Hitex Diamond EIFS Cladding

Document title: **HITEX Diamond and NZ Building Code E2 External Moisture**

May 2007

(Refer to E2/AS1 when reading this document for paragraph, tables and drawing references).

9.0 Wall Claddings
9.9 EIFS

Hitex Diamond Cladding is an Exterior Insulation and Finish System (EIFS) cladding. Hitex Diamond shall be **direct fixed** to *framing* over a *building wrap*.
Based on the building envelope risk matrix to determine *risk scores* to assess weathertightness, calculated as per Paragraph 3.1 and Tables 1 & 2, and in consideration of the EIFS limitations in Paragraph 9.9.1,

Hitex Diamond Cladding is an **Acceptable Solution** for Risk scores 0 - 6 when direct fixed to framing and for Risk scores 7 – 20 when fixed over a 20 mm drained cavity formed with a batten.

Hitex Diamond Cladding when direct fixed to timber framing for Risk scores of 7 – 20 is an **Alternative Solution**. The diamond grooves on the polystyrene face on the back of the EIFS cladding are an alternative means to achieve drainage and drying.

COMMENT:
Hitex Diamond has interconnecting grooves 15 mm wide and 10 mm deep in a diamond pattern at 58 mm centres on the back face of the EIFS polystyrene sheet to achieve 50% free drainage area. Hitex Diamond is designed with an alternative cavity system as an integral part of the EIFS cladding. Hitex Diamond has been shown in tests and in monitored houses to meet the requirements of a ***drained cavity*** and for ***drying*** within the meaning of E2/AS1 dated 1 February 2005 Third Edition definitions. A "***Drained Cavity***" assists drying by allowing water which occasionally penetrates the wall *cladding system* to drain to the exterior of the *building*, and any remaining moisture to dry by evaporation. The Hitex Diamond integral cavity drying test results demonstrate it satisfies the comments under Paragraph 3 "Weathertightness Risk Factors" showing serious problems are more commonly associated with *claddings* that have limited drying capacity once water penetrates from a leak.

9.9.1 Limitations

This Appraisal is limited to Hitex Diamond *Cladding systems* that are:
a) Designed and tested as a total system, and
b) Not fixed:
   i) So as to form a horizontal surface, or
   ii) As a replacement for roofing, or
   iii) In such a way as to allow water to pond, or
   iv) Where there is no air barrier by way of internal linings.

9.9.2 General

Installation and finishing of Hitex Diamond *Cladding systems* are by trained applicators, approved by Hitex Building Systems Ltd. (Hitex) Such a training course is Hitex Trade Practises and/or BCITO as described immediately below in comment.

COMMENT:
It is recommended that an installer has successfully completed or demonstrated skill to the appropriate level of training for the task being completed of an NZQA recognised course. The BCITO National Certificate in Proprietary Plaster Cladding Systems - EIFS is such a course.

9.9.3 Materials

The Hitex Diamond comprises the following parts:
a) A polystyrene sheet *cladding* material,
b) A polymer modified cement-based plaster reinforced with fibreglass mesh,
c) A polymer based finishing plaster and/or a polymer-modified cement based finishing plaster and a latex exterior paint system complying with any of Parts 7, 8, 9 or 10 of AS 3730,
d) A range of head, sill, jamb, corner and base mouldings suitable for exterior use, and
e) A flexible polymeric neutral cure sealant that:
   i) is approved by Hitex, and
   ii) complies with Type F, Class 25LM of ISO 11600.
f) Fixings, glues and adhesives

COMMENT:
This is the minimum standard, and extra elements deemed suitable by Hitex should not be excluded on the basis of this Specification.

9.9.3.1 Polystyrene sheet

Expanded polystyrene (EPS) sheet of a minimum thickness of 50mm complying with
AS 1366: Part 3, Class H or Class S

9.9.3.2 Fibreglass reinforcing mesh

Fibreglass reinforcing mesh is alkali-resistant fibreglass mesh, and:
a) Weighs no less than 160 grams per m2,
b) Has a 4 mm x 4 mm square aperture size, and
c) Complies with the requirements of EIMA 101.9 test No. 6.3 and ASTM E2098.

9.9.4 Installation

The *building wrap*, as specified in Table 23, is fixed to the *framing.*

9.9.4.1 Fixings

Polystyrene sheets and *building wrap* shall be fixed to the wall *framing* as required in Table 24. Fixings:
a) Are spaced as shown in Table 24 or as per BRANZ test STO527 for very high wind zones.
b) Penetrate the framing by 30 mm minimum,
c) Comply with AS/NZS 4680, and
c) Are hot-dipped galvanized flat head nails used in conjunction with a 18mm galvanised washer (or a 22 mm minimum diameter plastic washer)

9.9.4.1 Fixings

See HITEX DC50-FA-07 ver 1.2

SPACINGS FASTENER LOCATION

9.9.4.2 Joints

Joints to plain-edged sheets are fixed vertically over solid timber backing. Rebated or tongued sheets are butt jointed using Hitex ready studs where they are joined away from solid timber backing ensuring the joint becomes self-supporting at both edges. During drainage tests butt jointing did not impede drainage due to the spacing of the diamond cut-outs.
The Hitex Diamond EIFS cladding sheet edges shall be butted together and supported at no more than 300mm centres along the length of the joint.

See HITEX DC50-WA-01 ver 1.2
HORIZONTAL JOINS PANEL JOIN NO STUD

Intersection with other claddings

All Hitex Diamond EIFS joints to other claddings shall be done in such a way so as to accommodate deflection and drainage principles for each cladding type and for each trade to ensure that both claddings will continue to be weather tight.

Hitex to Weatherboard Joint

See HITEX DC50-CA-04 ver 1.2
CLADDING INTERSECTIONS
WEATHERBOARD VERTICAL JOINT

See HITEX DC50-CA-03 ver 1.2
CLADDING INTERSECTIONS. INTERNAL CORNER WEATHERBOARD HITEX ABUTMENT

Hitex to Brick Joint
See HITEX DC50-CA-05 ver 1.2
CLADDING INTERSECTIONS BRICK ABUTMENT. INTERNAL CORNER

See HITEX DC50-CA-06 ver 1.2
CLADDING INTERSECTIONS BRICK ABUTMENT. EXTERNAL CORNER

See HITEX DC50-CA-07 ver 1.2
CLADDING INTERSECTIONS BRICK ABUTMENT. HORIZONTAL

Fixing spacers

Fixing Spacers shall be rigid tube aluminium measuring 5mm longer than the Hitex Diamond EIFS cladding thickness. Fasteners shall be into solid framing and be sealed accordingly. Fixing spacers shall not crush the Hitex Diamond EIFS cladding.

Hitex Spacer Fixing Mounting Bracket
See HITEX DC50-FA-01 ver 1.2
HITEX-DC50 MOUNTING BLOCK - NOG

Corners

Corners may be staggered or inline and shall be fully meshed with the mesh extending a minimum of 100mm each side past the cut edge of the sheets. External corners must be reinforced with PVC corners fitted beneath the mesh.

Hitex Corner Details
See HITEX DC50-WA-07 ver 1.2
INTERNAL CORNER

See HITEX DC50-WA-08 ver 1.2
EXTERNAL CORNER 135 DEGREE (OR OTHER ANGLE)

See HITEX DC50-WA-09 ver 1.2
EXTERNAL CORNER RIGHT ANGLE

9.9.4.3 Movement control joints

Control joints shall always have the lower sheet located over solid timber backing. *Control joints* are as shown in Figure 124, and are provided:

a) On all walls over 6 metres high,
b) At each mid floor timber structure or buildings over one storey high
c) At abutments to different *cladding* types,
d) Where Hitex Diamond covers different structural materials such as timber to concrete and continues over 300mm past the joint
d) Over a movement *control joint* in the underlying framing in the form of planned seismic connections
e) At minor strips above and below large openings on long walls.

Hitex Mid Floor Control Joint E2:124
See HITEX DC50-WA-05 ver 1.2
HORIZONTAL CONTROL JOINT

COMMENT:
Hitex Diamond does not require horizontal Control Joints other than within the above parameters. Seismic control joints must allow complete suspension of each side of the cladding. Vertical control joints shall be provided in stress areas where small strips join larger wall areas (in particular around windows). This can be done by "V" joints or in some situations butterfly reinforcing may be used.

9.9.4.4 Fixing blocks

H3.2 treated timber blocks may be provided at appropriate locations for fixing down pipe brackets, garden taps, and other outside fittings. The blocks shall be cut to suit the polystyrene thickness, with each block having a maximum size of 200 x 100mm and fixed to *framing*. In the event that a cavity batten is used, then the block would be fixed to the cavity batten. Prior to applying the plaster basecoat, a patch shall be applied that:

a) Extends over the timber block face and overlaps the adjacent polystyrene by a minimum of 50 mm, and
b) Is suitable for the direct application of the base coat, and is either:
(i) a butyl-based *flexible flashing tape* that complies with Parts 3.2 and 4 of ICBO Acceptance Criteria AC148, or
(ii) a *waterproofing membrane* that complies with the requirements of AS/NZS 4858 Table 8, Parts
(a) to (e), except that bleach and detergent immersion set out in Appendix A1 shall not be required, or

The design of fixing blocks for connecting items carrying substantial loads such as stringers for *decks* are outside the scope of this Specification and will require specific structure and *specific weathertightness design*. See paragraph 9.9.11.2

COMMENT:
A number of Specific Weathertightness Designs (SWD's) are located within Hitex Specifications. Designers are directed to these in the first instance, and where no suitable design is available, then to consult with Hitex Building Systems to establish suitable or alternative methods.

9.9.5 Insulation

The Hitex Diamond EIFS Cladding System must be continuous over the wall framing to maintain the insulation required by NZBC H1.

(i) If necessary in order to meet the thermal resistance requirements of NZBC H1:

a) The polystyrene thickness shall be increased
b) Additional insulation as directed by Hitex Building Systems Ltd may be required where (a) cannot be accomplished.

(ii) The following table represents Hitex insulation figures

40mm face fixed	R1.5 Zone 1, 2
50mm Diamond Cavity	R1.69 Zone 1, 2
60mm Diamond Cavity	R1.9 Zone 3

Zones 1-3 as referred to NZS4218

9.9.5.1 Battens

Where a *drained cavity* is required, the Hitex Diamond *integral cavity* Cladding System shall be used as an **Alternative Solution.**

COMMENT:
Hitex Diamond Cavity cladding does not require the use of battens to create a *drained cavity* since the cavity (grooves on polystyrene face) is integral in its product. The supporting information is contained within Hitex Building Systems Ltd *Producer Statement*.

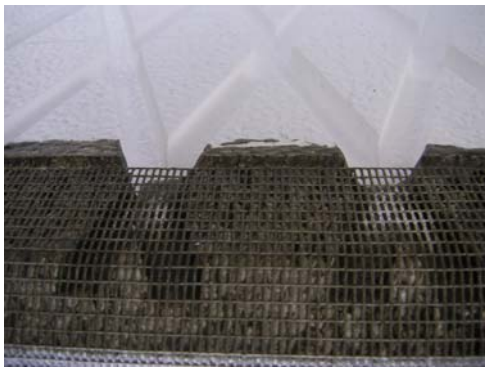


Photo of Hitex Diamond cavity drainage grooves and the baseline anti vermin mesh (Figure 66).

9.9.6 Coating

The supplier of Hitex Diamond has demonstrated that their systems meet the tensile-adhesion performance requirements of ASTM E2134.

9.9.6.1 Reinforcing

The entire surface of the polystyrene sheet (including corners) must be continuously reinforced with alkali-resistant fibreglass reinforcing mesh as specified in Paragraph 9.9.3.2.

9.9.6.2 Reinforcing base coat

The reinforcing base coat shall have:

a) A base coat plaster of a minimum recommended thickness of 3 mm and be polymer-modified cement-based, and
b) Reinforced at joints and corners with an alkali-resistant fibreglass mesh (Paragraph 9.9.3.2), and have a
c) Cover to mesh by at least 1.5 mm plaster.

Polymer-modified cement-based plaster is only applied out of direct sunlight and when the temperature is between 5°C and 30°C, with the expectation that the temperature will be in that range for the following 24 hours.

9.9.6.3 Finish coats

The finish shall comprise either:

a) One or more coats of polymer-modified cement-based plaster and to be painted or
b) A pre-coloured polymer-based plaster.

Where necessary to maintain *weathertightness* and where specifications require, the Hitex Diamond shall be painted with a latex exterior paint system complying with any of Parts 7, 8, 9 or 10 of AS 3730.

9.9.6.4 Decorative mouldings

Decorative mouldings are formed from polystyrene, and shall be glued or mechanically fastened to ensure they remain securely fastened to Hitex Diamond EIFS cladding or *framing.*

Where decorative mouldings are attached, the reinforcing basecoat is applied to the wall before installation of the moulding. Where the moulding is intended to perform the function of the Hitex Diamond it must be constructed to the same minimum standard as the cladding so described in this specification.

9.9.7 EIFS/floor slab junction

The bottom of the Hitex Diamond EIFS cladding shall be as shown in Figure E2-125 and clearances as per Table 1 on page 4 of this Hitex E2 document.

COMMENT:
6mm offset of framing to foundation is not required for the Hitex Diamond EIFS system.

Hitex Table 1 Ground Clearances	E2:65 Table 18
Minimum ground clearances from bottom of Hitex Diamond cladding.	
	mm
Wet Ground	175
Free Draining ground	150
Concrete/Pavers	100
Roof Apron Flashings	35
Free Draining Tiles	35
Allowance from Butynol (before tiling)	50

* Areas below minimum clearances or clearances for other surfaces can be monitored in situ with moisture detection unit (Mdu) probes to determine if the timber framing moisture content is in compliance with NZBC

Hitex Floor Slab Junction E2:125
See HITEX DC50-BL-01 ver 1.2
SLAB ON GRADE

Hitex Wooden Floor Junction
See HITEX DC50-BL-02 ver 1.2
PILE SUB-FLOOR

9.9.8 Pipes and service penetrations

All pipes and service penetrations through the Hitex Diamond shall be made weatherproof as shown in figure 126, by either:

a) A flange penetrating the Hitex Diamond cladding as a sleeve and sealed into the Hitex Diamond as shown in Figure 126, or
b) A face-fitted flange at Hitex Diamond surface and sealed with a neutral cure sealant that complies with the same requirements as Paragraph 9.9.3 (e) ii).

COMMENT:
Pipe penetrations are installed to slope down outwards towards the Hitex Diamond EIFS cladding exterior.

Where cables penetrate the Hitex Diamond cladding, a sleeve or conduit shall be provided and sealed into the cladding system. All wires that pass through conduit shall be sealed into position inside the conduit. Refer Figure E2:126.

Hitex Penetration E2:126
See HITEX DC50-PEN-02 ver 1.2
PIPE PENETRATION

9.9.9 Windows and doors

All windows and doors shall be installed in accordance with Paragraph 9.1.10, E2- Figure 127 (direct fixed windows) and comply with the requirements of NZS 4211. Reveals shall comply with NZS 3602. Flashings shall comply with Paragraph 4.0. All Windows shall include head, jamb and sill flashings including under sill trays formed with upstands on either end as per paragraph 9.9.4.1. Particular attention must be applied to corner and facetted windows to ensure flashings and under sill trays are weather tight.

