

# **NATIONAL SUPPORT** visit: Winstone Wallboards Limited 37 Felix Street, Penrose, Auckland 1061, New Zealand POST: PO Box 12 256, Penrose, Auckland 1642, New Zealand SUPERIOT CHE PHONE: +64 9 633 0100 +64 9 633 0101 Free Fax: 0800 229 222 EMAIL: info@gib.co.nz gib.co.nz WEB: GIB® HELPLINE 0800 100 442 GIB® HELPLINE 0800 100 442 OR GIB.CO.NZ FOR MORE INFO GIB® INTERTENANCY BARRIER SYSTEMS **NOVEMBER 2016**

This document is intended for multi-unit residential homes designed within the scope of NZS3604:2011 or by specific design. The GIB® Intertenancy Barrier System for Terrace Homes provides peace of mind, delivering fire, noise and security performance.

### BENEFITS OF THE GIB® INTERTENANCY BARRIER SYSTEMS FOR TERRACE HOMES INCLUDE:

- High fire protection and noise control performance.
- No acoustic or fire sealing required where services penetrate wall linings within limitations.
- Cost effective.
- Narrow footprint, maximise the available tenancy of each unit.
- Compatible with GIB® Bracing Systems.
- Lightweight construction, no need for specific foundation designs.
- Easy and fast to install, no additional trades required for installation.

### GIB® INTERTENANCY BARRIER SYSTEMS FOR TERRACE HOMES, SEPTEMBER 2016

GIB Barrierline® has a water and mould resistant core. Despite this it is important to remember that paper-faced gypsum plasterboard should only be handled when dry. Therefore GIB Barrierline® and GIB Fyreline® must be kept dry after delivery and before installation.

Once installed and in a vertical orientation GIB Barrierline® can be exposed to the elements for up to 12 weeks before the building is closed in. Once installed and in a vertical orientation 16mm GIB Fyreline® can be exposed to the elements for up to 4 weeks before the building is closed in.

BRANZ Appraised
Appraisal No.940 [2016]

#### **TABLE OF CONTENTS**

System Summary GIB® Intertenancy Barrier Systems for Terrace Homes	5
Introduction	6
Scope of Use	$\epsilon$
Beware of Substitution	6
Compliance with the NZ Building Code	6
Design and Construction	7
Building Design	7
Structural Design	7
Fire Resistance	8
Noise Control Performance	8
Wet Area Systems	8 8
Durability During Construction Security	8
Quality of Finish	8
Penetrations	ç
Building Services	9
Typical Penetration features	9
System Components	10
Linings	10
Fasteners	11
Insulation	11
Framing	11
Typical Installation Sequence	12
Step 1 - Ground Floor Barrier Installed	12
Step 2 - Unit 2 Frame and Floor Installed	12
Step 3 - First Floor Barrier Installed	13
Step 4 - Unit 2 First Floor Framing Installed	13
System Specifications	14
Specification Number GBTLAB 60a	14
Specification Number GBTLAB 60b	16
Specification Number GBTLAB 60c Specification Number GBTLAB 60d	18 20
Total Constant But its	0.0
Typical Construction Details  Detail at Upper Starry Framed Floor (Side Floyation)	<b>22</b> 22
Detail at Upper Storey Framed Floor (Side Elevation)  Base Detail at Slab (Side Elevation)	22 22
Detail at Corner (Plan View)	22
Detail at External Timber Frame Wall (Plan View)	23
Intertenancy Wall Projection at External Timber Frame Wall	
(Plan View)	23
Detail at Ceiling and Roof (End Elevation)	24
Detail at Return in External Brick Veneer Wall (Plan View)	25
Detail at External Brick Veneer Wall (Plan View)	25
Detail for Junction with Non Fire-Rated Wall (Plan View)	26
Detail at Roof/Ceiling (End Elevation)	26
Detail at Roof/Ceiling and Parapet (End Elevation)	27
Fixing Detail for 16mm GIB Fyreline®	27
Eaves Detail (Side Elevation)	28



# GIB® Intertenancy Barrier Systems for Terrace Homes

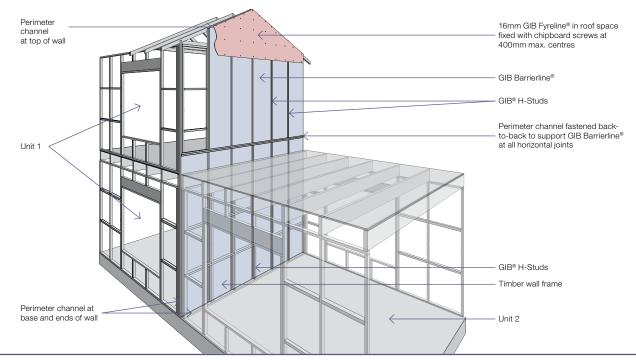
Winstone Wallboards Ltd accepts no liability if the GIB® Intertenancy Barrier Systems for Terrace Homes is not designed and installed in strict accordance with instructions contained in this publication.

#### **USE ONLY THE CURRENT SPECIFICATION**

This publication may be superseded by a new publication. Winstone Wallboards accepts no liability for reliance upon publications that have been superseded. You should check the current index of publications contained in your GIB® Technical Manual before using this publication. If you are unsure whether this is the current publication, simply call the GIB® Helpline on 0800 100 442.

Two Way FRR – Double Timber Frame with GIB Barrierline® Central Barrier											
Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements each side	Weight of system (kg/m²)	Page				
GBTLAB 60a	LB	68	66	60/60/60	2x 10mm GIB® Standard	65	14				
GBTLAB 60b	LB	64	63	60/60/60	1x 10mm GIB Braceline/Noiseline®	55	16				
GBTLAB 60c	LB	67	65	60/60/60	1x 13mm GIB Braceline/Noiseline®	62	18				
GBTLAB 60d	LB	61	60	60/60/60	1x 13mm GIB® Standard	54	20				

FIGURE 1: GIB® INTERTENANCY BARRIER SYSTEM FOR TERRACE HOMES





### Scope of use

GIB® Intertenancy Barrier Systems for Terrace Homes are designed to provide a NZBC compliant separating wall between attached dwellings. The system consists of a double timber frame wall with a 25mm thick plasterboard barrier between the frames. The primary fire resistance is provided by the plasterboard barrier, with the wall linings contributing to some extent. This allows the wall linings to be used for structural bracing and to incorporate penetrations.

The basis of the acoustic performance is a double cavity system. This provides isolation from airborne sound. Insulation in both cavities is used to meet various performance levels and allows certain services to penetrate the wall linings.

#### Beware of substitution

The performance of GIB® Systems are very sensitive to design detailing and construction practices. All GIB® Systems have been developed specifically for New Zealand conditions and independently tested or assessed to ensure the required level of performance. It is important to use only GIB® branded components where specified and to closely follow the specified design details and construction practices, to be confident that the required level of performance and quality is achieved on site.

For further information call our GIB® Helpline on 0800 100 442.

GIB® Intertenancy Barrier Systems for Terrace Homes have been designed and tested using only the products specified. For permitted bracing substitutions see the latest version of the GIB EzyBrace® Systems literature.

