	2600	2250	2050	1850
2/170x42	20	6150	5150	4450	3700	2950	2450
	60	4900	3700	3100	2700	2450	2250
2/190x42	20	6650	5900	5150	4500	3600	3000
	60	5600	4350	3650	3200	2850	2650
2/200x42	20	6900	6150	5500	4950	3950	3300
	60	5950	4650	3900	3450	3100	2850
2/240x42	20	7850	7100	6550	6150	5500	4550
	60	6900	5900	5050	4450	4000	3700
2/290x42	20	8850	8200	7650	7200	6850	6450
	60	8000	6950	6300	5750	5250	4850
2/300x42	20	9050	8400	7850	7400	7050	6750
	60	8200	7150	6500	6050	5500	5100
2/360x42	20	10150	9500	9000	8550	8200	7900
	60	9350	8300	7600	7100	6700	6350
2/400x42	20	10800	10200	9700	9300	8950	8600
	60	10050	9050	8350	7800	7350	7000
130x58	20	3900	2750	1800	1350	NS	NS
	60	2950	2150	1750	1450	NS	NS
150x58	20	4850	3550	2350	1750	1100	NS
	60	3600	2650	2150	1900	1250	NS
170x58	20	5550	4500	2950	2200	1750	1000
	60	4250	3150	2600	2250	1900	1150
200x58	20	6550	5550	4000	3000	2400	1950
	60	5250	3950	3300	2900	2550	2100
240x58	20	7500	6600	5550	4150	3300	2750
	60	6400	5100	4300	3750	3400	2950
300x58	20	8750	7900	7300	6250	5000	4150
	60	7650	6550	5850	5150	4650	4300
360x58	20	9850	9050	8450	7950	6750	5600
	60	8850	7700	6950	6450	6050	5550
400x58	20	10500	9750	9150	8650	8050	6650
	60	9550	8400	7650	7100	6650	6300
300x75	20	8950	8250	7700	7250	6500	5350
	60	8050	7000	6300	5750	5250	4850
400x75	20	10700	10100	9550	9100	8750	8400
	60	9900	8850	8100	7550	7150	6800
525x75	20	12000	12000	11550	11150	10750	10450
	60	11850	10900	10150	9550	9100	8700

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 70 mm at end supports.
3. Restraint value for slenderness calculations is 1500 mm
4. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering
5. Top edge of strutting beams with D/B > 3 shall be laterally restrained as per details on page 5
6. Value in subscript indicate extra bearing length required

STRUTTING/COUNTER BEAM SUPPORTING UNDERPURLINS & HANGING BEAM AS 4055 CLASSIFICATION N1, N2 AND N3

ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = N3
 sheet roof = 40 kg/m²
 total of underpurlin span 'A' = 5000 mm
 total of rafter span 'B' = 4200 mm
 roof area supported = (A/2) x (B/2)
 = (5000/2) x (4200/2)
 = 5250000 mm² (Convert to m²)
 = 5250000/1000000 = 5.25 m²
 total of hanging beam span 'X' = 4500 mm
 effective beam spacing = 'X' / 2 = 4500 / 2 = 2250 mm
 strutting counter beam span = 4500 mm

Enter column at 3600 mm effective beam spacing, 6 m² roof area supported and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLVL 15 — 2/290x35

Effective Beam spacing (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting Beam span (mm)											
150x35	40	2750	2200	1900	1650	1400	1150	2450	2050	1800	1600	1350	1150
	75	2350	1800	1500	1300	1150	NS	2150	1700	1450	1300	1150	NS
170x35	40	3200	2600	2250	2000	1750	1450	2800	2400	2150	1900	1700	1450
	75	2750	2150	1800	1550	1400	1200	2500	2050	1750	1550	1400	1200
190x35	40	3600	3000	2600	2350	2150	1800	3200	2800	2450	2250	2050	1750
	75	3150	2500	2100	1850	1650	1500	2900	2350	2050	1800	1650	1450
200x35	40	3750	3200	2800	2500	2300	1950	3350	2950	2650	2400	2200	1900
	75	3400	2700	2250	2000	1800	1650	3050	2550	2200	1950	1750	1600
240x35	40	4350	3900	3600	3250	2950	2700	3950	3650	3300	3050	2850	2650
	75	4050	3450	2950	2600	2350	2150	3750	3200	2800	2500	2300	2100
2/150x35	40	3550	2950	2600	2300	2100	1950	3150	2750	2450	2200	2050	1900
	75	3100	2450	2100	1850	1650	1500	2850	2350	2000	1800	1600	1500
2/170x35	40	3950	3450	3050	2750	2500	2300	3600	3200	2850	2600	2400	2250
	75	3600	2900	2500	2200	2000	1800	3300	2750	2400	2150	1950	1800
2/190x35	40	4300	3850	3550	3200	2950	2700	3900	3600	3300	3000	2800	2600
	75	4000	3400	2900	2600	2350	2150	3700	3150	2800	2500	2300	2100
2/200x35	40	4450	4050	3700	3400	3150	2900	4100	3750	3500	3200	3000	2800
	75	4150	3600	3100	2750	2500	2300	3850	3400	3000	2700	2450	2250
2/240x35	40	5150	4700	4350	4100	3900	3700	4700	4350	4100	3900	3750	3600
	75	4800	4250	3850	3550	3250	3000	4450	4050	3700	3450	3150	2950
2/290x35	40	5900	5500	5100	4850	4600	4400	5400	5100	4800	4600	4400	4250
	75	5600	5000	4600	4250	4000	3800	5150	4750	4400	4150	3900	3750
2/300x35	40	6050	5600	5250	5000	4750	4550	5500	5200	4950	4750	4550	4400
	75	5750	5150	4700	4400	4150	3950	5300	4850	4500	4250	4050	3850