Hitex Reveal Window Details E2:127
See HITEX DC50-WI-12 ver 1.2
REVEAL - WINDOW HEAD TO FRAME

See HITEX DC50-WI-04 ver 1.2
REVEAL - WINDOW JAMB

See HITEX DC50-WI-05 ver 1.2
REVEAL - WINDOWSILL

Eyebrows as shown in photo above assist the deflection of water away from head flashings and windows. Consideration should be given to the use of eyebrows in high wind zone areas and walls with parapets.

Under Sill Trays

Under Sill tray flashings shall be in accordance with Table 7. Under Sill Trays shall extend back past the condensation channel of the window. A 5mm gap between the window and under sill tray is not to be sealed or if it is there shall be a minimum of 2x50 mm slots where it is not sealed spaced no closer than 50mm from the window corners. The Under Sill Trays must be colour coated metal, have turned up ends and not be punctured. Membrane tapes should only be used to construct weather tight corners in conjunction with under sill trays.
Installation Assembly details for Hitex Under Sill Trays.

Hitex Under sill Tray Procedure
See HITEX DC50-WI-01 ver 1.2
WINDOW INSTALLATION DETAIL

See HITEX DC50-WI-02 ver 1.2
UNDERSILL TRAY ASSEMBLY

Membrane tapes can be excluded from installations where under sill trays create fully weather tight corners.

Back sealing

Only windows within a wind zone category 'very high' shall be required to be back sealed. Back sealing is to be done with a semi rigid pre-sized foam backing rod. Expanding glues are expressly excluded.

Doors, Ranch sliders and French doors

All doors shall include head and jamb flashings with sills to be set 20mm into the floor. A formed under sill tray with upstands on either end shall be provided. For 'high' and 'very high' wind zones, a packer that allows drainage shall be applied behind the door sill flange to prevent water splash and air entry.

Hitex Door Sill Detail	E2:62
See HITEX DC50-DO-01 ver 1.2 DOOR OPENING. WOODEN FLOORS *See* HITEX DC50-DO-02 ver 1.2 DOOR OPENING. CONCRETE FLOORS	

Garage Doors

Garage spaces within, or attached to, the building envelope shall have: (as per E2-Figure 65 and table 18)

a) Openings provided with a 50mm minimum total height variation between the interior and exterior paving, and

b) Provision to drain water away from the threshold of the opening

c) Jamb and Head flashings.

Hitex Garage Opening Detail
See HITEX DC50-DO-03 ver 1.2 GARAGE HEAD *See* HITEX DC50-DO-04 ver 1.2 GARAGE JAMB

Photo depicts formed concrete at garage door to provide minimum 50mm level change (centre) and 50mm ground clearance below Hitex Diamond EIFS Cladding (left).

9.9.10 Parapets

Parapets shall comply with Paragraph 6.0. *Enclosed balustrades* shall comply with Paragraph 7.4.

9.9.10.1 Metal capping

Metal *capping* shall comply with the requirements of Paragraph 6.4, and are as shown in Figure 130. Where a *parapet* or an *enclosed balustrade* meets Hitex Diamond EIFS cladding, a *saddle flashing* is used, as shown in Figure 129.

Hitex Saddle Flashing	E2:12
See HITEX DC50-PA-02 ver 1.2 PARAPET TERMINATION TO WALLS	

9.9.10.2 EIFS exposed balustrades

Where the tops to *exposed balustrades* are formed using other than metal caps they are required to be Specific Weathertight Designs (SWD). and as such require approval as Alternative Solutions within the Building Consent process. It is recommended that Early Warning Detection System (EWDS) Mdu moisture probes be installed to establish performance requirements of the NZBC are met and continue to be met throughout the life of the building.

Any *membrane* other than metal shall be fully protected by the coating, and:

a) Comply with the requirements of AS/NZS 4858 Table 8, Parts (a) to (e), except that bleach

and detergent immersion set out in Appendix A1 is not required, and

b) Be applied by a trained applicator, approved by Hitex.

COMMENT:
Plaster capped balustrades require specific weathertightness design and maintenance. Designers requiring these should consult Hitex before specifying

Hitex Parapet
See HITEX DC50-PA-01 ver 1.2
PARAPET

OTHER WEATHERTIGHTNESS DETAILS with relevance to E2

Deck attached through Hitex Diamond EIFS cladding

Decks attached through Hitex Diamond are specific weathertightness designs (SWD) and as such require approval as Alternative Solutions within the Building Consent process. It is recommended that Early Warning Detection System (EWDS) Mdu moisture probes be installed to establish performance requirements of the NZBC are met and continue to be met throughout the life of the building.
Weathertightness can be achieved through the use of stop ends and kick outs ensuring the decking membrane is capable of continued ongoing maintenance and service.

Hitex Deck Stop End
See HITEX DC50-DE-01 ver 1.2
DECK STOP END

2. Stringer mounted Pergola and Deck

No timber shall protrude through the face of the Hitex Diamond EIFS cladding system. Stringers may be attached to framing with sufficient clearance (minimum 20mm) to maintain any movement at the fixing points. It is recommended to construct extended soffits above any fixing to reduce rainfall loading and to install an EWDS to ensure ongoing compliance with NZBC.

Hitex Stringer Mounting Bracket
See HITEX DC50-FA-03 ver 1.2
PERGOLA MOUNTING PLATE

See HITEX DC50-FA-04 ver 1.2
PERGOLA MOUNTING PLATE ALTERNATIVE

See HITEX DC50-FA-05 ver 1.0
HOT DIPPED GALVANISED STRINGER HANGER BRACKET

3. Hitex Diamond EIFS cladding to roof, soffit and fascia connections

Hitex Diamond soffit and fascia

It is highly recommended to install soffits (even as small as 50mm) to reduce the potential for water loadings on walls. Hitex Diamond joints must be completed behind all fascias to ensure the joints are water tight.

Hitex Soffit Detail	E2: 25, 36, 45
See HITEX DC50-WA-12 ver 1.2 NO EAVES DETAIL	
See HITEX DC50-WA-13 ver 1.2 EAVES/SOFFIT	
See HITEX DC50-WA-14 ver 1.2 SOFFIT WITH DRIP EDGE	
See HITEX DC50-WA-15 ver 1.2 NEGATIVE SLOPING SOFFIT	

Hitex Diamond EIFS and roof apron flashings

The roof must be flashed at all boundaries, ensuring all flashing and gutter discharges beyond the Hitex Cladding, using the details shown in figures 34 to 37.

Metal flashings shall comply with Paragraph 4.3 and Table 7, unless specifically shown otherwise in the details.

COMMENT:
Use purpose-made pre-folded flashings supplied by the roofing manufacturer where available and installed by a Licensed roofing or flashing applicator.

Hitex Apron Flashings	E2:7
See HITEX DC50-RO-01 ver 1.2 ROOF FLASHING *See* HITEX DC50-RO-02 ver 1.2 APRON FLASHING	

Hitex Diamond EIFS and roof Stop ends

All roof to wall terminations (and abutments) must incorporate a stop end that flashes the intersection where roofs and fascias meet the Hitex Diamond EIFS cladding.

Metal flashings shall comply with Paragraph 4.3 and Table 7, unless specifically shown otherwise in the details.

COMMENT:
Use purpose-made pre-folded flashings supplied by the roofing manufacturer where available

Hitex Roof Stop Ends	E2:18
See Hitex Roof Stop Ends	

Chimney capping
Chimney details require Specific Weathertightness Designs and shall allow a minimum slope and be air sealed to prevent wind blown moisture entry. All cappings shall lap no less than 50mm.

Hitex Chimney Capping Detail	E2:31
See HITEX DC50-PA-04 ver 1.2 CHIMNEY CAP DETAILS *See* HITEX DC50-PA-05 ver 1.2 CHIMNEY CAP DETAILS	

INSPECTIONS

The following minimum inspection shall be carried out for each installation of Hitex Diamond EIFS cladding:

(i) *Timber Frame and Ready to Start* pre-installation. Inspection to include the building wrap .

(ii) *Fixing release* inspection to cover correct assembly, joining and fixing of sheets around penetrations, flashings and SWD's.

(iii) *Final release* inspection to cover correct plaster and finish application.

(iv) *Advice of Completion of Building Works* to act as notification that the Hitex Diamond installation has been reviewed by Hitex.

WARRANTY

All Hitex Diamond EIFS cladding installations with duly completed "*Advice of Completion of Building Works*" shall be issued with Warranties by Hitex with any inclusions or exclusions duly noted.

MAINTENANCE

All Hitex Diamond EIFS cladding Warranty documents shall include prescribed maintenance needed for the Hitex Diamond to continue to meet the requirements of the NZBC.

It is an additional requirement that all Hitex Diamond specifications with a risk matrix greater than 14 require an EWDS monitoring system to be installed.

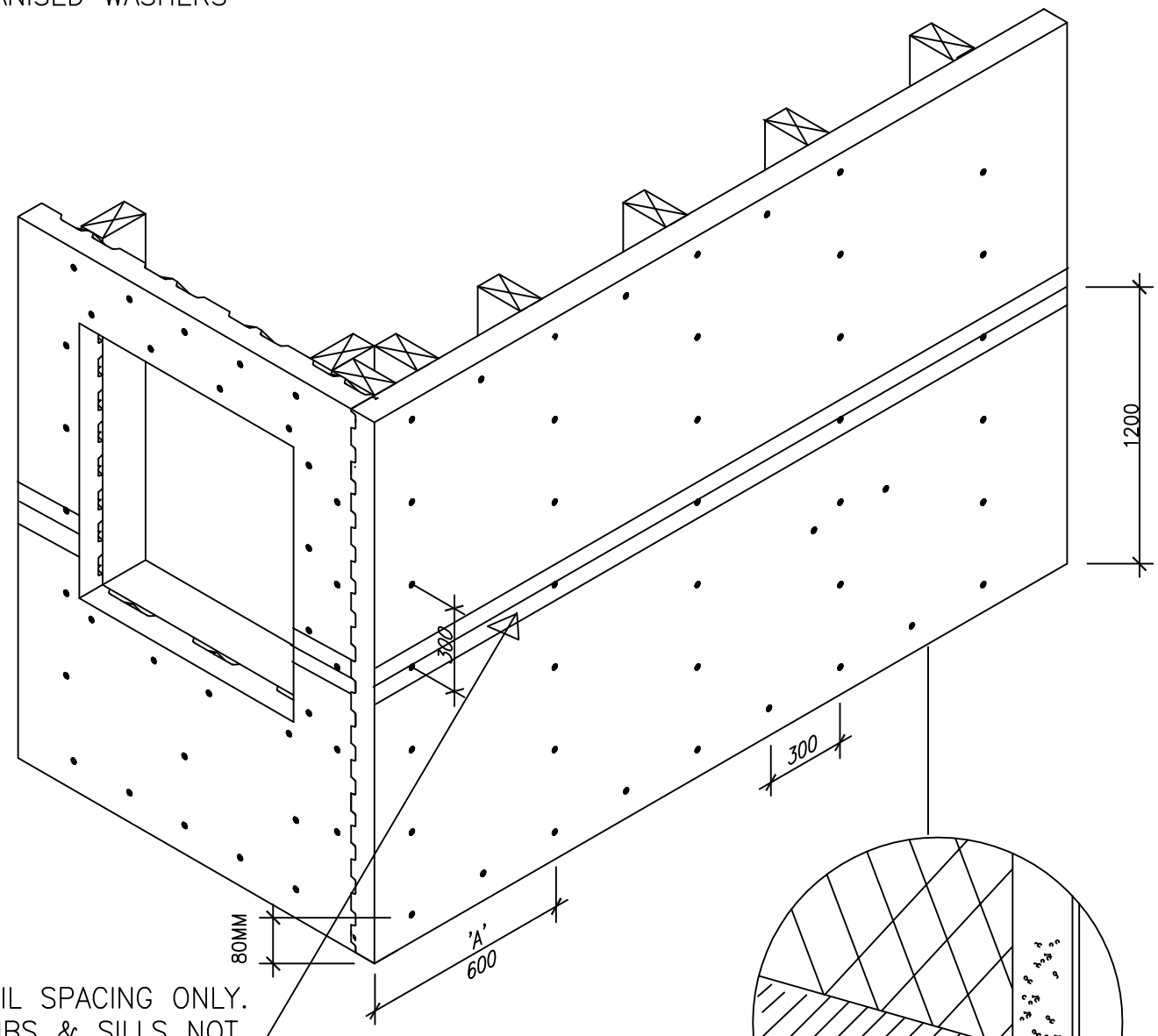
Hitex operates a prescribed maintenance program. Any issues are to be communicated to Hitex according to this programme and procedures.

RECORDS

Hitex shall keep a hard copy of its inspection process, materials used, applicator, SWD details approved and any other relevant information deemed appropriate.

USE 90MM HOT DIPPED GALVANISED NAILS GALVANIZED WASHERS ALTERNATLVELY USE 75MM CLASS 3 SELF TAPPING SCREWS WITH GALVANISED WASHERS

FOR VERY HIGH WIND ZONES 'A' REQUIRE A DOUBLE UP OF NAILING WITHIN 600MM OF ALL EXTERNAL CORNERS



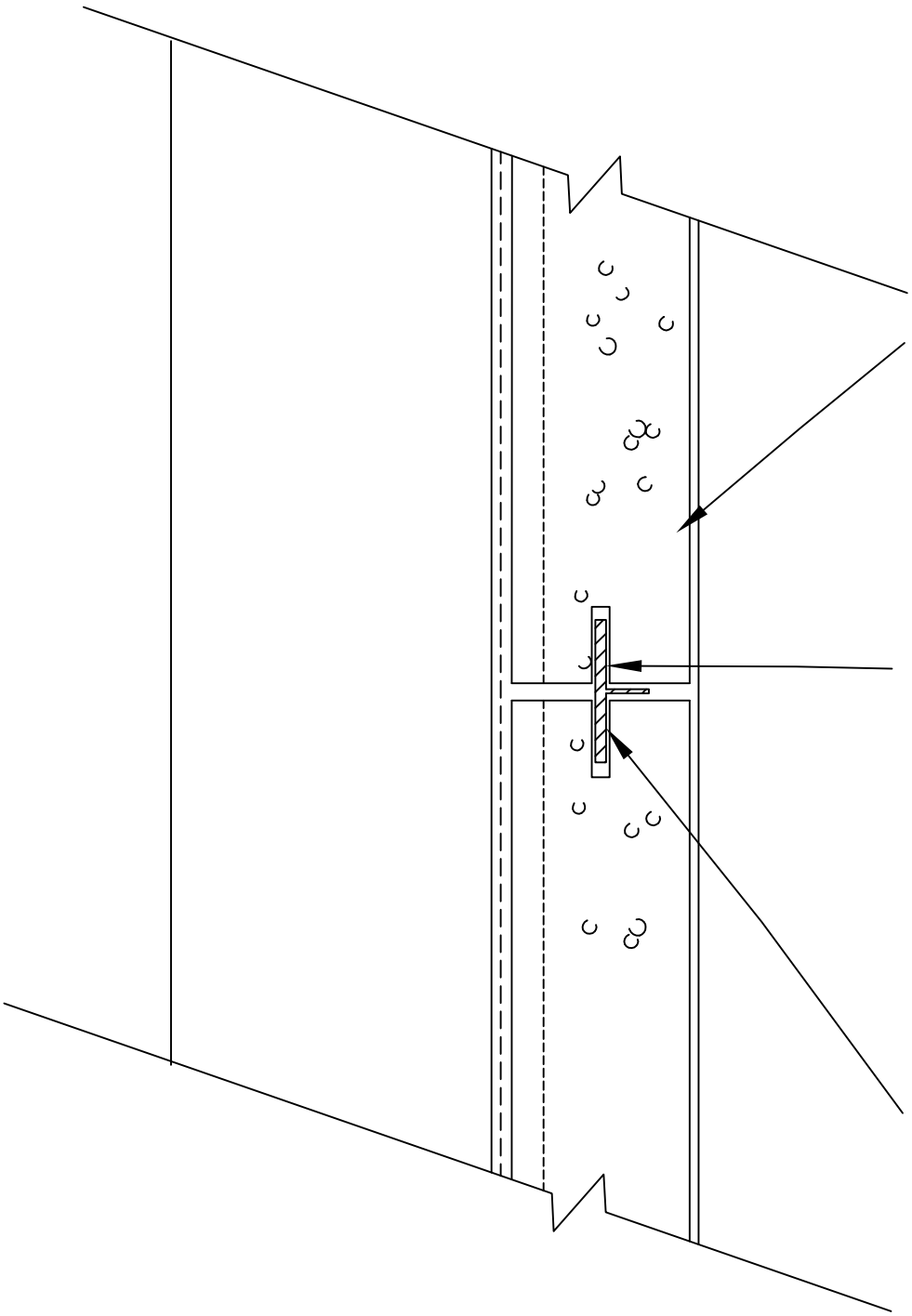
*NAIL SPACING ONLY. JAMBS & SILLS NOT SHOWN.

