

CHASE

TECHNICAL INFORMATION & INSTALLATION MANUAL

Direct Fix & Cavity System

Chase Building Supplies Pty Ltd
Version 2.4 - November 2020

COMPLETE EXTERNAL WALL CLADDING
SYSTEM WHICH ADHERES TO:
NCC 2019, Vol 2, BCA Class 1 and Class 10
Buildings Relevant Australian Standards

BAL 29

AS 1530.8.1:2018



www.chaseproducts.com.au

CHASE - Render Guide



CHASE EPS RENDER

High bond strength, medium grade cementitious render for application to low porosity surfaces.

Key Features

- High polymer modification for excellent bond strength
- Factory blended for optimum consistency
- Excellent durability, workability and application properties
- Will not go drummy like traditional sand and cement renders



CHASE GP RENDER MEDIUM

Medium grade cementitious render for application to stable and porous masonry surfaces.

Key Features

- Factory blended for optimum consistency
- Excellent durability, workability and application properties
- Will not go drummy like traditional sand and cement renders



CHASE GP RENDER COARSE

Coarse grade cementitious render for application to stable and porous masonry surfaces.

Key Features

- Factory blended for optimum consistency
- Excellent durability, workability and application properties
- Will not go drummy like traditional sand and cement renders



CHASE HIGH BUILD

Lightweight polymer modified cementitious render formulated for thick section application.

Key Features

- Lightweight for improved sag resistance
- Factory blended for optimum consistency
- Excellent durability, workability and application properties
- Will not go drummy like traditional sand and cement renders



CHASE CONCRETE FINISH

Ultra-fine cement based fairing coat for achieving a mottled concrete slab appearance.

Key Features

- High polymer modification for excellent bond strength
- Factory blended for optimum consistency
- Excellent durability, workability and application properties
- Will not go drummy like traditional sand and cement renders

Contents

1	Introduction	2
1.1	Chase EPS External Wall Cladding System	3
2	System Summary	4
2.1	Benefits	6
3	National Construction Code (NCC) 2019	8
3.1	Structural Performance	9
3.2	Dampness and Weatherproofing Performance	10
3.3	Fire Safety Performance	11
3.4	Thermal Performance	11
4	Materials	12
4.1	Damp Proof Course	14
4.2	Breathable Builders Paper	14
4.3	Chase Flashing tape	14
4.4	Chase EPS Panel	14
4.5	Chase System Fixings (screws & washers)	15
4.6	Chase Starter Channel	15
4.7	Chase Aluminium / PVC External Angles	15
4.8	Chase Foam Filler	15
4.9	Chase Fibreglass Mesh	16
4.10	Chase EPS Render System	16
4.11	Sealant (By Builder)	16
4.12	Optional Finishes	17
5	Specifications	18
5.1	Installation to Achieve Bushfire Attack Level (BAL 29)	19
6	Installation	20
6.1	Certification	21
6.2	Storage	21
6.3	Health & Safety	21
6.4	Typical Panel Layout	22
6.5	Typical Panel Layout for Openings	23
6.6	Fixing Spacing and Edge Distances	24
6.7	Installation Steps	24
7	Construction Details	28
7.1	Concrete Slab Rebate	30
7.2	Panel Over Masonry Wall	31
7.3	Wall Over Roof	32
7.4	Wall to Balcony	33
7.5	Garage / Bulkhead / Overhang / Drip	34
7.6	Metal Capping Parapet Wall to Roof	35
7.7	Junction to Masonry Wall	36
7.8	Horizontal Expansion Joint	37
7.9	Vertical Expansion Joint	38
7.10	Internal Corner	39
7.11	External Corner	40
7.12	Window Head	41
7.13	Window Sill	42
7.14	Window Jamb	43
7.15	Eave Soffit	44
7.16	Large Penetration	45
7.17	Service Penetration	46
7.18	Downpipe Fixing	47
8	Maintenance	48
9	Warranty	49
10	Disclaimer	49



1 Introduction

Introduction

1.1 Chase EPS External Wall Cladding System

Chase EPS External Wall Cladding System, is a systematic, lightweight polystyrene cladding with a visually appealing rendered finish that can be installed direct fix or via a cavity system (EPS, timber or steel battens).

This technical information & installation manual is designed for use by builders & installers to provide all the relevant information about how to install the system to meet Building Code of Australia (BCA) requirements.

The National Construction Code 2019 (NCC) – Building Code of Australia, Volume 2 for Class 1 & 10 buildings is a performance based code. Chase EPS has been extensively tested & is certified to meet the performance requirements prescribed by the code:

- **Structure:** (P2.1 Structural stability and resistance to actions)

Tested and appraised for serviceability and strength under wind loads up to:

- o AS 4055 Wind Class N4 for 75mm minimum thickness panels, and N3 for 50mm thickness panels;
- o AS/NZS 1170.2 serviceability wind pressures $W_s = +0.82\text{kPa}$ & -1.23kPa , and ultimate limit state wind pressures of 3.42kPa for minimum 75mm thickness panels and 2.03kPa for 50mm thickness panels.

- **Weatherproofing and Dampness:** (P2.2.2 Weatherproofing, P2.2.3 Dampness) Tested and appraised for resistance to moisture from the ground and the penetration of water.
- **Bushfire Prone Areas** (P2.7.5)- Tested and appraised in accordance with AS1530.8.1:2018, for Bushfire Attack Level exposure up to 29 kW/m^2 (BAL 29).
- **Fire :** (P2.3.1 Fire Separation)
Chase EPS External Wall Cladding System is combustible as defined by the NCC 2019 BCA Volume 2 and must not be located less than 900mm from boundaries or 1800mm from another building, as defined in 3.7.1.3.
- **Energy Efficiency:** (P2.6.1 Building).





2 System Summary

System Summary

Chase EPS External Wall Cladding System consists of M Grade expanded polystyrene directly screwed or installed via a cavity system, to either steel or timber wall framing through breathable wall wrap.

The system is very versatile due to the capability of both direct fix or a cavity system and is designed to be used in residential construction. Examples of applications include external walls, parapets, bulkheads, fences and columns.

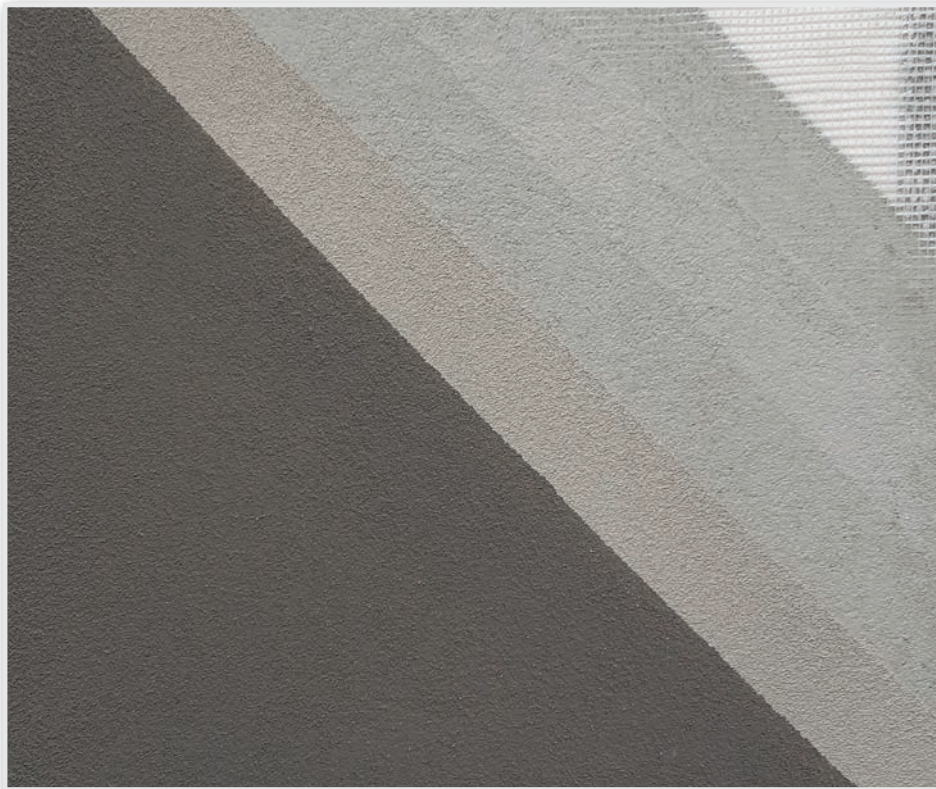


Figure 1: Chase EPS External Wall Cladding System

The Chase EPS panel, screwed through breathable builders paper to the external wall framing, is finished on-site with the Chase render system. This incorporates Chase fibreglass mesh embedded into an initial base coat of Chase EPS render, followed by a second base coat layer and finished with Chase tintable texture.

Optional :

- Chase primer (tintable) - The primer assists in adhesion of the texture coat;
- Chase membrane (tintable) - The membrane will assist in prolonging the life of the system (particularly texture) as a whole.

Chase EPS panel is lightweight making for easy handling and installation while also providing a continuous thermal barrier to the heat and cold.

The Chase EPS External Wall Cladding System provides the appearance of a rendered masonry wall without the increased site preparation, cost and time of high-mass construction. It is designed to be installed on parapets and bulkheads which allows the designer the freedom to achieve various finishes on the same façade.

External wall cladding system selection and design for any building, must be made by a person who understands all the relevant local and national building requirements, the technical aspects of the product and its proper use.

Product installation must be carried out by a tradesman under the direction of a Registered Builder who both understand the technical information and method of installation of the system.

2.1 Benefits

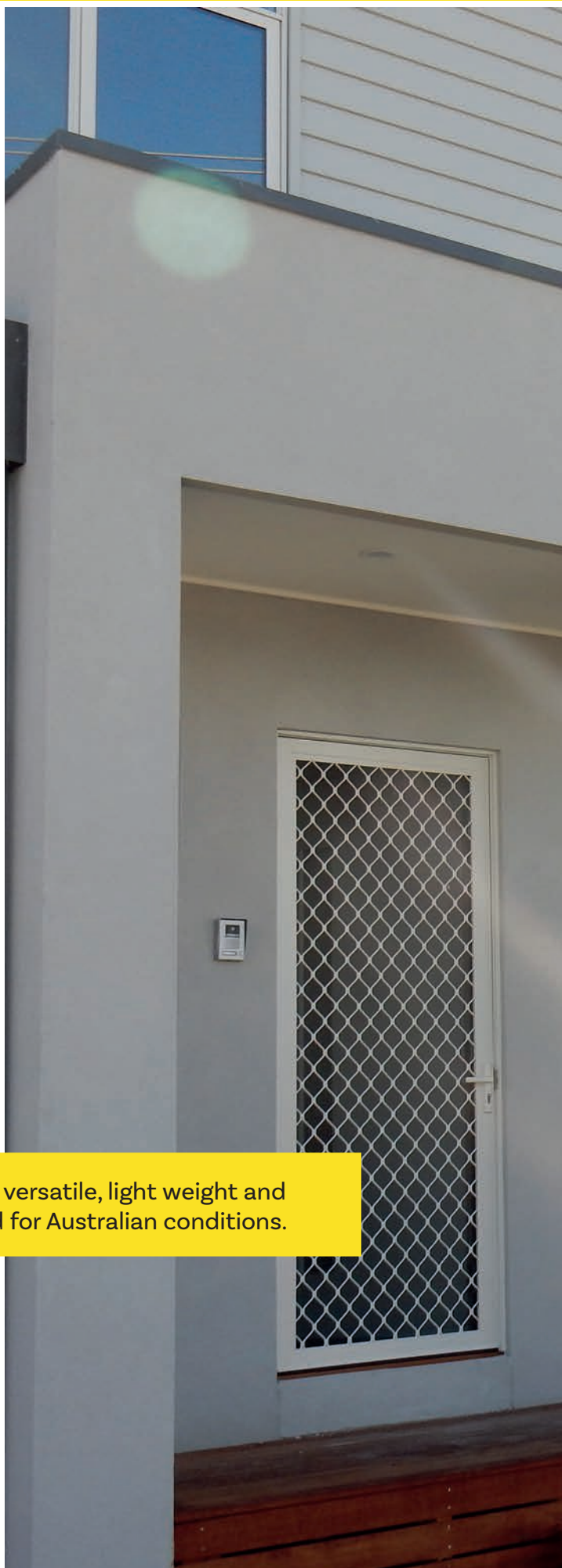
Chase EPS External Wall panels are available as a standard size of 2400mm x 1200mm with thicknesses of 50mm, 75mm and 100mm.

Chase EPS benefits include:

- ✓ Energy efficient construction by continuous insulation over the framing;
- ✓ Versatility to satisfy different architectural forms;
- ✓ Lightweight for quick and cost-effective installation;
- ✓ Weatherproofing, durability, impact & moisture resistance;
- ✓ External Insulation & Finish System (EIFS) is a well-known system for builders and renderers.

Chase EPS External Wall Cladding System is designed for Australian conditions. This method has been used successfully for many years in Europe. EIFS is a lightweight system that has design flexibility that provides peace of mind.

Chase EPS External Wall Cladding System is versatile, light weight and energy efficient and has been designed for Australian conditions.







3 National Construction Code (NCC) 2019

National Construction Code (NCC) 2019

The NCC is a performance-based code that provides solution options via a Deemed-to-Satisfy, or Performance Solution paths.

Any building system that is not described in the Deemed-to Satisfy provisions can only demonstrate compliance via a Performance Solution.

This applies to all External Wall Cladding Systems that are not listed in BCA Volume 2, Part 3.5.3.

External Walls are required to comply with performance requirements for structure, fire, weatherproofing, dampness and energy efficiency. Details of compliance are outlined below.

3.1 Structural Performance - Direct Fix & Cavity System

Chase EPS External Wall Cladding System with 75mm minimum thickness panels has been designed and tested to withstand the strength limit state design wind loads for AS 4055 Wind Classifications N1, N2, N3 and N4.

50mm thick panel is limited to AS 4055 Wind Classifications N1, N2 & N3 only.

Chase EPS External Wall Cladding System meets AS/ NZS 1170.2 serviceability wind pressures $W_s = +0.82\text{kPa}$ & -1.23kPa ; and, ultimate limit state wind pressures of 3.42kPa for 75mm minimum thickness, 2.03kPa for 50mm thickness.

The Chase EPS External Wall Cladding System **cannot** be installed in cyclonic wind regions. The design wind loads for a building are typically calculated by an engineer based on the site classification and height of the building.

Chase EPS External Wall Cladding System is not designed to act as wall bracing. Bracing resistance must taken-up by the wall framing.

Chase EPS External Wall Cladding System is not load-bearing. Control joints are required at regular intervals to allow for building movement. (refer to section 7 Construction Details items 7.8 & 7.9)

Where the Chase EPS External Wall Cladding System is installed on buildings designed to conform to the requirements of AS 4055, it should be noted that this standard limits:

- **Height** from ground level to the;
 - underside of eaves shall not exceed 6.0m; and
 - highest point of the roof, not including chimneys, shall not exceed 8.5m.
- **Width** including roofed verandas, excluding eaves, shall not exceed 16.0m.
- **Length** shall not exceed five times the width.
- **Roof pitch** shall not exceed 35 degrees.

3.2 Dampness and Weatherproofing Performance

Chase EPS External Wall Cladding System complies with the NCC 2019 performance requirements for weatherproofing and dampness.

This has been confirmed by testing in accordance with the verification method V2.2.1 in the NCC 2019. This verification method requires that a test specimen is constructed and tested so that the weatherproofing performance of many of the common combinations of details found in normal construction practice can be examined.

In accordance with V2.2.1, weatherproofing compliance is demonstrated for an external wall with;

- Serviceability limit state design wind pressures of not more than +0.82kPa & -1.23kPa, this includes up to AS 4055 N4 Wind Classification (note that 50mm thickness panel is only up to N3 applications only due to strength); and
- Includes only windows that comply with AS 2047 (Windows and external glazed doors in buildings), and has a Risk Score of 20 or less determined in accordance with NCC 2019, BCA Volume 2 Table V2.2.1a, as follows.

Table V2.2.1a - Risk factors and scores

Risk factor	Category	Risk severity	Score
Wind region	Region A (AS/NZS 1170.2)	Low to medium	0
	Region B (AS/NZS 1170.2)		
	Region C (AS/NZS 1170.2)	High	1
	Region D (AS/NZS 1170.2)	Very high	2
Number of storeys	One storey	Low	0
	Two storeys in part	Medium	1
	Two storeys	High	2
	More than two storeys	Very High	4
Roof/wall junctions	Roof-to-wall junctions fully protected	Low	0
	Roof-to-wall junctions partially exposed	Medium	1
	Roof-to-wall junctions fully exposed	High	3
	Roof elements finishing within the boundaries formed by the external walls	Very High	5
Eaves width	Greater than 600mm for single storey	Low	0
	451-600mm for single storey; or greater than 600mm for two storey	Medium	1
	101-450mm for single storey; or 0-450mm for two storey; or less than 600mm for above two storey	High	3
	0-100mm for single storey; or 0-450mm for two storey; or less than 600mm for above two storey	Very High	6
Envelope complexity	Simple shape with single cladding type	Low	0
	Complex shape with no more than two cladding types	Medium	1
	Complex shape with more than two cladding types	High	3
	As for high risk but with fully exposed roof-to-wall junctions	Very High	6
Decks, porches and balconies	None; or timber slat deck or porch as ground level	Low	0
	Fully covered in plan view by roof; or timber slat deck attached at first or second floor level	Medium	2
	Balcony exposed in plan view at first floor level; or balcony cantilevered at first floor level	High	4
	Balcony exposed in plan view at second floor level or above	Very High	6

(Credit: The National Construction Code Series 2019© as released by the Australian Building Codes Board on behalf of the Commonwealth of Australia and States and Territories of Australia. <http://creativecommons.org/licenses/by-nc-nd/4.0/legalcode>.)

3.3 Fire Safety Performance

Chase EPS External Wall Cladding System consists of an EPS core that is made of fire-retarded expanded polystyrene tested in accordance with AS/NZS 1530.3.

As a combustible external wall system, Chase EPS External Wall Cladding System has not been tested for applications that require a **Fire-Resistance Level (FRL)** and may not be installed less than 900mm from an allotment boundary.

When installed using the materials and methods prescribed in this manual the **Chase EPS External Wall Cladding System** is suitable for construction for Class 1 & 10 buildings in bushfire prone areas up to **Bushfire Attack Level (BAL) 29**.