STRUTTING/COUNTER BEAM SUPPORTING UNDERPURLINS & HANGING BEAM AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

ceiling mass - 20 kg/m²

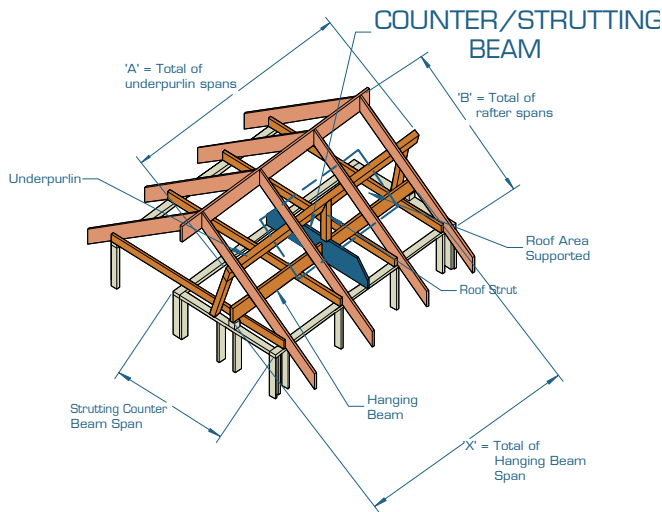
Effective Beam spacing (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting Beam span (mm)											
150x42	40	2950	2400	2050	1800	1650	1400	2600	2250	1950	1750	1600	1400
	75	2550	1950	1650	1450	1300	1150	2350	1850	1600	1400	1250	1150
170x42	40	3400	2800	2450	2200	2000	1750	3000	2600	2300	2100	1900	1700
	75	2950	2350	1950	1700	1550	1400	2700	2200	1900	1700	1500	1400
190x42	40	3800	3250	2850	2550	2300	2150	3400	3000	2650	2450	2250	2100
	75	3400	2700	2300	2000	1800	1650	3100	2550	2200	1950	1800	1650
200x42	40	3950	3450	3050	2750	2500	2300	3600	3150	2850	2600	2400	2250
	75	3600	2900	2450	2200	1950	1800	3300	2750	2400	2100	1950	1800
240x42	40	4550	4100	3800	3500	3200	3000	4150	3850	3600	3300	3050	2850
	75	4250	3650	3200	2850	2550	2350	3900	3450	3050	2750	2500	2300
290x42	40	5300	4800	4450	4200	3950	3800	4800	4450	4200	4000	3800	3650
	75	4950	4350	3950	3650	3350	3100	4550	4100	3800	3550	3250	3000
300x42	40	5450	4950	4600	4300	4100	3900	4900	4600	4350	4100	3950	3800
	75	5100	4500	4100	3800	3500	3250	4700	4250	3900	3650	3400	3150
2/150x42	40	3700	3200	2800	2500	2300	2100	3350	2950	2650	2400	2200	2050
	75	3350	2650	2250	2000	1800	1650	3050	2550	2200	1950	1750	1650
2/170x42	40	4100	3700	3300	2950	2750	2550	3750	3400	3100	2800	2600	2450
	75	3800	3150	2700	2400	2150	2000	3500	2950	2600	2350	2100	1950
2/190x42	40	4500	4050	3750	3450	3150	2950	4100	3800	3550	3250	3050	2850
	75	4150	3650	3150	2800	2550	2350	3850	3400	3000	2700	2500	2300
2/200x42	40	4650	4250	3900	3650	3400	3150	4250	3950	3700	3450	3250	3050
	75	4350	3800	3400	3000	2750	2550	4050	3600	3200	2900	2650	2450
2/240x42	40	5350	4900	4600	4300	4100	3900	4900	4550	4300	4100	3950	3800
	75	5050	4450	4050	3800	3550	3300	4650	4250	3900	3650	3400	3200
2/290x42	40	6150	5700	5350	5100	4850	4650	5600	5300	5050	4800	4650	4450
	75	5850	5250	4800	4500	4250	4050	5400	4950	4600	4350	4150	3950
2/300x42	40	6300	5850	5500	5250	5000	4800	5750	5450	5200	4950	4750	4600
	75	6000	5400	4950	4650	4400	4150	5500	5100	4750	4500	4250	4100
2/360x42	40	7150	6750	6400	6100	5850	5600	6550	6250	6000	5750	5550	5400
	75	6850	6250	5800	5450	5200	4950	6300	5900	5550	5250	5000	4800
2/400x42	40	7700	7300	6950	6650	6400	6150	7050	6750	6500	6250	6050	5900
	75	7400	6800	6350	6000	5700	5450	6850	6400	6050	5750	5500	5300
150x58	40	3300	2750	2400	2100	1900	1750	2950	2550	2250	2050	1850	1750
	75	2900	2250	1900	1650	1500	1400	2650	2150	1850	1650	1500	1350
170x58	40	3750	3200	2800	2500	2300	2150	3350	2950	2650	2400	2200	2050
	75	3400	2700	2300	2000	1800	1650	3050	2550	2200	1950	1800	1650
200x58	40	4300	3850	3500	3150	2900	2700	3900	3600	3250	3000	2750	2600
	75	3950	3350	2850	2550	2300	2100	3650	3150	2750	2450	2250	2100
240x58	40	4950	4500	4150	3900	3650	3450	4500	4150	3900	3700	3500	3300
	75	4600	4050	3650	3300	3000	2750	4250	3850	3500	3150	2900	2700
300x58	40	5850	5400	5000	4750	4500	4300	5300	5000	4700	4500	4300	4150
	75	5500	4900	4500	4150	3900	3700	5050	4650	4300	4050	3800	3650
360x58	40	6700	6200	5850	5550	5300	5100	6050	5750	5500	5250	5050	4850
	75	6350	5700	5250	4900	4650	4400	5850	5400	5050	4750	4500	4300
400x58	40	7200	6750	6400	6050	5800	5550	6550	6200	5950	5700	5500	5350
	75	6850	6250	5800	5400	5100	4900	6300	5850	5500	5200	4950	4750
450x58	40	7800	7400	7000	6700	6400	6200	7100	6800	6550	6300	6100	5900
	75	7500	6850	6400	6000	5700	5450	6900	6450	6050	5750	5500	5300
300x75	40	6150	5700	5350	5100	4850	4650	5600	5300	5050	4800	4650	4450
	75	5850	5250	4800	4500	4250	4050	5400	4950	4600	4350	4100	3950
400x75	40	7550	7100	6750	6450	6200	6000	6900	6600	6350	6100	5900	5700
	75	7250	6650	6200	5800	5500	5250	6650	6250	5900	5600	5350	5100

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 70 mm at end supports.
3. The above table was based on a maximum ceiling mass of 20 (kg/m²).
4. Top edge of strutting/counter beams with D/B > 3 shall be laterally restrained as per details on page 5
5. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

STRUTTING/COUNTER BEAM SUPPORTING UNDERPURLINS & HANGING BEAM AS 4055 CLASSIFICATION C1, C2 AND C3

ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = C3
 sheet roof = 40 kg/m²
 total of underpurlin span 'A' = 5000 mm
 total of rafter span 'B' = 4200 mm
 roof area supported = (A/2) x (B/2)
 = (5000/2) x (4200/2)
 = 5250000 mm² (Convert to m²)
 = 5250000/1000000 = 5.25 m²
 total of hanging beam span 'X' = 4500 mm
 effective beam spacing = 'X' / 2 = 4500 / 2 = 2250 mm
 strutting counter beam span = 4500 mm