*SHEET JOINT AND TAPPERS

*APPLIES TO SEA SPRAY ZONES

*FASTENER AND WASHER TO BE SET JUST BELOW OUTER SURFACE OF SHEET

HITEX PROPRIETARY FACTORY APPLIED VERMIN PROOF BACK WRAP



HITEX 50mm DIAMOND CAVITY OVER BREATHABLE BUILDING PAPER OVER H1.2 TREATED TIMBER STRICTLY TO MANUFACTURERS SPECIFICATION

OPTION: SCREWS CAN BE USED TO FASTEN SHEETS TO READYSTUD OVER LARGE SPANS.

HITEX READYSTUD

BUILDING SYSTEMS LIMITED

HITEX-DC50 HORIZONTAL JOINT-READY STUD

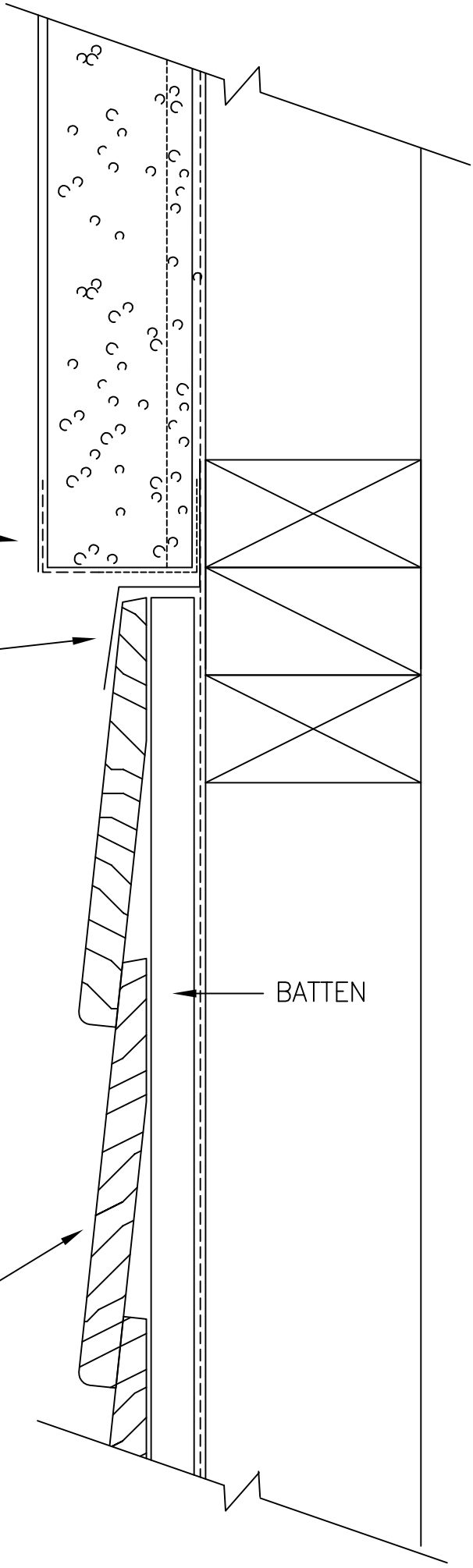
Ver 1.2 Scale 1:2

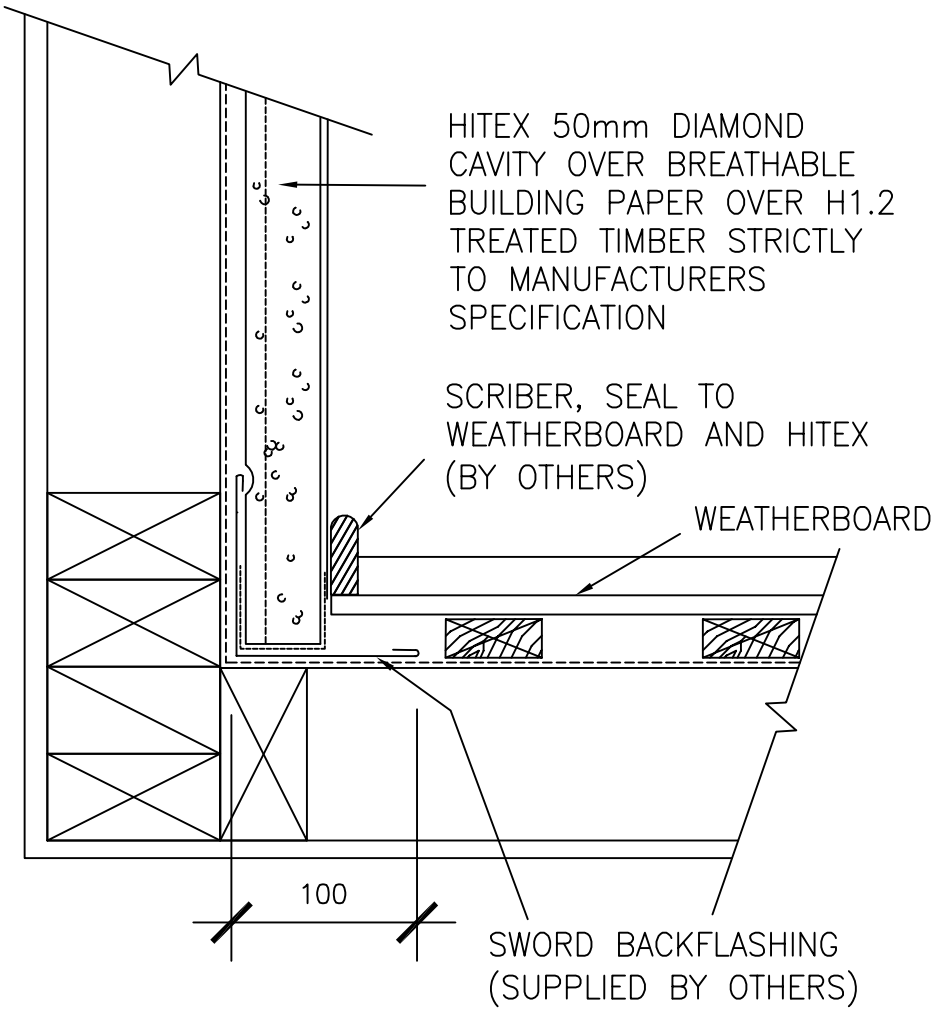
DC50-WA-01

HITEX 50mm DIAMOND CAVITY OVER BREATHABLE BUILDING PAPER OVER H1.2 TREATED TIMBER STRICTLY TO MANUFACTURERS SPECIFICATION

