

MAGNUM BOARD® & BATTEN SYSTEM INSTALLATION GUIDE

100% Sustainable

Silica Free

Non-combustible with zero flame spread

Mould and insect proof

High moisture resistance

CO₂ negative

Breathable

VOC Free

High resistance to air transfer

High impact resistance

Magnum Board delivers the new standard in high performance sustainable, health-based building. Sustainably manufactured and free of harmful chemicals, Magnum Board provides superior performance and environmental benefits when compared to traditional wood fibre, plywood, gypsum, and cement-based substrates. Magnum Board is independently appraised both globally and in New Zealand for interior and exterior applications. With numerous applications possible in one high quality composition, Magnum Board is a uniquely versatile construction material that provides exceptional performance and total build value.

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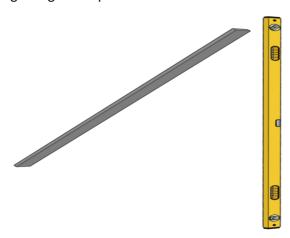
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1: MATERIALS, PRODUCT, TOOLS, AND FASTENERS.

Magnum Board® Dimensions 2.4m x 1.2m x 9mm. 2.7m x 1.2m x 9mm. 3.0m x 1.2m x 9mm.



Straight Edge and Spirit Level. Minimum 1.8m in length



Simpson Strong Tie screw for timber framing code: SSDHSD50TSA 12-gauge x 50mm #2 Square Drive Pre-Bore Tip Stainless Steel 316



HEPA Extraction System with recommended cutting equipment.

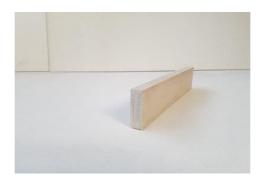


Earthen 65 x 21 decorative exterior batten for joins, window, and door openings.

Earthen Radiata Engineered Decorative Batten for Magnum Board™ Board and Batten System - Health Based Building



Earthen 65 x 20 internal cavity batten
Earthen Radiata 65x20mm Cavity Batten - Health Based Building



Earthen 45 x 20 internal cavity batten

Earthen Radiata 45x20mm Cavity Batten - Health Based Building



Earthen 45 x 20 castellated horizontal internal batten

Earthen Radiata Exterior Castellated 45x20mm Cavity Batten - Health Based Building



SIFCO 50 x 2.8 SS nails PN FRP50V8SS/6 for interior cavity batten installation.



SIFCO Nail Gun with No Mar Tip for interior cavity batten installation.



Paslode 65 x 2.8 SS Nails PN B20560 Round Drive for interior cavity batten installation.



Paslode Nail Gun with No Mar Tip B20544G for interior cavity batten installation.



Makita Quick Drive Attachment PROSDDM25KA for installation of Magnum Board & Batten



Battery gun for screw fixing exterior decorative battens



Recommended screws fixing for exterior decorative batten installation at board-to-board joins and 600mm centres supported by framing. 8-to-10-gauge x 65mm stainless.



38mm x 8-10-gauge stainless screws are recommended when installing exterior decorative battens at locations where the interior batten is not directly supported by framing.

65mm x 10-gauge stainless screws are recommended when installing exterior decorative battens at location where the interior batten is fully supported by framing.



Jigsaw.



Hole saw.



Mapei PU35.



2: IMPORTANT INFORMATION

Magnum Board® & Batten can be installed to solid timber framing and LVL framing in compliance with local building codes.

Stud spacing's must not to exceed 600mm centres.

Interior cavity batten spacings are to align with the position of decorative exterior batten spacings with interior battens fully supported by framing where they align with the perimeter of Magnum Board, Magnum Board joins and 600mm framing spacings.

Timber framing moisture content should be 18% maximum. Framing quality must be straight and level to a standard that supports Magnum Board® to all surfaces in contact with cavity batten. Installation to buckled or bent framing will result in tension within Magnum Board® which can establish cracking over time.

3: RESPONSIBILITY

It is the responsibility of the installer to inspect their workplace prior to beginning the installation of Magnum Board® to ensure installed work will meet the owner / contractor's requirements. Refer to installation Checklist on page?

4: WARRANTY

While every effort has been made to ensure a satisfactory outcome with respect to the use of Magnum Board® & Batten along with all Magnum Board® products - no dialogue or negotiation will be considered if any method or third-part component has been used apart from those described in this technical manual. Any warranty - written or implied - will be subject to examination and will apply solely to the quality of the Magnum Board® product being deficient at the point of purchase only, or the subsequent deficient performance of the product once the correct method of installation has been determined. Any deficient performance resulting from the application of a third-party product, will become the responsibility of that products manufacturer and / or agents. Magnum Board® and its associated agents will not be held responsible for any such incident or outcome. MagnumBoardWarrantyDocument30-year.pdf https://healthbasedbuilding.co.nz/documents/MagnumBoardWarrantyDocument30-year_v1.0_29.10.24.pdf

5: MATERIAL SAFETY, HANDLING, MAINTENANCE AND STORAGE REQUIREMENTS

Cutting and extraction equipment is shown in page? Products & Equipment.

Even though Magnum Board® is a non-toxic building material, always wear a dusk mask, safety glasses and follow MSDS Guidelines:

Never use a circular saw blade that is inappropriate for the specific operation being undertaken.

Never use a grinder or continuous rim diamond blade for cutting.

Never use a power saw indoors.

Never dry sweep - use wet suppression methods or HEPA vacuum.

It is good construction practice to marshal or stage the materials to be installed as close to the point of installation as possible.

When cutting Magnum Board® ensure the supporting structure is level and preventing distortion.

Distortion in Magnum Board® will establish inaccuracy in the edge being cut regardless of correct cutting equipment being involved.

Always protect all edges of Magnum Board® prior to and during installation.

Do not stack other materials on top of Magnum Board®.

During construction, ensure Magnum Board's® surface is kept clean and unmarked by the removal of any building material waste, soil, or any organic or other potential contaminant, before the application of decorative coverings and coatings.

6: PERIOD OF EXPOSURE AFTER INSTALLATION AND BEFORE COATING

Magnum Board® must be stored inside, in a well-ventilated area, up off concrete floors, kept dry, out of direct sunlight and away from freezing conditions.

Using Magnum Board® in relation to other manufacturers products:

In case of an apparent conflict between the Magnum Board® instructions and those of a third party, contact www.healthbasedbuilding.com for clarification.

Installation Expertise

Magnum Board® is to be installed either by, or under the direct supervision of, a qualified building practitioner.