The System has successfully passed testing in accordance with AS1530.8.1:2018, which is the prescribed test standard in AS3959:2018, for a tested system with the exposure level up to Bushfire Attack Level exposure of 29 kW/m² (BAL 29) and complies with the performance requirements prescribed in NCC 2019 BCA Volume 2, P2.7.5 using the application methods defined in P3.10.5.

Chase EPS External Wall Cladding must not be exposed to temperatures more than 80°C for long periods due to the risk of softening and damage. Heat producing appliances e.g. BBQ's & Patio Heaters, Hot Water Services, Flues from Heating Appliances, all must be installed in accordance with manufacturers' requirements, so the Chase EPS External Wall Cladding System does not become heat damaged.

3.4 Thermal Performance

The Chase EPS External Wall Cladding System is an excellent insulator that achieves high Total R-values. These may be used to satisfy NCC 2019, BCA Vol. 2 Part 3.12.1.4 wall insulation requirements, or as input to house energy rating software to achieve an energy rating.

Chase EPS External Wall Cladding System with breathable reflective wall wrap and 10mm plasterboard lining achieves Total R-values in accordance with AS/NZS 4859.1.

Increased thermal performance can be achieved by adding insulation between the wall studs.

Thermal Performance Table

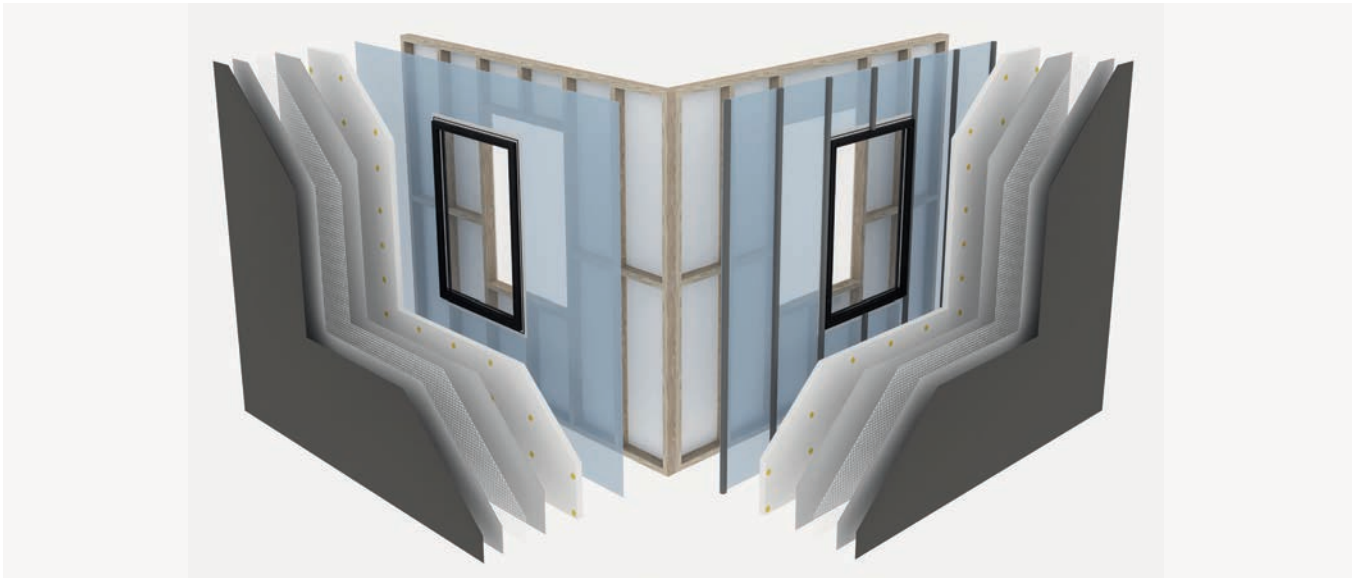
Panel Thickness (Depth)	Total R-value (m ² .K/W)	
	Winter (Heat flow outwards)	Summer (Heat flow inwards)
50 mm	1.8	1.7
75 mm	2.4	2.3
100 mm	3.1	2.9



4 Materials

Materials

It is recommended that when using the Chase EPS External Wall Cladding System that Chase components be used in the application process of the system.



The substitution of any Chase EPS cladding or Chase system fixings (screws & washers) is not permitted on any Chase EPS External Wall Cladding System application. All other components may be substituted with equivalent alternatives that meet the specifications of the products used in this manual and the required building standards.

Failure to meet these requirements using any non-standard or non-approved component will void any product or system warranty.

The following is a list of materials required to install the complete Chase EPS system:

1. Breathable (Vapour Permeable) builders paper;
 2. Chase Flashing tape;
 3. For Cavity System - EPS, timber or steel battens (depth between 15-40mm)
 4. Chase EPS cladding in selected thickness & size (50, 75 & 100mm);
 5. Chase system fixings (screws & washers) in size relevant to cladding (need screws a minimum of 25mm longer than cladding thickness);
 6. Chase Starter channel in U-shape (boot) or L-shape, aluminium/PVC (required where the bottom edge of panel is unprotected). For BAL 29 Aluminium starter channels must be used;
 7. Chase aluminium/PVC external angles;
 8. Foam filler;
 9. Chase fiberglass mesh;
 10. Chase EPS render;
 11. Chase texture (tintable);
 12. Sealant (by builder) around windows, penetrations, control joints and where Chase EPS & any other substrate meet.
- Optional:**
- Chase Primer (tintable) (not pictured);
 - Chase Membrane (tintable) (not pictured).

Materials continued

4.1 Damp Proof Course

Damp proof course (DPC), installed by builder, must meet the requirements of AS/NZS 2904.

4.2 Breathable Builders Paper

The framing must be wrapped with vapour permeable builders paper that meets the requirements of AS/NZS 4200.1 and must achieve a Medium Duty (MD) Classification. It must have a Low Flammability Classification, (Flammability Index (FI) equal or less than 5) in accordance with AS 1530.2.



4.3 Chase Flashing tape

All joints and edges of the Breathable Builders Paper must be sealed with flashing tape. This includes around all penetrations (windows, doors, electrical, plumbing and other services) and along the base of the wall.



4.4 For Cavity System - Battens

Battens may be EPS, timber or steel with a depth of between 15-40mm

4.5 Chase EPS Panel

Chase M Grade fire retarded expanded polystyrene manufactured in accordance with AS 1366.3, in the selected thickness and size.



4.6 Chase System Fixings (screws & washers)

Screws- Chase 10G Bugle head, coarse thread Class 3 screws (Class 4 in corrosive environments) to suit timber or steel framing. Screws must comply with the corrosion protection requirements of AS 4773 (Part 4 and Appendix C). Screws must penetrate at least 25mm into timber wall framing (e.g. Length = Panel + 25 mm), or at least 3-full threads through steel wall framing (e.g. Length = Panel + 3-full threads). (e.g. Buildex Bugle head batten 10-8 Climacoat 3)

Washers- Chase 48 mm diameter flexible high-density polypropylene washer with holes and slots for adhesion / bonding.



4.7 Chase Starter Channel

Starter channel in U shape (boot) or L shape, aluminium/PVC is required on all exposed panel edges if raw panel is visible.



4.8 Chase Aluminium / PVC External Angles

External angles must be 32 mm x 32 mm Aluminium or PVC and must be installed at all external corners, openings and edges.



4.9 Foam Filler

Single-component polyurethane expanding foam filler to be applied between all panel connections, horizontal & vertical joints.



Materials continued

4.10 Chase Fibreglass Mesh

5 mm x 5 mm x 1200 mm wide, 160g/m² self- adhesive alkali resistant fibreglass mesh is to be embedded into the initial base coat.



4.11 Chase EPS Render System

A pre-blended polymer modified cement render. Proprietary systems complying with the following minimum specification are deemed suitable. Minimum Requirements: 2 mm Base Coat; Mesh; 2 mm Second Base Coat; 1 mm Texture Coat and Sealant around openings.

Sealant must be an acrylic based texture coating suitable for external application over cement rendered surfaces. Coating must consist of an acrylic external coating system, applied according to the manufacturer's instructions. To guarantee a true and even colour finish Chase membrane should be applied.

Chase Render Coverage: Approx. 4-5m² at thickness of 4-6mm, per 20kg bag. Chase Texture Coverage: Approx. 10-12m², per pail.



4.12 Sealant (By Builder)

Sealant (by builder) around windows, penetrations, control joints and where Chase EPS & any other substrate meet. When looking to achieve **BAL 29** a fire rated (up to 4 hours fire protection in accordance with AS 1530.4) intumescent, low modulus, one component and Class A polyurethane sealant such as Bostik Fireban One should be used to a depth of 20mm (+/- 5mm). When cured it will form a tough, flexible fire rated seal capable of cyclic expansion and compression.

4.13 Optional Finishes

The following products are optional and are used on an “as needed” basis dependant on specification of the project.

- **Chase primer (tintable)** - The primer assists in adhesion of the texture coat and would be used after application of render but before application of texture. We strongly recommend the use of a tinted primer where a dark colour texture is to be applied. This will help achieve an even finish with good colour coverage. A primer will also assist in better workability (longer working time due to longer drying time) when texture is to be applied in warm temperatures.
- **Chase membrane (tintable)** - The membrane will assist in prolonging the life of the system (particularly texture) as a whole. Membrane is highly recommended in coastal areas. To be applied as the last additional step of the Chase EPS system.



5 Specifications

Specifications

Before the Chase EPS External Wall Cladding System can be installed, all wall framing must be constructed and detailed to comply with the relevant regulations.

The placement & detail of correct installation of control joints is the responsibility of the Designer, Architect & Builder.

Good cladding system building practice typically requires expansion joints every 6-8m and at each floor level (eg, 3m high).

Control joints should correspond with control joints of the building structure. This is typically at all weak or stress points and at all joints between different building substrates.

'Articulation Relief Joints' of the render coating are also recommended for the control of cracking/hair-line fractures. Articulation Joints should be installed vertically in line with the sides of doors, windows & openings, as well as in areas where the EPS section is less than 300mm in height (eg, above/below window & door heads).

These should be installed by forming or cutting a 'V' groove to a depth of at least 50% into the render base coats without penetrating the mesh layer. This groove is to be reproduced as a visible line in the texture coat.

Again, it is the responsibility of the Designer, Architect & Builder to ultimately determine the most appropriate approach for the specific project.

All facets of the design, supply and correct installation of penetrations in the cladding system, e.g. windows, doors etc., are outside the scope of the Chase EPS External Wall Cladding System. The Designer and Builder must ensure that the building, including all drainage holes and integral flashings in all penetrations will prevent the ingress of rain water behind the EPS panel and will drain to the outside of the building.

Variations in the strength, stiffness, straightness and squareness of the wall framing will affect the cladding system and must be checked, and rectified as necessary, before any cladding installation can begin.

In all cases the Chase EPS External Wall Cladding System may only be installed in accordance with this manual on steel or timber wall framing with a maximum stud spacing of 600mm.

Prior to Installation

1. Ensure the wall frame is square, level and plumb;
2. Check that the stud spacing does not exceed 600 mm;
3. Ensure panel edges that are parallel to the studs are supported so that fixings can be applied between 50mm to 150mm from the panel edge as required;

To achieve this requirement, additional framing and/or back blocking may be required at vertical panel joints. For typical details for double-studs and/or back-blocking with materials similar to the studs, see Section 6.1;

4. Ensure eave linings, flashings, damp proof course and termite protection are provided as per the project requirements and the specifications contained herein;
5. Ensure back blocking is installed for wall mounted services, downpipes, penetrations etc;
6. Ensure windows are aligned to meet the project specific detailing requirements for battens, finished reveal depth etc.

5.1 Installation to Achieve Bushfire Attack Level (BAL 29)

In order to achieve BAL 29, The complete Chase EPS External Wall Cladding System must be used.

The System must be installed in accordance with this manual and be comprised of a precise group of specified materials to meet the Bushfire Attack Level standard as tested (AS1530.8.1-2018). This includes 50mm, 75mm or 100mm Chase panel; Chase aluminium U-shape (boot) or L-shape, aluminium starter channels (required where the bottom edge of panel is unprotected); Chase fixings and washers, Chase 160 g/m² fiberglass mesh, Foam Sealant, window flashing tape, Chase Render (2 coats @ 3mm each), Chase Texture, Sealant- Bostik Fireban One (by Builder).



6 Installation

Installation

Product selection, and incorporation of the Chase EPS External Wall Cladding System into the building design, should be made by a person who is familiar with the application and technical aspects of the product, with ready access to the relevant technical information related to product use.

System installation must be carried out by a competent tradesman with a minimum 1 years experience in external wall cladding and rendering. They must have read and adhered to all relevant technical information on product installation including the installation techniques set out in this Manual.

6.1 Certification

Upon completion of a job, the installer must go online to www.chaseproducts.com.au and complete the online certification process.

You will be required to provide:

1. Project details including address of installation, products used & texture colour;
2. Proof of purchase;
3. Builder or Client details;
4. A declaration that the product was installed in accordance with this manual;

Chase will then issue you with a Certificate of Installation which is required in order to make any future warranty claims

6.2 Storage

Render & texture

- Store in original containers;
- Keep containers securely sealed;
- Store in a cool, dry area protected from environmental extremes;
- Store away from incompatible materials and foodstuff containers;
- Protect containers against physical damage and check regularly for leaks;
- Observe manufacturer's storage and handling recommendations contained within the MSDS;
- For larger quantities, bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks.

6.3 Health & Safety

Installation instructions do not deal with materials safety, site safety or safe work practices, these should be considered in conjunction with a suitable Safety Data Sheets prior to commencing installation, however, as with all composite materials use of personal protective equipment is recommended.

Basic safety clothing and gloves should be worn when handling or cutting the Chase EPS External Wall Cladding System.

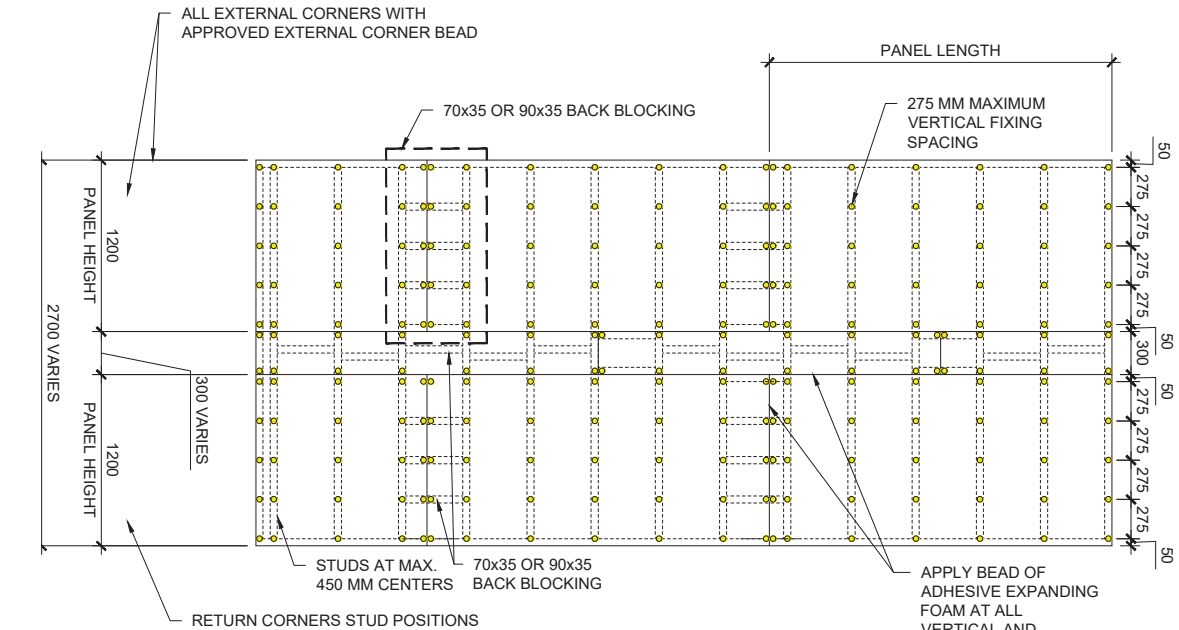
When cutting Chase EPS External Wall Cladding it is recommended that a face mask and protective glasses be worn.

Quality assurance aspects of the construction process should be considered in conjunction with the necessary safety analyses.