## Compliance with the NZ Building Code

#### **NZBC CLAUSE B1 - STRUCTURE**

The design and material specification for timber framing used in conjunction with this literature must be in accordance with the performance requirements of NZBC Clause B1. GIB EzyBrace® Systems comply with the requirements of NZS 3604:2011, when designed and installed in accordance with the relevant technical literature. NZS 3604:2011 is a Compliance Document to NZBC Clause B1.

#### **NZBC CLAUSE B2 - DURABILITY**

Under normal conditions of dry internal use the products detailed in GIB® Intertenancy Barrier Systems for Terrace Homes has a service life in excess of 50 years and satisfy the requirements of NZBC Clause B2. When in conditions of dry internal use, the components specified in this literature satisfy the requirements of NZBC Clause B2.

#### NZBC CLAUSES C1-C6 - PROTECTION FROM FIRE

GIB® Intertenancy Barrier Systems for Terrace Homes can be used to provide passive fire protection in accordance with the requirements of NZBC Clauses C1-C6 – Protection from Fire.

### NZBC CLAUSE F2 – HAZARDOUS BUILDING MATERIALS

Under normal conditions of use and serviceable life, the products detailed in the GIB® Intertenancy Barrier Systems for Terrace Homes do not constitute a health hazard and meet the provisions of the NZBC Clause F2

#### NZBC CLAUSE G6 - AIRBORNE AND IMPACT SOUND

GIB® Intertenancy Barrier Systems for Terrace Homes provide airborne noise control ratings that exceed the minimum requirements of NZBC Clause G6 – Airborne and Impact Sound.

### Appraisal

GIB® Intertenancy Barrier Systems for Terrace Homes 2016 have been appraised by the Building Research Association of New Zealand (BRANZ), Appraisal No. 940 (2016) GIB® Intertenancy Barrier Systems for Terrace Homes, 2016.

It is of prime importance to comply with the details of design, construction and workmanship in this document.



### Building design

The GIB® Intertenancy Barrier Systems for Terrace Homes consist of vertically spanning elements extending from the ground slab or footing up to the roof. Consideration of roof framing is also important to avoid penetrating the barrier with trusses, ties, hip beams, etc.

GIB® Intertenancy Barrier Systems for Terrace Homes is ideally suited to buildings with aligned external facades. A detail for an off-set brick veneer façade is provided.

The maximum height for GIB® Intertenancy Barrier Systems for Terrace Homes is 12m, with a maximum individual floor/ceiling height as per NZS 3604.

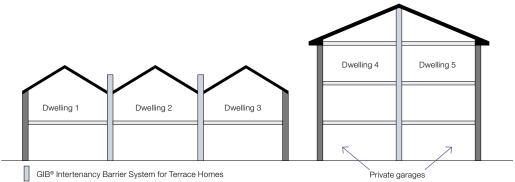
### Structural design

All walls must be designed for the applied loads. Timber framing shall be in accordance with NZBC B1 Structure – B1/AS1 Clause 3.0 Timber – NZS 3604 or B1/VM1 Clause 6.0 Timber – NZS 3603 or to specific design.

GIB® H-Studs form the vertical joints between sheets of GIB Barrierline®. They must be continuous lengths and be fitted into the GIB® Rondo® 140 Perimeter Channel at their top and bottom. No mechanical fixings are required between the GIB® H-Stud and the channels, or the GIB® H-Stud and the GIB Barrierline®.

GIB® Wall Clips provide lateral support to the central barrier and are required within 600mm below the top of every GIB® H-Stud, on both sides, and at 3000mm maximum centres vertically.







#### Fire resistance

The GIB® Intertenancy Barrier Systems for Terrace Homes in this document are suitable for the stated Fire Resistance Rating (FRR) when designed in accordance with the building and structural considerations on the previous page, and installed in accordance with the details in this manual.

The GIB® Intertenancy Barrier Systems for Terrace Homes are designed for one side to collapse in a fire, leaving the central barrier and the opposing wall in place. In the roof space 16mm GIB Fyreline® is laminated to the GIB Barrierline® to maintain the FRR.

The GIB® Wall Clips are intended to melt on the fire side only, allowing collapse without damage to the remaining system.

### Noise control performance

The noise control performance of the GIB® Intertenancy Barrier Systems for Terrace Homes is expressed in terms of Sound Transmission Class (STC) and Weighted Sound Reduction Index (Rw). The ratings are based on tested laboratory performance. The site performance of the system may be affected by sound flanking, workmanship and the inclusion of structural and bridging elements. The building designer must pay special attention to airborne and structural flanking paths to minimise the difference between laboratory and field performance.

GIB® Wall Clips are only to be installed as shown in the details. Using additional clips within the storey height can reduce the acoustic performance of the wall.

For flanking sound control it is required that each storey ceiling consists of GIB® plasterboard 10mm or thicker and that fibrous insulation, such as Pink® Batts® (115mm) ceiling, extends 1200mm minimum on each side of the wall over the ceiling.

It is assumed no noise control rating is required between the two adjoining roof spaces and that the spaces are not occupied.

Where rigid wall underlay is specified on the building exterior, flexible wall underlay must be installed over the width of the intertenancy wall. The rigid wall underlay must be discontinued over the width of the intertenancy wall.

### Wet area systems

The wall linings on either side of the GIB® Intertenancy Barrier Systems for Terrace Homes may be changed, provided the change is in accordance with the relevant system specification sheet. This might occur, for example, where the intertenancy wall forms one side of a wet area.

### Durability during construction

GIB Barrierline® has a water and mould resistant core. Despite this, it is important to remember that paper-faced gypsum plasterboard should only be handled when dry and must be kept dry after delivery and before installation. Reusable waterproof covers can be supplied with all deliveries of GIB® Intertenancy Barrier System components, including GIB Barrierline®.

Leave a 5mm gap between bottom perimeter channel butt joints. This will let any collected rain water escape more readily. Once installed and in a vertical orientation, GIB Barrierline® can be exposed to the elements for up to 12 weeks before the building is closed in. Once installed and in a vertical orientation 16mm GIB Fyreline® can be exposed to the elements for up to 4 weeks before the building is closed in.

### Security

The presence of the central barrier provides added security. The 25mm thick GIB Barrierline® with galvanised steel GIB® H-Studs at the sheet joints forms a secure seperation in the centre of the intertenancy wall.

### Quality of finish

GIB® Intertenancy Barrier System specification number GBTLAB 60a minimises the possibility of surface imperfections by reducing the number of fasteners used to fix the outer layer wall lining.