7: PREPARATION & SURFACE FINISHES

The surface of the Magnum Board® must be clean, dust and contaminant free prior to commencement of the coating process. All cut or raw exposed edges must be coated.

Painting options and application methods are Foreverbreathe Silicate Paint:

https://healthbasedbuilding.co.nz/documents/TD-018-ForeverbreatheSilicatePaint_v1.8_17.8.22.pdf

Resene Acrylic Paint

https://healthbasedbuilding.co.nz/documents/ReseneExteriorPaintUserGuide v2.0 13.7.22.pdf

Wattyl Paint https://healthbasedbuilding.co.nz/documents/WattylExteriorPaintUserGuide v1.4 10.9.24.pdf

8: INSTALLATION PROCEDURE: CUTTING

Purpose: To define the guidelines for cutting and installing Magnum Board® & Batten.

Always use correct tools when executing cutting operations.

For general straight line cutting use the HEPA extraction system with recommended cutting equipment represented in section MATERIALS, PRODUCT, TOOLS, AND FASTENERS

Measure accurately and mark your cutting locations before cutting.

Circular cuts and irregular angle cuts such as electrical outlets, light receptacles, switches can be made using a cement board router bit or carbide tipped keyhole saw or a saber-saw. Mark and cut from face of Magnum Board®

9: INSTALLATION PROCEDURE: FIXING

Magnum Board® is screw fixed to timber or steel framing using screw fixings stated in the MATERIALS, PRODUCT, TOOLS, AND FASTENERS section.

Magnum Board® is to be installed vertically up tight edge to edge without sealant. Exterior decorative battens will provide protection from weather.

Magnum Board® end joins may be required to achieve lengths past 3m. End joins must involve Mapei PU35 exterior flexible sealant to the edge of one end join before pushing up tight to complete installation. End joins can be micro-bevelled to establish decorative appearance or cover by decorative exterior battens.

10: FULL BOARD INSTALLATION 2.4m x 1.2m, 2.7m x 1.2m, 3m x 1.2m

Screw fixing positions for full sheet installation and fixing around cut outs and flashing systems are as follows: Fixing distance in from vertical edges and horizonal edges 15mm

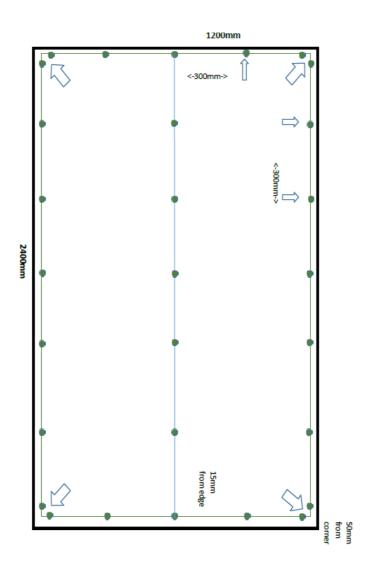
Fixing in from corner of vertical and horizontal edges 50mm

Fixing down 600mm centre of 1200mm wide boards.

Fixing spacings 250mm in from first fixing 50mm in from corners and maximum 300mm apart from that point to vertical edges and horizontal edges.

11: FIXING PATTERN

2400x1200x09mm, 2700x1200x09mm and 3000x1200x09mm wall and ceiling board sizes 15mm in from perimeter edges 50mm in from corners 300mm apart along perimeter edges and 600mm mid lines



12: PART BOARD INSTALLATION

Where Magnum Board is installed in boards sizes less than full boards the fixing positions will mimic full board fixing positions where possible.

The maximum fixing spacing into vertical studs through interior cavity battens is 600mm

Installation of decorative exterior battens @ 600mm centres must be supported by interior cavity battens over studs.

Installation of decorative exterior battens at spacings other than 600mm must be supported by interior cavity battens. Fixings that prevent penetration past the supportive interior cavity batten where studs are not located directly behind are represented in the MATERIALS, PRODUCT, TOOLS, AND FASTENERS section.

Fixings to edges sections / cut outs around window and door openings will be 50mm back for the edge of Magnum Board into interior cavity battens supported by framing.

13: PRE-INSTALLATION CHECKS

- Interior cavity battens are in the locations that support installation of exterior battens.
- Interior cavity battens are providing a level surface which ensures Magnum Board can be supported to all edges without distortion.

14: POST- INSTALLATION CHECKS

- Magnum Board screw fixings are in the required locations including locations around window and door openings and flashings.
- Exterior battens are pulled up tight and in locations that provide joint protection and protection around window and door openings.

15: MAGNUM BOARD MSDS



HOME of MAGNUMBOARD®

"The New Generation GREEN Building Material"

"Install It for Health-Install It for Life"

Sheathing & Trim Products

Magnum Board Material Safety Data Sheet

MSDS No.: MBGEP-032107-5

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Magnum Board® Brand Products

SECTION 1: COMPANY AND PRODUCT INFORMATION

Use: Exterior: Sheathing, ceiling board, drop ceiling, siding,

cladding and trim material.

Interior: Wallboard, ceiling board, tile backer board,

underlayment and trim materials.

Structural Insulated Panels (SIPS) and Exterior Insulated

Class

Finish Systems (EIFS)

Other uses viewable online at:

https://www.healthbasedbuilding.com/magnum-board

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

| Ingredient | CAS No. | <u>Hazard</u> (|
|-----------------------|------------|-----------------|
| Magnesium Oxide | 1309-48-4 | None |
| Magnesium Chloride | 7786-30-3 | None |
| Cellulose | 9004-34-6 | None |
| Perlite | 93763-70-3 | None |
| Proprietary Additives | N/A | None |
| Fiberglass Scrim | 65997-17-3 | None |

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview: Non-toxic, non-explosive and is not a fire hazard.

Primary Routes of Entry:

Eyes:

Dust may irritate the eyes from mechanical abrasion causing watering and redness.

Skin:

Dust may cause irritation of the skin from friction but cannot be absorbed through intact skin.

Ingestion:

Unlikely under normal conditions of use but swallowing the dust from this product may result in irritation to the mouth and gastrointestinal tract.

Inhalation:

Dust may cause irritation of the nose, throat, and airways, resulting in coughing and sneezing. Certain susceptible individuals may experience wheezing (spasms of the bronchial airways) on inhaling dust during sanding or sawing operations.

SECTION 4: FIRST AID MEASURES

EYES:

Remove contact lens. Flush with running water or saline for at least 15 minutes. Seek medical attention if redness persists or if visual changes occur.

SKIN:

Wash with mild soap and water. Contact physician if irritation persists or later develops.