Enter column at 3600 mm effective beam spacing, 6m² roof area supported and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLVL 15 — 2/290x35

Effective beam spacing (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting Beam span (mm)											
150x35	40	2750	1500	NS	NS	NS	NS	2450	1500	1000	NS	NS	NS
	75	2350	1600	1050	NS	NS	NS	2150	1650	1050	NS	NS	NS
170x35	40	3200	1900	1250	NS	NS	NS	2800	1900	1250	NS	NS	NS
	75	2750	2000	1300	NS	NS	NS	2500	2050	1350	1000	NS	NS
190x35	40	3600	2300	1500	1150	NS	NS	3200	2400	1550	1150	NS	NS
	75	3150	2500	1650	1200	NS	NS	2900	2350	1650	1200	NS	NS
200x35	40	3750	2550	1650	1250	NS	NS	3350	2650	1700	1250	NS	NS
	75	3400	2700	1800	1350	NS	NS	3050	2550	1800	1350	NS	NS
240x35	40	4350	3600	2350	1750	1400	NS	3950	3650	2400	1750	1400	NS
	75	4050	3450	2500	1850	1500	NS	3750	3200	2550	1900	1500	NS
2/150x35	40	3550	2950	2300	1700	1350	1100	3150	2750	2300	1700	1350	1100
	75	3100	2450	2100	1800	1450	1200	2850	2350	2000	1800	1450	1200
2/170x35	40	3950	3450	2900	2150	1700	1400	3600	3200	2850	2150	1700	1400
	75	3600	2900	2500	2200	1800	1500	3300	2750	2400	2150	1850	1500
2/190x35	40	4300	3850	3550	2600	2100	1750	3900	3600	3300	2650	2100	1750
	75	4000	3400	2900	2600	2250	1850	3700	3150	2800	2500	2250	1850
2/200x35	40	4450	4050	3700	2900	2300	1900	4100	3750	3500	2950	2300	1900
	75	4150	3600	3100	2750	2450	2050	3850	3400	3000	2700	2450	2050
2/240x35	40	5150	4700	4350	4050	3200	2650	4700	4350	4100	3900	3250	2700
	75	4800	4250	3850	3550	3250	2850	4450	4050	3700	3450	3150	2850
2/290x35	40	5900	5500	5100	4850	4550	3750	5400	5100	4800	4600	4400	3800
	75	5600	5000	4600	4250	4000	3800	5150	4750	4400	4150	3900	3750
2/300x35	40	6050	5600	5250	5000	4750	4000	5500	5200	4950	4750	4550	4050
	75	5750	5150	4700	4400	4150	3950	5300	4850	4500	4250	4050	3850

STRUTTING/COUNTER BEAM SUPPORTING UNDERPURLINS & HANGING BEAM AS 4055 CLASSIFICATION C1, C2 AND C3 (Cont'd)

ceiling mass - 20 kg/m²

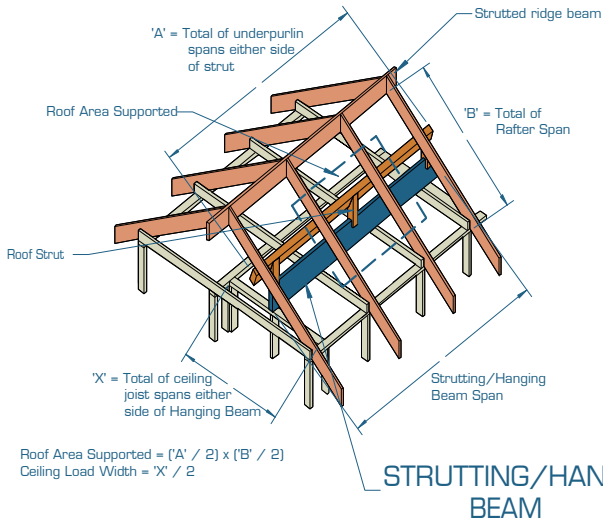
Effective beam spacing (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting Beam span (mm)											
150x42	40	2950	1800	1200	NS	NS	NS	2600	1850	1200	NS	NS	NS
	75	2550	1950	1250	NS	NS	NS	2350	1850	1300	NS	NS	NS
170x42	40	3400	2300	1500	1100	NS	NS	3000	2350	1500	1100	NS	NS
	75	2950	2350	1600	1200	NS	NS	2700	2200	1600	1200	NS	NS
190x42	40	3800	2800	1850	1350	1100	NS	3400	2900	1850	1350	1100	NS
	75	3400	2700	1950	1450	1150	NS	3100	2550	2000	1450	1150	NS
200x42	40	3950	3100	2000	1500	1200	NS	3600	3150	2050	1500	1200	NS
	75	3600	2900	2150	1600	1250	NS	3300	2750	2200	1600	1300	NS
240x42	40	4550	4100	2800	2100	1650	1400	4150	3850	2900	2100	1650	1400
	75	4250	3650	3050	2250	1800	1500	3900	3450	3050	2250	1800	1500
290x42	40	5300	4800	4000	2950	2350	1950	4800	4450	4150	3000	2400	1950
	75	4950	4350	3950	3200	2500	2100	4550	4100	3800	3250	2550	2100
300x42	40	5450	4950	4300	3150	2500	2100	4900	4600	4350	3200	2550	2100
	75	5100	4500	4100	3400	2700	2250	4700	4250	3900	3450	2700	2250
2/150x42	40	3700	3200	2750	2050	1600	1350	3350	2950	2650	2050	1650	1350
	75	3350	2650	2250	2000	1750	1450	3050	2550	2200	1950	1750	1450
2/170x42	40	4100	3700	3300	2600	2050	1700	3750	3400	3100	2600	2050	1700
	75	3800	3150	2700	2400	2150	1800	3500	2950	2600	2350	2100	1850
2/190x42	40	4500	4050	3750	3150	2500	2100	4100	3800	3550	3200	2550	2100
	75	4150	3650	3150	2800	2550	2250	3850	3400	3000	2700	2500	2250
2/200x42	40	4650	4250	3900	3500	2750	2300	4250	3950	3700	3450	2800	2300
	75	4350	3800	3400	3000	2750	2450	4050	3600	3200	2900	2650	2450
2/240x42	40	5350	4900	4600	4300	3850	3200	4900	4550	4300	4100	3900	3250
	75	5050	4450	4050	3800	3550	3300	4650	4250	3900	3650	3400	3200
2/290x42	40	6150	5700	5350	5100	4850	4550	5600	5300	5050	4800	4650	4450
	75	5850	5250	4800	4500	4250	4050	5400	4950	4600	4350	4150	3950
2/300x42	40	6300	5850	5500	5250	5000	4800	5750	5450	5200	4950	4750	4600
	75	6000	5400	4950	4650	4400	4150	5500	5100	4750	4500	4250	4100
2/360x42	40	7150	6750	6400	6100	5850	5600	6550	6250	6000	5750	5550	5400
	75	6850	6250	5800	5450	5200	4950	6300	5900	5550	5250	5000	4800
2/400x42	40	7700	7300	6950	6650	6400	6150	7050	6750	6500	6250	6050	5900
	75	7400	6800	6350	6000	5700	5450	6850	6400	6050	5750	5500	5300
150x58	40	3300	2500	1650	1200	NS	NS	2950	2550	1650	1250	NS	NS
	75	2900	2250	1750	1300	1050	NS	2650	2150	1800	1300	1050	NS
170x58	40	3750	3200	2100	1550	1200	1000	3350	2950	2100	1550	1250	1000
	75	3400	2700	2250	1650	1300	1100	3050	2550	2200	1650	1300	1100
200x58	40	4300	3850	2800	2100	1650	1350	3900	3600	2850	2100	1650	1400
	75	3950	3350	2850	2250	1750	1450	3650	3150	2750	2250	1800	1450
240x58	40	4950	4500	3950	2900	2300	1900	4500	4150	3900	2950	2350	1950
	75	4600	4050	3650	3100	2500	2050	4250	3850	3500	3150	2500	2050
300x58	40	5850	5400	5000	4400	3500	2900	5300	5000	4700	4500	3550	2900
	75	5500	4900	4500	4150	3750	3100	5050	4650	4300	4050	3800	3150
360x58	40	6700	6200	5850	5550	4750	3900	6050	5750	5500	5250	4850	3950
	75	6350	5700	5250	4900	4650	4200	5850	5400	5050	4750	4500	4250
400x58	40	7200	6750	6400	6050	5700	4700	6550	6200	5950	5700	5500	4750
	75	6850	6250	5800	5400	5100	4900	6300	5850	5500	5200	4950	4750
450x58	40	7800	7400	7000	6700	6400	5700	7100	6800	6550	6300	6100	5850
	75	7500	6850	6400	6000	5700	5450	6900	6450	6050	5750	5500	5300
300x75	40	6150	5700	5350	5100	4550	3750	5600	5300	5050	4800	4650	3800
	75	5850	5250	4800	4500	4250	4050	5400	4950	4600	4350	4100	3950
400x75	40	7550	7100	6750	6450	6200	6000	6900	6600	6350	6100	5900	5700
	75	7250	6650	6200	5800	5500	5250	6650	6250	5900	5600	5350	5100

