

## Glossary of Terms used in Trussed Rafter Construction

### Apex/Peak

The uppermost point of a truss.

### Attic Truss/room-in-the-Roof

A truss which forms the top storey of a dwelling but allows the area to be habitable by leaving it free of internal WEB members. This will be compensated by larger timber sizes elsewhere.

### Bargeboard

Board fitted to conceal roof timbers at a GABLE END.

### Battens

Small timber members spanning over trusses to support tiles, slates etc.

### Bearer

A member designed to distribute loads over a number of trusses.

### Binder

A longitudinal member nailed to trusses to restrain and maintain correct spacing.

### Birdsmouth

A notch in the underside of a RAFTER to allow a horizontal seating at the point of support (usually used with RAISED TIE TRUSSES).

### Blocking

Short timbers fixed between chords to laterally restrain them. They should be at least 70% of the depth of the chords.

### Bobtail

A truss type formed by truncating a normal triangular truss.

### Bottom Chord

See CEILING TIE.

### Bracing

This can be Temporary, Stability or Wind Bracing which are described under these headings.

### Building Designer

The person responsible for the structural stability and integrity of the building as a whole.

### Camber

An upward vertical displacement built into a truss in order to compensate for deflection which might be caused by the loadings.

### Cantilever

The part of a structural member of a TRUSS which extends beyond its bearing.

### Ceiling Tie

The lowest member of a truss, usually horizontal which carries the ceiling construction, storage loads and water tank.

### Chevron Bracing

Diagonal web bracing nailed to the truss in the plane of the specified webs to add stability.

### Connector Plate/fastener

See NAILPLATE.

### Cripple Rafter

See JACK RAFTER.

### Dead Load

The load produced by the fabric of the building, always long term (see DESIGN LOADS).

### Deflection

The deformation caused by the loads.

### Design Loads

The loads for which the unit is designed. These consider the duration of the loads long term, medium term, short term and very short term.

### Duo/dual Pitch Truss

A truss with two rafters meeting at the APEX but not necessarily having the same PITCH on both sides.

### Dwangs

See NOGGINGS.

### Eaves

The line between the rafter and support wall.

### Eaves Joint

The part of the truss where the rafter and the ceiling tie intersect. This is usually where the truss is supported.

### Extended Rafter

See RAISED TIE TRUSS

### Fascia

Horizontal board fitted around the perimeter of the building to the edge of the truss overhangs.

### Fastener

See NAILPLATE.

### Fink Truss

The most common type of truss used for dwellings. It is duo-pitch, the rafter having the same pitch. The webs form a letter W.

### Firring Piece

A tapered timber member used to give a fall to flat roof areas.

### French Heel

An EAVES joint where the rafter sits on the ceiling tie.

### Gable End

The end wall which is parallel to the trusses and which extends upwards vertically to the rafters.

## Glossary of Terms used in Trussed Rafter Construction

**Hip End**

An alternative to a GABLE END where the end wall finishes at the same height as the adjacent walls. The roof inclines from the end wall, usually (but not always) at the same PITCH as the main trusses.

**Hip Set**

The trusses, girders and loose timbers required to form a hip end.

**Horn/nib**

An extension of the ceiling tie of a truss (usually monos or bobtailed trusses) which is built into masonry as a bearing.

**Imposed Load**

The load produced by occupancy and use including storage, inhabitants, moveable partitions and snow but not wind. Can be long, medium or short term.

**Internal Member**

See Webs.

**Intersection**

The area where roofs meet.

**Jack Rafter**

An infill rafter completing the roof surface in areas such as corners of HIP ENDS or around chimneys.

**Live Load**

Term sometimes used for IMPOSED LOADS.

**Longitudinal Bracing**

Component of STABILITY BRACING.

**Loose Timber**

Timbers not part of a truss but added to form the roof in areas where trusses cannot be used.

**Mono-Pitch Truss**

A truss in the form of a right-angled triangle with a single rafter.

**Nailplate**

Metal PLATE having integral teeth punched from the plate material. It is used for joining timber in one plane with no overlap. It will have an accreditation certificate and will be manufactured, usually, from galvanised steel. It is also available in stainless steel.

**Nib**

See HORN

**Node**

Point on a truss where the members intersect.

**Noggings**

Timber pieces fitted at right angles between the trussed rafters to form fixing points.