INGESTION:

If ingested, dilute by drinking large amounts of water. Do not induce vomiting. Seek medical attention.

If unconscious, loosen tight clothing and lay the person on his / her side. Give nothing by mouth to an individual who is not alert and conscious. Seek medical attention.

INHALATION:

Remove to fresh air. If shortness of breath or wheezing develops, seek medical attention.

NOTES TO PHYSICIAN OR FIRST AID PROVIDERS:

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Magnum™ Building Products line of "Magnum Board®" Products are nonflammable, non-explosive and noncombustible.

Fire and Explosion Hazard

Flash Point: Not applicable.

Auto-ignition: Not applicable

Extinguishing Media:

This material is noncombustible. Appropriate extinguishing media should be used for surrounding fire.

Fire Fighting:

Firefighting personnel should wear normal protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

No special precautions are necessary to pick up product that has been dropped. The following applies only to spills or releases of dust generated during cutting or sanding Magnum Board®.

Precautions:

Good housekeeping practices are necessary for cleaning up areas where dust has been produced. Take measures to either eliminate or minimize the creation of dust.

Wherever possible, practices likely to generate dust should be controlled with engineering controls such as local exhaust ventilation, dust suppression with water and containment, enclosure or covers.

Cleanup Methods:

A fine water spray may be used to suppress dust when sweeping (dry sweeping is not recommended). Vacuuming with an industrial vacuum cleaner outfitted with a high-efficiency particulate (HEPA) filter is recommended over sweeping. Waste may be disposed of by landfill in compliance with federal, provincial, state and local requirements governing non-toxic mineral materials

Avoid using materials and products that are incompatible with this product. (Refer to section 10.)

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Magnum Board® Brand Products Page 4 of

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SECTION 7: HANDLING AND STORAGE

Handling and Storage Products in their intact state do not present a health hazard. The controls below apply to dust generated from the boards by cutting, drilling, routing, sawing, crushing, or otherwise abrading, and cleaning or moving sawdust.

Other Precautions:

Even though Magnum Board® has been tested and deemed nontoxic, Magnum Building Products recommends that exposure to dust be kept as low as reasonably possible. Respirable levels should not exceed those specified by OSHA and MSHA and identified in this MISDS. Exposure to respirable (fine) dust depends on a variety of factors, including activity rate (i.e. cutting rate), method of handling (i.e. electric shears), environmental conditions (i.e. weather conditions, workstation orientation) and control measures used. Wherever possible, practices likely to generate dust should be carried out in well ventilated areas (i.e. outside). The work practices and engineering controls set out in Section 8 should be followed as precautions to reduce dust exposures.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Cutting Outdoors:

- 1. Magnum Building Products recommends positioning cutting station so that wind will blow dust away from user or others in working area and allow for ample dust dissipation.
- 2. Use one of the following methods based on the required cutting rate and jobsite conditions.

Best

- Score and snap using carbide-tipped scoring knife or utility knife (Ability to use this method depends on thickness of Magnum Board® being installed.)
- Fibercement board shears (electric or pneumatic).

Better

• Dust reducing circular saw equipped with appropriate blade and HEPA vacuum extraction.

Good (for low to moderate cutting only)

• Dust reducing circular saw with appropriate saw blade.

Always use correct tools when executing all cutting operations.

Ventilation:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limit.

Respiratory Protection:

Dust mask is recommended.

Eye Protection:

When cutting material, dust resistant safety goggles / glasses should be worn and used in compliance with ANSI Standard Z87.1-1-1989 and applicable OSHA (i.e. 29 CFR 1910.133) standards.

Skin Protection

Loose comfortable clothing should be worn. Magnum Building Products recommends that direct skin contact with dust and debris be avoided when possible, by wearing long sleeved shirts and long trousers, a cap or hat, and gloves.

Sanding / Drilling / Other Machining:

If sanding, drilling, or other machining is conducted, Magnum Building Products recommends wear a NIOSH-approved dust mask.

Important Notes:

- 1. For maximum protection (lowest respirable dust production), Magnum Building Products recommends always using "Best" level cutting methods where feasible.
- 2. Always use a circular saw blade that is appropriate for the specific operation being undertaken.
- 3. Dry sweeping is not the preferred clean up method Magnum Building Production suggests wet suppression methods or HEPA vacuum.
- 4. It is not recommended that a grinder or continuous rim diamond blade be used for cutting.
- 5. Always follow tool manufacturer's safety recommendations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Various colors depending on application, each with varying dimensions according to product used.

Odor:

Very mild

Physical State:

Solid boards

Vapor Pressure:

Not relevant.

Specific Gravity:

Not relevant.

Flammability Limits:

Not relevant.

Boiling Point:

Not relevant

Melting Points:

Not relevant.

Flash Point:

Not relevant.

Auto-ignition Temperature:

Not relevant.

Volatility:

Not relevant.

Solubility in Water:

Not relevant.

Evaporation rate:

Not applicable.

NFPA Ratings (Scale 0 - 4)

Health = 1

Flammability = 0

Reactivity = 0

Personal Protection = E

SECTION 10: STABILITY AND REACTIVITY

Stability:

The Magnum Board products identified in section 1 are stable under ordinary conditions.

Conditions to Avoid:

Excessive dust generation without proper dust mask protection.

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Magnum Board® Brand Products Page 7 of

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Materials to Avoid:

Incompatibility: Hydrofluoric acid will dissolve Magnesium Oxide and

can generate Magnesium Chloride fumes.

SECTION 11: TOLXICOLOGICAL INFORMATION

Magnum Board® products are nontoxic in their intact form. The following applies to dust that may be generated during cutting and sanding.

Chronic Effects:

Inhaled: Repeated and prolonged overexposures to dust may cause

increased risk of bronchitis. It is possible that repeated inhalation exposure to Magnum Board® fiber dust over time may lead to inflammation of the lungs in humans. All

necessary precautions should be taken to prevent inhalation of

dust to prevent these problems.

SECTION 12: ECOLOGICAL INFORMATION

Because Magnesium Oxide is a naturally occurring mineral, releases that may occur into the environment are not expected to leave any hazardous material that could cause a significant adverse impact.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of material, as an inert, inorganic mineral, in conformance with federal, provincial, state and local regulations. Magnum Board® is not an RCRA hazardous waste.

SECTION 14: TRANSPORT INFORMATION

There are no special requirements for storage and transport of Magnum BoardTM.

UN No: None allocated

Dangerous Goods Class: None allocatedHazchem Code:None allocatedPoisons Schedule:None allocatedPacking Group:Not applicable

Label: Not a DOT hazardous material.