### Building services

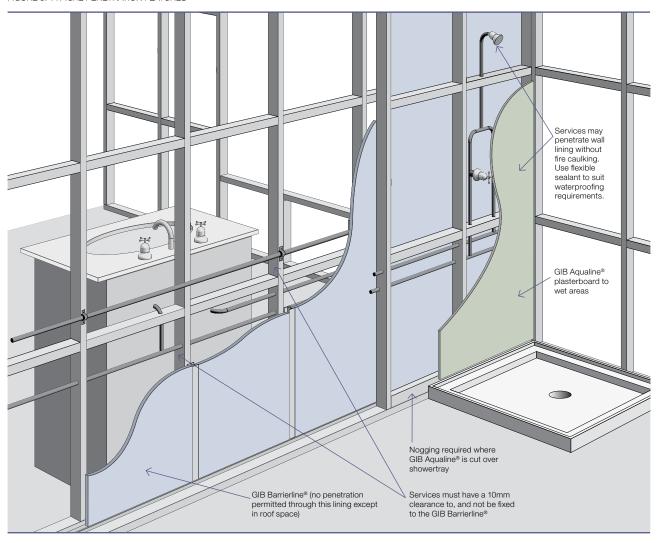
GIB® Intertenancy Barrier Systems for Terrace Homes allow installation of plumbing and electrical services in the cavities either side of the central barrier. Back-to-back services and penetrations are permitted within the limitations given below. A minimum of 10 mm clearance must be provided between plumbing or electrical services and the central barrier.

Metal and PVC plumbing services up to 65 mm in diameter do not need specialist fire-stopping where they penetrate the wall linings. Penetrations through wall linings must have neatly cut holes with 6 mm maximum clearance around the plumbing service. Fill the gap with a general purpose flexible sealant.

Electrical services up to  $90 \times 50$  mm that penetrate wall linings do not need to be fire-stopped. Limit flush boxes to two per nominally 600 mm wide framing cavity.

Suitable proprietary fire-stopping is required for wall lining penetrations larger than  $90 \times 50$  mm or 65 mm in diameter, and for penetrations through the GIB Barrierline® core in the roof space.

FIGURE 3: TYPICAL PENETRATION FEATURES





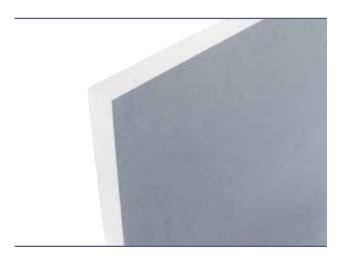
### Linings

#### GIB BARRIERLINE®

- Glass fibre reinforced core encased in a heavy duty liner board.
- 25mm thickness (approximate mass 20.0kg/m²).
- 3000mm long, 600mm wide.
- Modified core for additional water and mould resistance.
- Square edges.

#### **GIB® STANDARD**

- Tapered edges to assist in producing smooth even and continuous surface once jointed.
- Square edge and square edge/tapered edge available.
- Glass fibre reinforced core.
- 10mm and 13mm thickness (approximate mass 6.5kg/m² and 8.5kg/m²).



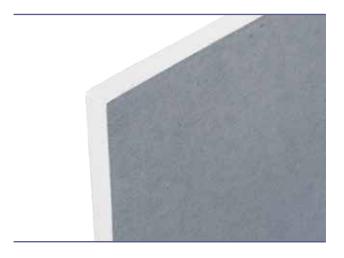


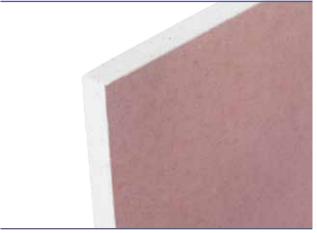
#### GIB BRACELINE/NOISELINE®

- Dual purpose board that provides high-level bracing performance when used in GIB EzyBrace® Systems and helps reduce noise transmission through walls and ceilings
- Tapered edges to assist in producing smooth, even and continuous surface once jointed.
- High density, glass fibre reinforced core.
- 10mm and 13mm thickness (approximate mass 9.0kg/m² and 12.0kg/m²).

#### GIB FYRELINE®

- High density modified core resists exposure to fire longer than regular plasterboard.
- 16mm thickness (approximate mass 14.5kg/m²).







#### **Fasteners**

#### **CHIPBOARD SCREW**

40mm x 8g minimum gauge for fixing 16mm GIB Fyreline® to 25mm GIB Barrierline®

#### **DRILL-POINT WAFER-HEAD SCREW**

16mm x 10g for joining metal components.

#### **DRILL-POINT WAFER-HEAD SCREW**

30mm x 10g for fixing GIB® Wall Clip to GIB® H-Stud through 16mm GIB Fyreline®

#### **WOOD SCREW**

25mm x 6g for fixing metal components to timber.

#### TRACK FASTENERS

Fasteners shall be 3.5mm diameter x 30mm minimum length or 4.0mm diameter x 25mm minimum length concrete nails. Alternatively fasteners shall be 6mm diameter x 40mm minimum length steel expansion anchors or screw anchors.

#### Insulation

### PINK® BATTS® R2.2 (90MM) GLASS WOOL INSULATION

Installed between the studs and nogs in both wall frames.

### MINERAL WOOL OR CERAMIC FIBRE CAVITY INSULATION

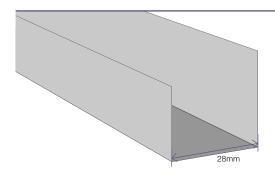
Installed to seal the top of the GIB Barrierline® wall. Thickness to match cavity. Minimum density 40kg/m³.

### Framing

#### GIB® RONDO® 140 PERIMETER CHANNEL

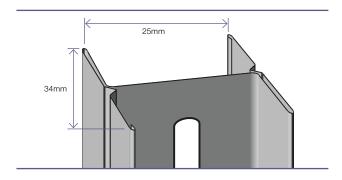
Made from 0.55mm BMT G275 galvanised steel, the track comes in 3000mm lengths and is used in the following applications:

- Support the GIB Barrierline® at the top and bottom of the wall.
- Support the GIB Barrierline® at the ends of the wall.



#### **GIB® H-STUD**

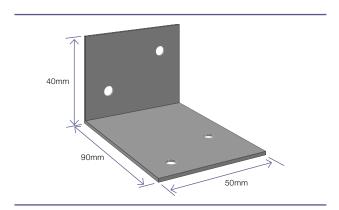
The GIB® Intertenancy Barrier System for Terrace Homes incorporates 25mm deep GIB® H-Studs to support the GIB Barrierline® at all vertical joints. It is made from 0.55mm BMT G275 galvanised steel and comes in 3000mm lengths.



#### **GIB® WALL CLIP**

Made from 2.0mm aluminium. Provides lateral support for the central barrier.

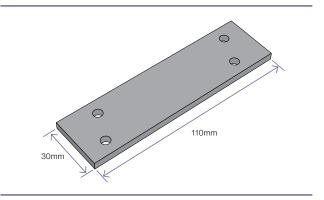
- Critical in the fire performance of the system.
- Used to provide lateral support to the GIB® H-Stud.



#### **GIB® WALL STRAP**

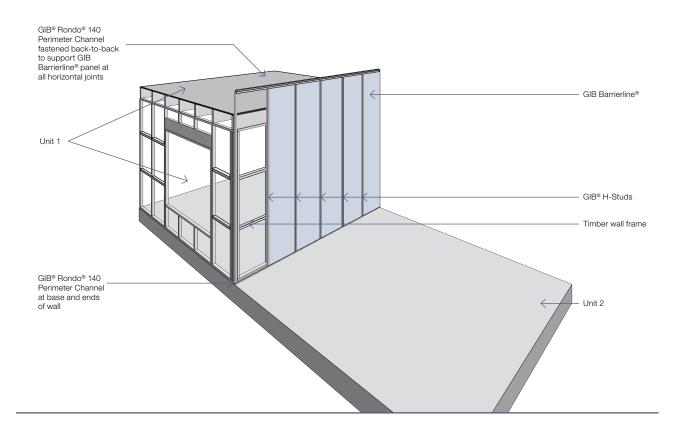
Made from 3.0mm aluminium. Provides lateral support for the ends of the central barrier.