**Overhang**

The extension of a rafter or ceiling tie of a truss beyond its support or bearing.

**Part Profile**

See BOBTAIL.

**Peak**

See APEX.

**Permissible Stresses**

Design stresses for grades of timber published in BS5268: Part2:

**Pitch**

The angle of the chords to the horizontal, measured in degrees.

**Plate**

See NAILPLATE.

**Purlins**

Timber members spanning over trusses to support cladding or between trusses to support loose timbers.

**Quarter Point**

The point on a rafter where the web intersects in a FINK TRUSS.

**Queen**

Internal member (WEB) which connects the APEX to a third point on a FINK TRUSS.

**Rafter**

The uppermost member of a truss which normally carries the roof covering.

**Rafter Diagonal Bracing**

Component of STABILITY BRACING.

**Raised Tie Truss**

A truss which is supported at a point on the rafter which is beyond the point where the rafter meets the ceiling tie.

**Reducing Trusses**

See VALLEY FRAMES.

**Remedial Detail**

A modification produced by the TRUSSED RAFTER DESIGNER to overcome a problem with the truss after its manufacture.

**Return Span**

The span of a truss being supported by a girder.

**Ridge**

The line formed by the truss apexes.

**Ridgeboard**

Timber running along a ridge and sandwiched between loose rafters.

**Roof Designer**

The person responsible for the roof structure as a whole and who takes into account its stability and capability of transmitting wind forces on the roof to suitable load-bearing walls.

## Glossary of Terms used in Trussed Rafter Construction

### Room-in-the-Roof

See attic truss.

### Scab

Additional timber fitted to the sides of a truss to effect a local reinforcement, particularly in raised tie trusses.

### Setting Our Point

The point on a truss where the undersides of the rafter and ceiling tie meet.

### Skew Nailing

A method of fixing trusses to the wallplate by driving nails at an angle through the truss into the wallplate which is generally not recommended. (See Truss Clip).

### Soffit

Board fixed underneath eaves overhang along the length of the building to conceal timbers.

### Span

Span over wallplates is the distance between the outside edges of the two supporting wallplates. This is usually the overall length of the ceiling tie.

### Spandrel Panel

A timber frame, triangular panel forming the gable wall above the ceiling line.

### Splice

A joint between two members in line using a nailplate or glued finger joint.

### Spreader Beam

See bearer.

### Strap

Metal component designed to fix trusses and wallplates to walls.

### Strut

Internal compression member connecting the third point and the quarter point on a Fink truss.

### Stub End

See bobtail.

### Temporary Bracing

An arrangement of diagonal loose timbers installed for safety during erection. Often incorporated with permanent stability and wind bracing structures.

### Third Point

Point on the ceiling tie where the internal webs meet in a fink truss.

### Timber Stress Grading

The classification of timber into different structural qualities based on strength (see BS4978: 1996).

### Top Chord

See rafter.

### TRADA Quality Assurance Scheme

Quality control method in truss manufacture administered by the BM TRADA Certification.

### Trimmer

A piece of timber used to frame around openings.

### Truss/Trussed Rafter

A lightweight framework, generally but not always triangulated, placed at intervals of 600mm to support the roof. It is typically made from timber members of the same thickness, fastened together in one plane using nailplates or plywood gussets.

### Trussed Rafter Designer

The person responsible for the design of the trussed rafter as a component and for specifying the points where bracing is required.

### Truss Clip

A metal component designed to provide a safe structural connection of trusses to wallplates. Also to resist wind uplift and to prevent the damage caused by skew nailing.

### Truss Shoe

A metal component designed to provide a structural connection and support for a truss to a girder or beam.

### Uniformly Distributed Load

A load that is uniformly spread over the full length of the member.

### Valley Board

A member raking from incoming ridge to corner in a valley construction.

### Valley Frames/Set

Infill frames used to continue the roofline when roofs intersect.

### Verge

The line where the trussed rafters meet the gable wall.

### Wallplate

A timber member laid along the length of the load bearing walls to provide a level bearing and fixing for the trusses.

### Webs

Timber members that connect the rafters and the ceiling tie together forming triangular patterns which transmit the forces between them.

### Wind Bracing

An arrangement of additional timbers or other structural elements in the roof space, specially designed to transmit wind forces to suitable load-bearing walls.