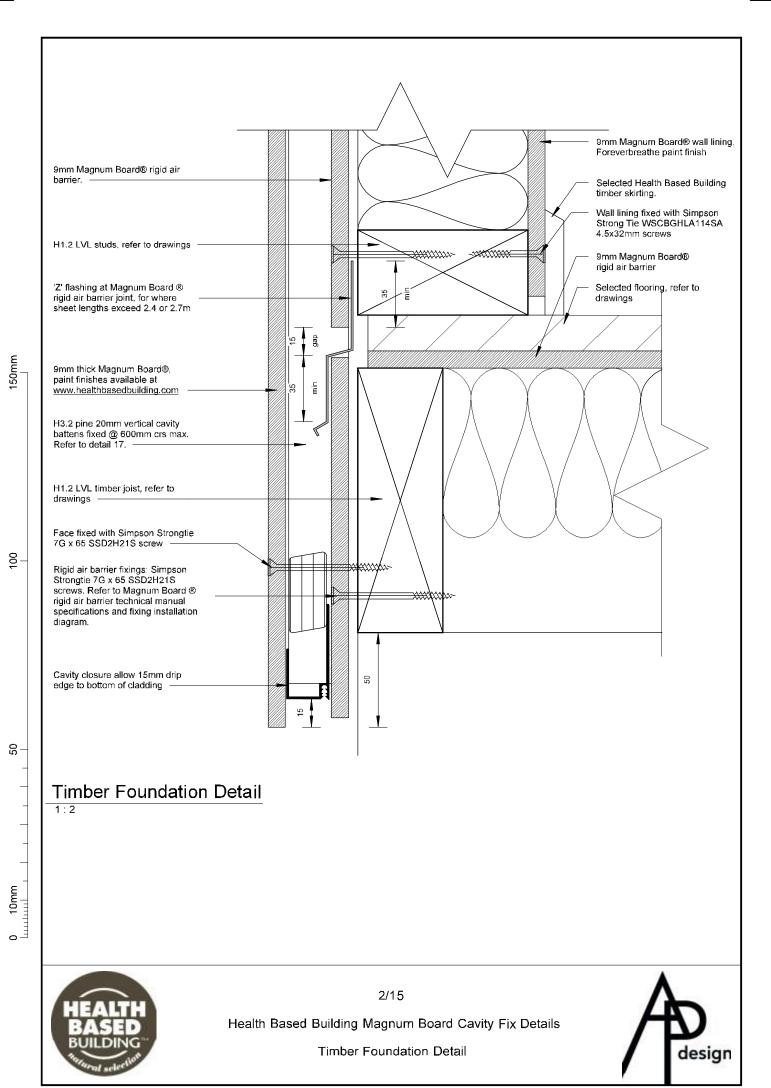
SECTION 15: REGULATORY INFORMATION

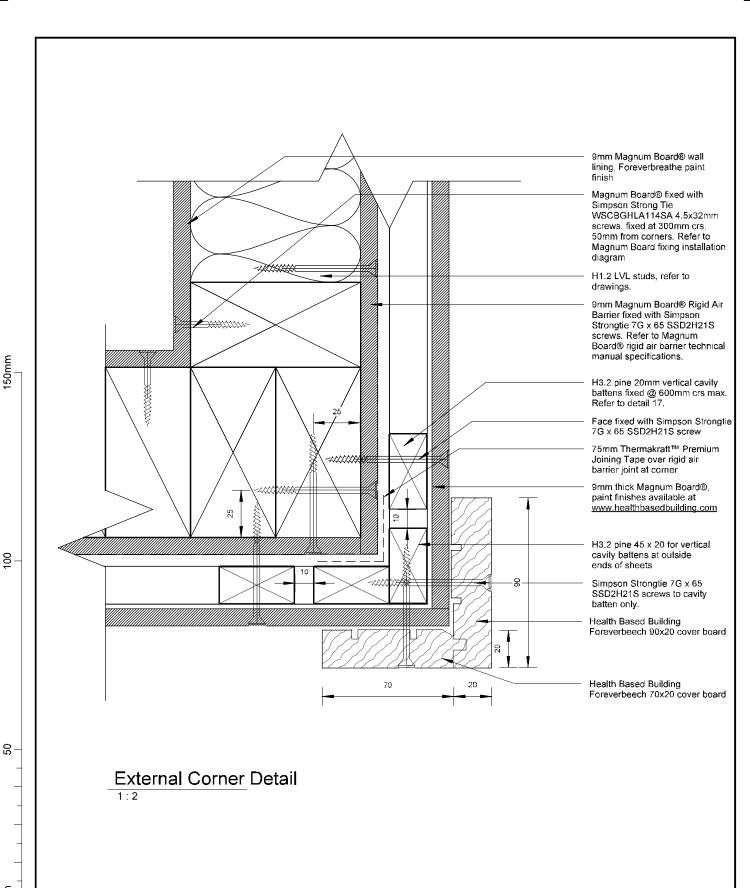
DOT Hazard Classification: None

Placard Requirement: Not a DOT hazardous material.

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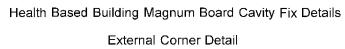
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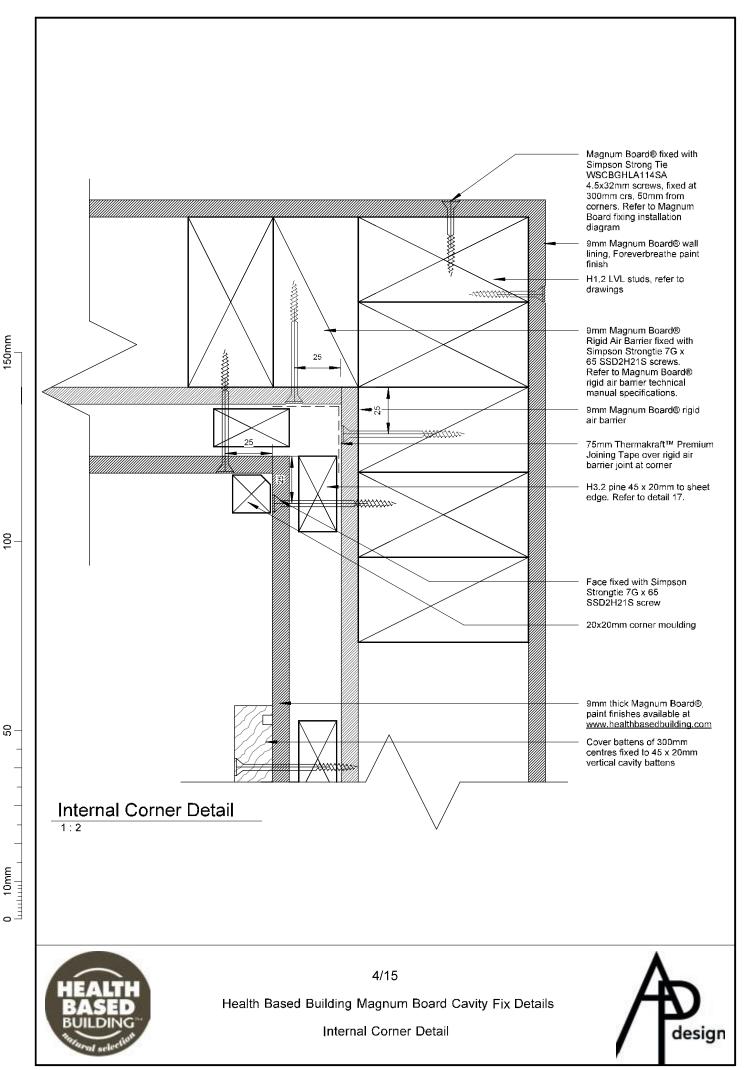