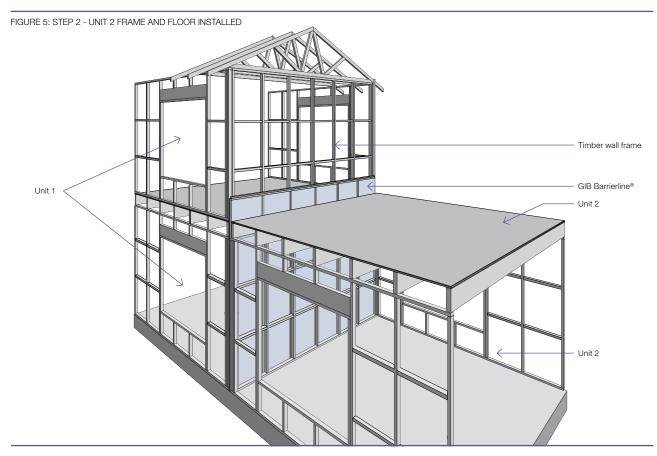
- Critical in the fire performance of the system.
- Used to provide lateral support to the GIB® Rondo® P140
   Steel Track at each end of the central barrier.



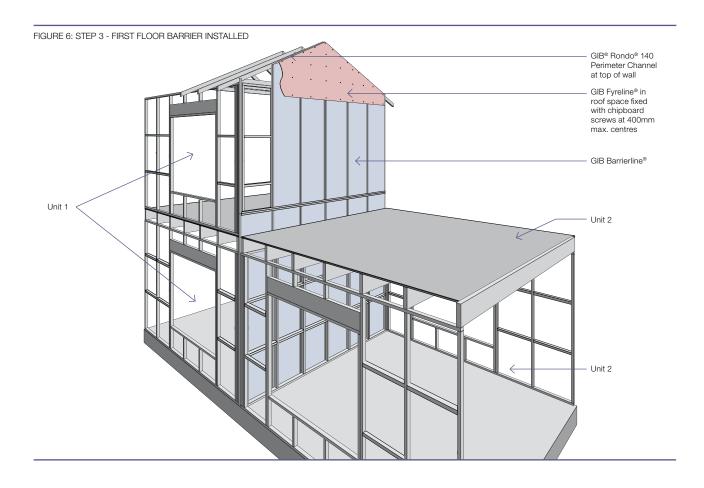


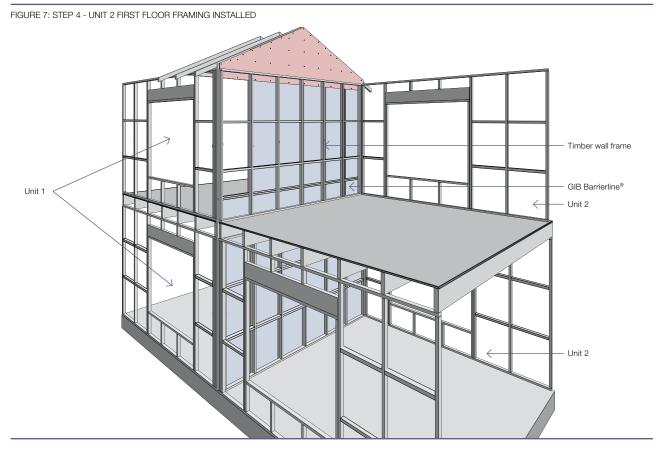
#### FIGURE 4: STEP 1 - GROUND FLOOR BARRIER INSTALLED













Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements	Weight of system (kg/m2)
GBTLAB 60a	LB	68	66	60/60/60	2 x 10mm GIB® Standard plasterboard	65

#### **TIMBER FRAMING**

Framing to comply with:

- NZBC B1 Structure: AS1 Clause 3 Timber (NZS 3604) or VM1 Clause 6 – Timber (NZS 3603).
- NZBC B2 Durability: AS1 Clause 3.2 Timber (NZS 3602).

Maximum height as determined by NZS 3604 stud and top plate tables for loadbearing walls.

#### **CENTRAL BARRIER**

- Allow a 25-40mm gap between each timber frame and the GIB Barrierline® central barrier.
- Fix GIB® Rondo® 140 Perimeter Channels to the concrete floor with steel fasteners at 600 mm centres and no more than 50mm from channel ends using 3.5mm x 30mm or 4.0mm x 25mm concrete nails or 6mm x 40mm concrete anchors.
- A 5mm gap between GIB® Rondo® 140 Perimeter Channels will let any collected rain water escape.
- GIB® Rondo® 140 Perimeter Channel to be sealed to the floor slab on one side with fire/acoustic sealant.
- Install 25mm GIB Barrierline® into GIB® H-Studs at 600mm centres.
- Cap GIB Barrierline® ends with GIB® Rondo® 140 Perimeter Channel.
- Offset GIB® H-Studs at least 100mm from wall studs to allow attachment of GIB® Wall Clips to both frames. Nog as required where no framing exists.
- Place two GIB® Wall Clips (one each side) no more than 600mm below the top of each GIB® H-Stud, no further apart than 3000mm vertically.
- Fix GIB® Rondo® 140 Perimeter Channel at wall ends to both timber frames with GIB® Wall Clips or GIB® Wall Straps placed no further apart than 3000mm vertically.
- Use no more than two GIB® Wall Clips or GIB® Wall Straps (one each side) for each 3000mm length of GIB® H-Stud or GIB® Rondo® 140 Perimeter Channel.
- In the roof space, fix 16mm GIB Fyreline® to one side of the GIB Barrierline® with 40mm x 8g chipboard screws on a 400mm grid, and at no more than 100mm from sheet edges.
- Extend the 16mm GIB Fyreline® at least 200mm below ceiling level.
- Once erected, protect the GIB Barrierline® and GIB Fyreline® from rain. The use of suitable sheeting can avoid delays in allowing the board to dry before wall linings are installed.

#### **SOUND CONTROL INFILL**

Install Pink® Batts® R2.2 (90mm) glass wool insulation between the studs and nogs in both frames.

#### **WALL LINING**

2 layers of 10mm GIB® Standard.

Fix inner sheets vertically. Where sheet end butt joints are unavoidable they must be formed over framing. Use full height sheets where possible.

Outer layer sheets can be fixed vertically or horizontally. If fixed vertically, outer layer sheet joints must be offset 600mm from those of the inner layer. Use full height sheets where possible.

If the wall lining forms part of the structural bracing system, the inner layer lining type and fixings must comply with the published bracing system. Check requirements for specific bracing element hold-down connections.