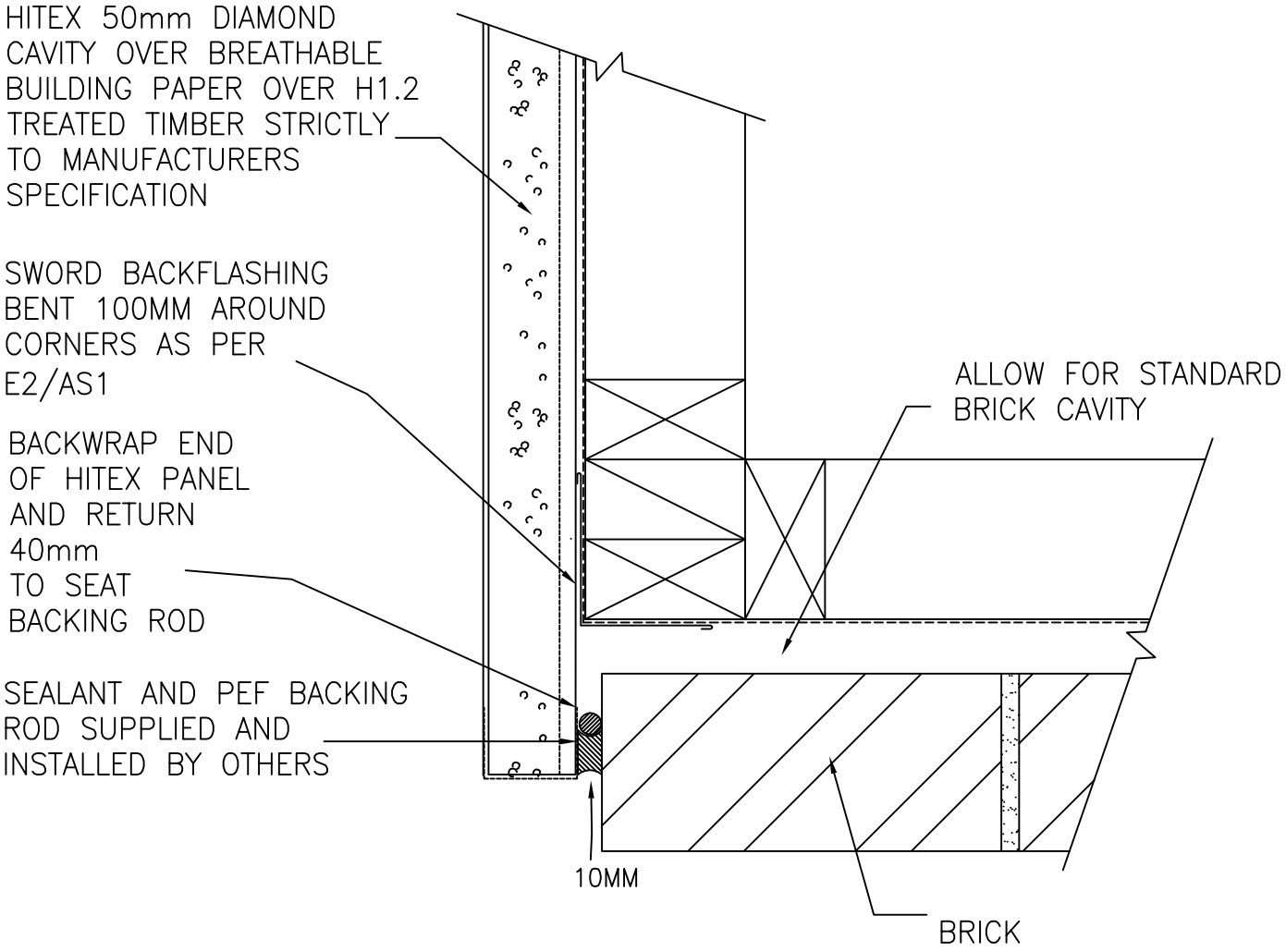
HITEX PROPRIETARY FACTORY APPLIED VERMIN PROOF BACK WRAP

METAL 'Z' FLASHING TAPED TO BUILDING PAPER





CLADDING INTERSECTION. INTERNAL CORNER

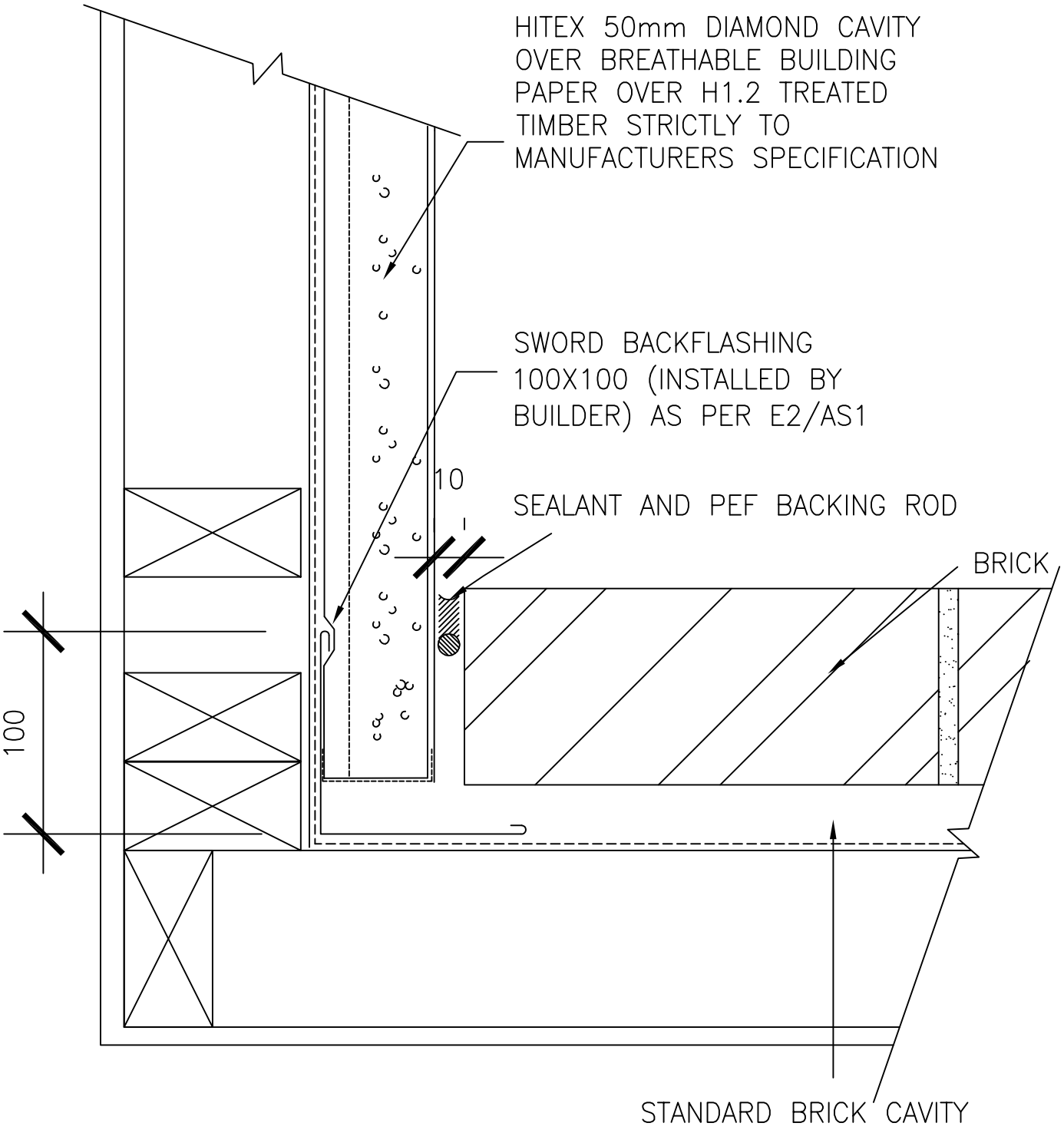


BUILDING SYSTEMS LIMITED

HITEX DC50 BRICK ABUTMENT. EXT CORNER

Ver 1.2 Scale 1:5

DC50-CA-06

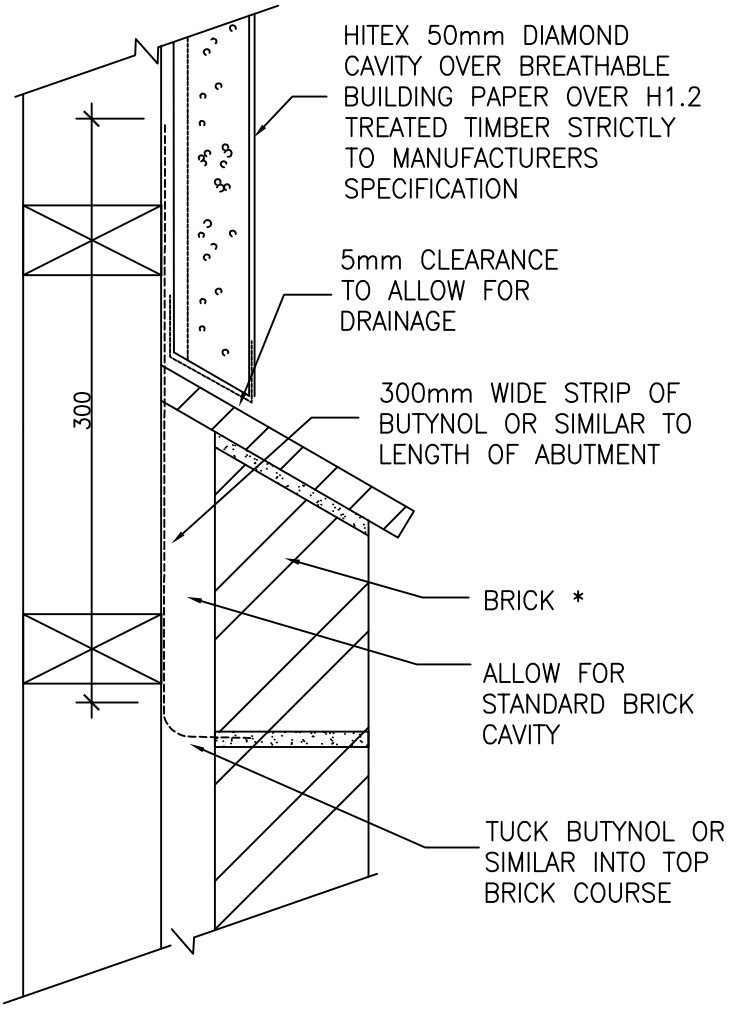


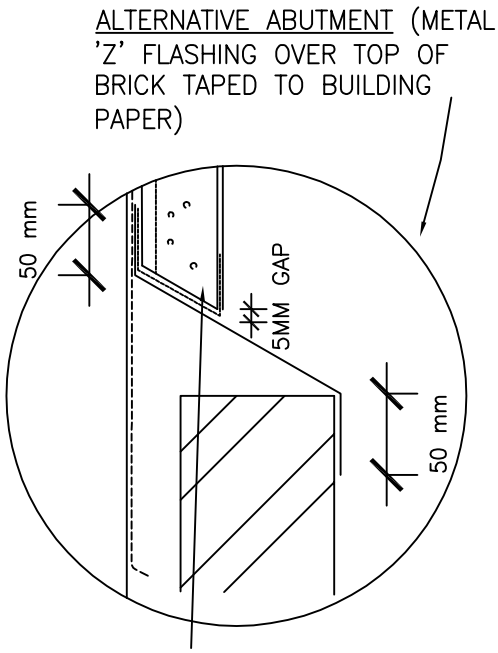
BUILDING SYSTEMS LIMITED

HITEX-DC50 BRICK ABUTMENT . INTERNAL CNR

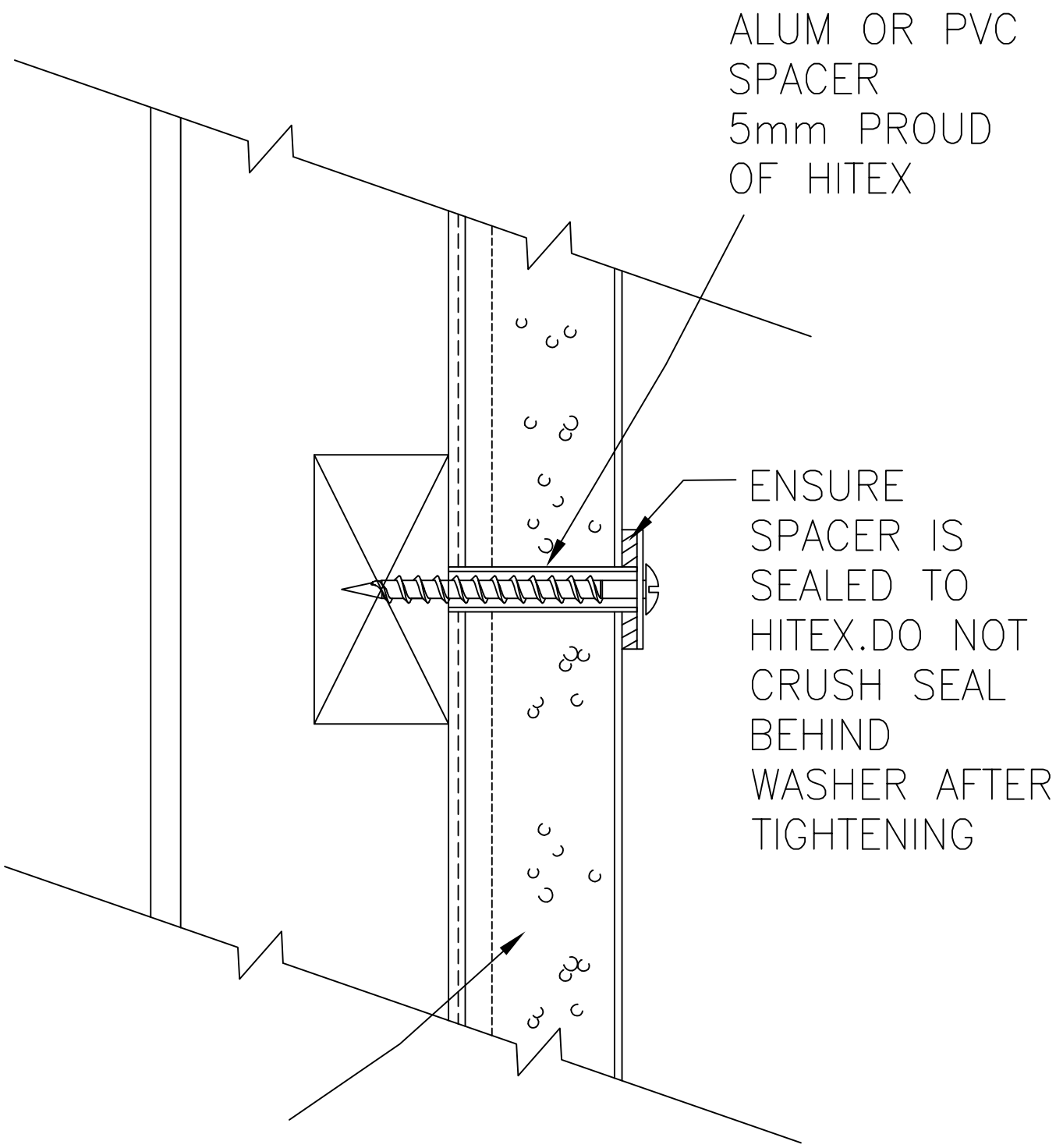
Ver 1.2 Scale 1:2

DC50-CA-05

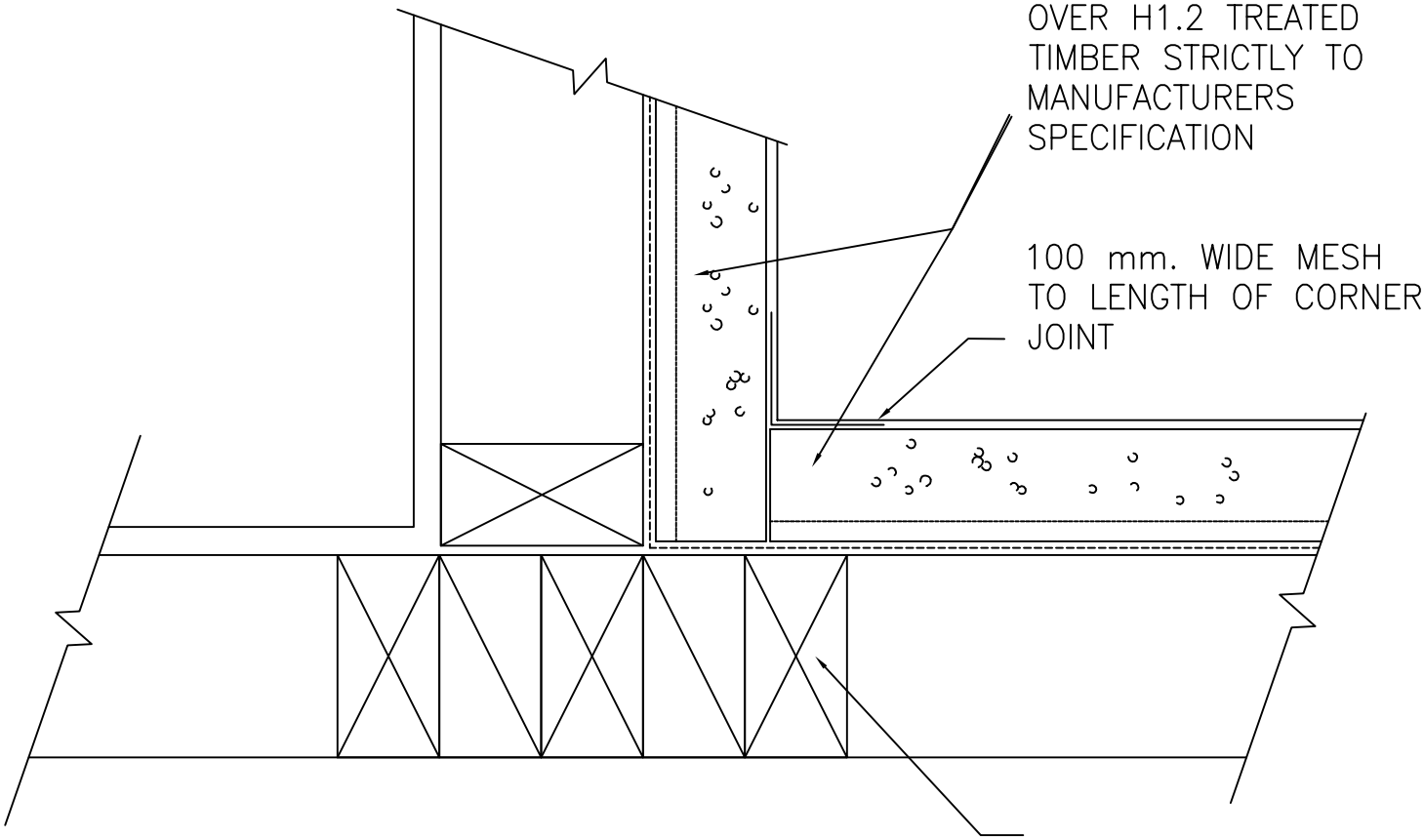


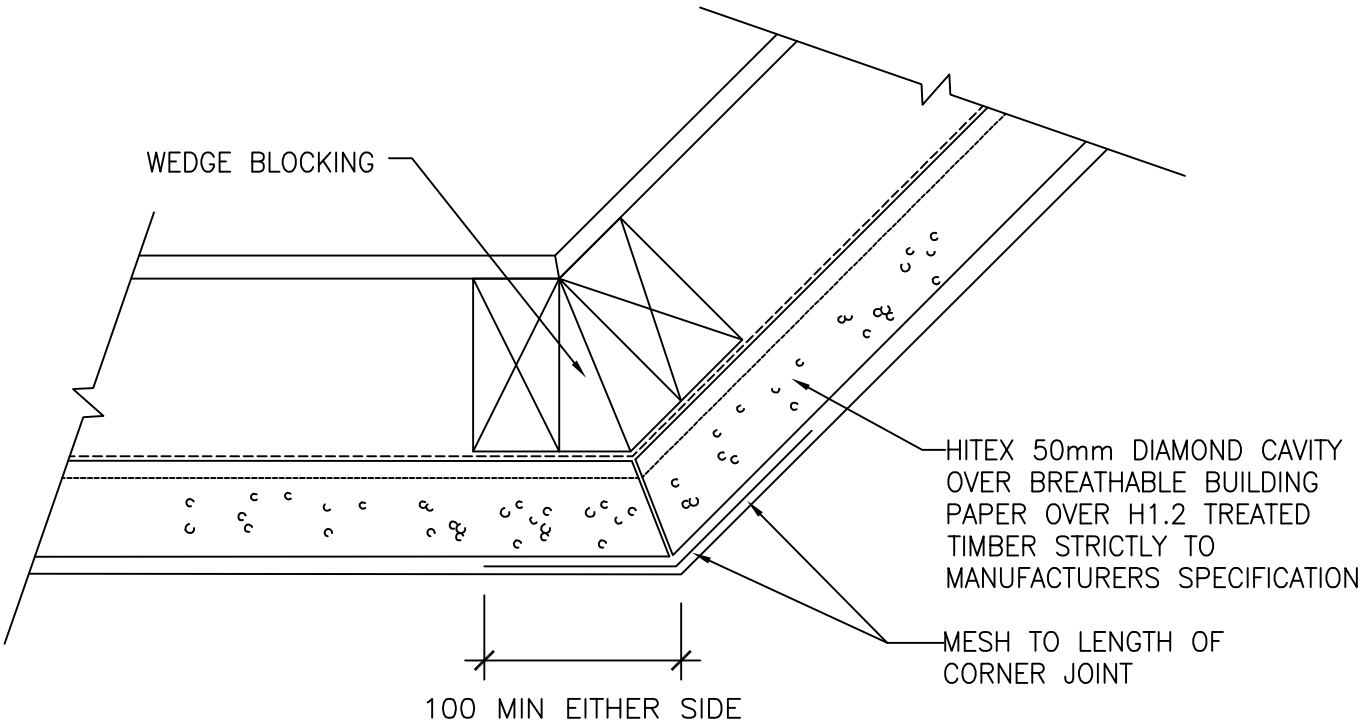


* NOTE: IF BRICK IS PLASTERED "Z" FLASHING + HITEX INSTALLED AFTER



HITEX 50mm DIAMOND CAVITY OVER
BREATHABLE BUILDING PAPER OVER H1.2
TREATED TIMBER STRICTLY TO
MANUFACTURERS SPECIFICATION