6.4 Typical Panel Layout

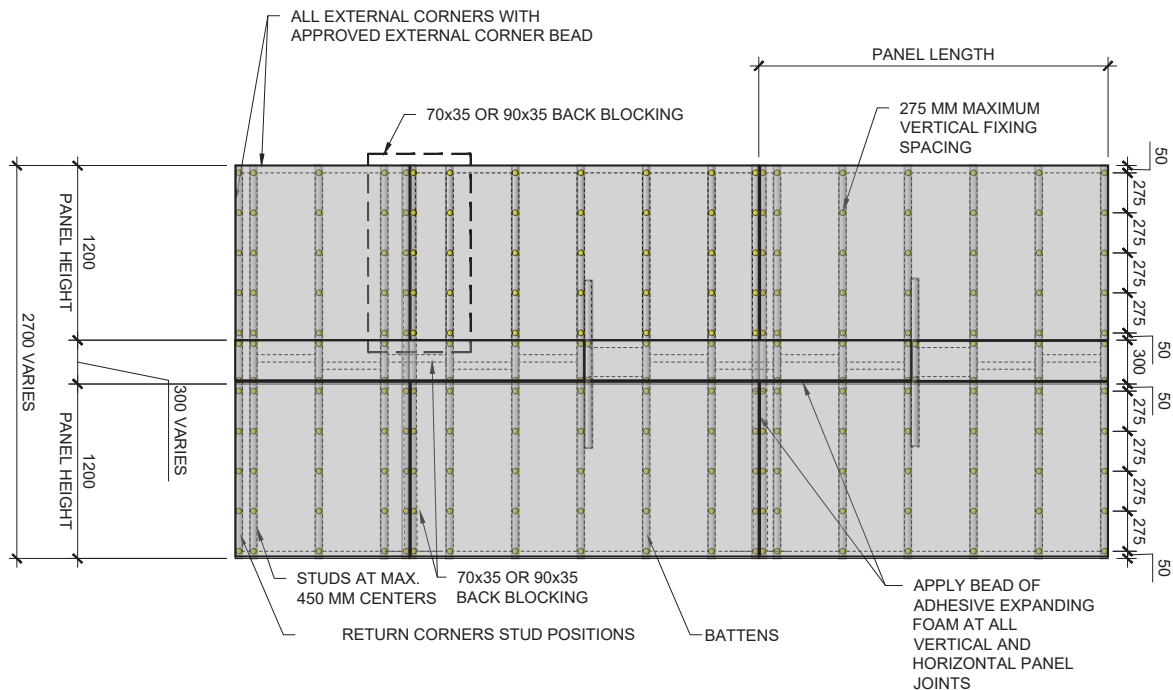
TYPICAL PANEL LAYOUT FOR WALL STUD - DIRECT FIX



NOTE: FIXINGS MUST BE AT MIN. 25mm & AT MAX. 50mm FROM THE EDGE OF THE PANEL

BACKBLOCKING MUST BE OF SIMILAR SPECIFICATION TO THE STUD & RIGIDLY CONNECTED TO THE STUD

TYPICAL PANEL LAYOUT FOR WALL STUD - CAVITY SYSTEM



NOTE: FIXINGS MUST BE AT MIN. 25mm & AT MAX. 50mm FROM THE EDGE OF THE PANEL

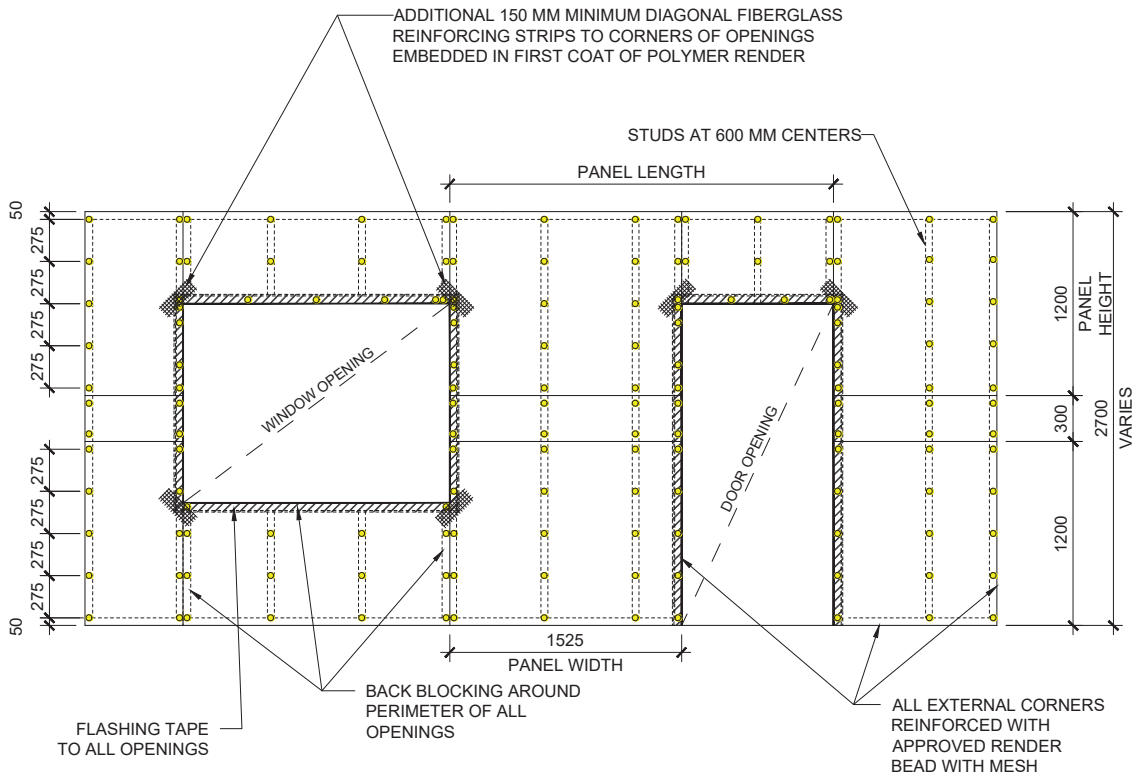
BACKBLOCKING MUST BE OF SIMILAR SPECIFICATION TO THE STUD & RIGIDLY CONNECTED TO THE STUD

TO ACHIEVE A CAVITY SYSTEM BATTENS ARE TO BE INSTALLED VERTICALLY AT EVERY STUD

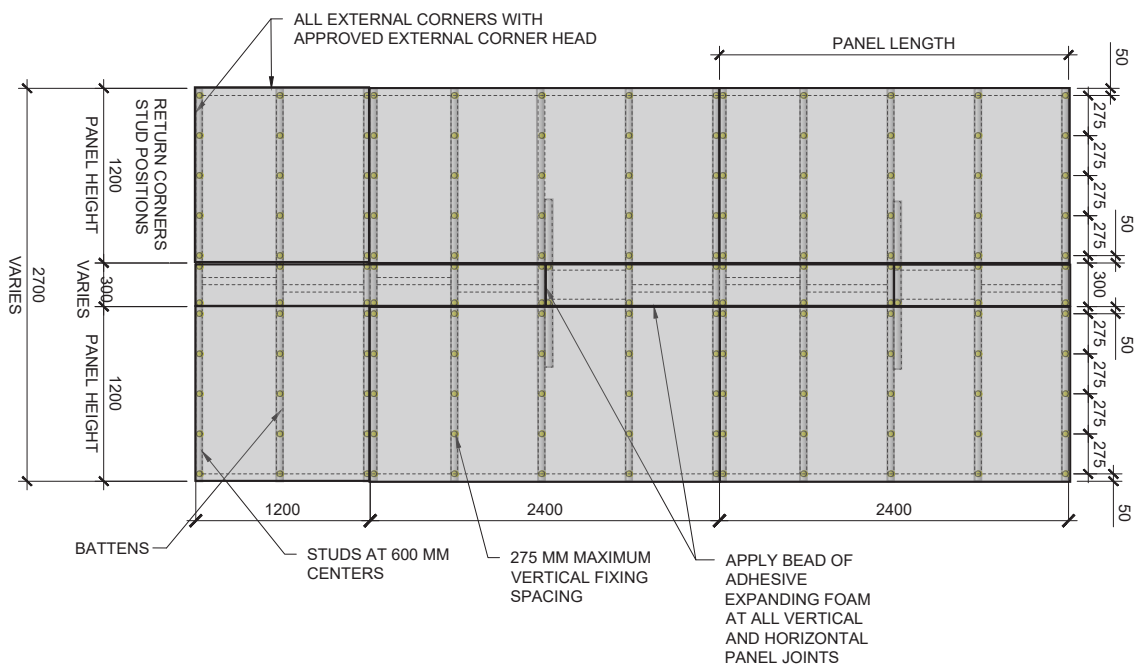
NOTE: NO BATTENS ARE TO BE HORIZONTAL

6.5 Typical Panel Layout for Openings

TYPICAL PANEL LAYOUT FOR 600mm STUD WALL - DIRECT FIX



TYPICAL PANEL LAYOUT FOR 600mm STUD WALL - CAVITY SYSTEM



NOTE: FIXINGS MUST BE AT MIN. 25mm & AT MAX. 50mm FROM THE EDGE OF THE PANEL

BACKBLOCKING MUST BE OF SIMILAR SPECIFICATION TO THE STUD & RIGIDLY CONNECTED TO THE STUD

TO ACHIEVE A CAVITY SYSTEM BATTENS ARE TO BE INSTALLED VERTICALLY AT EVERY STUD

NOTE: NO BATTENS ARE TO BE HORIZONTAL

6.6 Fixing Spacing and Edge Distances

In all cases the maximum vertical fixing spacing must be 300mm along studs at maximum 600mm spacing. Edge fixings must not be placed less than 50mm or (more than the panel thickness) mm from the edge or end of a panel. At the starter channel, fixings may be spaced a distance up to the thickness of the panel from the bottom edge.

Fixing Spacing

AS 4055 Wind Classification	Panel Thickness (mm)	Stud Spacing (mm)	Fixing Spacing (mm), All wall locations (within 1200mm of corners, & over 1200mm from corners.)
N1, N2, N3	50	600 (max.)	300 (max.)
N1, N2, N3, N4	75, 100	600 (max.)	300 (max.)

Note: AS 4055 Table 3.3, N3 Wind Classification includes Ultimate Strength Wind Pressures up to +1.35kPa & -2.03kPa; and, N4 Wind Classifications include Ultimate Strength Wind Pressures up to +2.01kPa & -3.01kPa.

6.7 Installation Steps

Prior to commencing installation, it is recommended that you ensure that the frame that you are installing the panel onto meets the stud spacing requirements detailed above ie stud spacing to be no more than 600mm.

You should also ensure that the frame is straight/ level (we recommend utilising a straight edge or level to achieve this). If the frame is not level, appropriate measures such as packing out the frame should be completed prior to installing the panel.

1. **Chase Breathable Builders Paper** – To be fixed over the studs, cut openings around penetrations (e.g. doors, windows, and other services).

If the builders paper has been applied by another party (eg. by the builder) prior to application, the person who installing the panel should make sure the paper has been correctly installed before starting.
2. **Flashing Tape** is required to be installed around all doors, windows & openings and forms part of the weatherproofing of the system. In all cases the Flashing Tape must be applied in accordance with the manufacturers' instructions and with emphasis on:
 - a. Ensuring the surfaces being joined are clean and free from any contamination such as dust, dirt, oil or silicones;
 - b. The installation temperature range and environmental conditions are within tolerances;
 - c. Pressure is applied to the surface to ensure firm contact with the substrate;
 - d. Tapes are not to be used as mechanical joining devices, care should be taken to ensure that the materials joined are not liable or subject to movement. Flapping of the two surfaces joined by the tape creates enormous pressure on the join and can lead to tape breakdown.
3. **Battens - For Cavity System**

Battens may be EPS, timber or steel and are to be installed vertically at every stud. EPS & timber battens are to be 35mm or wider and between 15-50mm deep. Steel battens are to be 35mm or wider and between 15-35mm deep with 0.55BMT steel top hats

Note - if installing the foam panels on battens the bottom edge of Breathable Builders Paper needs to be sealed with Flashing Tape.

- 4. Starter Channel** - The choice of a U-shaped or L-shaped starter channel is entirely up to the installer.

If using a U shaped starter channel it needs to be fixed at each stud with nails prior to fixing foam onto the frame. The starter channel is only required when the bottom edge of the panel is visible.

If using an L shaped starter channel it needs to be glued to the foam after the foam has been installed.

The starter channel is only required when the bottom edge of the panel is visible.

When looking to achieve a **BAL 29** rating, if the gap below the exposed panel is greater than 30mm we recommend using a U shaped starter channel where possible.

- 5. Cutting Panels** - The use of Personal Protective Equipment is required for cutting Chase EPS. The product can be easily & conveniently cut to size using a circular saw (timber or diamond blade) or hand saw. It is strongly recommended that the installer works in a well ventilated area, uses hearing protection, wears a dust mask & eye protection to protect from any particles which may become airborne during cutting.
- 6. Fixing Panels** - The panel is screwed to the stud through the washers at maximum 300mm spacing up every stud. The screws should be a minimum of 25mm longer than the panel thickness. Note that screws must be driven only until the washer just sinks into the Chase EPS panel.
- 7. Foam Adhesive** is to be installed between panels. Leave a 3mm gap between panels to ensure adequate space for foam filler to expand. Use of a non-system approved foam filler may affect the integrity of the panel.
- 8. Control Joints** - 15mm (+/- 5mm) horizontal and vertical control joints should be placed at all locations as specified by the architect, engineer or builder for the specific project; as well as between the Chase panel and dissimilar materials.
- 9. At window, door and other large openings,** ensure a 3mm gap is made between the panel and the wall framing. Cut the panel at window

sills at a minimum of 7° to provide for fall away from the opening. At all penetrations Install Chase External Angles and butterfly the mesh to all corners, see Section 6.4 for a diagram.

- 10. External Corners** - Aluminium external angles are required to be installed on all openings & external corners. These are to be glued on with foam filler.
- 11. Internal Corners** - Install an additional layer of Chase Fibreglass Mesh into internal corners. As an alternative a vertical control joint detail may be used.

12. Mixing Chase Render

- Prior to the application of Chase EPS render ensure that the substrate is clean and free of any impurities that may compromise adhesion.
- Add approximately 4 litres of clean water to a suitable mixing vessel and slowly add Chase EPS render powder whilst stirring.
- The use of a power stirrer is recommended however manual stirring will suffice.
- Continue stirring until all lumps have been dispersed.
- Add water until the desired consistency has been achieved.
- The final mix should hold a soft peak on the hawk.
- Mixing the material too wet or stiff will make the material difficult to apply and finish up.

- 13. Applying Chase Render** - (see also Section 4.12) Rendering must occur within two weeks of installation of Chase EPS panels and must not be carried out when panels are wet (e.g. from dew, rain or frost).

Application should be in accordance with the manufacturer's specifications. Please refer to the render bag for these specifications.



- a. In the first render coat embed a layer of Chase Fibreglass Mesh into the render over the entire surface of all panels.

Install Chase fibreglass mesh across all joints (except control joints) ensuring that it overlaps the sheet by 100 mm. This must be embedded into the base coat of the render while wet.

- b. Once cured apply additional coats of the Chase EPS Render System (total 2 coats minimum) in accordance with the manufacturer's specifications.

Refer to the render bag for specifications.

14. Applying Chase Texture – (also see Section 4.12)

- a. Prior to commencement of work, ensure a test panel has been completed and approved for both colour, texture, and surface finish.
- b. Ensure that the basecoat is cured, clean, dry and free of any impurities that may compromise adhesion.
- c. Loose and flaky material must first be removed prior to application.
- d. Application should be in accordance with the manufacturer's specifications.

Refer to the texture bucket for specifications.

15. Sealant (by builder)- should be applied in the following areas:

- around windows and other penetrations;
- where Chase EPS and any other substrate meet; &
- at control joints.

When looking to achieve **BAL 29** a fire rated (up to 4 hours fire protection in accordance with AS - 1530.4) intumescent, low modulus, one component and Class A polyurethane sealant such as Bostik Fireban One should be used to a depth of 20mm (+/- 5mm). When cured it will form a tough, flexible fire rated seal capable of cyclic expansion and compression.

If as part of the process you are choosing to apply primer and membrane layers we recommend that sufficient drying time is allowed for before application. Please refer to the texture bucket for these specifications.

Once your project is completed go to www.chaseproducts.com.au to register your project for **warranty and certification** purposes. During this process you will be required to provide details of the job, product used (including batch numbers found on the packaging) and proof of purchase.



7 Construction Details

Construction Details

Chase EPS External Wall Cladding System must be installed in accordance with this Technical Information and Installation Manual and be in accordance with all relevant building codes, Australian Standards and Regulations.

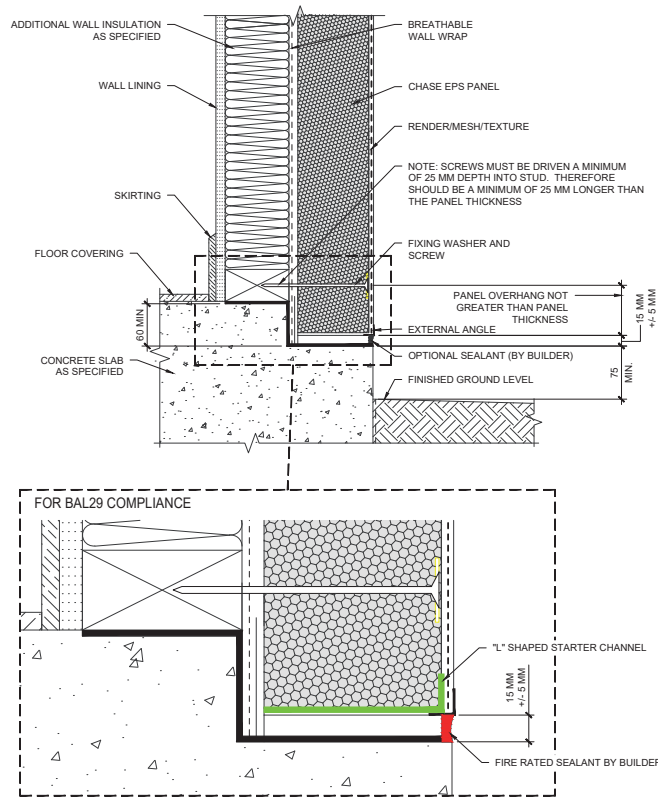
Typical construction details are provided as a guide for construction industry professionals.

These details do not constitute a project specific specification and should only be made use of within the context of the entire project specific documentation. Modifications to these drawings must not be made without the approval of Chase. Typical construction details are provided below.