#### **FASTENING THE LINING**

Inner layer:  $32mm \times 6g \text{ GIB}^{\otimes} \text{ Grabber}^{\otimes} \text{ High Thread Drywall Screws.}$ 

Outer layer: 41mm x 6g GIB® Grabber® High Thread Drywall Screws. If fixing sheets horizontally, fasteners to be placed at 300mm centres to top and bottom plates and perimeter studs. Install pairs of single fasteners to each stud where horizontal joint crosses. Adhesive fix the outer layer to the inner layer with daubs of GIBFix® adhesive at 300mm centres. Do not place GIBFix® adhesive at sheet edges or within 200mm of screw fixings.

If fixing sheets vertically, fasteners to be placed at 300mm centres around the sheet perimeter. Adhesive fix the outer layer to the inner layer with daubs of GIBFix® adhesive at 300mm centres. Do not place GIBFix® adhesive at sheet edges or within 200mm of screw fixings.

Place screws no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

#### GIB AQUALINE® SUBSTITUTION

If the outer layer of 10mm GIB® Standard plasterboard wall lining is substituted with 10mm GIB Aqualine®, the FRR and noise control rating will be retained.

#### **JOINTING**

Central Barrier: Unstopped

Inner layer wall lining: Unstopped

Outer layer wall lining: All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled "GIB® Site Guide". Wall to ceiling junctions are to be reinforced with paper tape and square stopped or finished with GIB-Cove®.



Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements	Weight of system (kg/m2)
GBTLAB 60a	LB	68	66	60/60/60	2 x 10mm GIB® Standard plasterboard	65

Stud width	Space between timber frames	Partition width	
90mm	80 – 110mm min	300 – 330mm	





Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements	Weight of system (kg/m2)
GBTLAB 60b	LB	64	63	60/60/60	1 x 10mm GIB Braceline/Noiseline®	55

#### **TIMBER FRAMING**

Framing to comply with:

- NZBC B1 Structure: AS1 Clause 3 Timber (NZS 3604) or VM1 Clause 6 – Timber (NZS 3603).
- NZBC B2 Durability: AS1 Clause 3.2 Timber (NZS 3602).

Maximum height as determined by NZS 3604 stud and top plate tables for loadbearing walls.

#### **CENTRAL BARRIER**

- Allow a 25-40mm gap between each timber frame and the GIB Barrierline® central barrier.
- Fix GIB® Rondo® 140 Perimeter Channels to the concrete floor with steel fasteners at 600 mm centres and no more than 50mm from channel ends using 3.5mm x 30mm or 4.0mm x 25mm concrete nails or 6mm x 40mm concrete anchors.
- A 5mm gap between GIB® Rondo® 140 Perimeter Channels will let any collected rain water escape.
- GIB® Rondo® 140 Perimeter Channel to be sealed to the floor slab on one side with fire/acoustic sealant.
- Install 25mm GIB Barrierline® into GIB® H-Studs at 600mm centres.
- Cap GIB Barrierline® ends with GIB® Rondo® 140 Perimeter Channel.
- Offset GIB® H-Studs at least 100mm from wall studs to allow attachment of GIB® Wall Clips to both frames. Nog as required where no framing exists.
- Place two GIB® Wall Clips (one each side) no more than 600mm below the top of each GIB® H-Stud, no further apart than 3000mm vertically.
- Fix GIB® Rondo® 140 Perimeter Channel at wall ends to both timber frames with GIB® Wall Clips or GIB® Wall Straps placed no further apart than 3000mm vertically.
- Use no more than two GIB® Wall Clips or GIB® Wall Straps (one each side) for each 3000mm length of GIB® H-Stud or GIB® Rondo® 140 Perimeter Channel.
- In the roof space, fix 16mm GIB Fyreline® to one side of the GIB Barrierline® with 40mm x 8g chipboard screws on a 400mm grid, and at no more than 100mm from sheet edges.
- Extend the 16mm GIB Fyreline® at least 200mm below ceiling level.
- Once erected, protect the GIB Barrierline® and GIB Fyreline® from rain. The use of suitable sheeting can avoid delays in allowing the board to dry before wall linings are installed.

#### **SOUND CONTROL INFILL**

Install Pink® Batts® R2.2 (90mm) glass wool insulation between the studs and nogs in both frames.

#### **WALL LINING**

A single layer of 10mm GIB Braceline/Noiseline® fixed vertically or horizontally.

Use full height sheets where possible.

Sheet joints are touch fitted and must occur over framing. Where sheet end butt joints are unavoidable they must be formed over framing.

If the wall lining forms part of the structural bracing system, the lining type and fixings must comply with the published bracing system. Check requirements for specific bracing element hold-down connections.

#### **FASTENING THE LINING**

32mm x 6g GIB® Grabber® High Thread Drywall Screws at 300mm centres to each stud and plate. Place screws no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

#### **GIB AQUALINE® SUBSTITUTION**

If the 10 mm GIB Braceline/Noiseline® wall lining is substituted with 10mm GIB Aqualine®, the FRR will be retained but a noise control reduction of 4 STC/Rw points can be expected.

If the 10 mm GIB Braceline/Noiseline® wall lining is substituted with 13mm GIB Aqualine®, the FRR and noise control rating will be maintained.

#### **JOINTING**

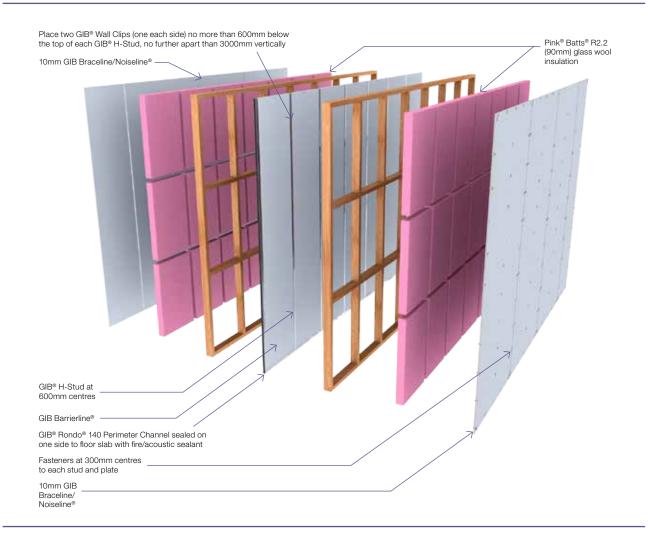
Central Barrier: Unstopped

Wall lining: All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled "GIB® Site Guide". Wall to ceiling junctions are to be reinforced with paper tape and square stopped or finished with GIB-Cove®.

Stud width	Space between timber frames	Partition width	
90mm	80 – 110mm min	280 – 310mm	



Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements	Weight of system (kg/m2)
GBTLAB 60b	LB	64	63	60/60/60	1 x 10mm GIB Braceline/Noiseline®	55





Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements	Weight of system (kg/m2)
GBTLAB 60c	LB	67	65	60/60/60	1 x 13mm GIB Braceline/Noiseline®	62

#### **TIMBER FRAMING**

Framing to comply with:

- NZBC B1 Structure: AS1 Clause 3 Timber (NZS 3604) or VM1 Clause 6 – Timber (NZS 3603).
- NZBC B2 Durability: AS1 Clause 3.2 Timber (NZS 3602).