HITEX 50mm DIAMOND CAVITY OVER BREATHABLE BUILDING PAPER OVER H1.2 TREATED TIMBER STRICTLY TO MANUFACTURERS SPECIFICATION
100 mm. WIDE MESH TO LENGTH OF CORNER JOINT
PROVIDE VERTICAL BLOCKING BETWEEN STUDS TO SUIT FIXING OF POLYSTYRENE



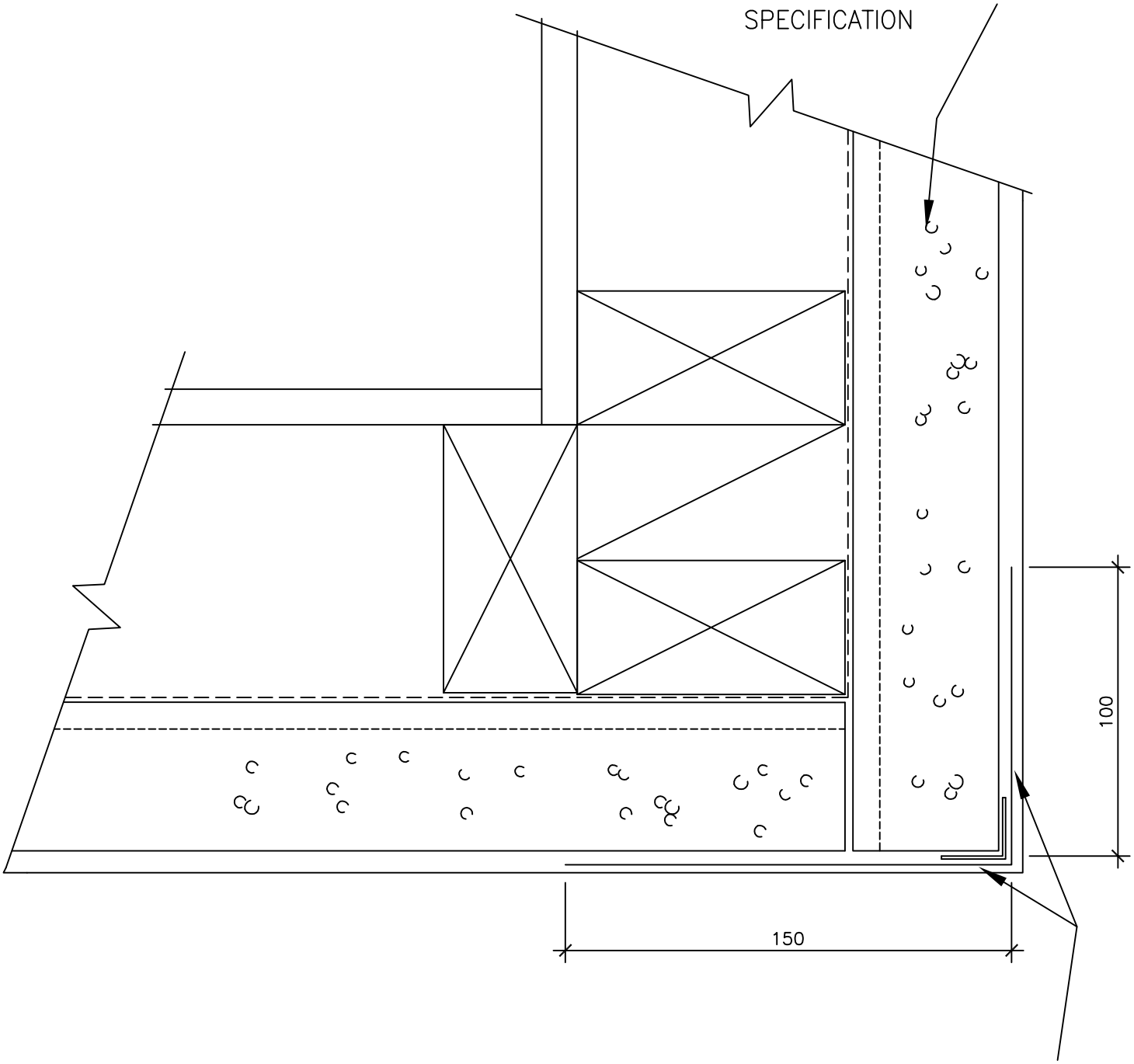
BUILDING SYSTEMS LIMITED

HITEX-DC50 EXTERNAL CORNER 135 DEG

Ver 1.2 Scale 1:5

DC50-WA-08

HITEX 50mm DIAMOND CAVITY OVER BREATHABLE BUILDING PAPER OVER H1.2 TREATED TIMBER STRICTLY TO MANUFACTURERS SPECIFICATION



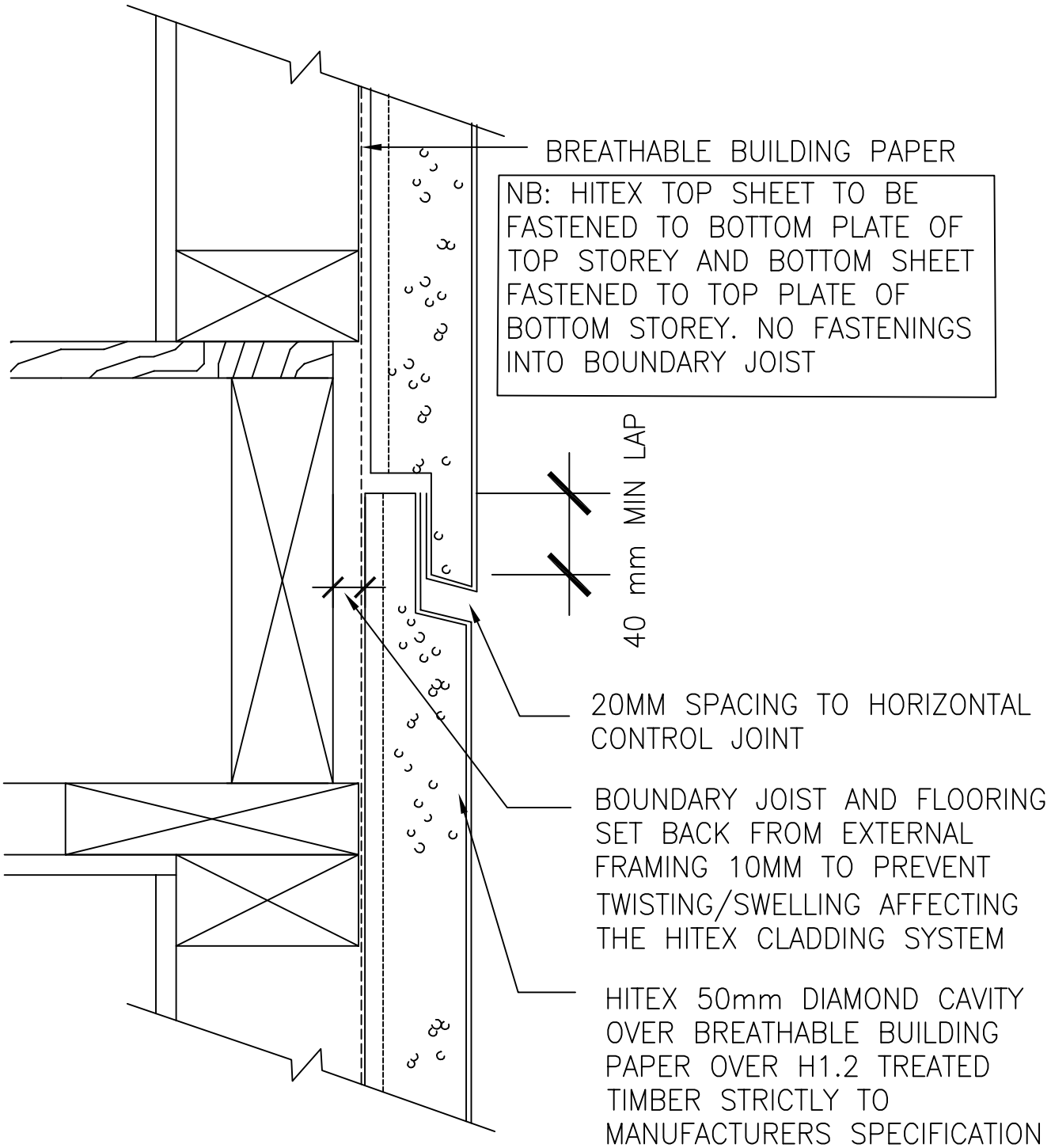
20 x 20 PVC ANGLE WITH 250mm MESH TO LENGTH OF CORNER JOINT (WRAP 150MM TO CUT SIDE)