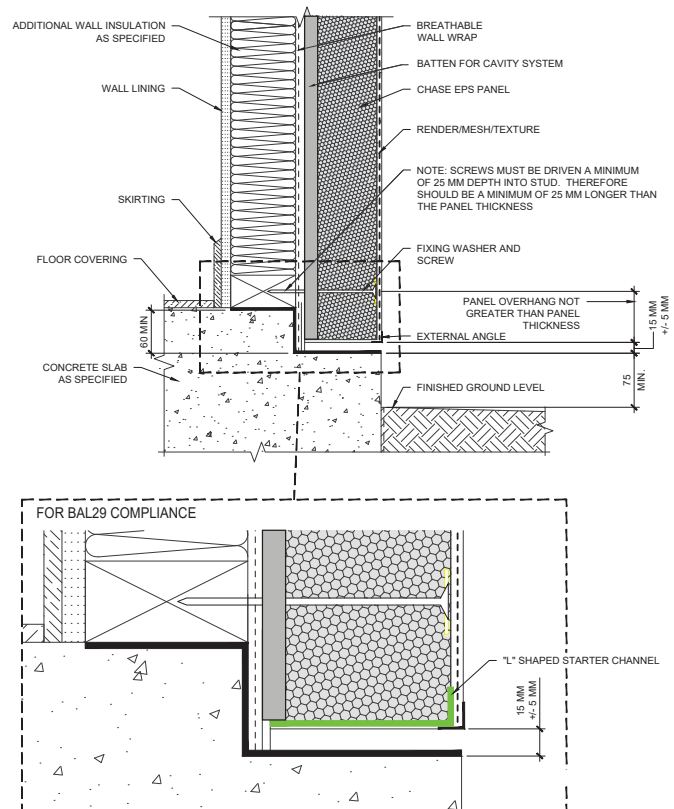


7.1 Concrete Slab Rebate

TYPICAL CONCRETE SLAB REBATE DETAIL - DIRECT FIX

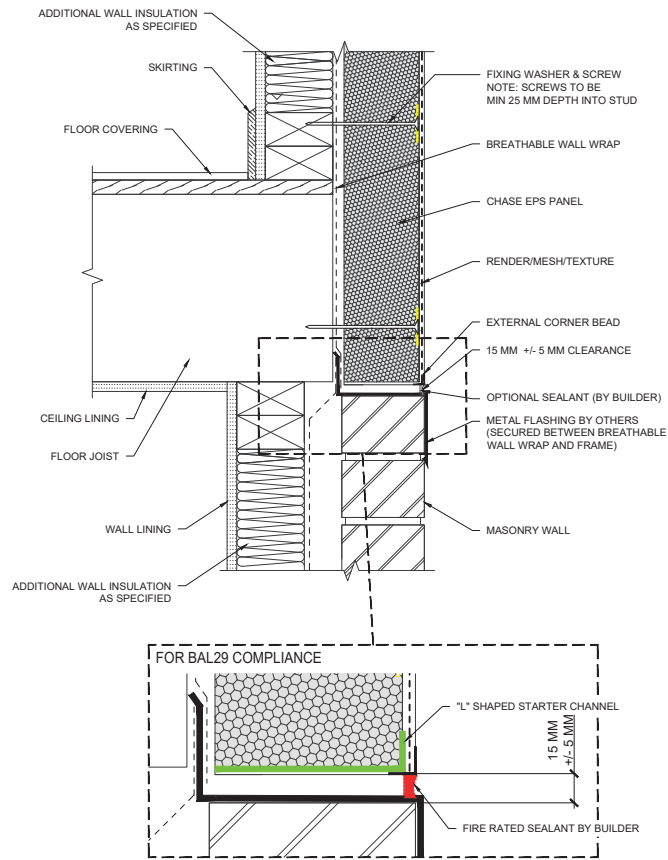


TYPICAL CONCRETE SLAB REBATE DETAIL - CAVITY SYSTEM

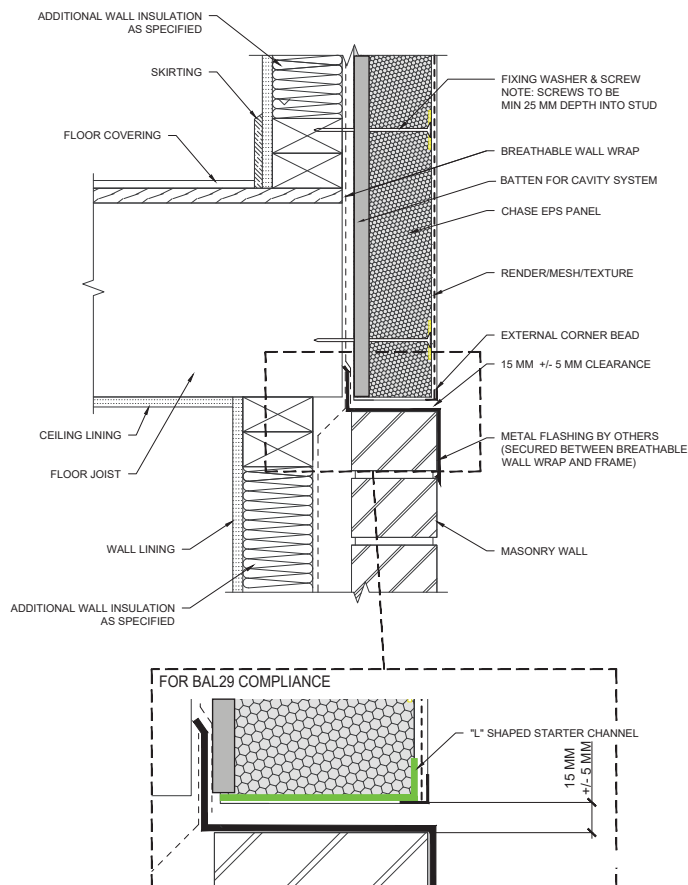


7.2 Panel Over Masonry Wall

TYPICAL MASONRY OVER MASONRY WALL DETAIL - DIRECT FIX

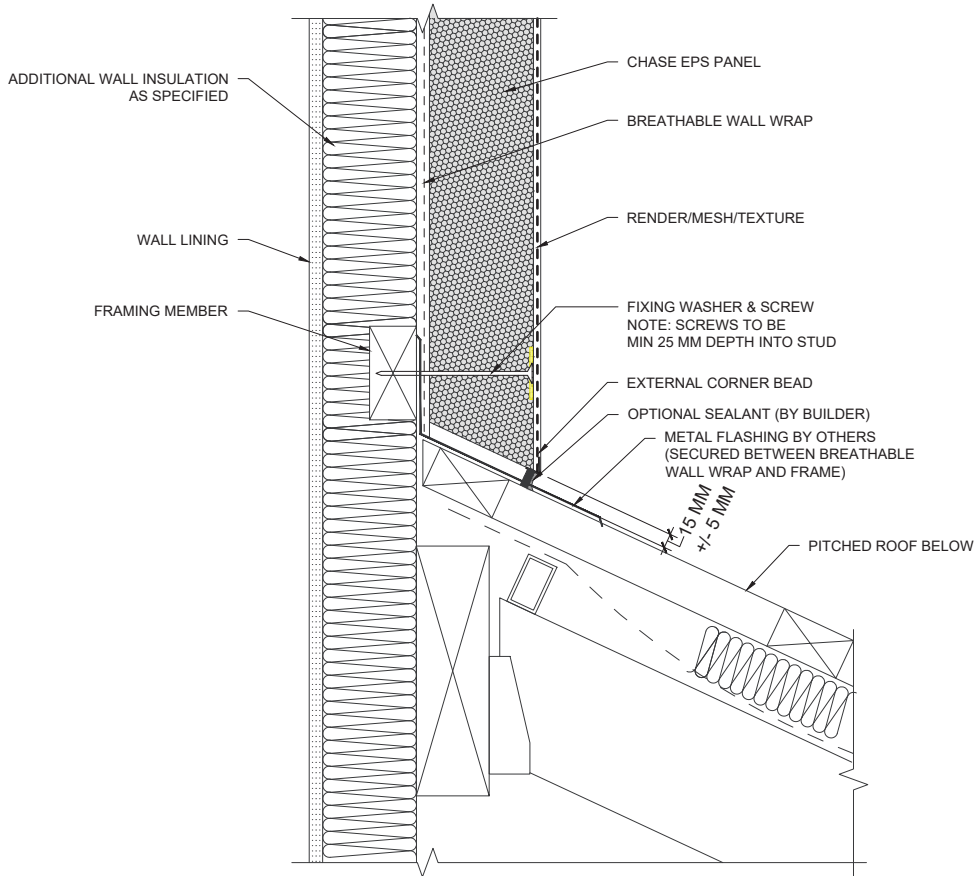


TYPICAL MASONRY OVER MASONRY WALL DETAIL - CAVITY SYSTEM

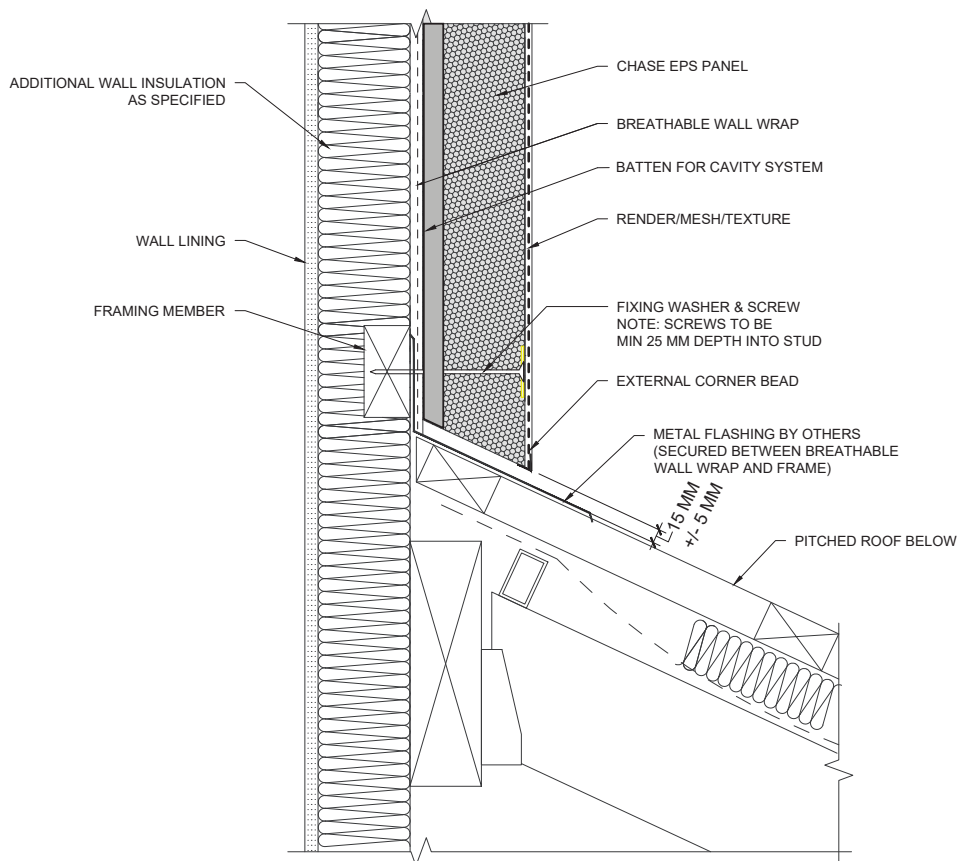


7.3 Wall Over Roof

TYPICAL WALL OVER ROOF DETAIL - DIRECT FIX

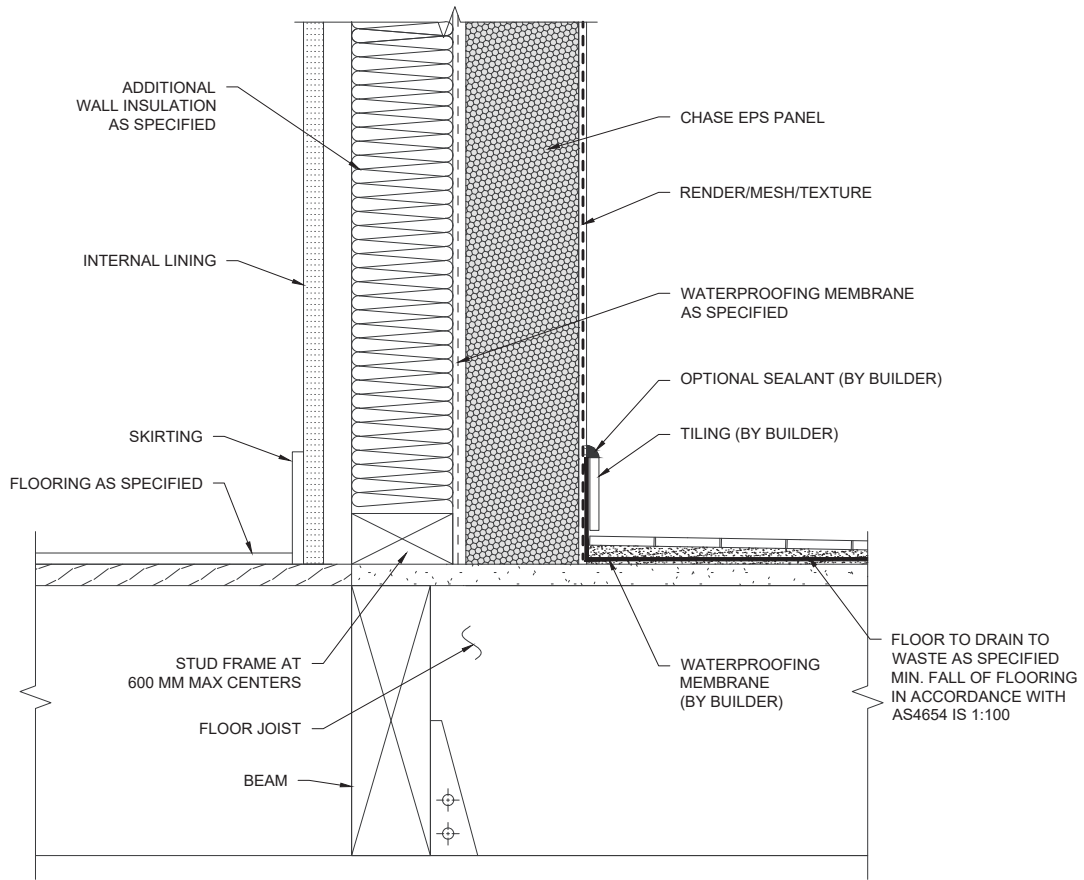


TYPICAL WALL OVER ROOF DETAIL - CAVITY SYSTEM

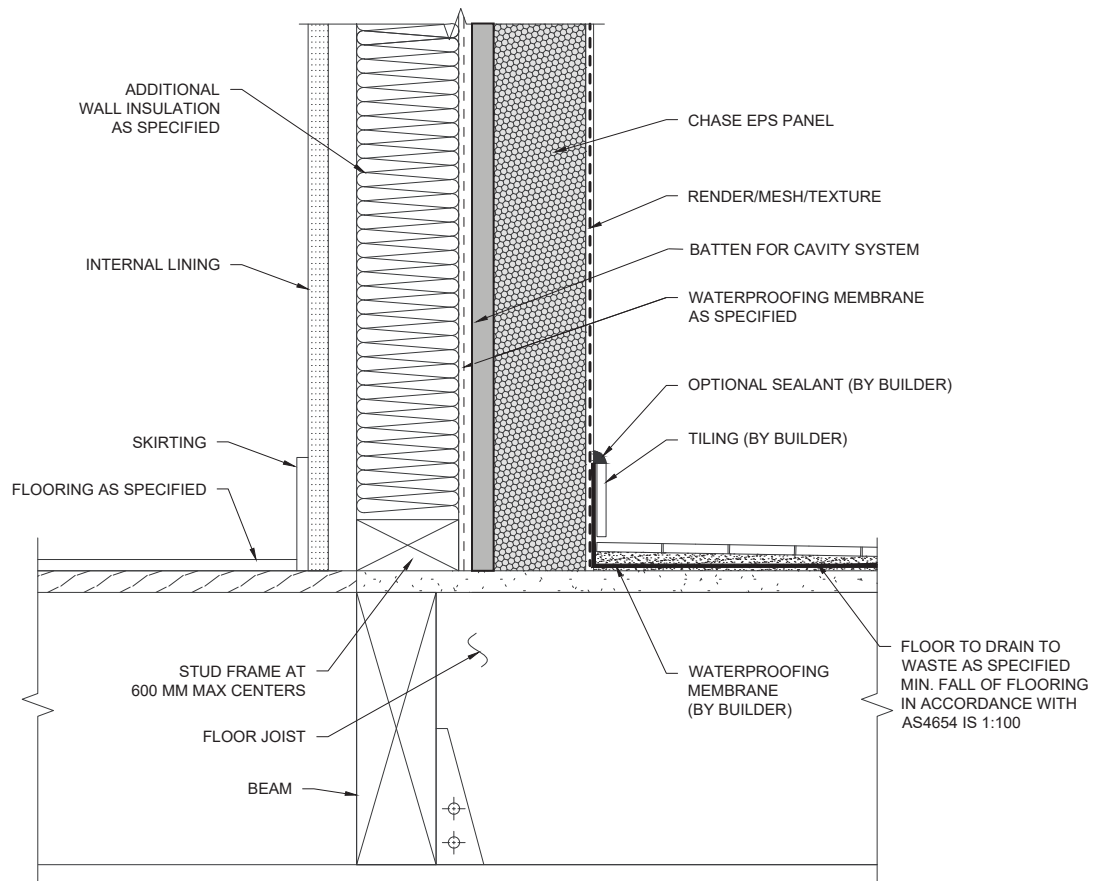


7.4 Wall to Balcony

TYPICAL WALL TO BALCONY DETAIL - DIRECT FIX

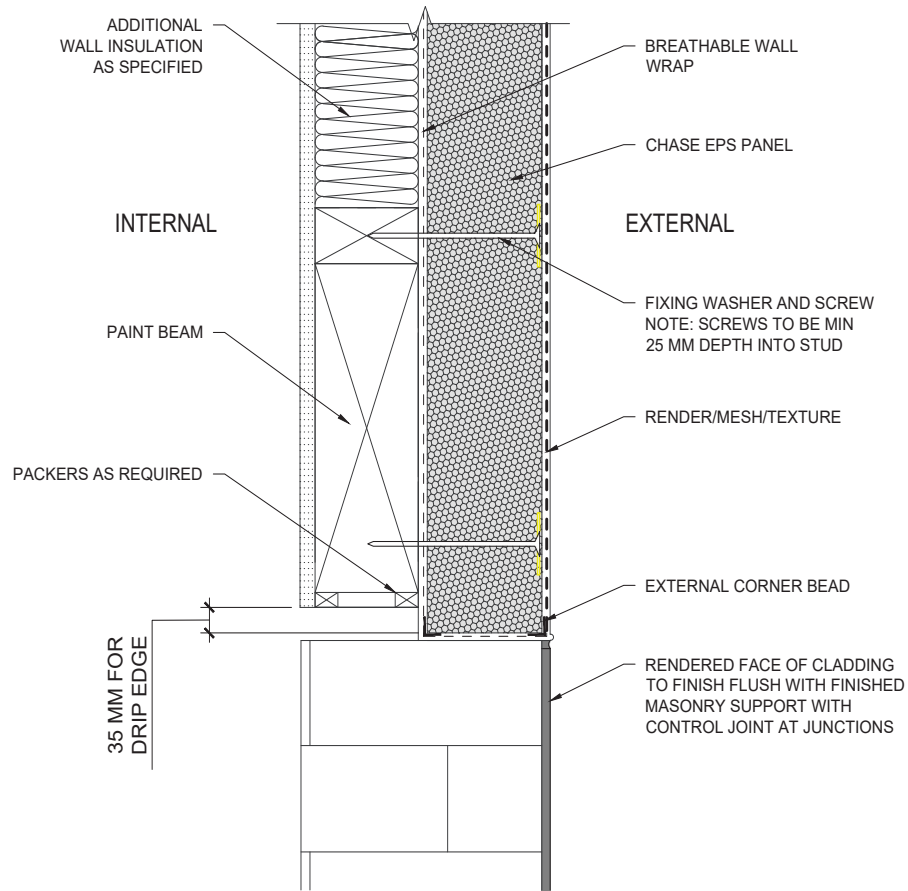


TYPICAL WALL TO BALCONY WALL DETAIL - CAVITY SYSTEM

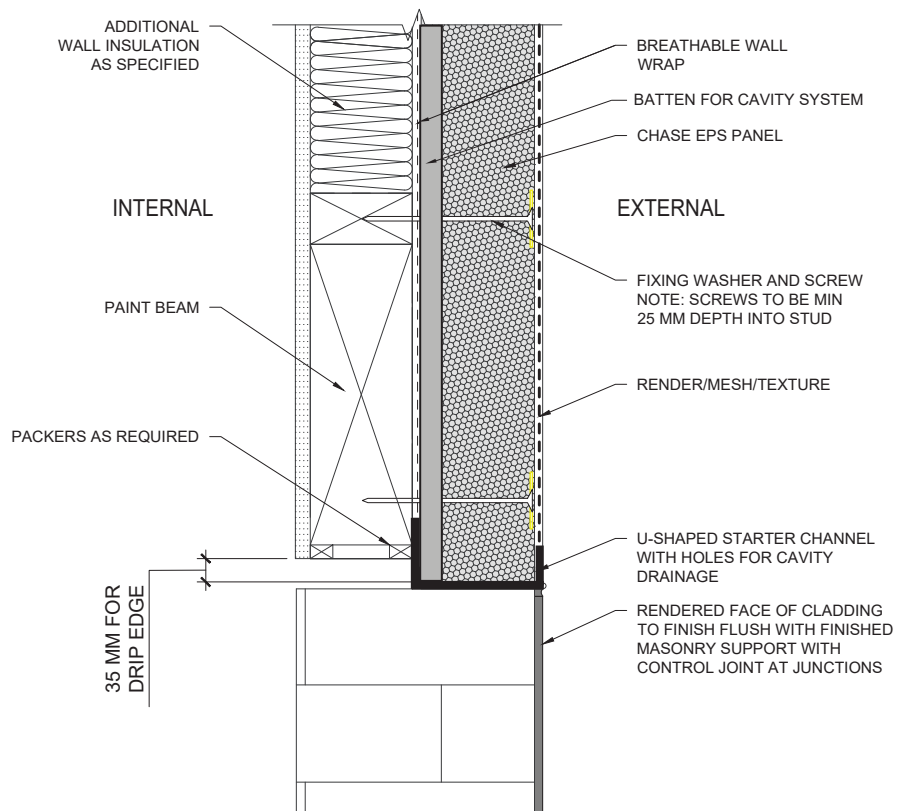