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 70 mm at end supports.
3. The above table was based on a maximum ceiling mass of 20 (kg/m²).
4. Top edge of strutting/counter beams with D/B > 3 shall be laterally restrained as per details on page 5
5. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

STRUTTING/HANGING BEAM AS 4055 CLASSIFICATION N1, N2 AND N3

ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = N3
 sheet roof = 40 kg/m²
 A = 5000 mm, B = 4200 mm
 roof area supported = (A/2) x (B/2)
 = (5000/2) x (4200/2)
 = 5250000 mm² [Convert to m²]
 = 5250000/1000000 = 5.25 m²

strutting/hanging beam span = 4200 mm
 ceiling joist span ('X') = 4400 mm
 ceiling load width = ['X' / 2] = 4400/2 = 2200 mm

Enter column at 3600 mm ceiling load width, 6 m² roof area supported and read down to a span greater than or equal to 4200 mm

ADOPT:

SmartLVL 15 — 2/290x35

Ceiling load width (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting/Hanging Beam span (mm)											
150x35	40	2650	2150	1850	1650	1000	NS	2250	1950	1700	1550	NS	NS
	75	2250	1750	1500	1200	NS	NS	2000	1650	1400	1100	NS	NS
170x35	40	3050	2550	2200	1950	1750	NS	2600	2250	2050	1850	1700	NS
	75	2650	2100	1750	1550	NS	NS	2350	1950	1700	1500	NS	NS
190x35	40	3500	2950	2550	2300	2100	1600	2950	2600	2350	2150	2000	1500
	75	3100	2450	2100	1850	1600	NS	2700	2250	1950	1750	1500	NS
200x35	40	3650	3150	2750	2450	2250	1950	3100	2750	2500	2300	2150	1900
	75	3300	2650	2250	2000	1800	1100	2850	2400	2100	1900	1750	1050
240x35	40	4250	3850	3500	3150	2900	2700	3750	3450	3150	2900	2700	2550
	75	3950	3350	2900	2550	2350	2150	3550	3050	2700	2450	2250	2100
2/150x35	40	3400	2900	2550	2250	2100	1900	2900	2550	2300	2100	1950	1850
	75	3000	2400	2050	1800	1650	1500	2650	2250	1950	1750	1600	1450
2/170x35	40	3850	3400	3000	2700	2500	2300	3300	3000	2700	2500	2350	2200
	75	3550	2850	2450	2200	1950	1800	3050	2600	2300	2100	1900	1750
2/190x35	40	4200	3800	3450	3150	2900	2700	3700	3400	3100	2900	2700	2550
	75	3900	3300	2850	2550	2300	2150	3500	3000	2700	2450	2250	2050
2/200x35	40	4350	3950	3650	3350	3100	2900	3850	3600	3300	3100	2900	2700
	75	4050	3550	3100	2750	2500	2300	3650	3200	2850	2600	2400	2250
2/240x35	40	5050	4600	4300	4050	3850	3650	4450	4200	3950	3800	3650	3450
	75	4750	4200	3800	3550	3250	3000	4250	3900	3600	3300	3050	2850
2/290x35	40	5850	5400	5050	4800	4550	4350	5150	4850	4650	4450	4300	4150
	75	5500	4950	4550	4250	4000	3800	4950	4550	4250	4050	3850	3700
2/300x35	40	6000	5550	5200	4950	4700	4500	5250	5000	4750	4600	4400	4250
	75	5650	5100	4700	4350	4100	3900	5050	4700	4400	4150	3950	3800