Maximum height as determined by NZS 3604 stud and top plate tables for loadbearing walls.

#### **CENTRAL BARRIER**

- Allow a 25-40mm gap between each timber frame and the GIB Barrierline® central barrier.
- Fix GIB® Rondo® 140 Perimeter Channels to the concrete floor with steel fasteners at 600 mm centres and no more than 50mm from channel ends using 3.5mm x 30mm or 4.0mm x 25mm concrete nails or 6mm x 40mm concrete anchors.
- A 5mm gap between GIB® Rondo® 140 Perimeter Channels will let any collected rain water escape.
- GIB® Rondo® 140 Perimeter Channel to be sealed to the floor slab on one side with fire/acoustic sealant.
- Install 25mm GIB Barrierline® into GIB® H-Studs at 600mm centres.
- Cap GIB Barrierline® ends with GIB® Rondo® 140 Perimeter Channel.
- Offset GIB® H-Studs at least 100mm from wall studs to allow attachment of GIB® Wall Clips to both frames. Nog as required where no framing exists.
- Place two GIB® Wall Clips (one each side) no more than 600mm below the top of each GIB® H-Stud, no further apart than 3000mm vertically.
- Fix GIB® Rondo® 140 Perimeter Channel at wall ends to both timber frames with GIB® Wall Clips or GIB® Wall Straps placed no further apart than 3000mm vertically.
- Use no more than two GIB® Wall Clips or GIB® Wall Straps (one each side) for each 3000mm length of GIB® H-Stud or GIB® Rondo® 140 Perimeter Channel.
- In the roof space, fix 16mm GIB Fyreline® to one side of the GIB Barrierline® with 40mm x 8g chipboard screws on a 400mm grid, and at no more than 100mm from sheet edges.
- Extend the 16mm GIB Fyreline® at least 200mm below ceiling level.
- Once erected, protect the GIB Barrierline® and GIB Fyreline® from rain. The use of suitable sheeting can avoid delays in allowing the board to dry before wall linings are installed.

#### **SOUND CONTROL INFILL**

Install Pink® Batts® R2.2 (90mm) glass wool insulation between the studs and nogs in both frames.

#### **WALL LINING**

A single layer of 13mm GIB Braceline/Noiseline® fixed vertically or horizontally.

Use full height sheets where possible.

Sheet joints are touch fitted and must occur over framing. Where sheet end butt joints are unavoidable they must be formed over framing.

If the wall lining forms part of the structural bracing system, the lining type and fixings must comply with the published bracing system. Check requirements for specific bracing element hold-down connections.

#### **FASTENING THE LINING**

32mm x 6g GIB® Grabber® High Thread Drywall Screws at 300mm centres to each stud and plate. Place screws no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

#### **GIB AQUALINE® SUBSTITUTION**

If the 13 mm GIB Braceline/Noiseline® wall lining is substituted with 13mm GIB Aqualine®, the FRR will be retained but a noise control reduction of 3 STC/Rw points can be expected.

#### **JOINTING**

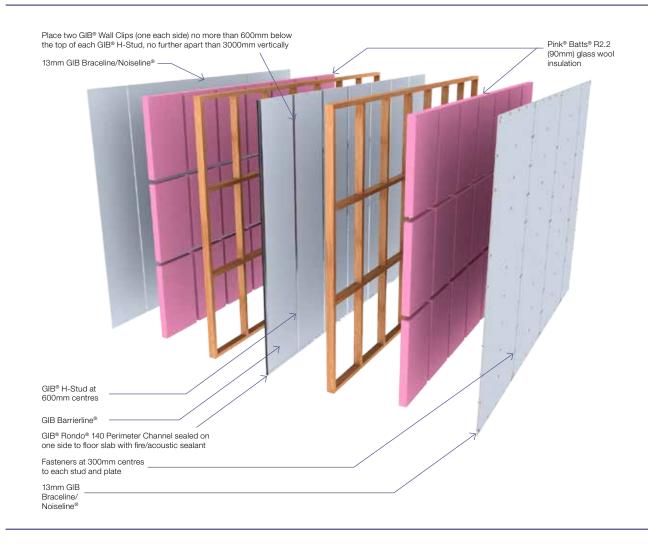
Central Barrier: Unstopped

Wall lining: All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled "GIB" Site Guide". Wall to ceiling junctions are to be reinforced with paper tape and square stopped or finished with GIB-Cove.

Stud Width	Space Between Timber Frames	Partition Width	
90mm	80 – 110mm min	286 – 316mm	



Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements	Weight of system (kg/m2)
GBTLAB 60c	LB	67	65	60/60/60	1 x 13mm GIB Braceline/Noiseline®	62





Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements	Weight of system (kg/m2)
GBTLAB 60d	LB	61	60	60/60/60	1 x 13mm GIB® Standard plasterboard	54

#### **TIMBER FRAMING**

Framing to comply with:

- NZBC B1 Structure: AS1 Clause 3 Timber (NZS 3604) or VM1 Clause 6 – Timber (NZS 3603).
- NZBC B2 Durability: AS1 Clause 3.2 Timber (NZS 3602).

Maximum height as determined by NZS 3604 stud and top plate tables for loadbearing walls.

#### **CENTRAL BARRIER**

- Allow a 25-40mm gap between each timber frame and the GIB Barrierline® central barrier.
- Fix GIB® Rondo® 140 Perimeter Channels to the concrete floor with steel fasteners at 600 mm centres and no more than 50mm from channel ends using 3.5mm x 30mm or 4.0mm x 25mm concrete nails or 6mm x 40mm concrete anchors.
- A 5mm gap between GIB® Rondo® 140 Perimeter Channels will let any collected rain water escape.
- GIB® Rondo® 140 Perimeter Channel to be sealed to the floor slab on one side with fire/acoustic sealant.
- Install 25mm GIB Barrierline® into GIB® H-Studs at 600mm centres.
- Cap GIB Barrierline® ends with GIB® Rondo® 140 Perimeter Channel.
- Offset GIB® H-Studs at least 100mm from wall studs to allow attachment of GIB® Wall Clips to both frames. Nog as required where no framing exists.
- Place two GIB® Wall Clips (one each side) no more than 600mm below the top of each GIB® H-Stud, no further apart than 3000mm vertically.
- Fix GIB® Rondo® 140 Perimeter Channel at wall ends to both timber frames with GIB® Wall Clips or GIB® Wall Straps placed no further apart than 3000mm vertically.
- Use no more than two GIB® Wall Clips or GIB® Wall Straps (one each side) for each 3000mm length of GIB® H-Stud or GIB® Rondo® 140 Perimeter Channel.
- In the roof space, fix 16mm GIB Fyreline® to one side of the GIB Barrierline® with 40mm x 8g chipboard screws on a 400mm grid, and at no more than 100mm from sheet edges.
- Extend the 16mm GIB Fyreline® at least 200mm below ceiling level.
- Once erected, protect the GIB Barrierline® and GIB Fyreline® from rain. The use of suitable sheeting can avoid delays in allowing the board to dry before wall linings are installed.