7.5 Garage / Bulkhead / Overhang / Drip

TYPICAL GARAGE / BULKHEAD / OVERHANG / DRIP DETAIL - DIRECT FIX

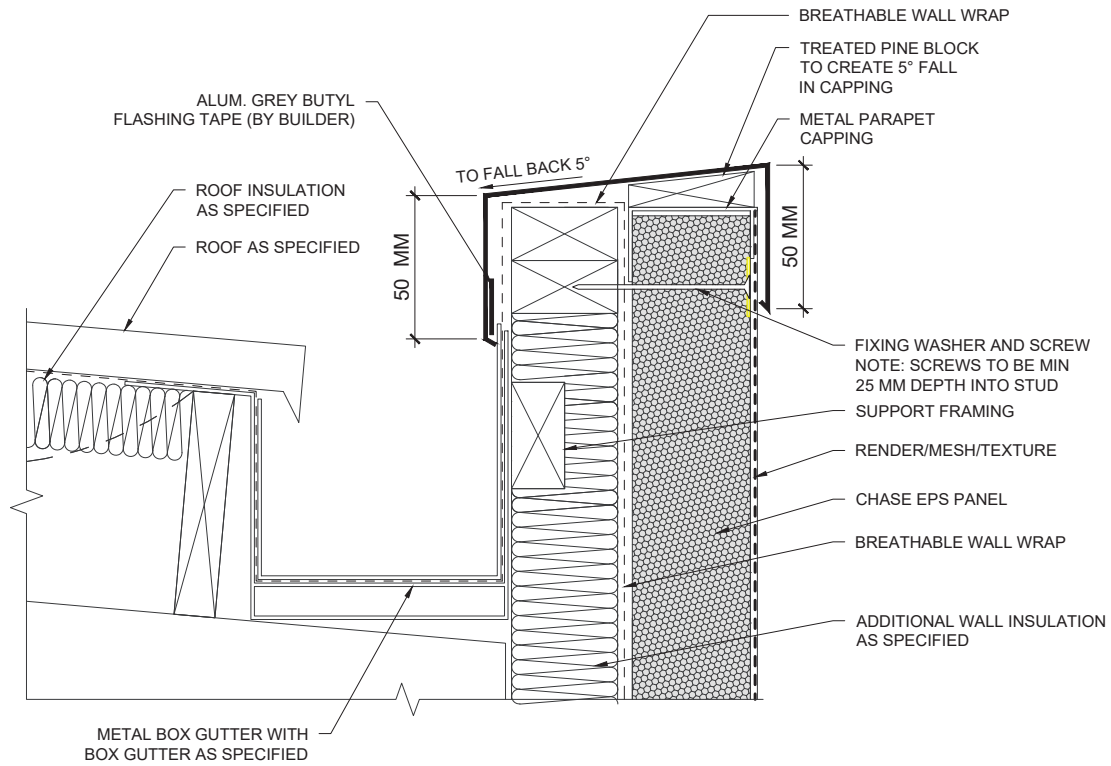


TYPICAL GARAGE / BULKHEAD / OVERHANG / DRIP DETAIL - CAVITY SYSTEM

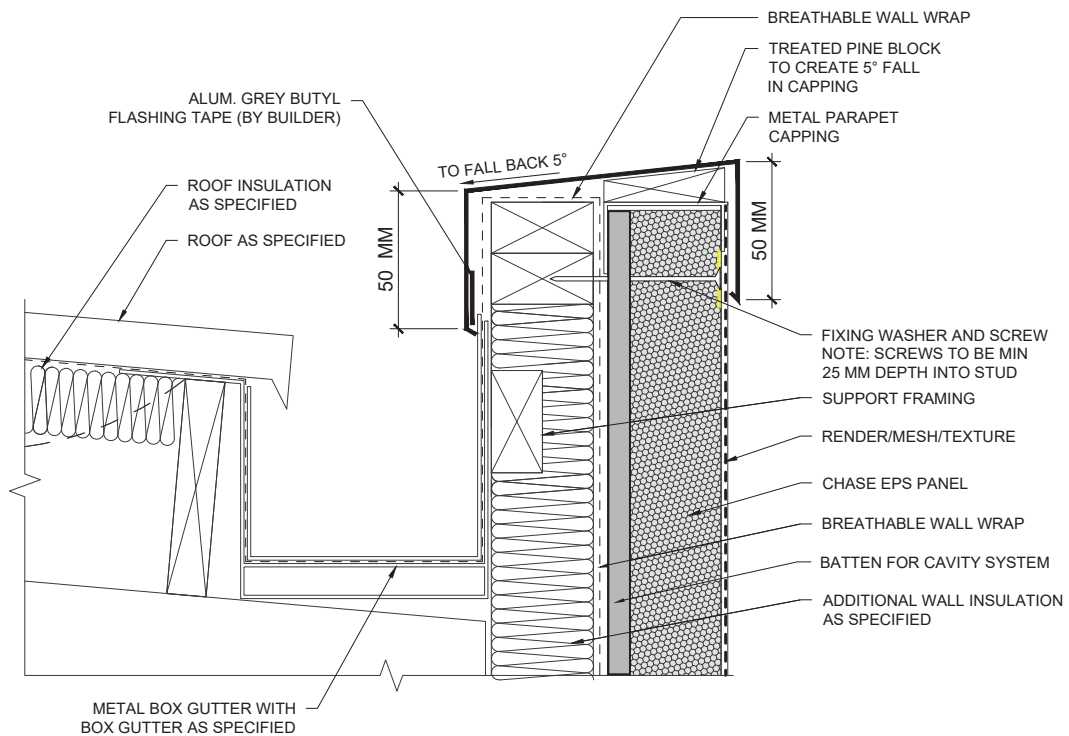


7.6 Metal Capping Parapet Wall to Roof

TYPICAL METAL CAPPING PARAPET WALL TO ROOF DETAIL - DIRECT FIX

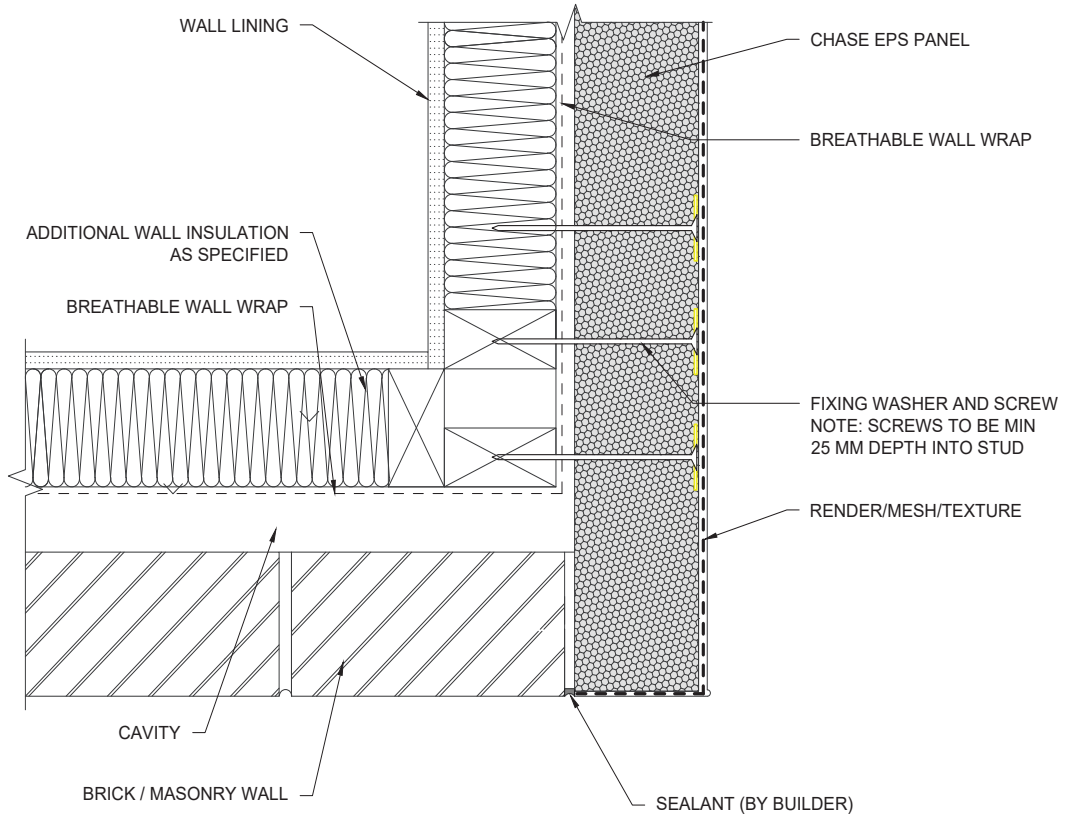


TYPICAL METAL CAPPING PARAPET WALL TO ROOF DETAIL - CAVITY SYSTEM

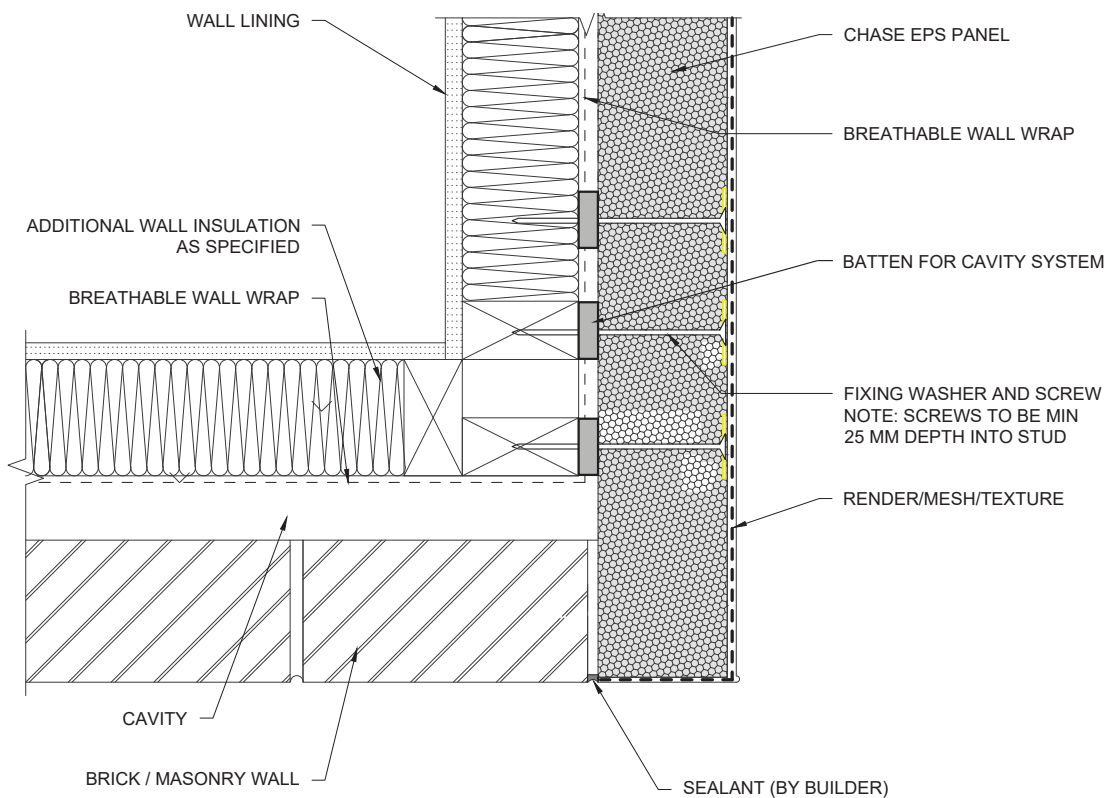


7.7 Junction to Masonry Wall

TYPICAL JUNCTION TO MASONRY WALL DETAIL - DIRECT FIX

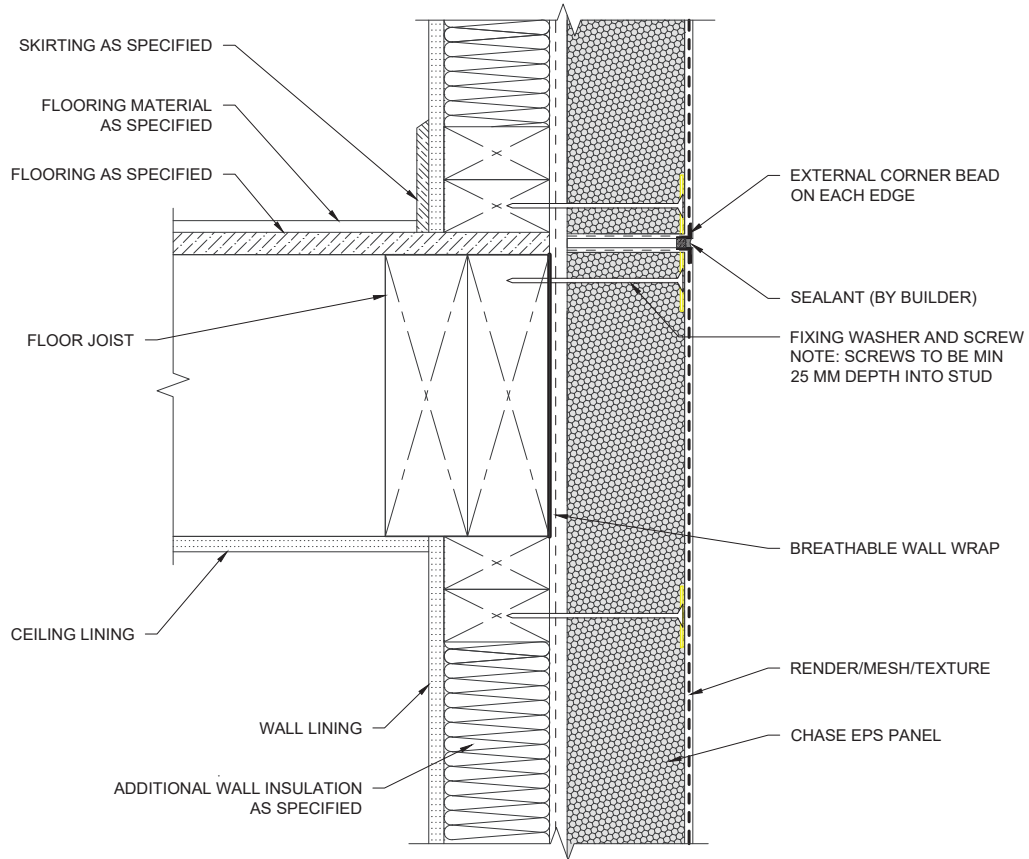


TYPICAL JUNCTION TO MASONRY WALL DETAIL - CAVITY SYSTEM

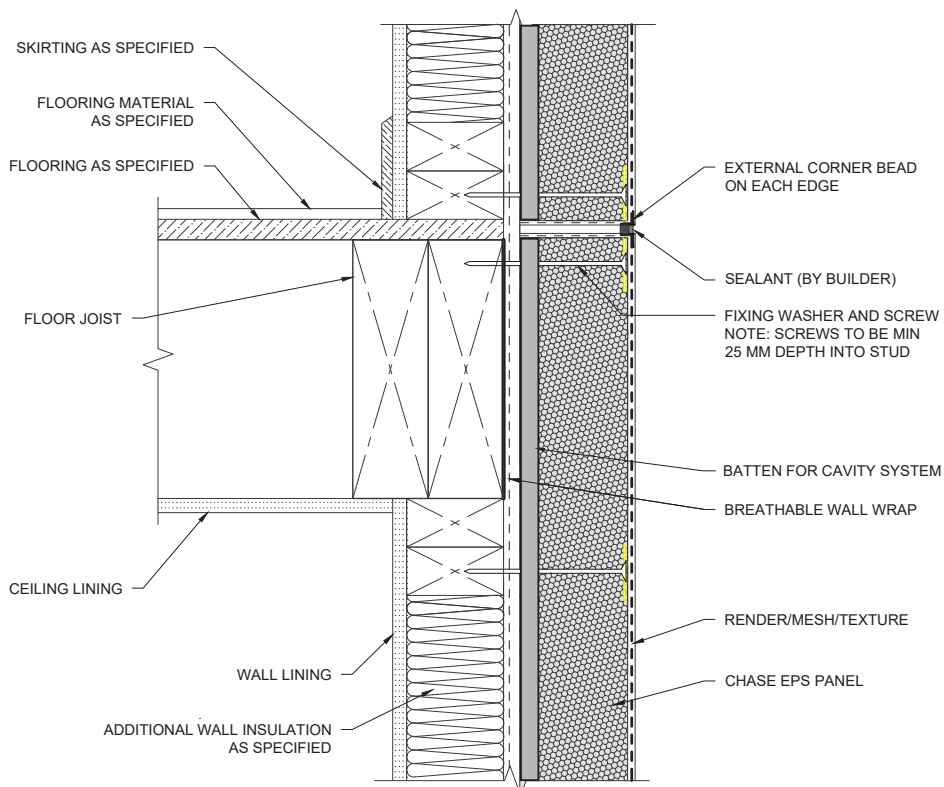


7.8 Horizontal Expansion Joint

TYPICAL HORIZONTAL EXPANSION JOINT DETAIL EXTERNAL CORNER BEADS ON EACH EDGE - DIRECT FIX

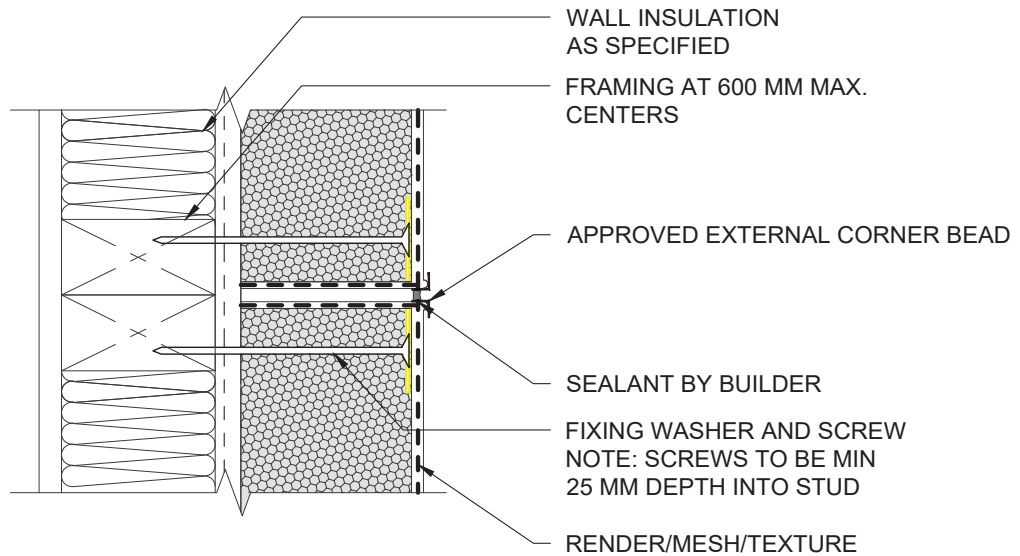