STRUTTING/HANGING BEAM AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

ceiling mass - 20 kg/m²

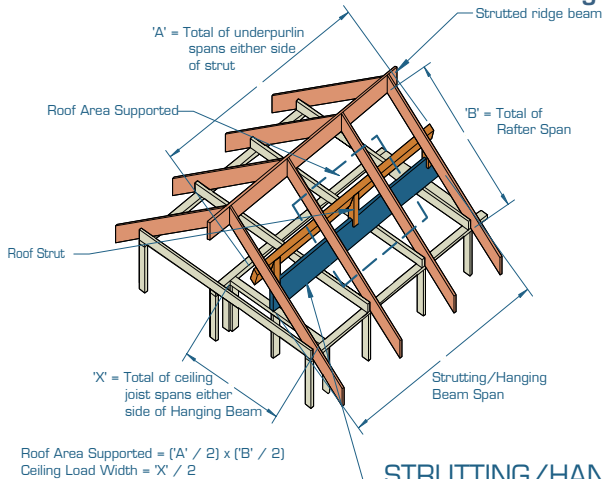
Ceiling load width (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting/Hanging Beam span (mm)											
150x42	40	2800	2350	2000	1800	1650	1000	2400	2100	1850	1700	1550	1000
	75	2450	1900	1600	1400	1000	NS	2150	1800	1550	1350	NS	NS
170x42	40	3250	2750	2400	2150	1950	1750	2750	2450	2200	2000	1850	1700
	75	2900	2300	1950	1700	1550	NS	2550	2100	1850	1650	1500	NS
190x42	40	3700	3150	2800	2500	2300	2100	3150	2800	2550	2350	2150	2000
	75	3300	2650	2250	2000	1800	1600	2900	2450	2150	1900	1750	1500
200x42	40	3850	3400	3000	2700	2450	2300	3300	2950	2700	2500	2300	2150
	75	3550	2850	2450	2150	1950	1800	3050	2600	2300	2050	1900	1750
240x42	40	4450	4050	3700	3450	3150	2950	3900	3650	3400	3150	2950	2750
	75	4150	3600	3150	2800	2550	2350	3750	3300	2900	2650	2450	2250
290x42	40	5200	4750	4400	4150	3950	3750	4550	4250	4050	3850	3700	3550
	75	4850	4300	3900	3650	3350	3100	4350	3950	3700	3400	3150	2950
300x42	40	5350	4900	4550	4250	4050	3850	4650	4400	4150	4000	3800	3700
	75	5000	4450	4050	3750	3500	3250	4450	4100	3800	3550	3300	3100
2/150x42	40	3650	3100	2750	2450	2250	2100	3100	2750	2500	2300	2150	2000
	75	3250	2600	2250	2000	1800	1650	2850	2400	2100	1900	1750	1600
2/170x42	40	4000	3600	3250	2950	2700	2500	3500	3200	2900	2700	2500	2350
	75	3700	3100	2650	2350	2150	2000	3300	2850	2500	2250	2050	1900
2/190x42	40	4400	4000	3700	3400	3150	2900	3850	3600	3350	3100	2900	2750
	75	4100	3600	3100	2750	2550	2350	3700	3250	2900	2650	2400	2250
2/200x42	40	4550	4150	3850	3600	3350	3150	4000	3750	3550	3300	3100	2950
	75	4250	3750	3350	3000	2700	2500	3850	3450	3100	2800	2600	2400
2/240x42	40	5250	4850	4500	4250	4050	3900	4650	4400	4150	4000	3800	3700
	75	4950	4400	4050	3750	3500	3250	4450	4100	3800	3600	3350	3100
2/290x42	40	6050	5650	5300	5050	4800	4600	5350	5100	4850	4650	4500	4350
	75	5750	5200	4800	4450	4200	4000	5150	4800	4500	4250	4050	3900
2/300x42	40	6200	5800	5450	5200	4950	4750	5500	5200	5000	4800	4650	4500
	75	5900	5350	4900	4600	4350	4150	5300	4900	4600	4400	4200	4000
2/360x42	40	7100	6700	6350	6050	5800	5600	6250	6000	5800	5600	5400	5250
	75	6800	6200	5750	5450	5150	4900	6100	5700	5400	5150	4900	4700
2/400x42	40	7650	7250	6900	6600	6350	6100	6800	6500	6300	6100	5900	5750
	75	7350	6750	6300	5950	5650	5400	6600	6200	5900	5600	5400	5200
150x58	40	3200	2700	2350	2100	1900	1750	2700	2400	2150	1950	1800	1700
	75	2800	2250	1900	1650	1500	1350	2450	2050	1800	1600	1450	1350
170x58	40	3650	3150	2750	2500	2250	2100	3100	2750	2500	2300	2150	2000
	75	3300	2650	2250	2000	1800	1650	2850	2450	2150	1900	1750	1600
200x58	40	4200	3750	3400	3100	2850	2650	3650	3350	3100	2850	2650	2500
	75	3900	3300	2850	2500	2300	2100	3450	3000	2650	2400	2200	2050
240x58	40	4850	4400	4100	3850	3650	3400	4250	4000	3750	3600	3350	3200
	75	4500	4000	3600	3250	2950	2750	4050	3700	3350	3050	2800	2650
300x58	40	5750	5300	4950	4700	4450	4250	5050	4750	4550	4350	4200	4050
	75	5400	4850	4450	4150	3900	3700	4850	4450	4150	3950	3750	3550
360x58	40	6600	6150	5800	5500	5250	5050	5800	5500	5300	5100	4900	4750
	75	6250	5650	5200	4900	4600	4400	5600	5200	4900	4650	4400	4250
400x58	40	7100	6700	6300	6000	5750	5550	6250	6000	5750	5550	5350	5200
	75	6800	6200	5750	5400	5100	4850	6050	5650	5350	5100	4850	4650
450x58	40	7750	7300	6950	6650	6350	6150	6850	6550	6300	6100	5900	5750
	75	7450	6800	6350	6000	5650	5400	6650	6250	5900	5650	5400	5200
300x75	40	6050	5650	5300	5000	4800	4600	5350	5100	4850	4650	4500	4350
	75	5750	5200	4750	4450	4200	4000	5150	4800	4500	4250	4050	3850
400x75	40	7500	7050	6700	6400	6150	5950	6600	6350	6150	5900	5750	5550
	75	7200	6600	6150	5800	5500	5250	6450	6050	5700	5450	5200	5050

NOTES:

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum ceiling mass of 20 (kg/m²).
- Minimum bearing length = 70 mm at end supports.
- Top edge of strutting/hanging beams with D/B > 3 shall be laterally restrained as per detail on page 5
- Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