BUILDING SYSTEMS LIMITED

HITEX-DC50 EXTERNAL CORNER RIGHT ANGLE

Ver 1.2 Scale 1:2

DC50-WA-09

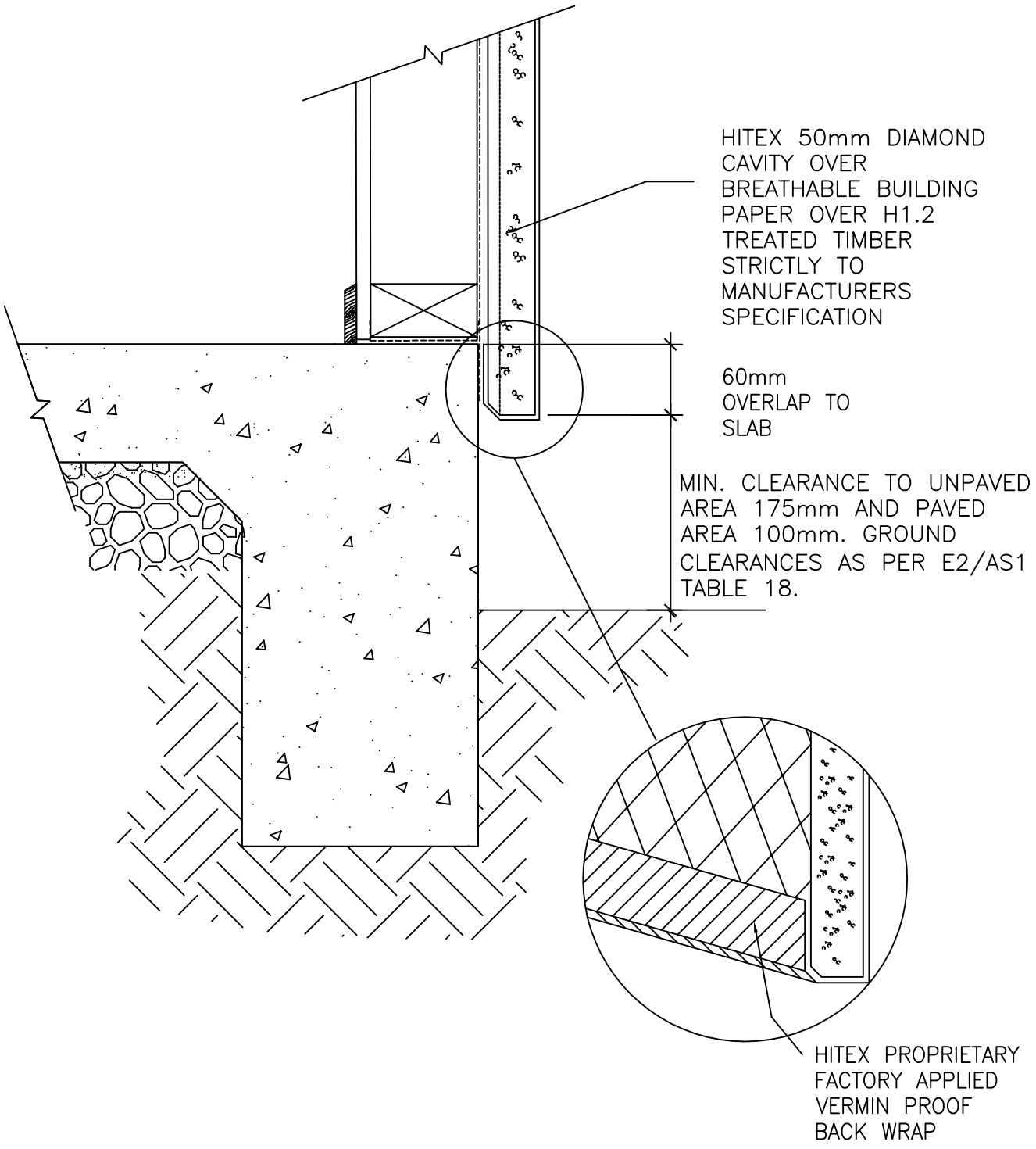


BUILDING SYSTEMS LIMITED

HITEX-DC50 HORIZONTAL CONTROL JOINT

Ver 1.2 Scale 1:2

DC50-WA-05

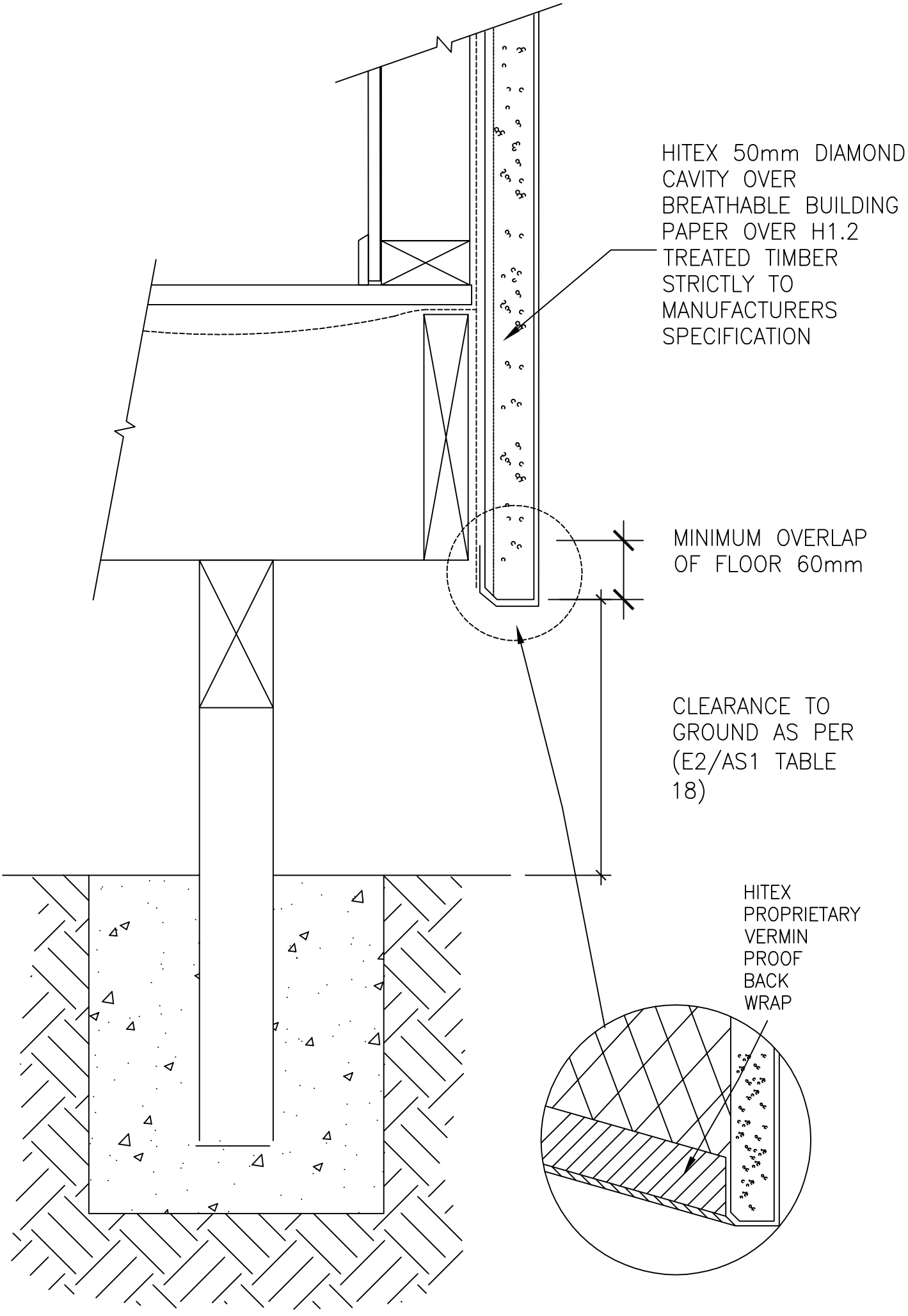


BUILDING SYSTEMS LIMITED

HITEX-DC50 SLAB ON GRADE

Ver 1.2 Scale 1:5

DC50-BL-01



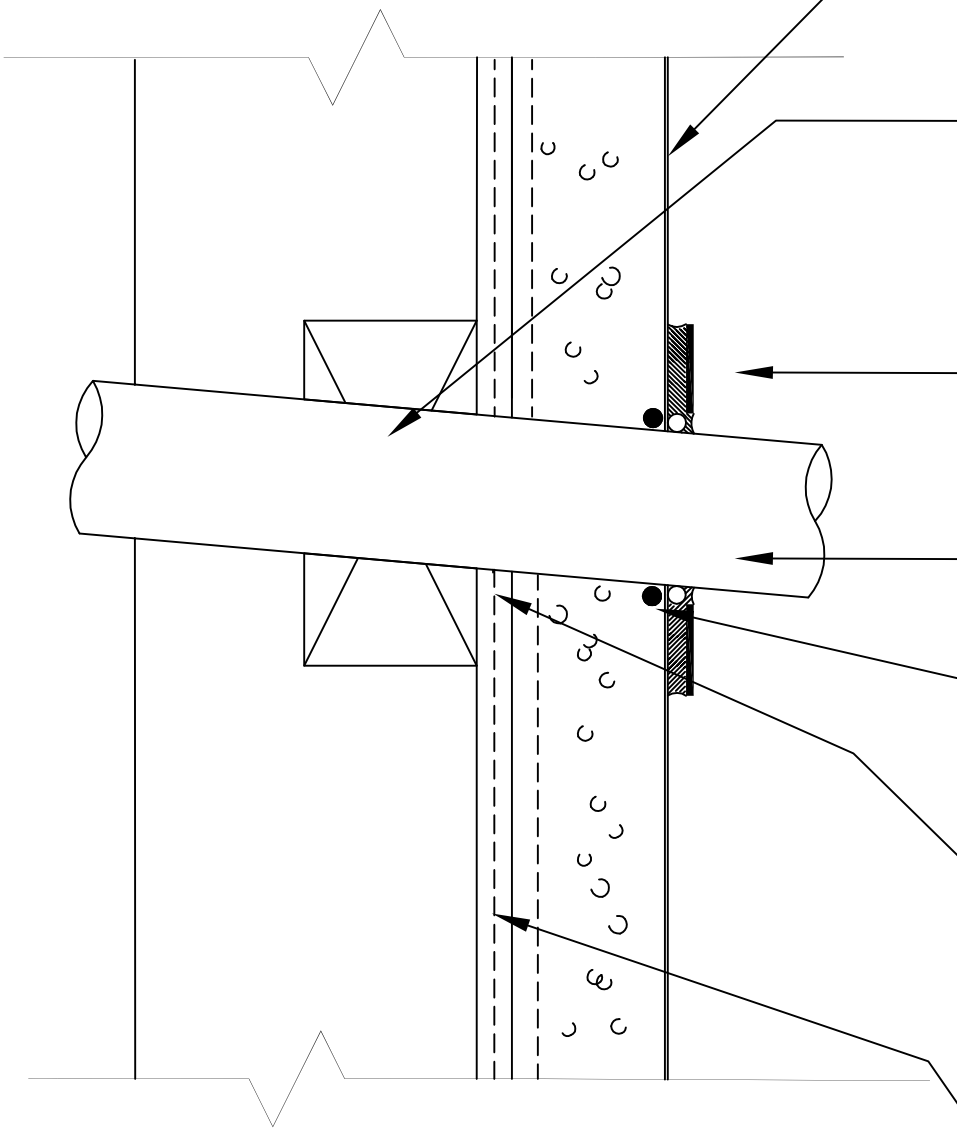
BUILDING SYSTEMS LIMITED

HITEX-DC50 PILE SUB-FLOOR

Ver 1.2 Scale 1:5

DC50-BL-02

PENETRATIONS MUST BE INSERTED PRIOR TO CLADDING INSTALLATION



HITEX 50mm DIAMOND CAVITY OVER BREATHABLE BUILDING PAPER OVER H1.2 TREATED TIMBER STRICTLY TO MANUFACTURERS SPECIFICATION

ENSURE PIPE IS SECURELY FASTENED AND SET AT A MIN OF 5 DEGREE FALL (SLIGHT FALL)

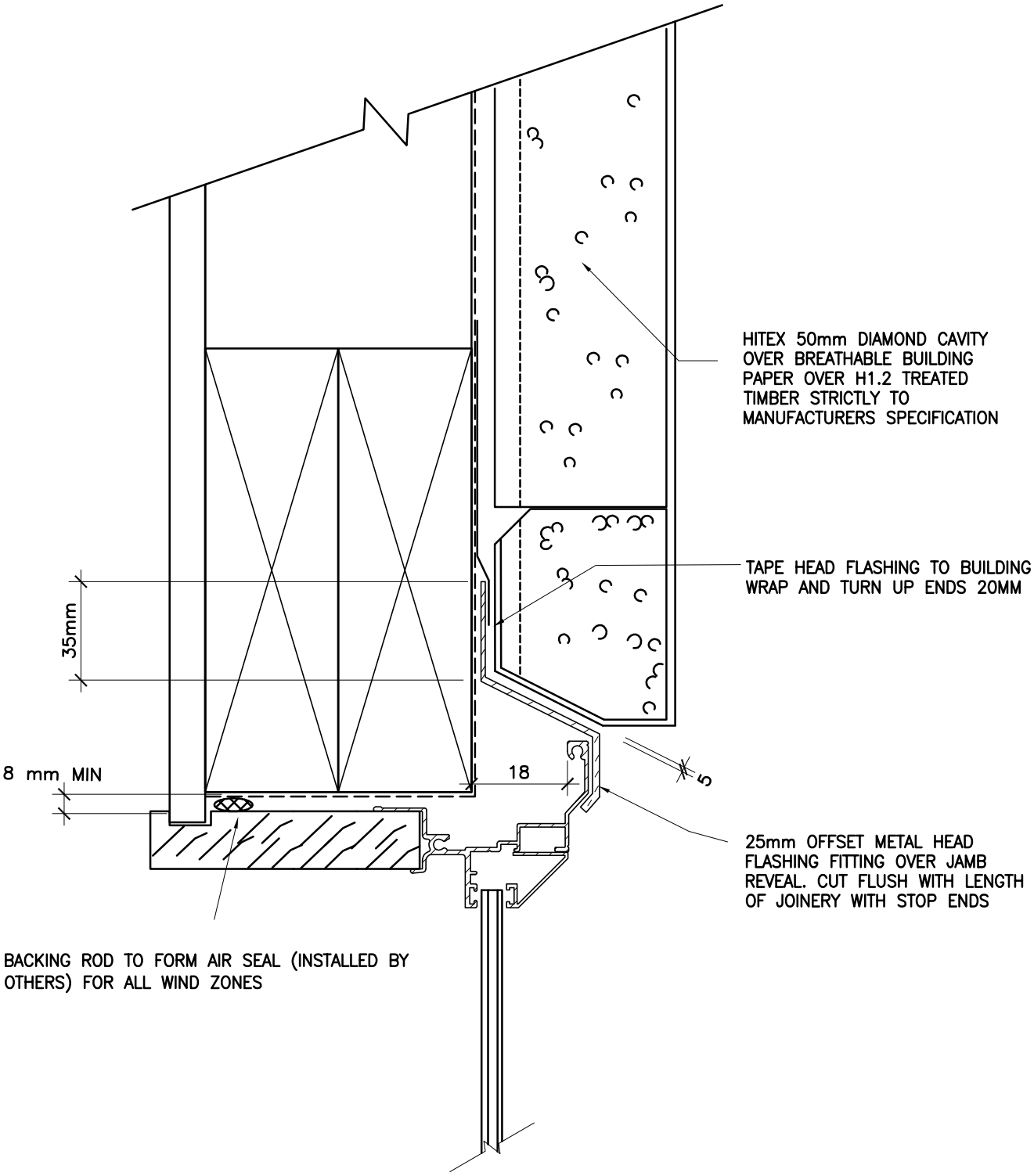
PVC FLANGE INSTALLED BY PLUMBER WHERE NECESSARY

SELECTED PIPE

SEALANT BEAD INSTALLED BY HITEX

BUILDING WRAP TURNED OUT AND TAPED ONTO PIPE USING FLASHING TAPE (25mm AROUND PIPE AND 100mm ONTO WRAP)