TYPICAL HORIZONTAL EXPANSION JOINT DETAIL EXTERNAL CORNER BEADS ON EACH EDGE - CAVITY SYSTEM

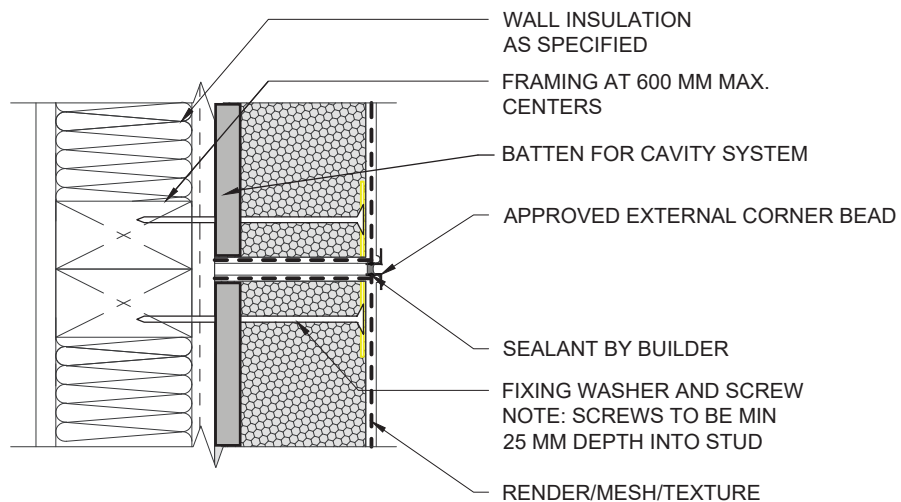


7.9 Vertical Expansion Joint

TYPICAL VERTICAL EXPANSION JOINT DETAIL EXTERNAL CORNER BEADS ON EACH EDGE - DIRECT FIX

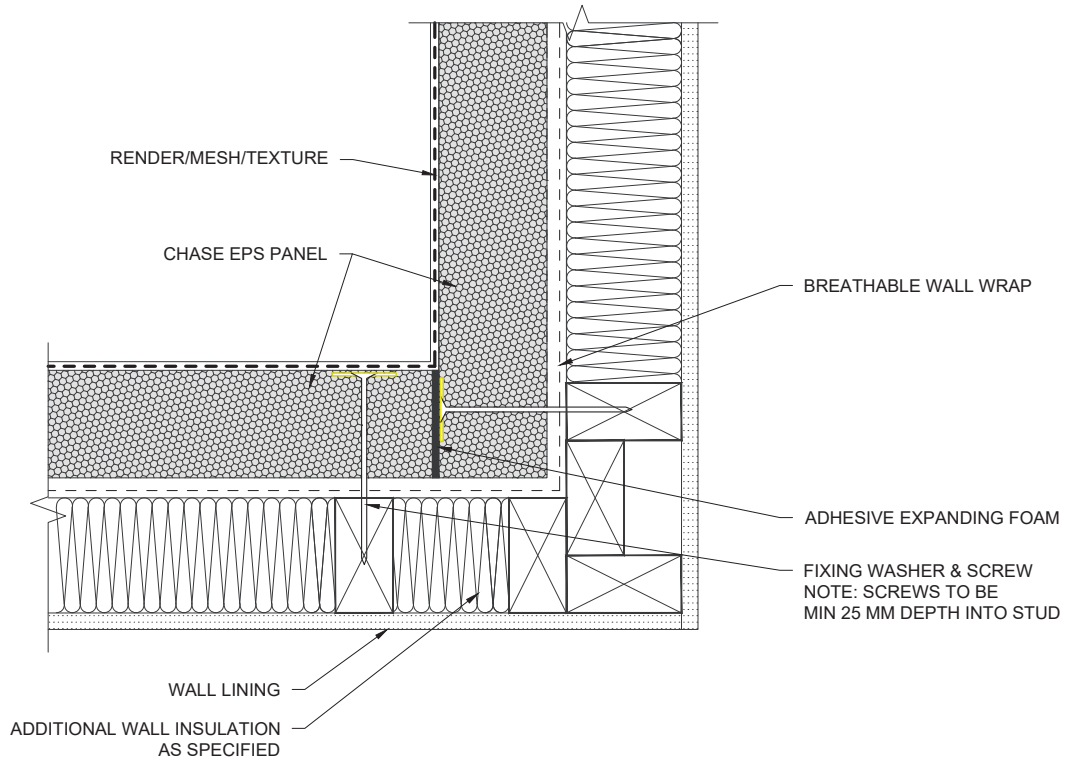


TYPICAL VERTICAL EXPANSION JOINT DETAIL EXTERNAL CORNER BEADS ON EACH EDGE - CAVITY SYSTEM

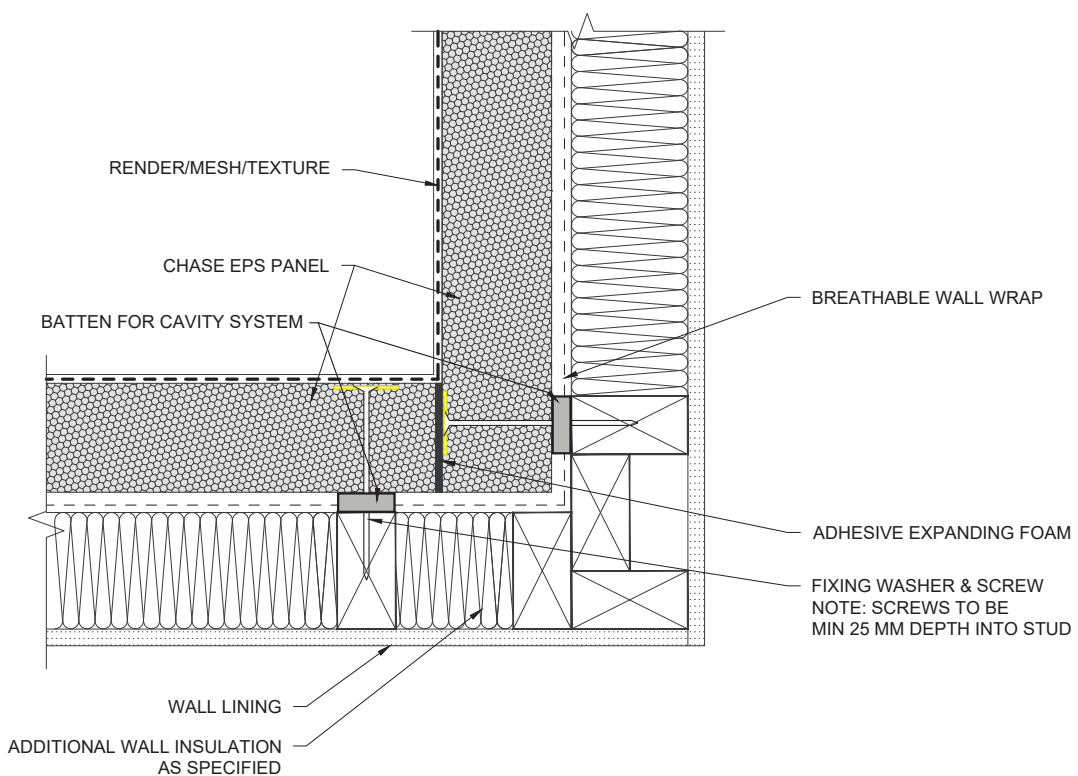


7.10 Internal Corner

TYPICAL HORIZONTAL EXPANSION JOINT DETAIL EXTERNAL CORNER BEADS ON EACH EDGE - DIRECT FIX

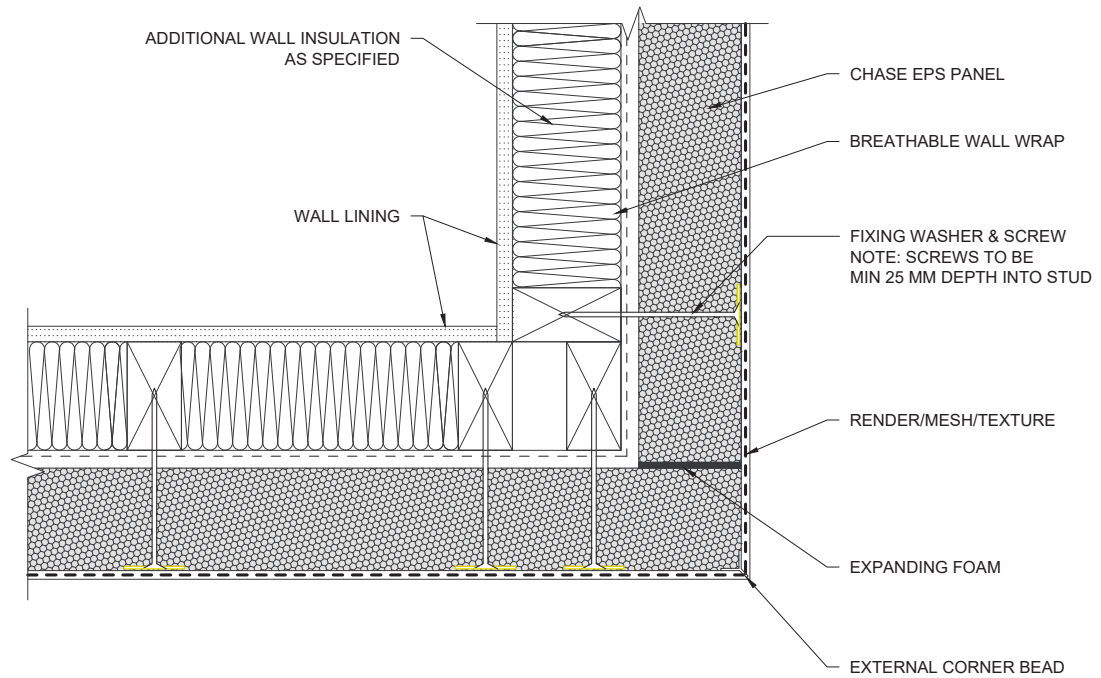


TYPICAL HORIZONTAL EXPANSION JOINT DETAIL EXTERNAL CORNER BEADS ON EACH EDGE - CAVITY SYSTEM

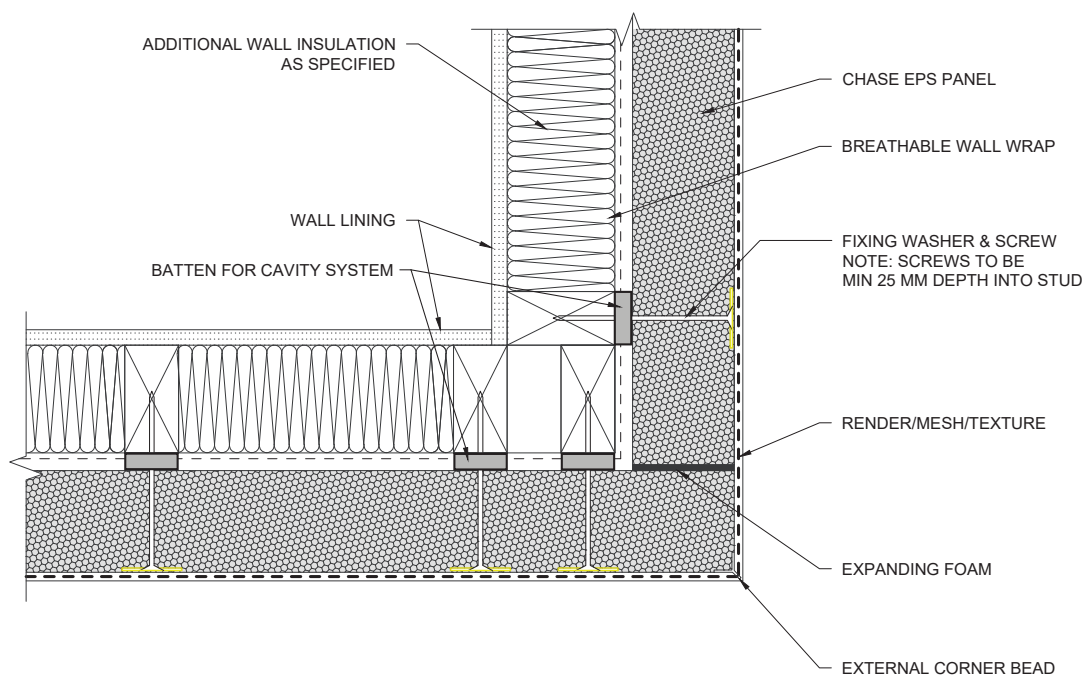


7.11 External Corner

TYPICAL EXTERNAL CORNER DETAIL - DIRECT FIX

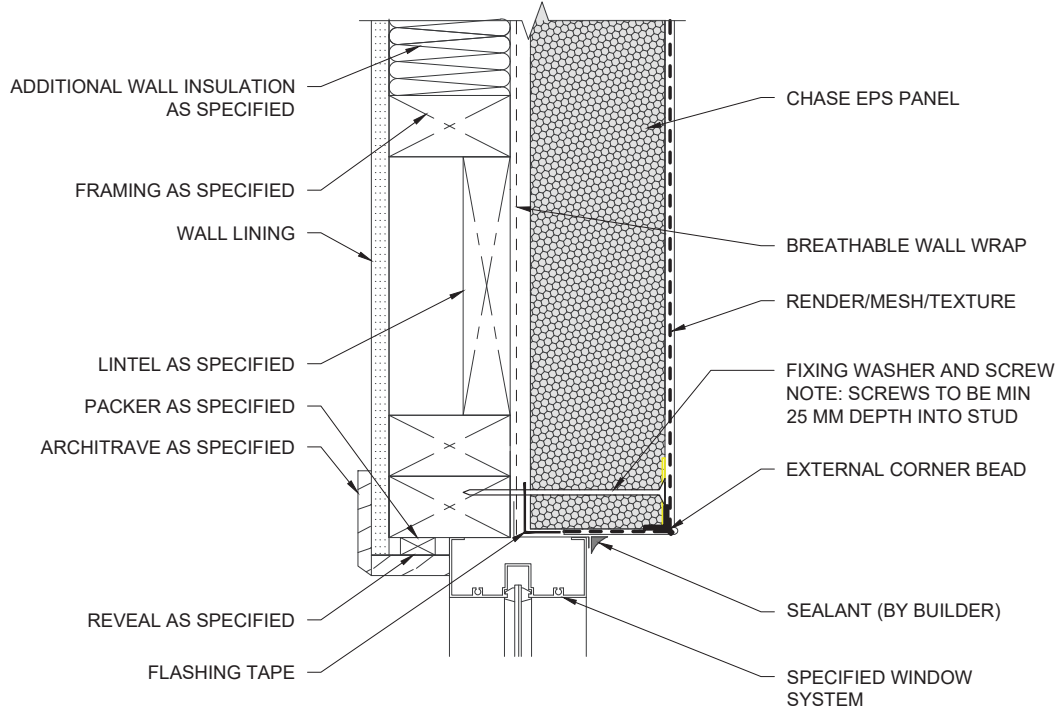


TYPICAL EXTERNAL CORNER DETAIL - CAVITY SYSTEM