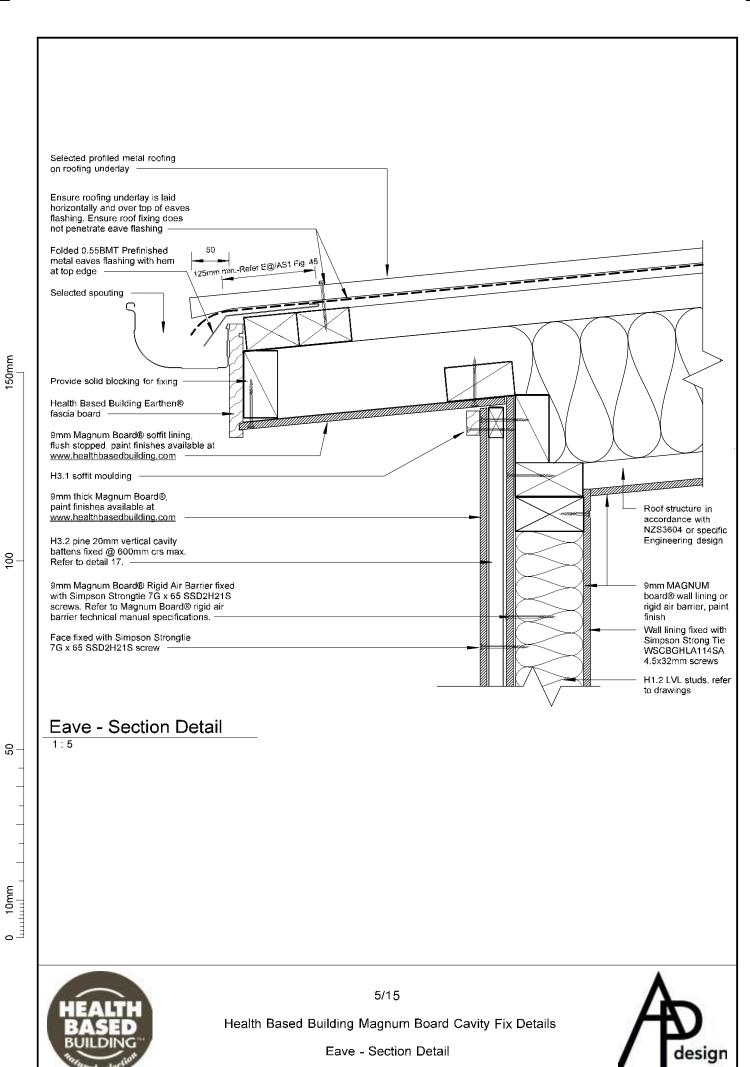


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Barge - Sectional Detail

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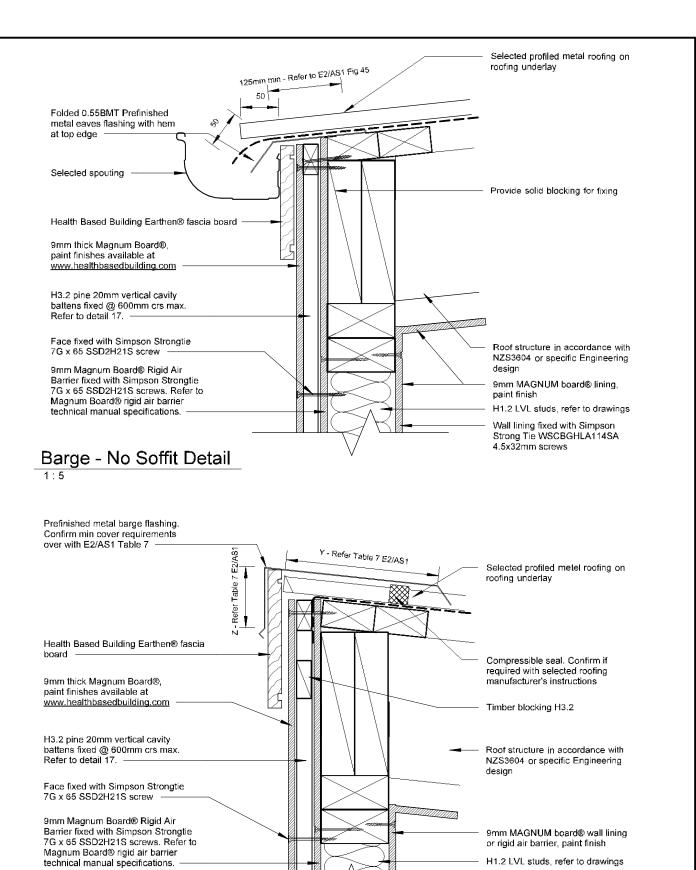
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Health Based Building Magnum Board Cavity Fix Details