BREATHABLE BUILDING WRAP

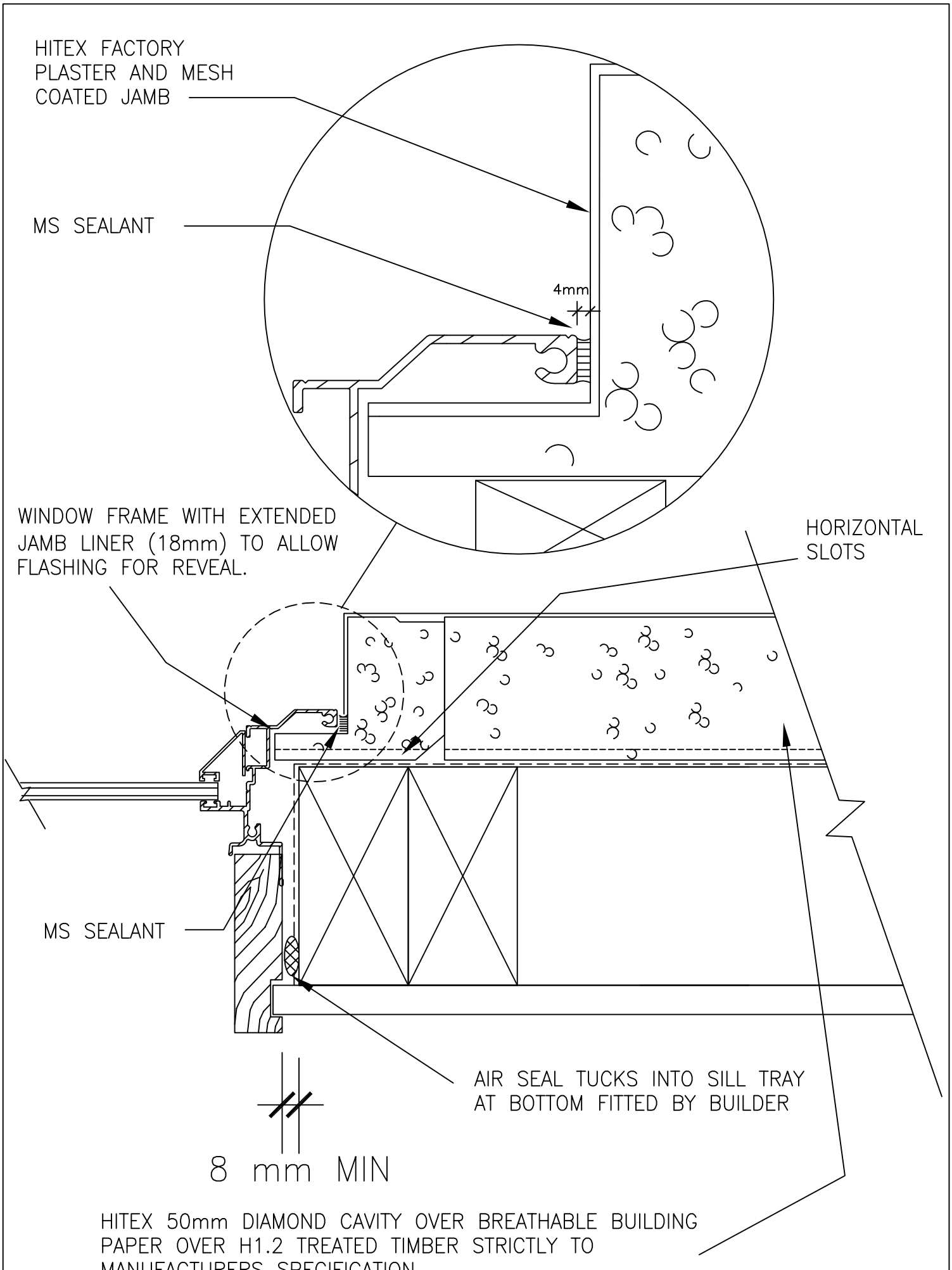


BUILDING SYSTEMS LIMITED

HITEX-DC50 REVEAL- Window Head to Frame

Ver 1.2 Scale nts

DC50-WI-12

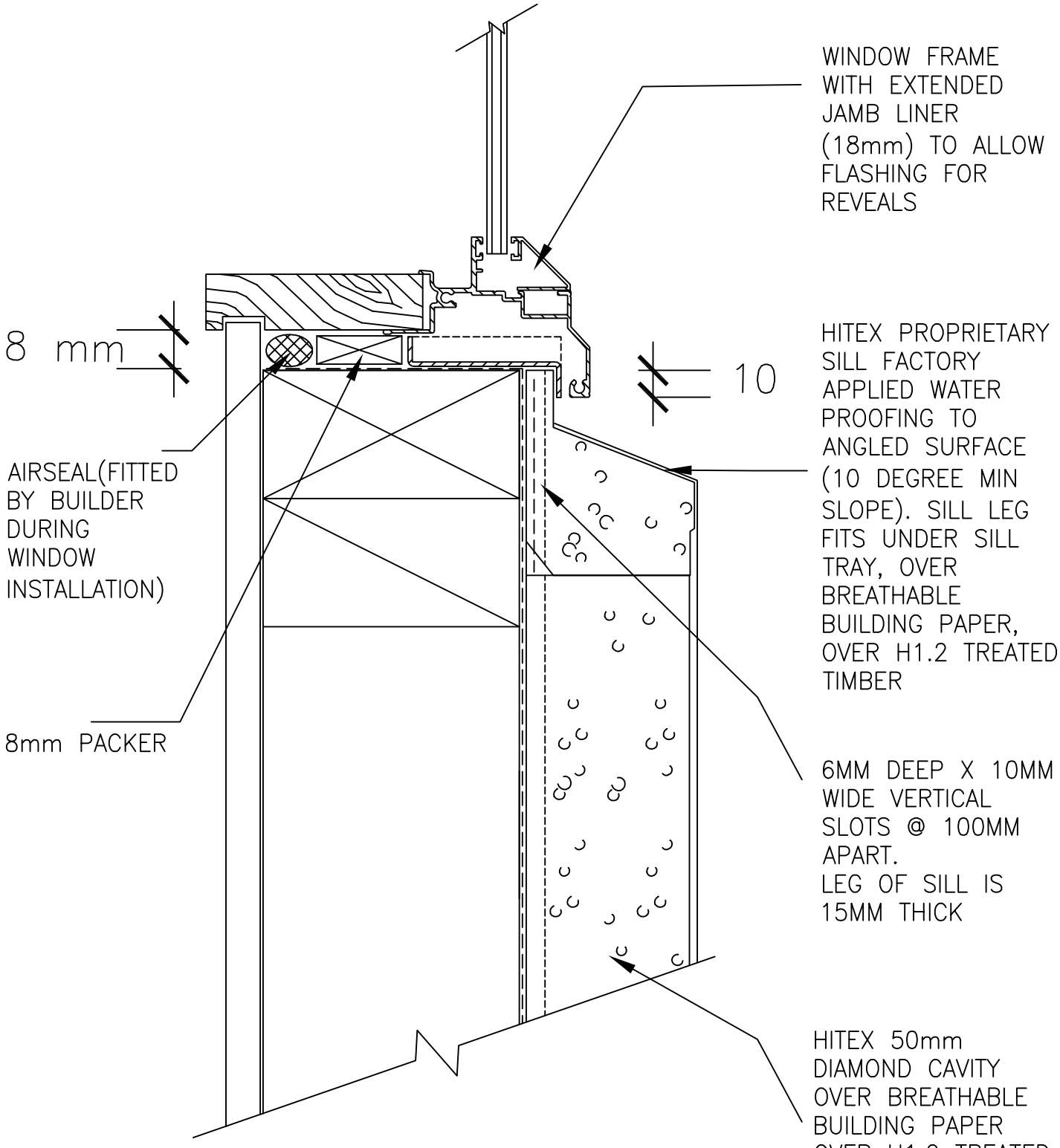


BUILDING SYSTEMS LIMITED

HITEX-DC50 REVEAL-WINDOW JAMB

Ver 1.2 Scale 1:2

DC50-WI-04



BUILDING SYSTEMS LIMITED

HITEX-DC50 REVEAL- WINDOWSILL

Ver 1.2 Scale 1:2

DC50-WI-05

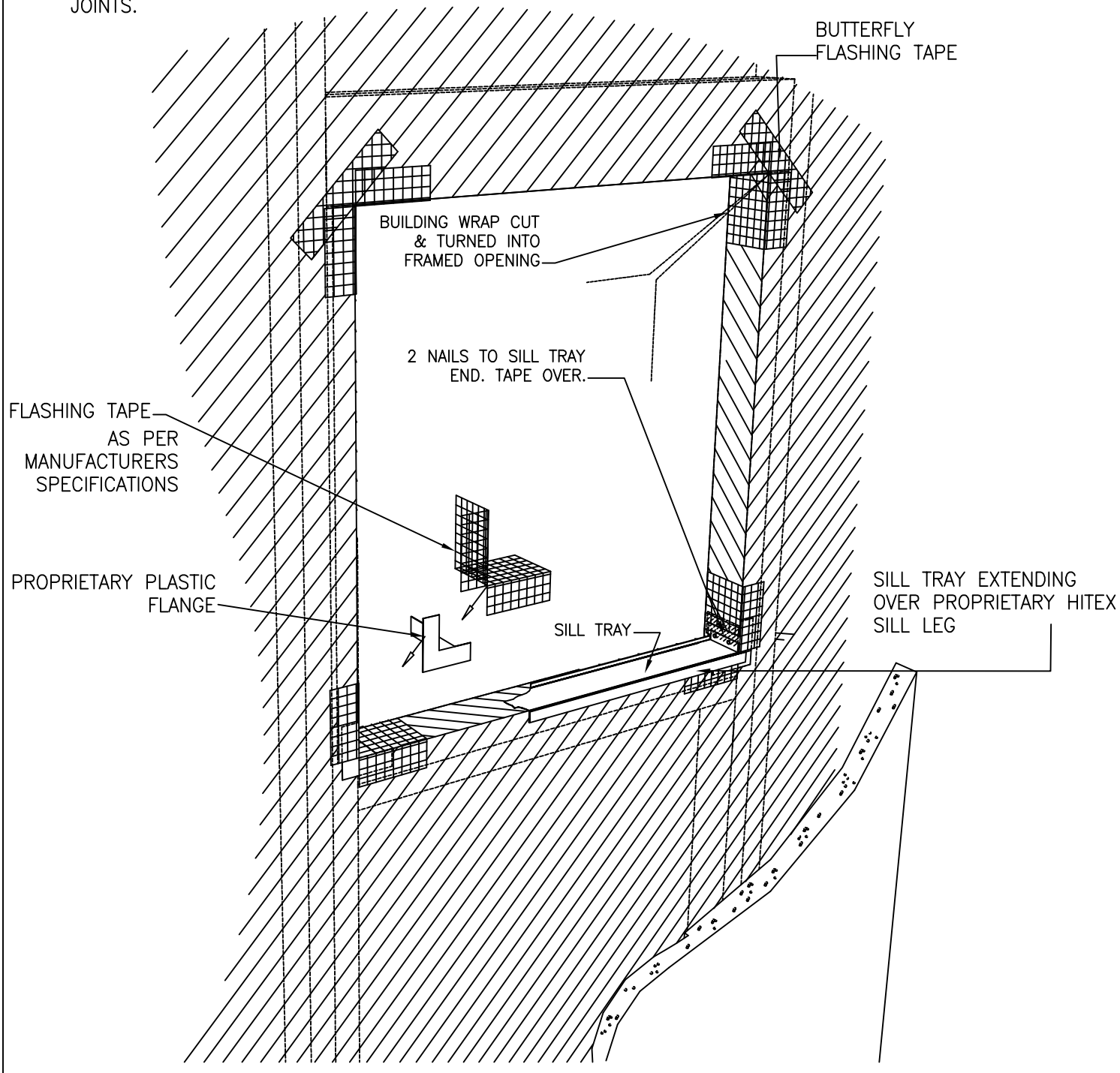
NB
THE BUILDING WRAP SHALL BE IN ACCORDANCE WITH TABLE 23 OF E2/AS1, AND SHALL:

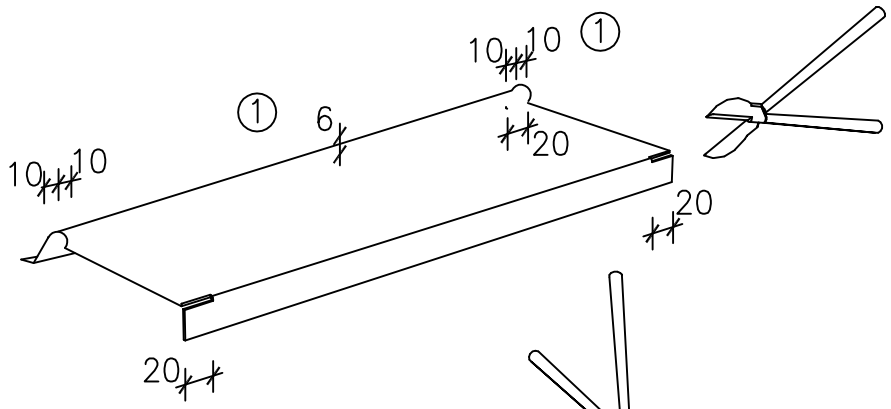
A) BE RUN HORIZONTALLY

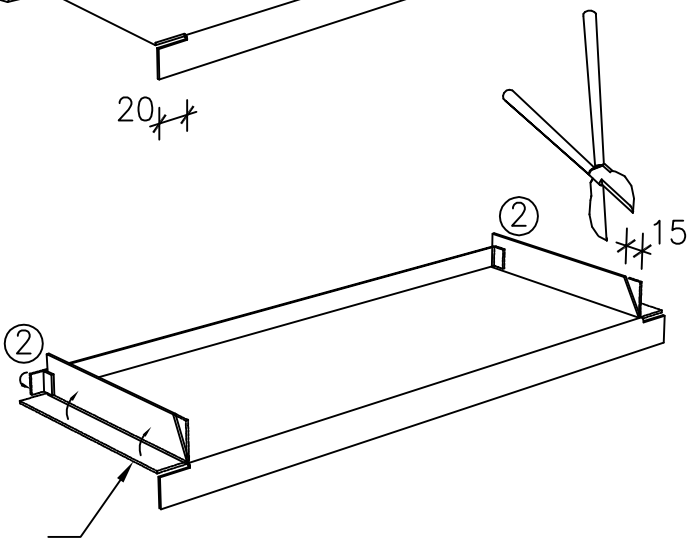
B) UPPER SHEETS LAPPED OVER LOWER SHEETS TO ENSURE THAT DIRECTION OF LAPS WILL ALLOW WATER TO BE SHED TO OUTSIDE OF THE BUILDING WRAP

C) BE LAPPED NOT LESS THAN 75mm AT THE HORIZONTAL JOINTS

D) BE LAPPED NOT LESS THAN 150mm OVER STUDS AT VERTICAL JOINTS.



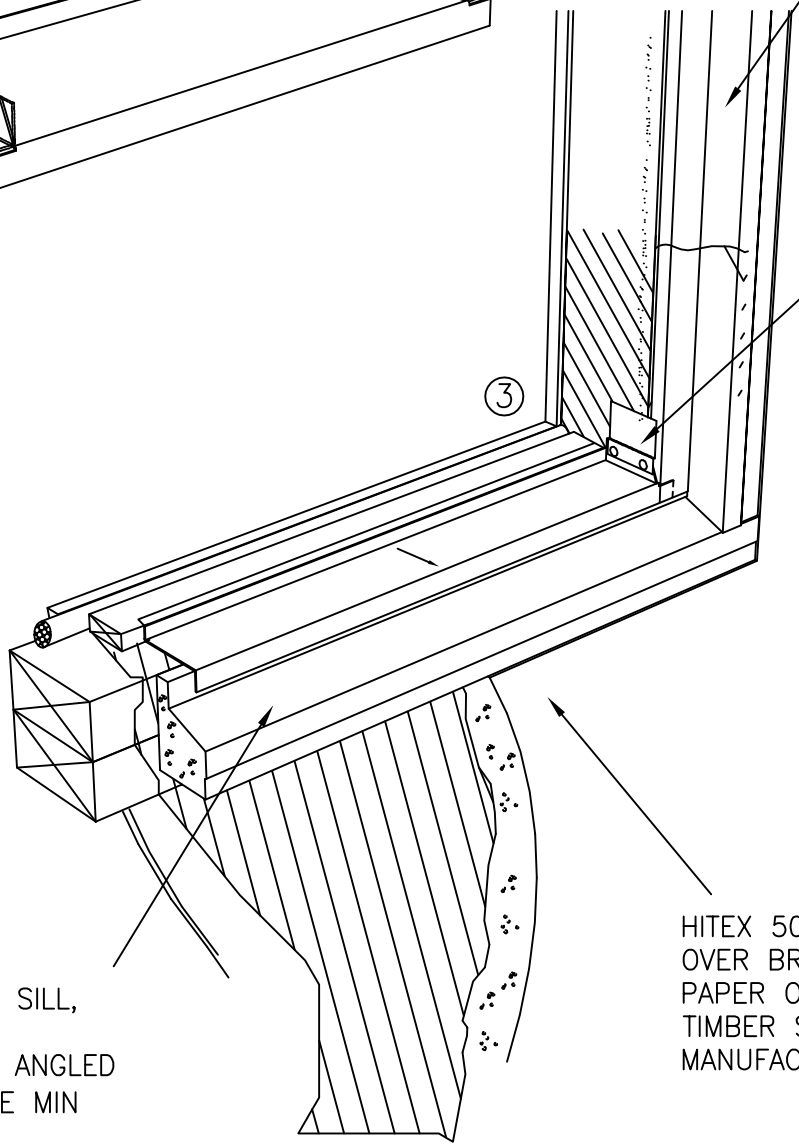




HITEX UNDERSILL TRAY

HITEX FACTORY APPLIED PLASTER AND MESH COAT JAMB

TAPE UNDERSILL TRAY END UPSTAND TO BUILDING PAPER



HITEX PROPRIETORY SILL, FACTORY APPLIED WATERPROOFING TO ANGLED SURFACE(10 DEGREE MIN SLOPE)