STRUTTING/HANGING BEAM AS 4055 CLASSIFICATION C1, C2 AND C3

ceiling mass - 20 kg/m²



EXAMPLE:

wind speed = C3
 sheet roof = 40 kg/m²
 A = 5000 mm, B = 4200 mm
 roof area supported = (A/2) x (B/2)
 = (5000/2) x (4200/2)
 = 5250000 mm² (Convert to m²)
 = 5250000/1000000 = 5.25 m²

strutting hanging beam span = 4200 mm
 ceiling joist span ('X') = 4400 mm
 ceiling load width = ['X' / 2] = 4400/2 = 2200 mm

Enter column at 3600 mm ceiling load width, 6m² roof area supported and read down to a span greater than or equal to 4200 mm

ADOPT:

SmartLVL 15 — 2/290x35

STRUTTING/HANGING BEAM

Ceiling load width (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting/Hanging Beam span (mm)											
150x35	40	2600	2000	NS	NS	NS	NS	1800	1850	NS	NS	NS	NS
	75	2250	1750	NS	NS	NS	NS	1850	1650	NS	NS	NS	NS
170x35	40	2900	2450	1800	NS	NS	NS	2050	2100	1700	NS	NS	NS
	75	2650	2100	1150	NS	NS	NS	2050	1950	1100	NS	NS	NS
190x35	40	3200	2900	2150	1050	NS	NS	2250	2300	2100	1050	NS	NS
	75	3100	2450	1950	NS	NS	NS	2300	2250	1850	NS	NS	NS
200x35	40	3350	3100	2350	1300	NS	NS	2350	2400	2300	1250	NS	NS
	75	3300	2650	2100	NS	NS	NS	2400	2400	2050	NS	NS	NS
240x35	40	3950	3850	3250	2500	1400	NS	2750	2800	2850	2400	1350	NS
	75	3950	3350	2900	2050	1050	NS	2800	2900	2700	1900	1050	NS
2/150x35	40	3400	2850	2350	2000	1800	1000	2750	2550	2300	2000	1800	NS
	75	3000	2400	2050	1800	1300	NS	2650	2250	1950	1750	1250	NS
2/170x35	40	3850	3400	2800	2450	2200	2000	3050	3000	2700	2450	2200	1850
	75	3550	2850	2450	2200	1950	1200	3050	2600	2300	2100	1900	1150
2/190x35	40	4200	3800	3300	2900	2550	2350	3400	3400	3100	2900	2550	2350
	75	3900	3300	2850	2550	2300	2150	3400	3000	2700	2450	2250	2050
2/200x35	40	4350	3950	3600	3100	2800	2550	3550	3600	3300	3100	2800	2550
	75	4050	3550	3100	2750	2500	2300	3550	3200	2850	2600	2400	2250
2/240x35	40	5050	4600	4300	4050	3650	3350	4150	4200	3950	3800	3650	3350
	75	4750	4200	3800	3550	3250	3000	4200	3900	3600	3300	3050	2850
2/290x35	40	5850	5400	5050	4800	4550	4350	4950	4850	4650	4450	4300	4150
	75	5500	4950	4550	4250	4000	3800	4950	4550	4250	4050	3850	3700
2/300x35	40	6000	5550	5200	4950	4700	4500	5100	5000	4750	4600	4400	4250
	75	5650	5100	4700	4350	4100	3900	5050	4700	4400	4150	3950	3800

STRUTTING/HANGING BEAM AS 4055 CLASSIFICATION C1, C2 AND C3 [Cont'd]