Barge - Section Detail







Roof - Wall ridge - Section Detail



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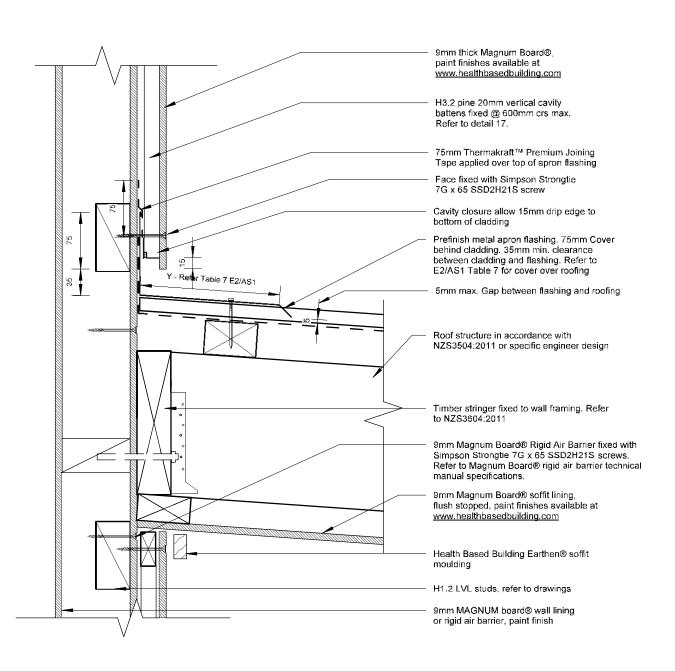
Health Based Building Magnum Board Cavity Fix Details

Roof - Wall Ridge - Section Detail



Wall lining fixed with Simpson Strong Tie WSCBGHLA114SA 4.5x32mm screws



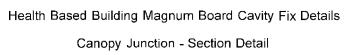


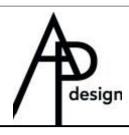
Canopy Junction - Section Detail

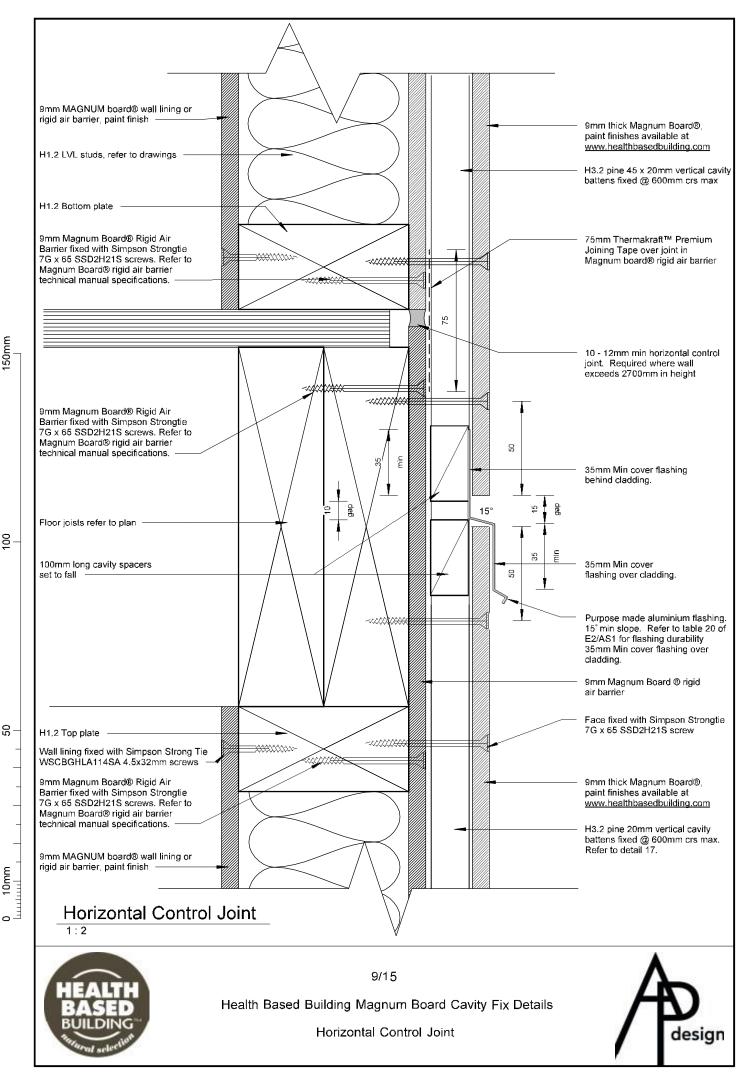
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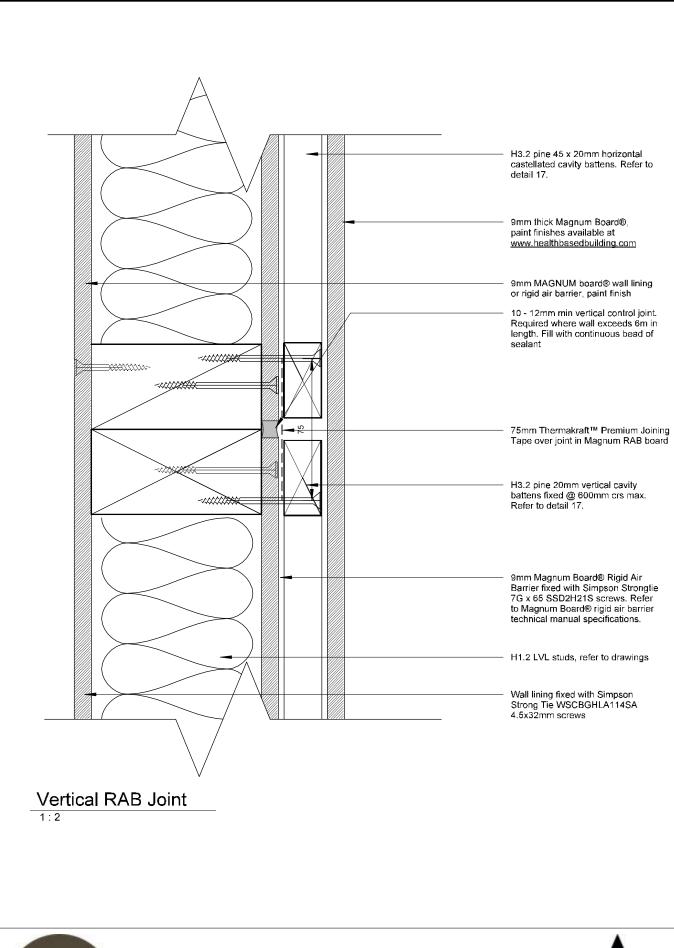














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Health Based Building Magnum Board Cavity Fix Details