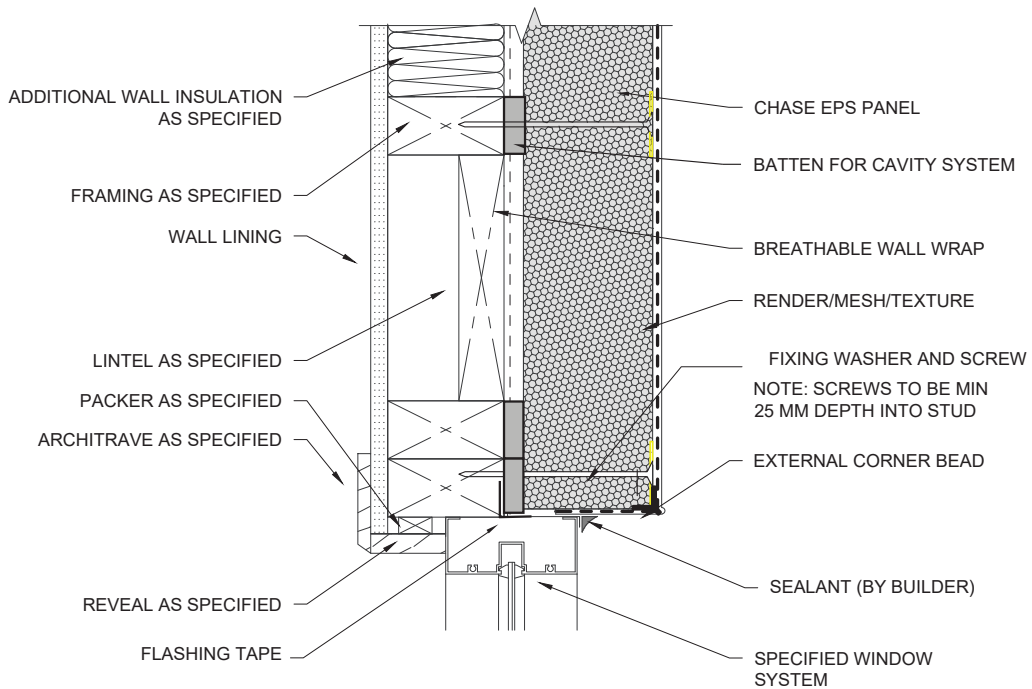


7.12 Window Head

TYPICAL WINDOW HEAD DETAIL - DIRECT FIX

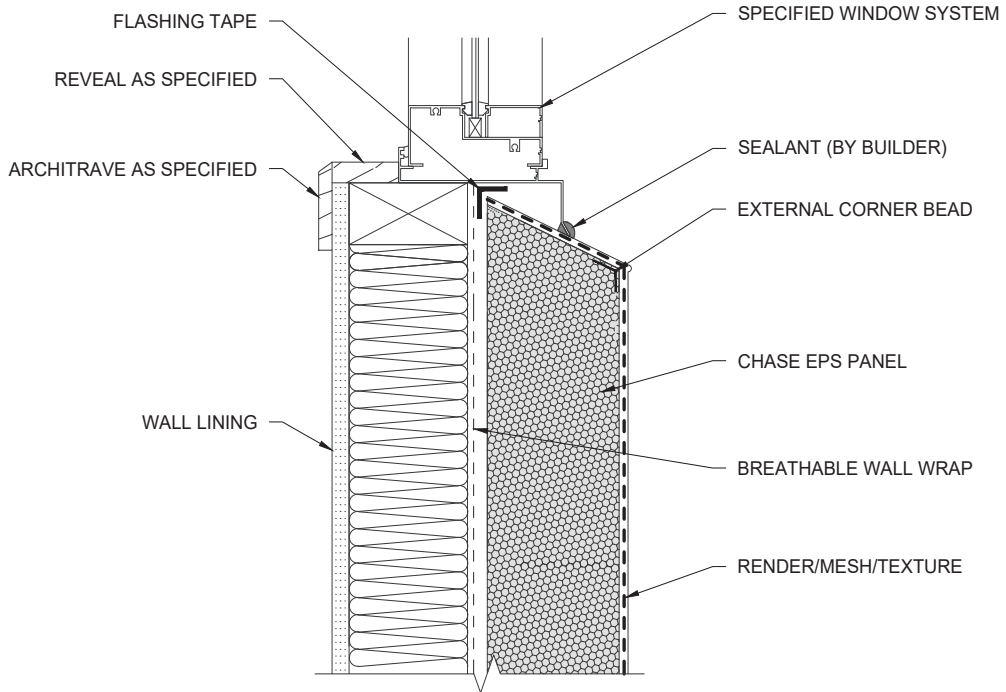


TYPICAL WINDOW HEAD DETAIL - CAVITY SYSTEM

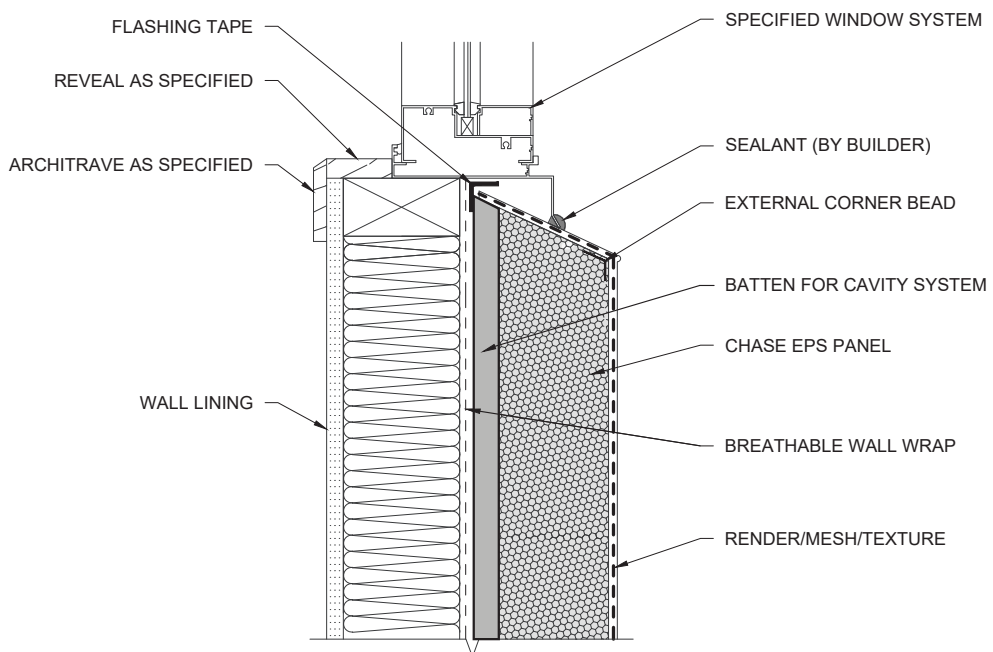


7.13 Window Sill

TYPICAL WINDOW SILL DETAIL - DIRECT FIX

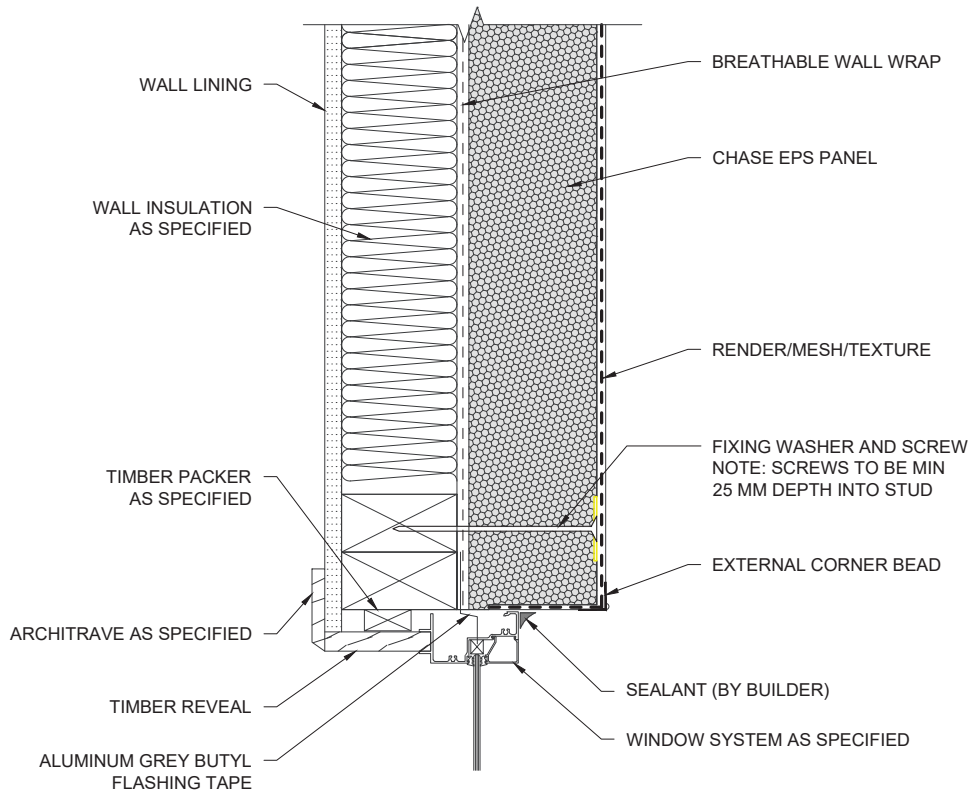


TYPICAL WINDOW SILL DETAIL - CAVITY SYSTEM



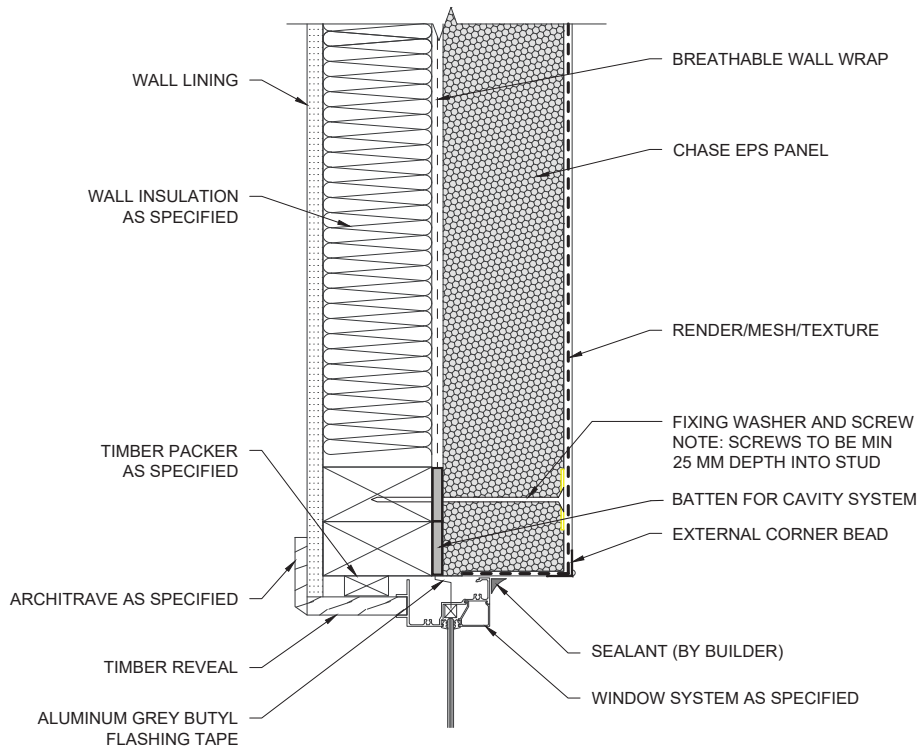
7.14 Window Jamb

TYPICAL WINDOW JAMB DETAIL - DIRECT FIX



NOTE: REQUIREMENTS FOR SEALANT AROUND WINDOWS MAY VARY BY THE TYPE OF WINDOW. PLEASE REFER TO WINDOW MANUFACTURER FOR SEALANT REQUIREMENTS.

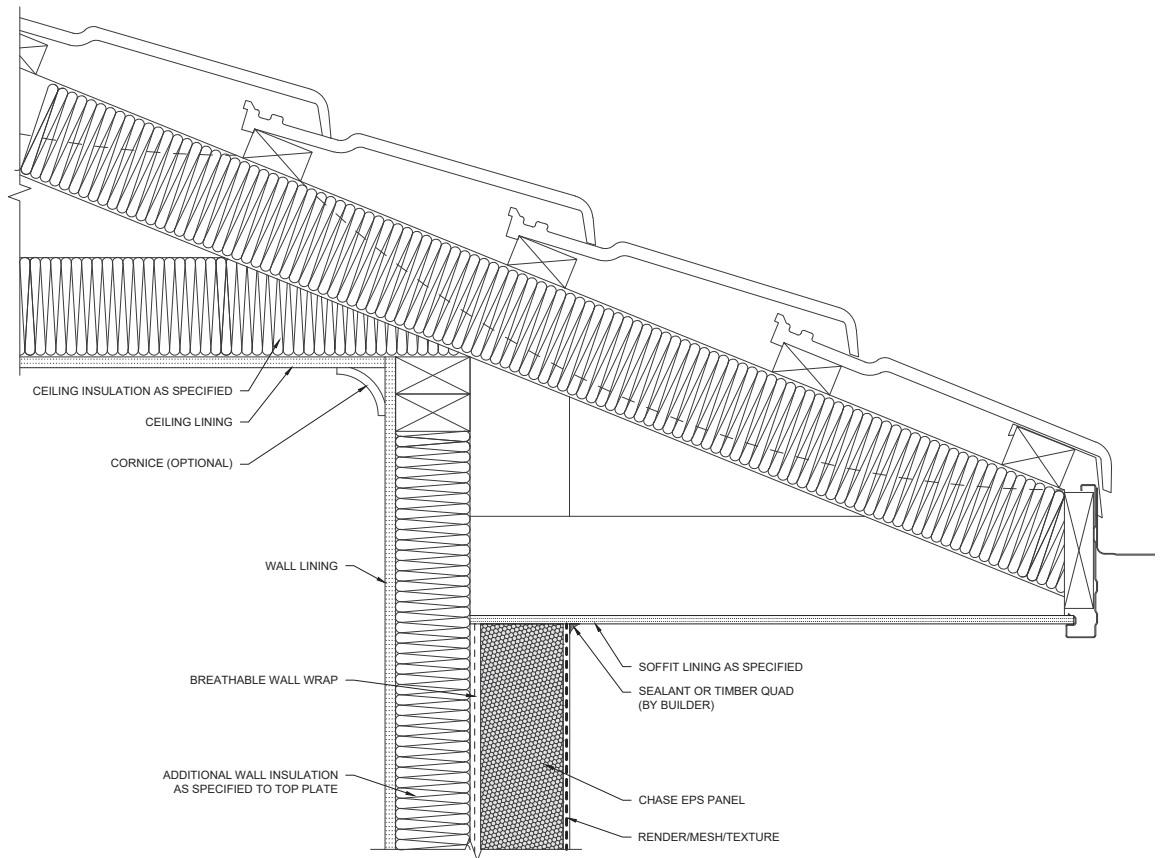
TYPICAL WINDOW JAMB DETAIL - CAVITY SYSTEM



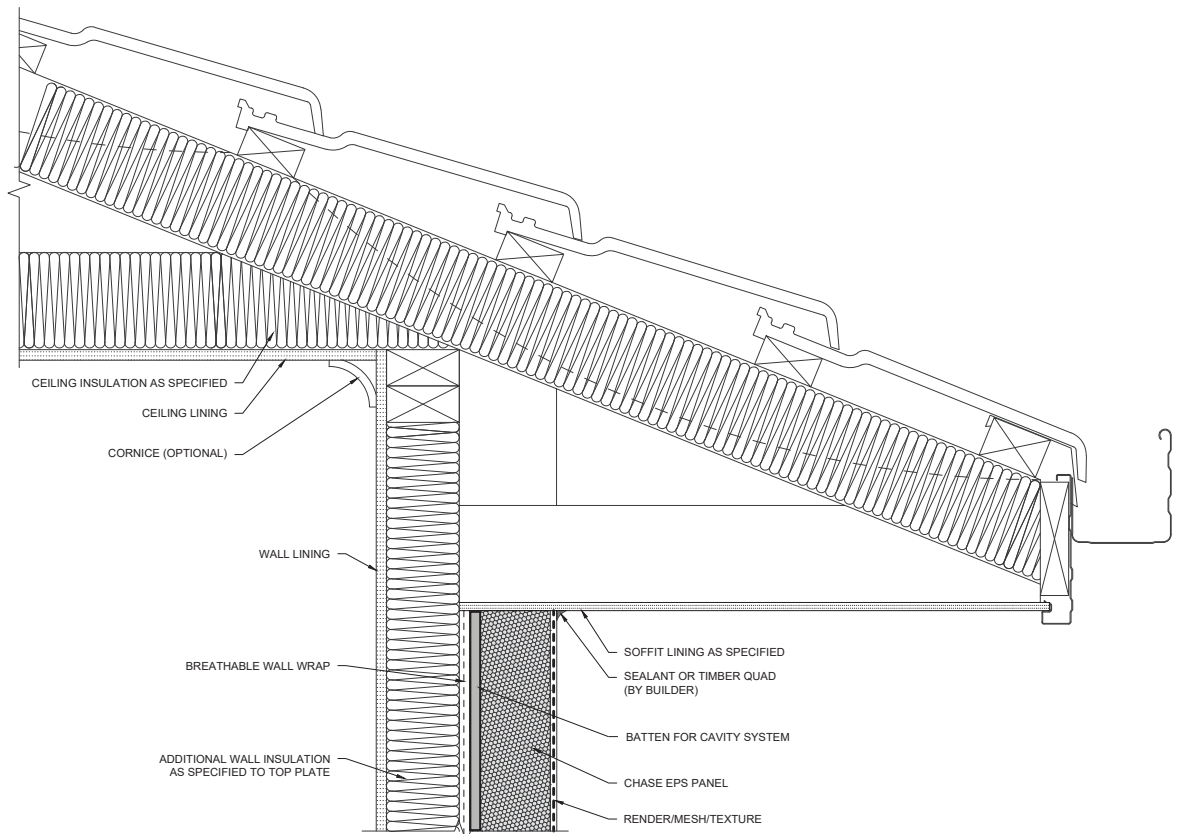
NOTE: REQUIREMENTS FOR SEALANT AROUND WINDOWS MAY VARY BY THE TYPE OF WINDOW. PLEASE REFER TO WINDOW MANUFACTURER FOR SEALANT REQUIREMENTS.