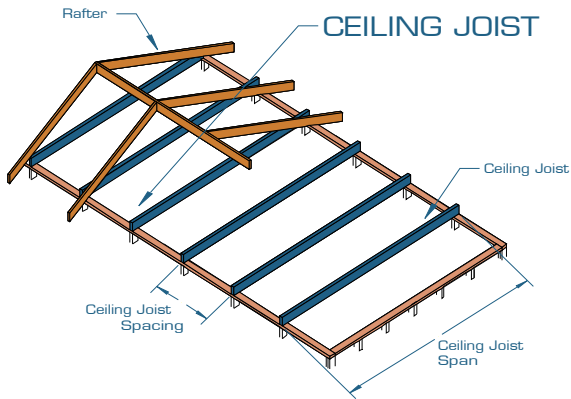
ceiling mass - 20 kg/m²

Ceiling load width (mm)		1800						3600					
Roof area supported (m ²)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m ²)	Maximum Strutting/Hanging Beam span (mm)											
150x42	40	2800	2200	1700	NS	NS	NS	2000	2050	1650	NS	NS	NS
	75	2450	1900	1300	NS	NS	NS	2050	1800	1200	NS	NS	NS
170x42	40	3200	2650	2150	1200	NS	NS	2250	2300	2050	1150	NS	NS
	75	2900	2300	1900	NS	NS	NS	2250	2100	1850	NS	NS	NS
190x42	40	3500	3150	2550	1950	NS	NS	2450	2500	2500	1900	NS	NS
	75	3300	2650	2250	1350	NS	NS	2500	2450	2150	1300	NS	NS
200x42	40	3650	3400	2800	2150	1150	NS	2600	2650	2700	2100	1150	NS
	75	3550	2850	2450	1700	NS	NS	2600	2600	2300	1600	NS	NS
240x42	40	4300	4050	3650	2950	2400	1400	3050	3100	3150	2850	2350	1350
	75	4150	3600	3150	2650	1750	1050	3050	3150	2900	2600	1700	1050
290x42	40	5100	4750	4400	4100	3350	2800 ₁₀	3600	3650	3700	3750	3250	2750 ₁₀
	75	4850	4300	3900	3650	3000 ₅	2150 ₁₅	3600	3700	3700	3400	2900 ₁₀	2100 ₁₅
300x42	40	5250	4900	4550	4250	3550	3000 ₁₀	3700	3750	3800	3850	3450	2900 ₁₀
	75	5000	4450	4050	3750	3200 ₅	2550 ₁₅	3750	3800	3800	3550	3100 ₁₀	2450 ₂₀
2/150x42	40	3650	3100	2550	2200	1950	1800	3000	2750	2500	2200	1950	1800
	75	3250	2600	2250	2000	1800	1300	2850	2400	2100	1900	1750	1250
2/170x42	40	4000	3600	3100	2650	2400	2200	3350	3200	2900	2650	2400	2200
	75	3700	3100	2650	2350	2150	2000	3300	2850	2500	2250	2050	1900
2/190x42	40	4400	4000	3650	3150	2800	2550	3700	3600	3350	3100	2800	2550
	75	4100	3600	3100	2750	2550	2350	3700	3250	2900	2650	2400	2250
2/200x42	40	4550	4150	3850	3400	3050	2800	3850	3750	3550	3300	3050	2800
	75	4250	3750	3350	3000	2700	2500	3850	3450	3100	2800	2600	2400
2/240x42	40	5250	4850	4500	4250	4000	3650	4550	4400	4150	4000	3800	3650
	75	4950	4400	4050	3750	3500	3250	4450	4100	3800	3600	3350	3100
2/290x42	40	6050	5650	5300	5050	4800	4600	5350	5100	4850	4650	4500	4350
	75	5750	5200	4800	4450	4200	4000	5150	4800	4500	4250	4050	3900
2/300x42	40	6200	5800	5450	5200	4950	4750	5500	5200	5000	4800	4650	4500
	75	5900	5350	4900	4600	4350	4150	5300	4900	4600	4400	4200	4000
2/360x42	40	7100	6700	6350	6050	5800	5600	6250	6000	5800	5600	5400	5250
	75	6800	6200	5750	5450	5150	4900	6100	5700	5400	5150	4900	4700
2/400x42	40	7650	7250	6900	6600	6350	6100	6800	6500	6300	6100	5900	5750
	75	7350	6750	6300	5950	5650	5400	6600	6200	5900	5600	5400	5200
150x58	40	3200	2600	2100	1750	NS	NS	2350	2400	2100	1750	NS	NS
	75	2800	2250	1900	1550	NS	NS	2400	2050	1800	1450	NS	NS
170x58	40	3650	3150	2550	2200	1800	NS	2600	2650	2500	2150	1750	NS
	75	3300	2650	2250	2000	1150	NS	2650	2450	2150	1900	1100	NS
200x58	40	4200	3750	3250	2850	2400	2000	3000	3050	3100	2850	2350	1900
	75	3850	3300	2850	2500	2150	1250	3050	3000	2650	2400	2100	1250
240x58	40	4850	4400	4100	3700	3300	2750	3550	3600	3650	3600	3200	2700
	75	4500	4000	3600	3250	2950	2450	3600	3700	3350	3050	2800	2400
300x58	40	5750	5300	4950	4700	4450	4100	4350	4400	4450	4350	4200	3950
	75	5400	4850	4450	4150	3900	3650	4400	4450	4150	3950	3750	3550
360x58	40	6600	6150	5800	5500	5250	5050	5050	5100	5150	5100	4900	4750
	75	6250	5650	5200	4900	4600	4400	5050	5150	4900	4650	4400	4250
400x58	40	7100	6700	6300	6000	5750	5550	5500	5550	5600	5550	5350	5200
	75	6800	6200	5750	5400	5100	4850	5500	5600	5350	5100	4850	4650
450x58	40	7750	7300	6950	6650	6350	6150	6050	6100	6150	6100	5900	5750
	75	7450	6800	6350	6000	5650	5400	6050	6150	5900	5650	5400	5200
300x75	40	6050	5650	5300	5000	4800	4600	4950	5000	4850	4650	4500	4350
	75	5750	5200	4750	4450	4200	4000	4950	4800	4500	4250	4050	3850
400x75	40	7500	7050	6700	6400	6150	5950	6250	6300	6150	5900	5750	5550
	75	7200	6600	6150	5800	5500	5250	6300	6050	5700	5450	5200	5050

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum ceiling mass of 20 (kg/m²).
3. Minimum bearing length = 70 mm at end supports. Subscript values indicate the minimum additional bearing length
4. Top edge of strutting/hanging beams with D/B > 3 shall be laterally restrained as per detail on page 5
5. Not all sizes of SmartLVL 15 in this table are stocked in each state. Please check with your supplier before ordering

CEILING JOISTS AS 4055 WIND CLASSIFICATION N1, N2 & N3



EXAMPLE:

wind speed = N3
ceiling mass = 15 kg/m²
ceiling Joist span = 4500 mm (single span)
ceiling Joist spacing = 450 mm

Enter single span table at 450 mm in joist spacing column, read down to a span equal to or greater than 4500 mm

ADOPT:

SmartLVL 15 - 150x35

Ceiling Joist spacing (mm)		450	600	900	1200	450	600	900	1200
Size Dx8 (mm)	Ceiling mass (kg/m ²)	Maximum Ceiling joist span (mm)							
		Single span				Continuous span			
90x35	20	2300	2300	2300	2300	2800	2800	2800	2800
130x35	20	4150	3900	3500	3250	4900	4900	4750	4400
150x35	20	4750	4450	4000	3700	6000	5700	5300	5000
170x35	20	5150	4950	4500	4200	6500	6200	5750	5450
200x35	20	5750	5500	5100	4850	7200	6900	6450	6100
240x35	20	6450	6200	5800	5500	8100	7800	7300	6900
90x42	20	2600	2600	2600	2400	3100	3100	3100	3100
130x42	20	4350	4100	3700	3400	5350	5350	4950	4650
150x42	20	4900	4650	4200	3900	6150	5900	5450	5150
170x42	20	5300	5100	4700	4400	6700	6400	5950	5650
200x42	20	5900	5650	5300	5000	7400	7100	6650	6300
240x42	20	6600	6350	6000	5700	8300	8000	7500	7150
300x42	20	7600	7350	6950	6600	9550	9200	8700	8300
90x58	20	3050	3050	2850	2650	3600	3600	3600	3600
130x58	20	4650	4400	4000	3700	5900	5650	5250	5000
150x58	20	5150	4900	4550	4250	6450	6200	5800	5500
170x58	20	5550	5350	5000	4750	7000	6700	6300	6000
200x58	20	6150	5900	5600	5300	7700	7450	7000	6700
240x58	20	6850	6650	6300	6000	8600	8350	7900	7550
300x58	20	7850	7600	7250	6950	9850	9550	9100	8750
360x58	20	8700	8500	8150	7850	10950	10700	10200	9850
400x58	20	9250	9050	8700	8350	11650	11350	10900	10550
300x75	20	8000	7800	7500	7200	10050	9800	9400	9100
400x75	20	9400	9250	8900	8650	11850	11600	11200	10850

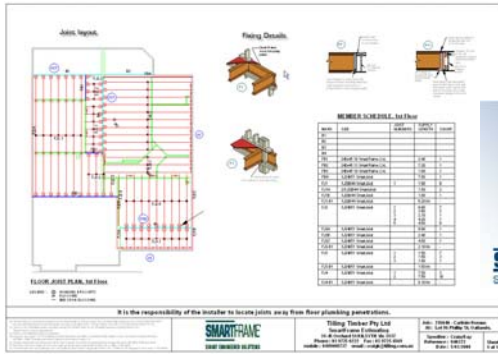
CEILING JOISTS AS 4055 WIND CLASSIFICATION C1, C2 & C3