#### **SOUND CONTROL INFILL**

Install Pink® Batts® R2.2 (90mm) glass wool insulation between the studs and nogs in both frames.

#### **WALL LINING**

A single layer layer of 13mm GIB® Standard plasterboard fixed vertically or horizontally.

Use full height sheets where possible.

Sheet joints are touch fitted and must occur over framing. Where sheet end butt joints are unavoidable they must be formed over framing.

If the wall lining forms part of the structural bracing system, the lining type and fixings must comply with the published bracing system. Check requirements for specific bracing element hold-down connections.

#### **FASTENING THE LINING**

32mm x 6g GIB® Grabber® High Thread Drywall Screws at 300mm centres to each stud and plate. Place screws no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

#### GIB AQUALINE® SUBSTITUTION

If the 13 mm GIB® Standard plasterboard wall lining is substituted with 13mm GIB Aqualine®, the FRR and noise control rating will be retained.

#### IOINTING

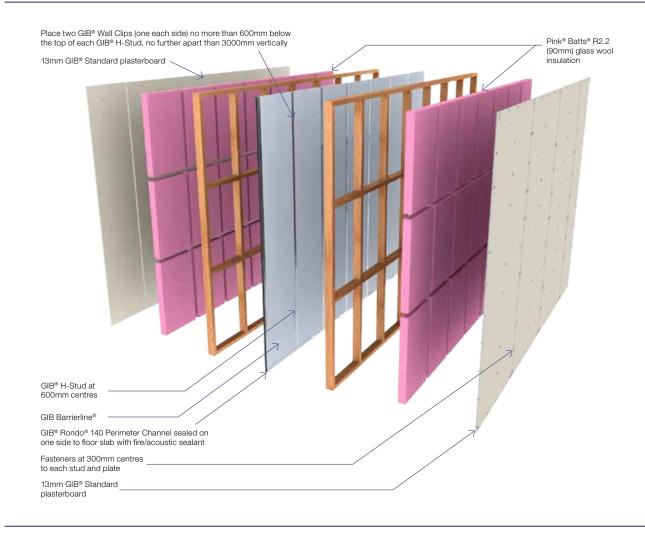
Central Barrier: Unstopped

Wall lining: All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled "GIB® Site Guide". Wall to ceiling junctions are to be reinforced with paper tape and square stopped or finished with GIB-Cove®.

Stud Width	Space Between Timber Frames	Partition Width	
90mm	80 – 110mm min	286 – 316mm	

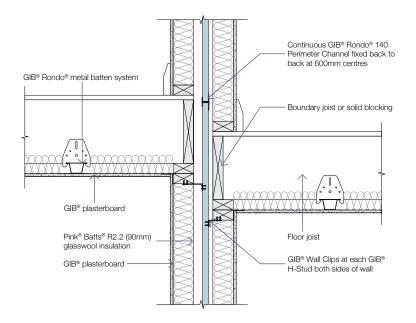


Specification number	Loadbearing capacity	STC	Rw	FRR	Lining requirements	Weight of system (kg/m2)
GBTLAB 60d	LB	61	60	60/60/60	1 x 13mm GIB® Standard plasterboard	54





#### DETAIL AT UPPER STOREY FRAMED FLOOR (END ELEVATION)

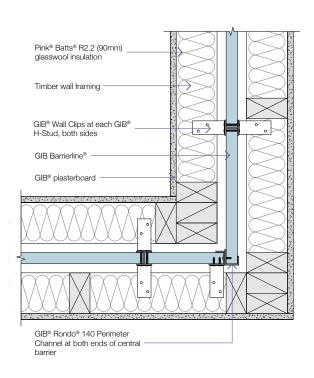


GNS100

#### BASE DETAIL AT SLAB (END ELEVATION)

### 25mm-40mm gap on each side Timber wall framing GIB® plasterboard -GIB Barrierline® GIB® Rondo® 140 Perimeter Channel fixed to concrete slab with steel anchors at 150mm max. centres from ends and 600mm max. centres between Seal GIB® Rondo® 140 Perimeter Channel to floor slab on one side with fire/acoustic sealant DPC mi. 100 mm min. 100 mm 400 mm min.

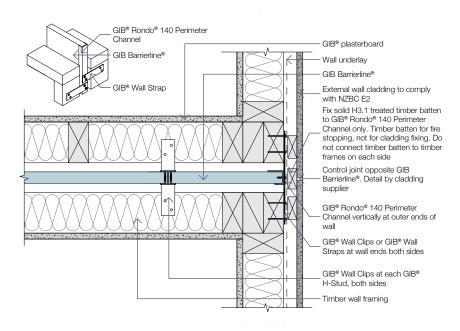
#### DETAIL AT CORNER (PLAN VIEW)