7.15 Eave Soffit

TYPICAL EAVE SOFFIT DETAIL - DIRECT FIX

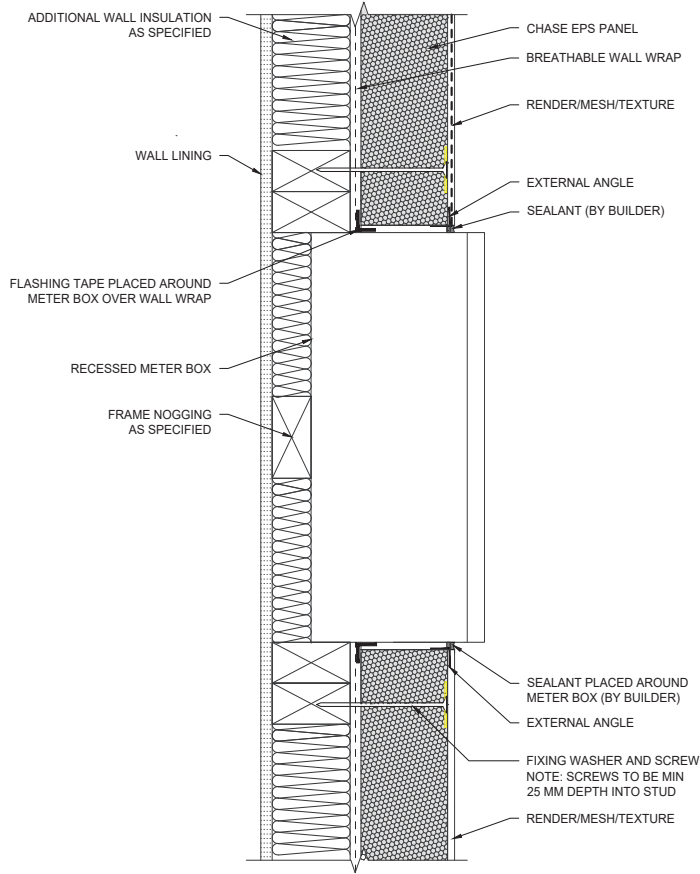


TYPICAL EAVE SOFFIT DETAIL - CAVITY SYSTEM

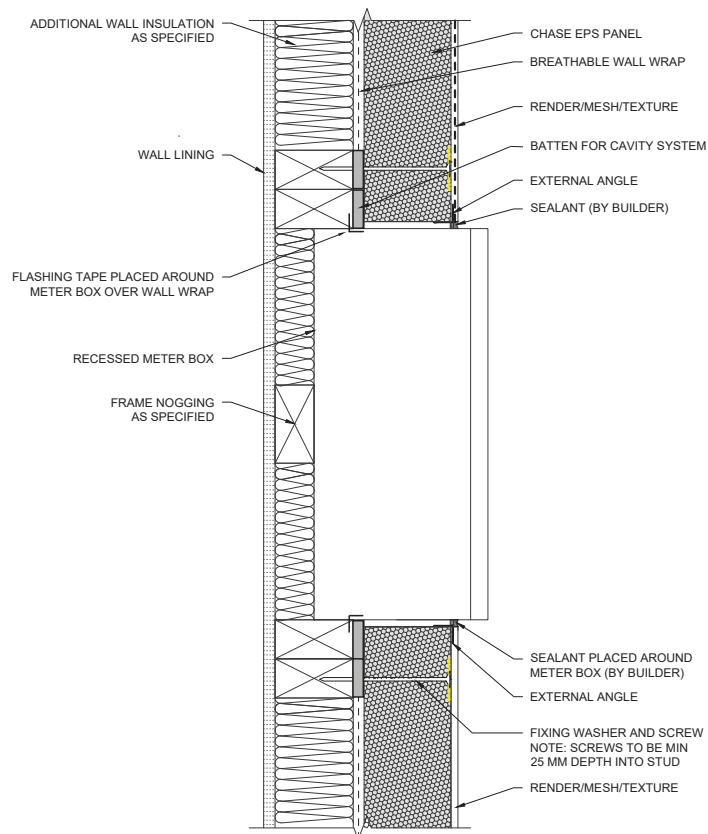


7.16 Large Penetration

TYPICAL METER BOX PENETRATION DETAIL - DIRECT FIX

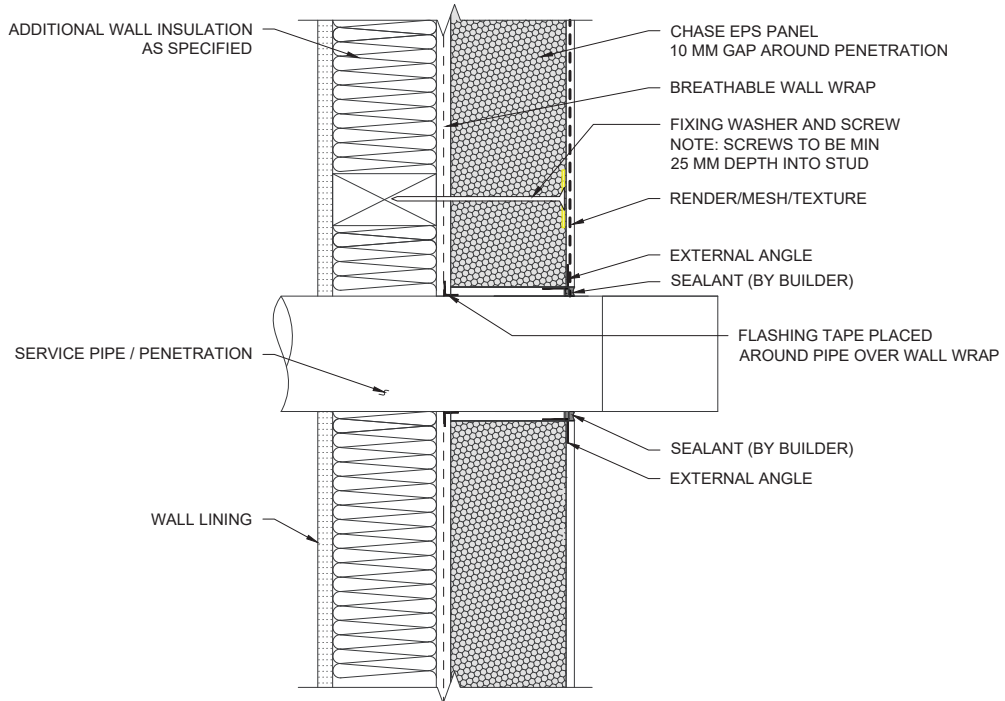


TYPICAL METER BOX PENETRATION DETAIL - CAVITY SYSTEM

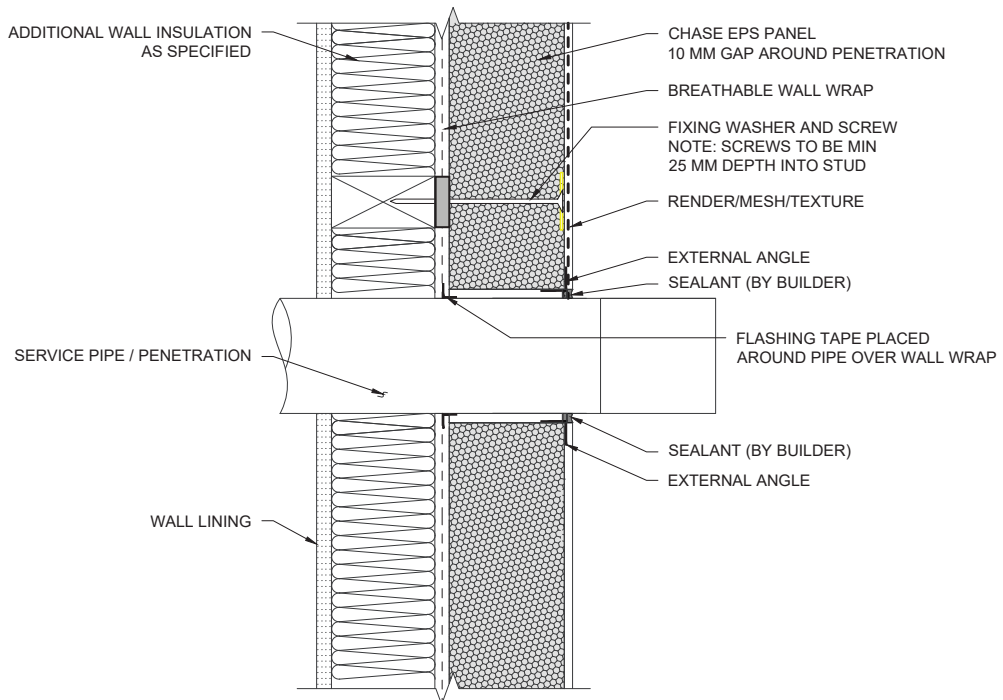


7.17 Service Penetration

TYPICAL SERVICE PENETRATION DETAIL - DIRECT FIX

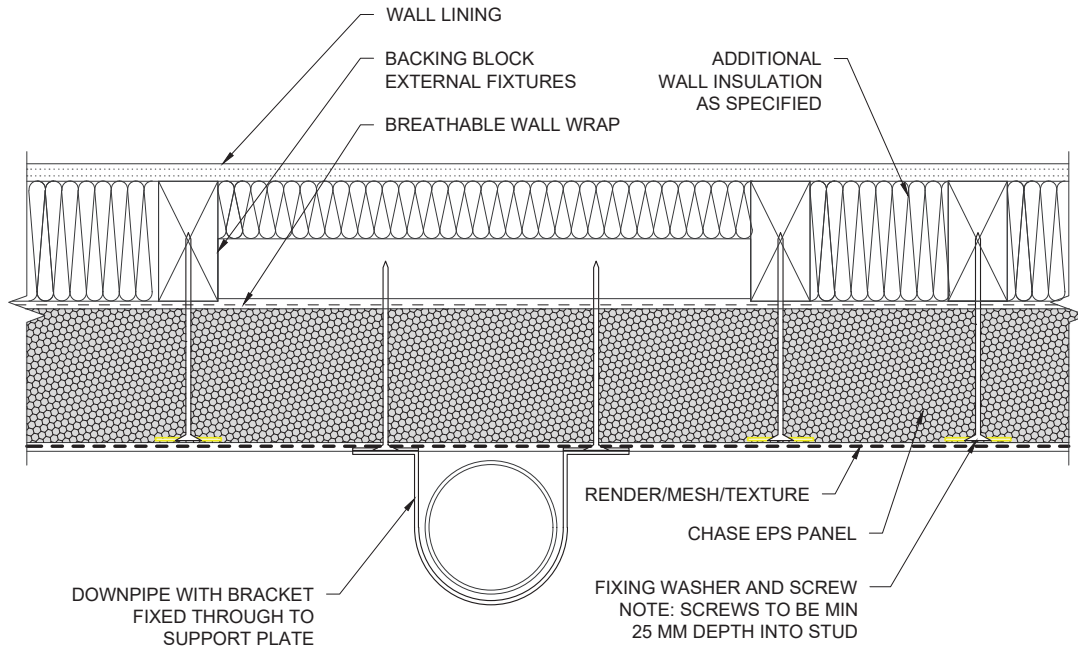


TYPICAL SERVICE PENETRATION DETAIL - CAVITY SYSTEM

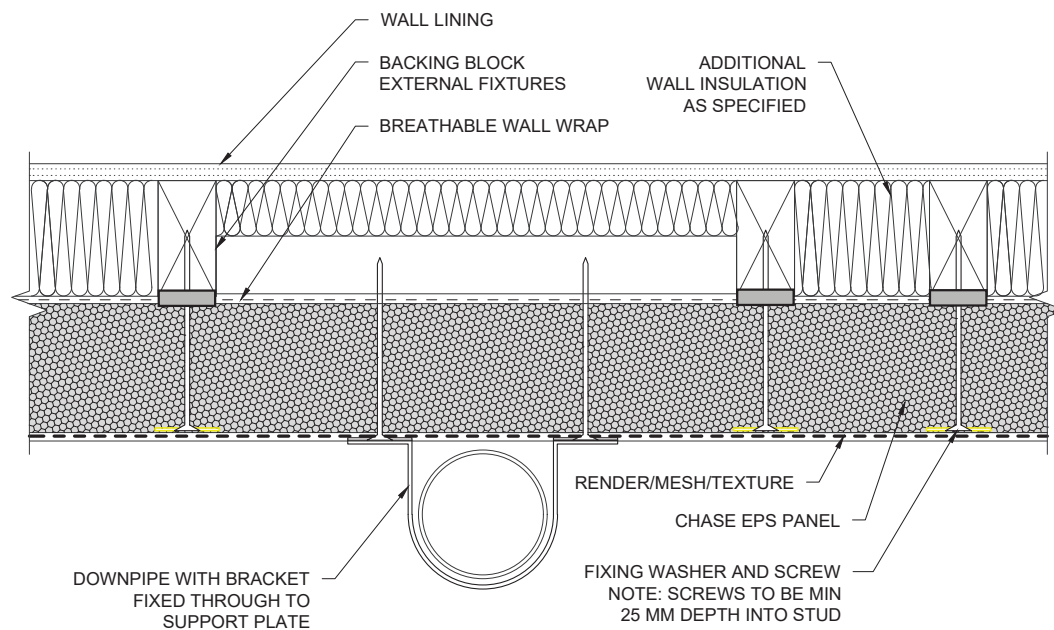


7.18 Downpipe Fixing

TYPICAL DOWNPIPE FIXING DETAIL - DIRECT FIX



TYPICAL DOWNPIPE FIXING DETAIL - CAVITY SYSTEM



8 Maintenance

In order to get the best performance and maintain your warranty of the Chase EPS Cladding System we recommend that the following maintenance program is undertaken.

MAINTENANCE FOR ACRYLIC BASED COATING SYSTEMS

To ensure your Chase texture system looks its best, it is essential that cleaning and maintenance occurs on an annual basis. Cleaning your system once a year will help to remove airborne grime, contaminants and algal growth.

General cleaning should be carried out with a pressure cleaner using low pressure (not greater than 450 psi) and cold water only. Keep the cleaning nozzle a minimum of 200 mm from the wall and at a 45 degree angle from the wall face. Applying pressure too close to and perpendicular to the wall can result in damage to the textured finish.

A test area (in an inconspicuous location) should be completed and carefully checked for signs of pressure damage prior to continuation of works.

Stubborn grime should be removed with a soft brush using warm (not hot) soapy water. Do not use a stiff brush or hot water on acrylic finishes as this may result in damage to the texture coating system i.e. removal of coating material from the texture coating aggregates.

Perform a careful visual inspection of the texture coating system. It is common for textured finishes to begin showing signs of deterioration where moisture ingress is present. Check for any structural cracking and damage to caulked areas typically found at control joints, around joinery or where different substrata meet each other.

Where structural cracking is evident, moisture is able to enter the underlying render potentially causing efflorescence leading to coating damage. Cracks should immediately be neatly filled with a paintable polyurethane caulking compound until the source of the movement is identified and repaired by a trained professional. It may not always be possible to make invisible repairs to damaged areas. In this instance, re-coating of the entire wall face may be required.

Check areas subject to cold and damp conditions (around foliage and planter boxes) as these spots are prone to algal growth which can cause your coating system to deteriorate rapidly if not removed. Also check adequate fall/drainage has been provided on horizontal surfaces as ponding water will ultimately result in water ingress and coating damage.

Where necessary, repaint acrylic based finishes (i.e. Chase texture) with Chase Satin (low sheen or matt) or other similar water base paints in the desired colour. Try to provide your supplier with a small chip of the damaged area to help with colour matching as some degree of fading may have occurred depending on exposure period or orientation to the sun. Prior to painting, any efflorescence should be removed by lightly scrubbing with a 5% solution of white vinegar in water.

Note- Some damage (such as cracking) may be caused by movement of the house. While not covered by warranty we recommend it be addressed to ensure the integrity of the system is maintained.

Not following the recommended maintenance program may result in your warranty being voided.

On completion of your annual maintenance log into www.chaseproducts.com.au and register your maintenance activity, to ensure your warranty remains valid.

For further information, please contact your local Chase reseller or contact a Chase technical representative on **(03) 8772 2394**.

9 Warranty

Chase Building Supplies Pty Ltd (“Chase”) warrants that for a period of 7 years from the date of purchase that Chase EPS External Wall Cladding System (the “Product”) will be free from defects due to defective manufacturing workmanship or materials subject to compliance with the conditions below.

Nothing in this document shall exclude or modify any legal rights a customer may have under the Trade Practices Act or otherwise which cannot be excluded or modified at law.

CONDITIONS OF WARRANTY

The warranty is strictly subject to the following conditions:

1. This warranty is transferable;
 2. The claimant must provide proof of purchase and makes a written claim either within 30 days after the defect would have become reasonably apparent or, if the defect was reasonably apparent prior to installation, then the claim must be made prior to installation;
 3. The Product must be installed and maintained strictly in accordance with the relevant Chase Specifications current at the time of installation and must be installed in conjunction with the components or products specified in the specifications;
- To obtain copies of such specifications, go to www.chaseproducts.com.au
4. Coating and jointing systems, applied to or used in conjunction with the Product must be applied or installed and maintained strictly in accordance with the relevant manufacturer’s instructions and good trade practice;
 5. The project must be designed and constructed in strict compliance with all relevant provisions of the current Building Code of Australia, regulations and standards;
 6. The claimant’s remedy for breach of warranty is (at Chase’s option) that Chase will either supply replacement product or rectify the affected product.

It expressly excludes the cost of labour for removal and reapplication of the replacement Product. It also excludes the cost of materials and coatings not covered under this warranty that may be required to complete the process;

7. Chase will not be liable for any losses or damages (whether direct or indirect) including property damage or personal injury, consequential loss, economic loss or loss of profits, arising in contract or negligence or howsoever arising. Without limiting the foregoing, Chase will not be liable for any claims, damages or defects arising from or in any way attributable to poor workmanship, poor design or detailing, settlement or structural movement and/or movement of materials to which the Product is attached, incorrect design of the structure, acts of God including but not limited to earthquakes, cyclones, floods or other severe weather conditions or unusual climatic conditions, efflorescence or performance of paint/coatings applied to the Product, normal wear and tear, growth of mould, mildew, fungi, bacteria, or any organism on any Product surface or Product (whether on the exposed or unexposed surfaces);

8. All warranties, conditions, liabilities and obligations other than those specified in this warranty are excluded to the fullest extent allowed by law;

9. If meeting a claim under this warranty involves re-coating of Products, there may be slight colour differences between the original and replacement products due to the effects of weathering and variations in materials over time.

10 Disclaimer

Whilst every effort has been made to ensure the information in this manual is correct at the time of printing, Chase Building Supplies Pty Ltd reserves the right to change the specifications of all products referred to in this manual at any time. All changes made to this manual are uploaded on to our website www.chaseproducts.com.au

High performance sustainable
building products for the
construction industry.

Your local distributor

CHASE

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Phone: (03) 8772 2394
sales@chaseproducts.com.au

BAL 29

AS 1530.8.1:2018



For more information and technical data go to:

www.chaseproducts.com.au

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