Ceiling Joist spacing (mm)		450	600	900	1200	450	600	900	1200
Size Dx8 (mm)	Ceiling mass (kg/m ²)	Maximum Ceiling joist span (mm)							
		Single span				Continuous span			
90x35	20	2300	2300	2300	2300	2800	2800	2800	2500
130x35	20	4150	3900	3500	3250	4900	4900	4300	3600
150x35	20	4750	4450	4000	3700	6000	5700	4900	4150
170x35	20	5150	4950	4500	4200	6500	6200	5500	4650
200x35	20	5750	5500	5100	4850	7200	6900	6400	5450
240x35	20	6450	6200	5800	5500	8100	7800	7300	6450
90x42	20	2600	2600	2600	2400	3100	3100	3100	2750
130x42	20	4350	4100	3700	3400	5350	5350	4700	4000
150x42	20	4900	4650	4200	3900	6150	5900	5350	4550
170x42	20	5300	5100	4700	4400	6700	6400	5950	5150
200x42	20	5900	5650	5300	5000	7400	7100	6650	6000
240x42	20	6600	6350	6000	5700	8300	8000	7500	7100
300x42	20	7600	7350	6950	6600	9550	9200	8700	8300 _s
90x58	20	3050	3050	2850	2650	3600	3600	3600	3300
130x58	20	4650	4400	4000	3700	5900	5650	5250	4700
150x58	20	5150	4900	4550	4250	6450	6200	5800	5400
170x58	20	5550	5350	5000	4750	7000	6700	6300	6000
200x58	20	6150	5900	5600	5300	7700	7450	7000	6700
240x58	20	6850	6650	6300	6000	8600	8350	7900	7550
300x58	20	7850	7600	7250	6950	9850	9550	9100	8750
360x58	20	8700	8500	8150	7850	10950	10700	10200	9850
400x58	20	9250	9050	8700	8350	11650	11350	10900	10550
300x75	20	8000	7800	7500	7200	10050	9800	9400	9100
400x75	20	9400	9250	8900	8650	11850	11600	11200	10850

NOTES:

1. D = member depth, B = member breadth
2. Do not walk on joists during construction unless a construction plank is in place
3. Minimum end/internal bearing length of 70 mm

SmartFrame TOOLS



SmartFrame Software

You really do need to see our software to believe it. This state of the art *FREE* software is world leading technology. Not only does it provide the services noted previously, but you also have the benefit of being able to 'size' specific members for your project—fast. No other software package can give you all these benefits at no charge.

Quick Design -

Can't get a particular timber? Just enter the spans and you have a SmartFrame alternative. It's that easy.

Take-Off -

This is the module from which we produce our designs. Either use this yourself, or send the plans to us and we'll do it for you. The take-off is provided in A3 full colour easy to read layouts.

Bracing -

More for Designers and Engineers, this module will work out force summaries for wind bracing and more.

Connection Details -

Ever wondered how to connect an I-Joist to a steel PFC? If you have, this is the module for you. Over 30 different types of connection details all with easy to read graphics and detailed notes.

Select Bracket -

Want to be sure you've got the hardware? Visit 'select bracket' and you'll get all the info you need i.e.: size, the joists it suits and order code. Choose from straight face mount hangers, top mounts, 45° offsets, rafter to ridge hangers and even heavy duty hangers for our LVL.

Tie Down -

A powerful tool to enable users to quickly calculate the uplift forces on a structure and to assign suitable tie down solutions as contained in Chapter 9 of AS 1684

Reports -

Need a certificate report for council? Easy—just switch on your PC, bring up the job and hit the reports button. In one or two minutes, you'll have complete computer generated certifications suitable for most councils and inspectors. Of course, if they aren't satisfied,

send the job to us and our Engineer will look over it, ensure it's correct and then issue you an Engineer's Certificate.

SmartFrame Design Service

Tilling offer a comprehensive design service to builders as part of our SmartFrame builders program—at no charge. Simply give us your plans and we'll supply you with the following:



floor Beam/Post/Lintel Layout - This is clearly show where members go, what they bear onto and how they connect within the frame, all in easy to read colour graphics.

Joist Layout - Showing the layout of joists, bearing points, where to start your layout and other site specific details such as joist hangers and rimboard/end blocking. These layouts can include location of service holes so the tradesman can adjust the joists as necessary.

Member Schedule - Our member schedule illustrates the direction of each member, size, length, count, how it bears left and right and any other information deemed to be needed.

Order Schedule - This is the take off to build the floor. Simply take a look at it to check everything is included, then fax it to your merchant for supply.

Training

Installation Training - It's not always easy for carpenters to keep up to date on new products, however to produce a well built, strong home, it's a necessity. At Tilling, we realize that education and training are lynch pins of the SmartFrame range. If you've ever used our products before, or you've just started a new chippie crew, give us a call. Given either on site, in your office or ours, installation training runs through all the details required to install our joists and LVL, including shortcuts to save time and money. Once again this service is provided at no charge to SmartFrame users. It's all part of the service to ensure you can work with confidence.



SMARTFRAME DESIGN COMPENDIUM

Design Compendium Contents

Specification Software

- Technical Support

Design Guides (pdf)

Technical Illustrations (dxf/dwg for CAD)

Fixing Details - fixing details/hangers (jpg)

Video Clips - installation/company (mpg)

Software Tutorial

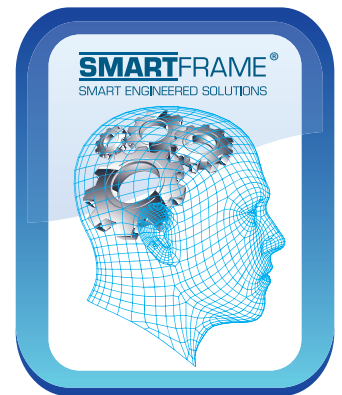
Interactive



Printable



PC



Never before has so much user friendly computer power been unleashed into the hands of building industry professionals to allow the design and detailing of engineered timber products. This software, in conjunction with the SmartFrame Design Centre and SmartFrame engineered timber products themselves, combines to form the most sophisticated structural timber option ever available to the Australian market. The SmartFrame Engineered Timber Solution represents an entirely new and revolutionary concept in the delivery of 21st century technology and service to the building industry.

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