Vertical RAB Joint

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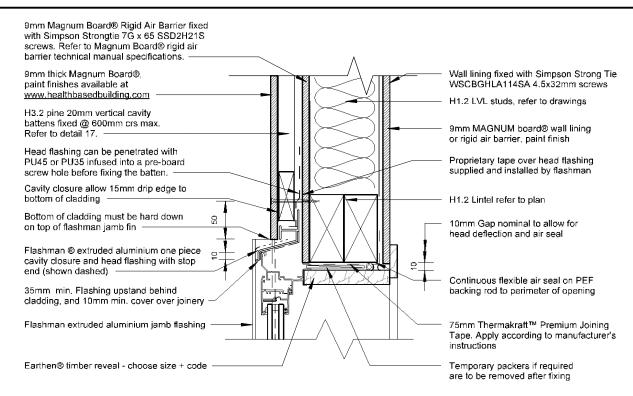




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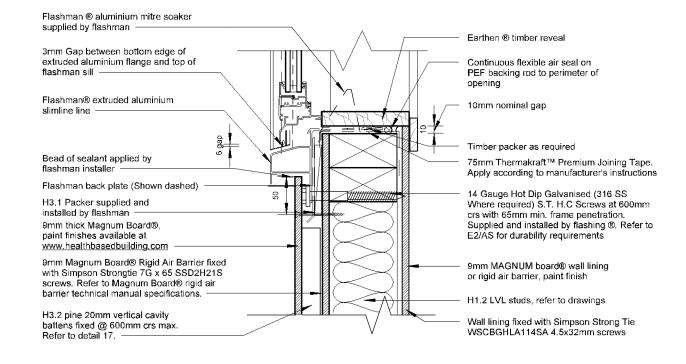






Typical Head Detail

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Typical Sill Detail



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Health Based Building Magnum Board Cavity Fix Details

Typical Head and Sill Detail

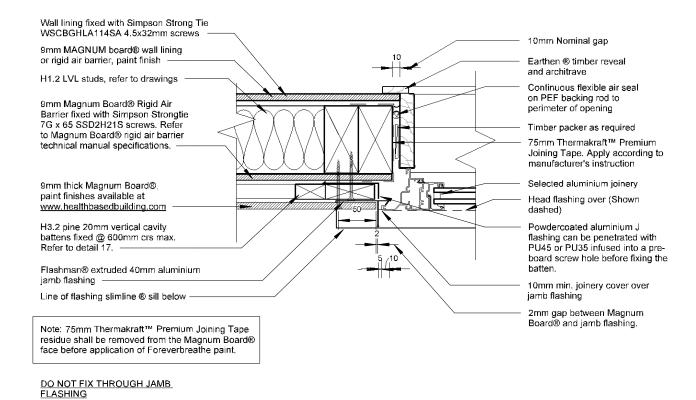














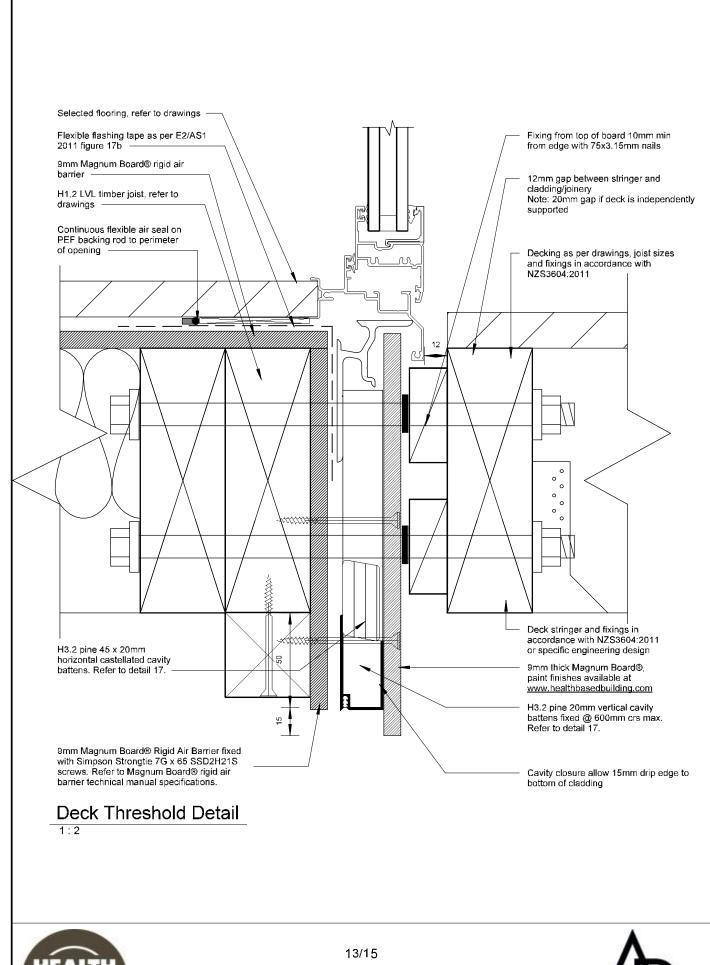
Typical Jamb Detail

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Health Based Building Magnum Board Cavity Fix Details

Typical Jamb Detail







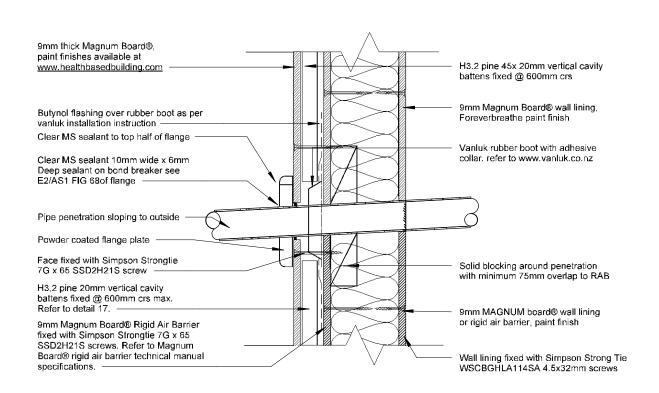
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Health Based Building Magnum Board Cavity Fix Details Deck Threshold Detail

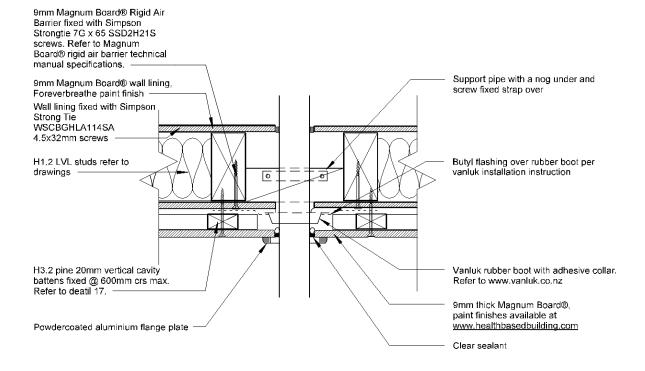






Pipe Penetration Section Detail

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Pipe Penetration Plan Detail