GNS101

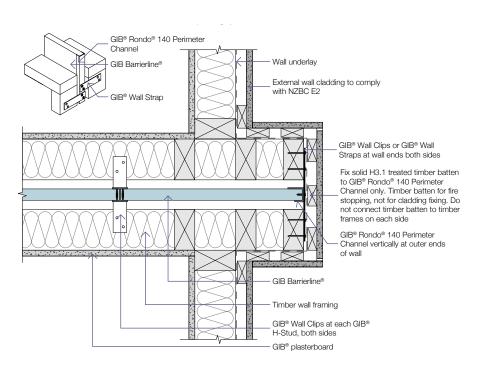


#### DETAIL AT EXTERNAL TIMBER FRAME WALL (PLAN VIEW)



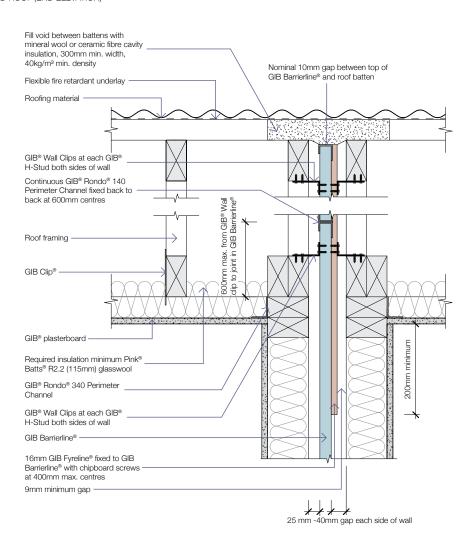
GNS103

### INTERTENANCY WALL PROJECTION AT EXTERNAL TIMBER FRAME WALL (PLAN VIEW)



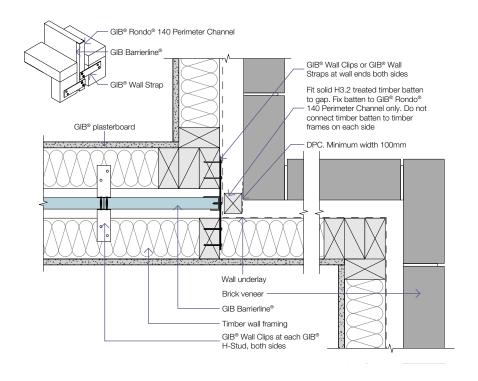
#### **TYPICAL CONSTRUCTION DETAILS**

#### DETAIL AT CEILING AND ROOF (END ELEVATION)



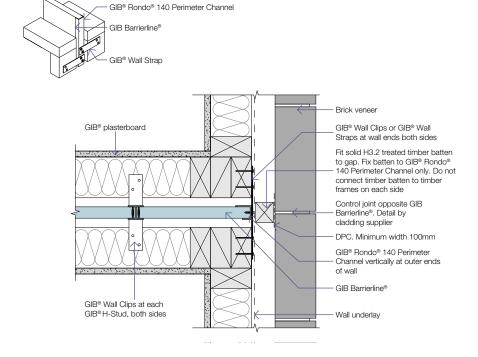


#### DETAIL AT RETURN IN EXTERNAL BRICK VENEER WALL (PLAN VIEW)



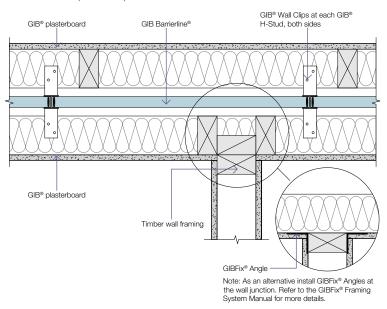
GNS106

#### DETAIL AT EXTERNAL BRICK VENEER WALL (PLAN VIEW)



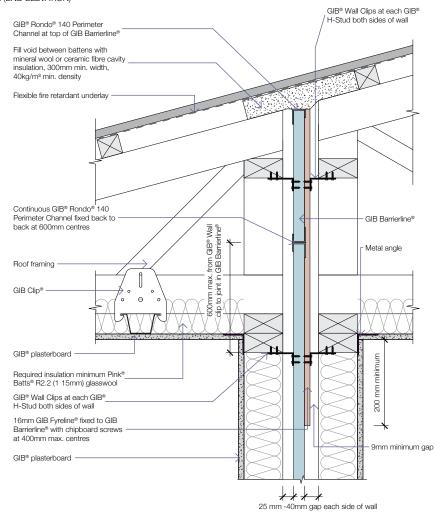


#### DETAIL FOR JUNCTION WITH NON FIRE-RATED WALL (PLAN VIEW)



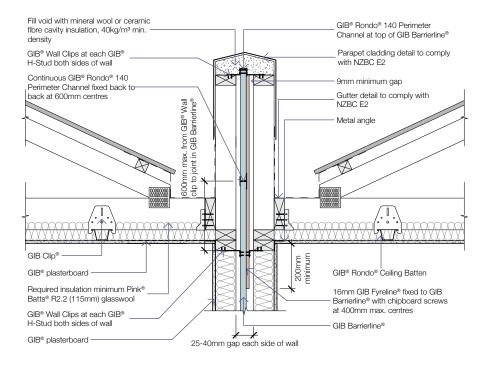
GNS110

#### DETAIL AT ROOF/CEILING (END ELEVATION)



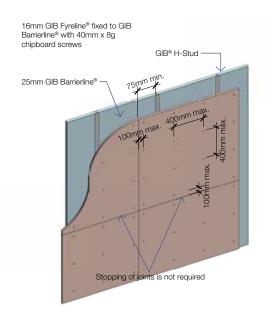


#### DETAIL AT ROOF/CEILING AND PARAPET (END ELEVATION)



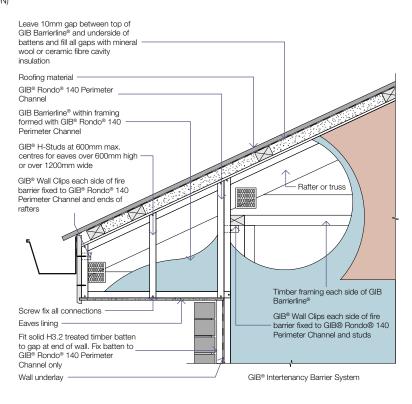
GNS109

#### FIXING DETAIL FOR 16MM GIB FYRELINE®



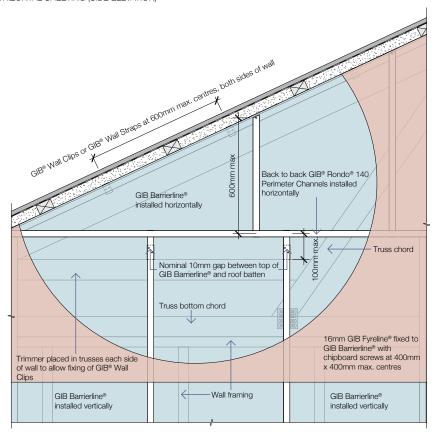


#### EAVES DETAIL (SIDE ELEVATION)



GNS112

#### ROOF VOID DETAIL WITH HORIZONTAL SHEETING (SIDE ELEVATION)





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#### SUSTAINABILITY AND THE ENVIRONMENT

Winstone Wallboards is committed to protecting the environment. Environmental matters are integrated into all business activities:

- Our operations strive to exceed all environmental regulatory requirements at all times.
- Protection of the environment is a day to day responsibility that we all must accept.
- We allocate appropriate management time and resources to address relevant environmental issues and continuously improve our activities in that area.
- We will achieve our standards of performance through positive action, employee involvement and constant communication with our neighbours, local authorities and customers.

Minimise on-site waste when designing and/or installing GIB® Systems. For larger projects give consideration to our cut-to-length service to reduce waste. GIB® plasterboard off-cuts, if separated from other waste building materials, can be readily recycled.

For larger projects waste can be diverted to compost manufacturers who grind up the GIB® plasterboard and use it in compost. For smaller projects, the GIB® plasterboard can be ground up and spread around the building site.

#### GLOBAL GREENTAGCERTTM

The Global GreenTag<sup>CertTM</sup> certified eco-label acknowledges product as meeting the GreenRate Standard set by Global GreenTag.<sup>CertTM</sup>

GIB® plasterboard has a Level B green rating.

#### **DECLARE CERTIFICATION**

Declare is a database of non-toxic, sustainably sourced building products.

Many GIB® plasterboard products including GIB® Standard, GIB Braceline® GIB Noiseline® and GIB Aqualine® have achieved Red List Free status in Declare certification.

For more information on Winstone Wallboards sustainability commitments visit gib.co.nz.

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#### **TRADEMARKS**

The names GIB®, GIB Barrierline®, GIB Fyreline®, GIB Ultraline®, GIB Braceline®, GIB Toughline®, GIB Noiseline®, GIB Aqualine®, GIB Nail®, GIB Tradeset®, GIB Plus 4®, GIB-Cove®, GIB Lite Blue®, GIBFix®, the colour mauve for GIB Toughline®, the colour blue for GIB Braceline®, the colour pink for GIB Fyreline®, the colour green for GIB Aqualine®, and the shield device are registered trademarks of Fletcher Building Holdings Limited.

#### **COUNTRY OF ORIGIN**

We make GIB® plasterboard in New Zealand\*, for New Zealand conditions, giving you 100% certainty.

\*Note GIB Barrierline® plasterboard is manufactured to Winstone Wallboards' specific specification from a reputable overseas manufacturer.

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FOR MORE INFORMATION VISIT GID.CO.NZ

or call the gib® helpline 0800 100 442