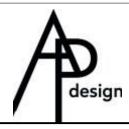
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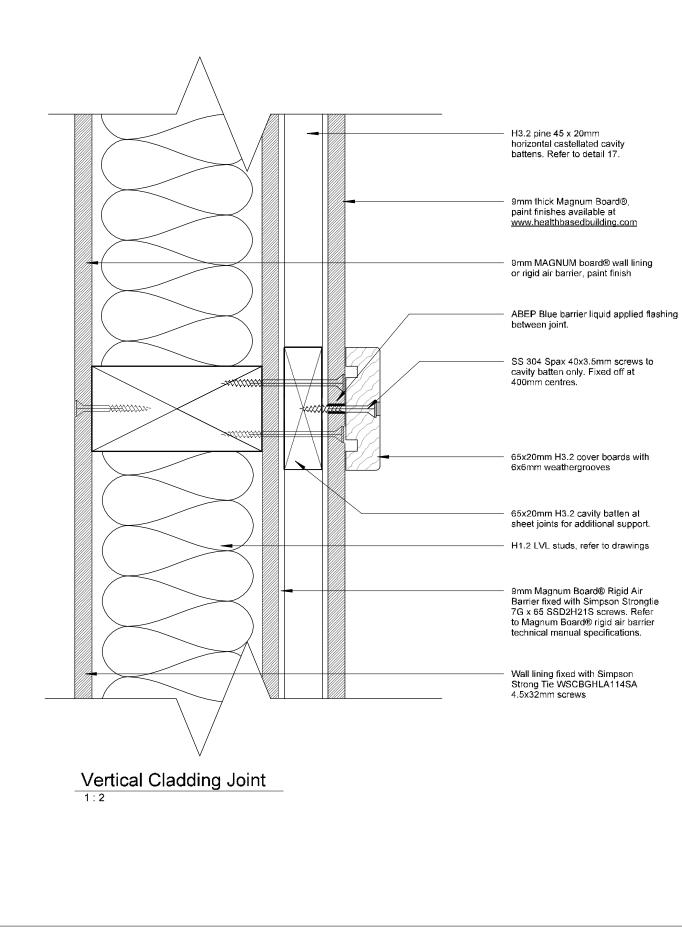


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Health Based Building Magnum Board Cavity Fix Details

Pipe Penetration - Plan & Section Detail







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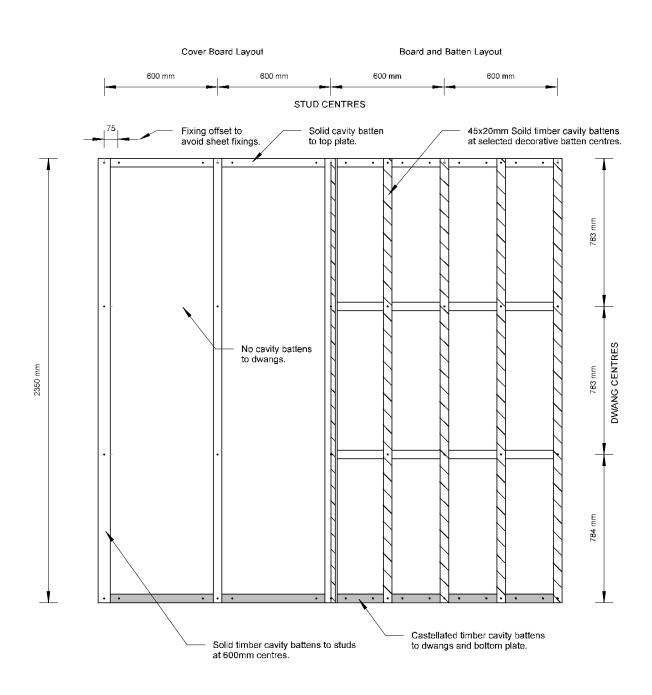
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Health Based Building Magnum Board Cavity Fix Details

Vertical Cladding Joint

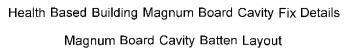




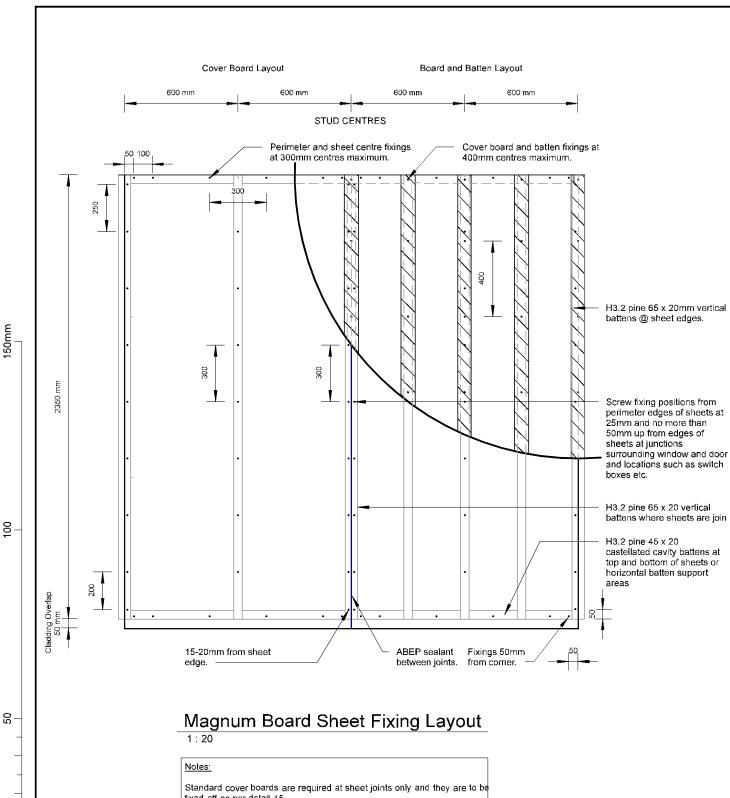
Magnum Board Cavity Batten Layout











fixed off as per detail 15.

Board and batten decorative cover boards can be installed at 600mm; 400mm; 300mm centres. Please note that decorative cover boards are to be continuously supported with solid timber cavity battens when installed between studs. Additionally all cover boards shall be fixed off with Simpson Strongtie 7G x 65 SSD2H21S screws.