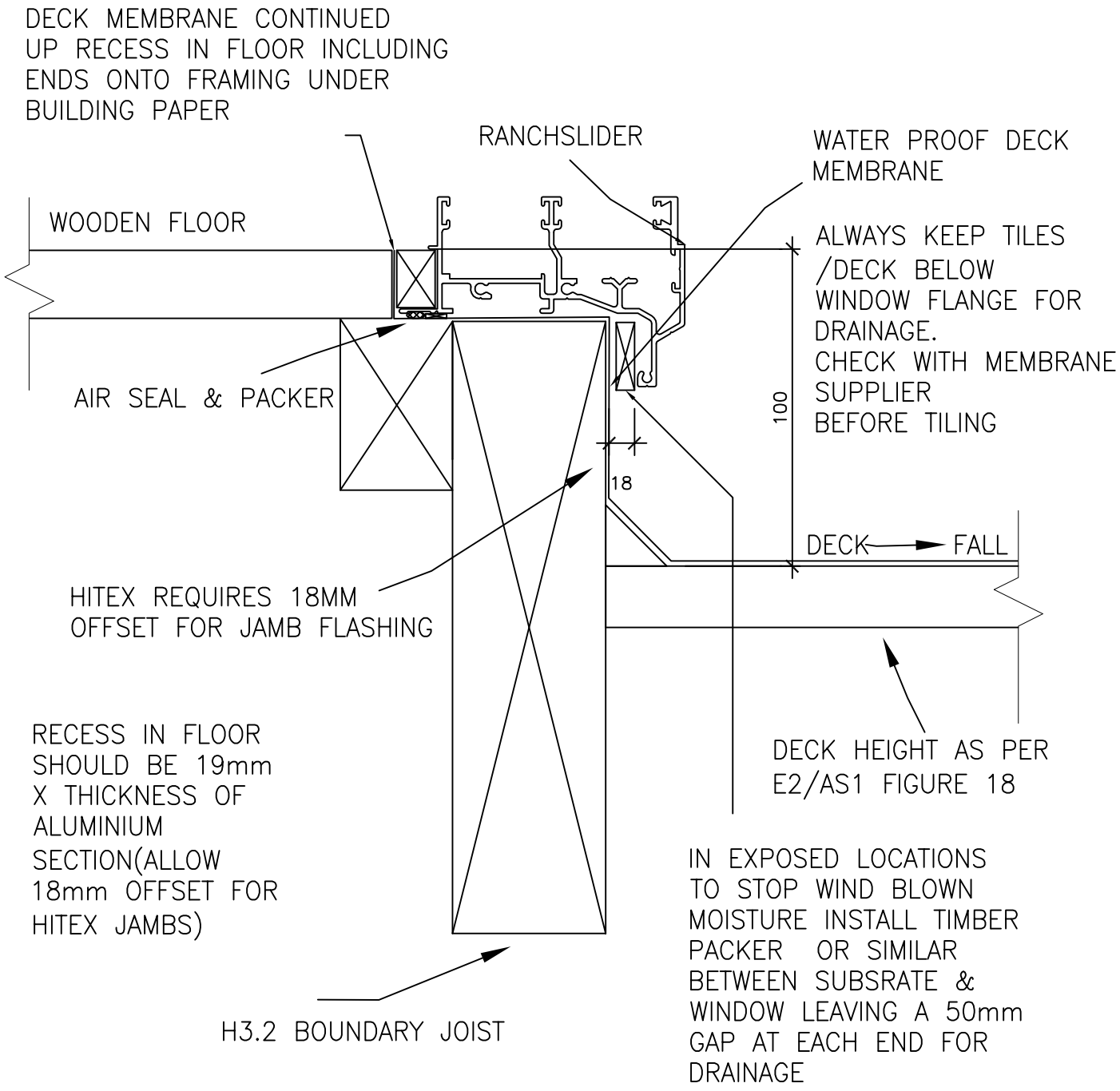
HITEX 50mm DIAMOND CAVITY OVER BREATHABLE BUILDING PAPER OVER H1.2 TREATED TIMBER STRICTLY TO MANUFACTURERS SPECIFICATION

BUILDING SYSTEMS LIMITED

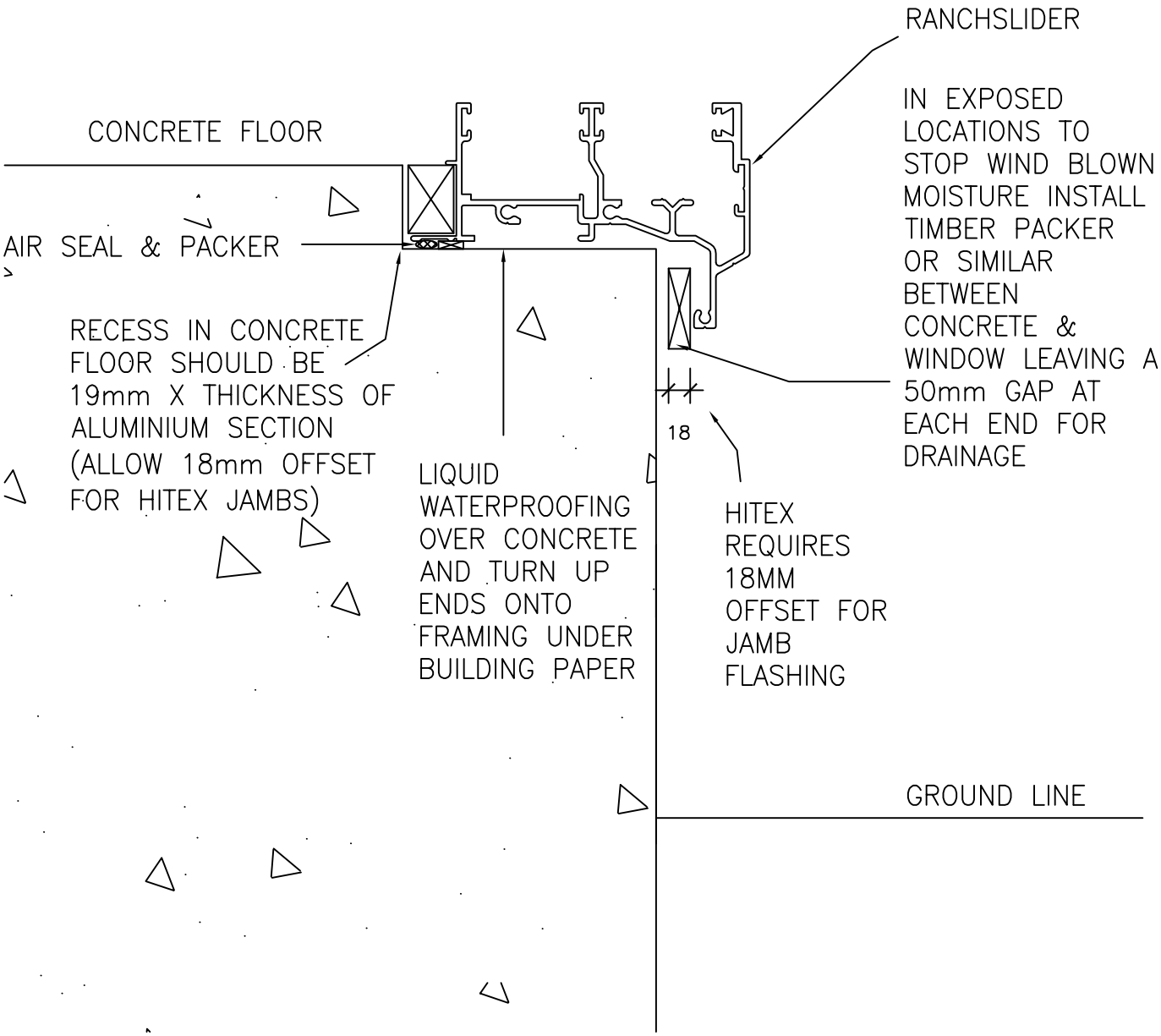
HITEX-DC50 UNDERSILL TRAY ASSEMBLY

Ver 1.2 Scale1:10

DC50-WI-02



AS PER FIGURE 17A–E2/AS1

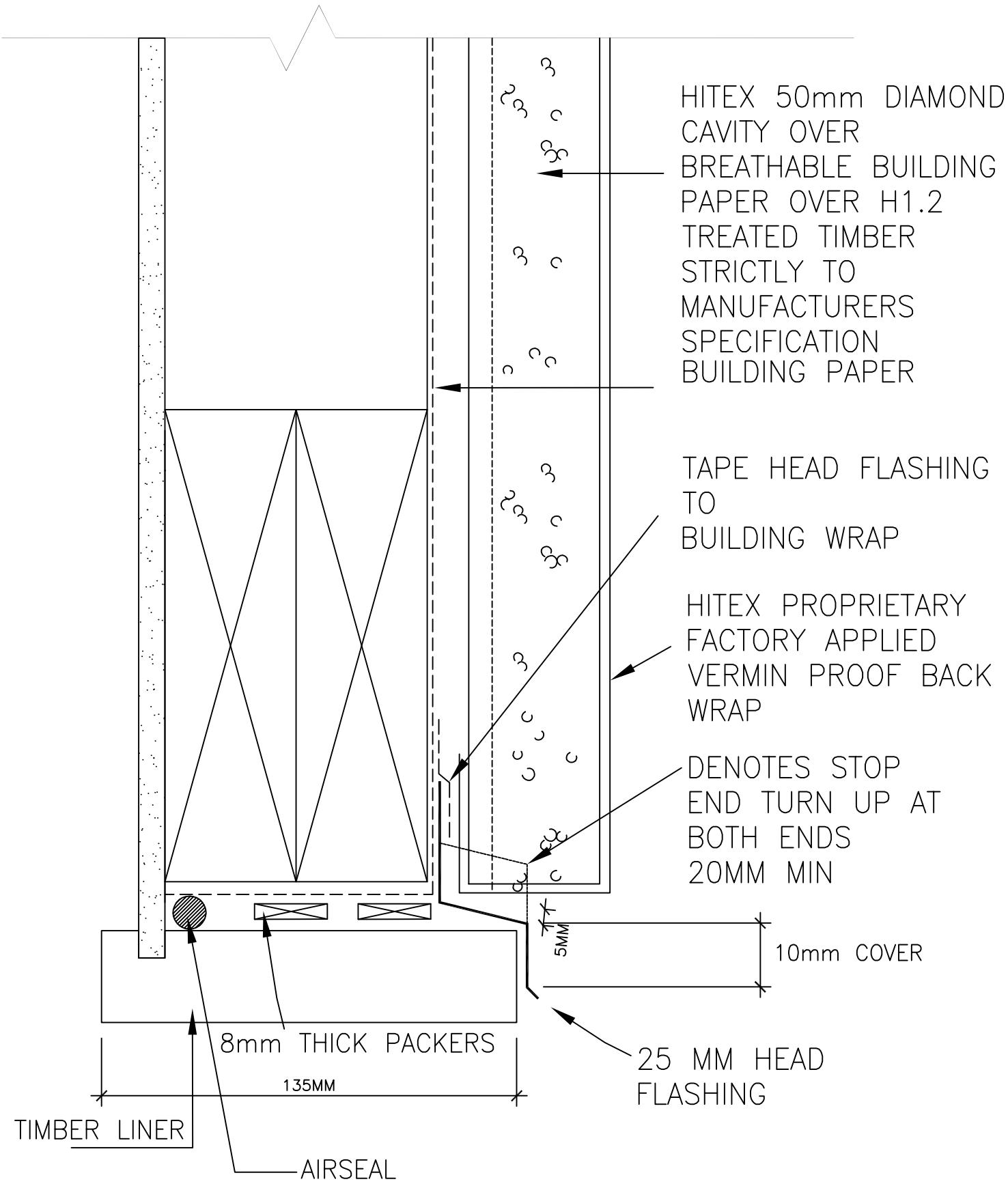


BUILDING SYSTEMS LIMITED

HITEX-DC50 DOOR OPENING.CONC FLOOR

Ver 1.2 Scale 1:2

DC50-D0-02

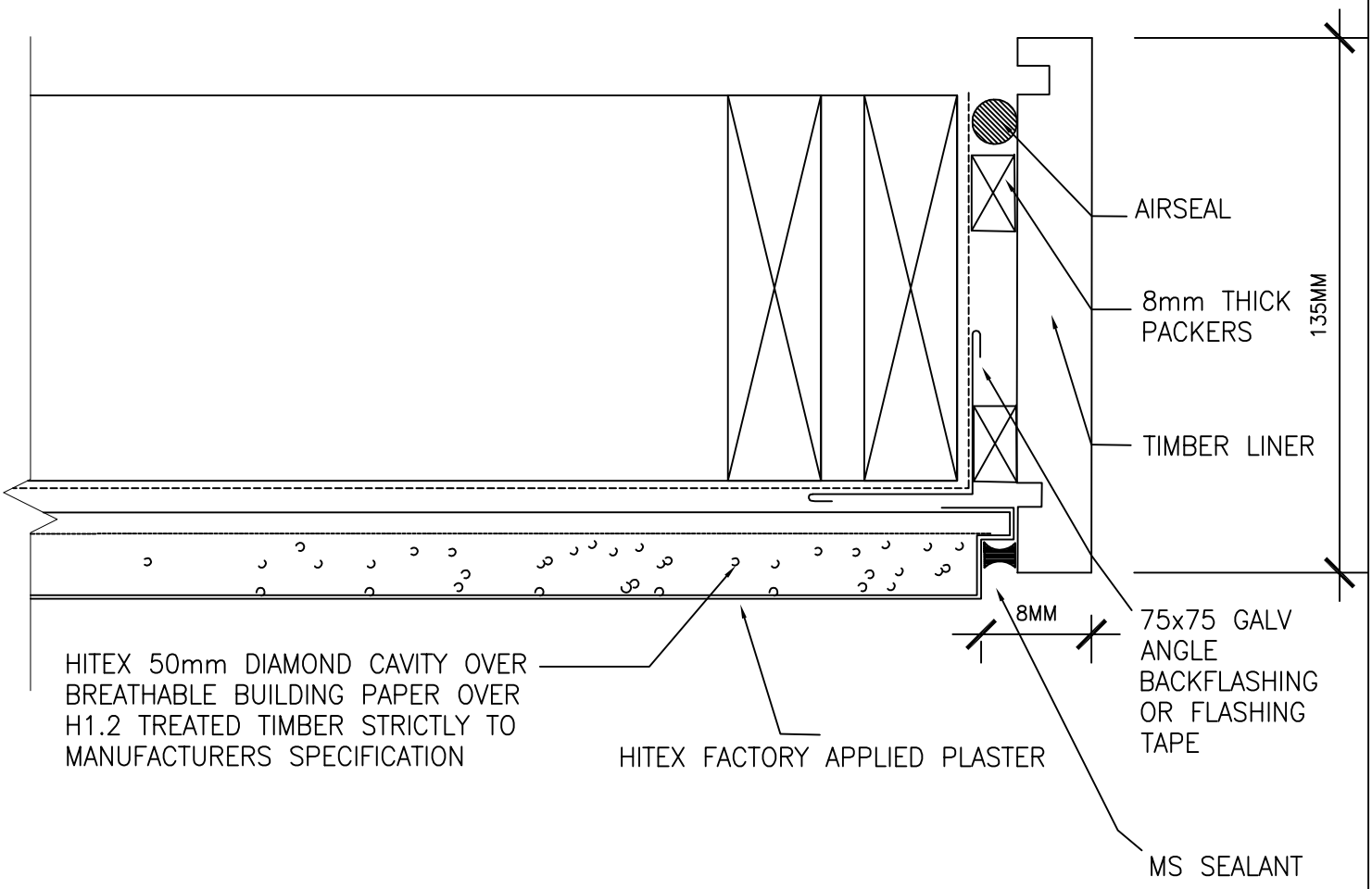


BUILDING SYSTEMS LIMITED

HITEX-DC50 GARAGE HEAD

Ver 1.2 Scale 1:2

DC50-DO-03

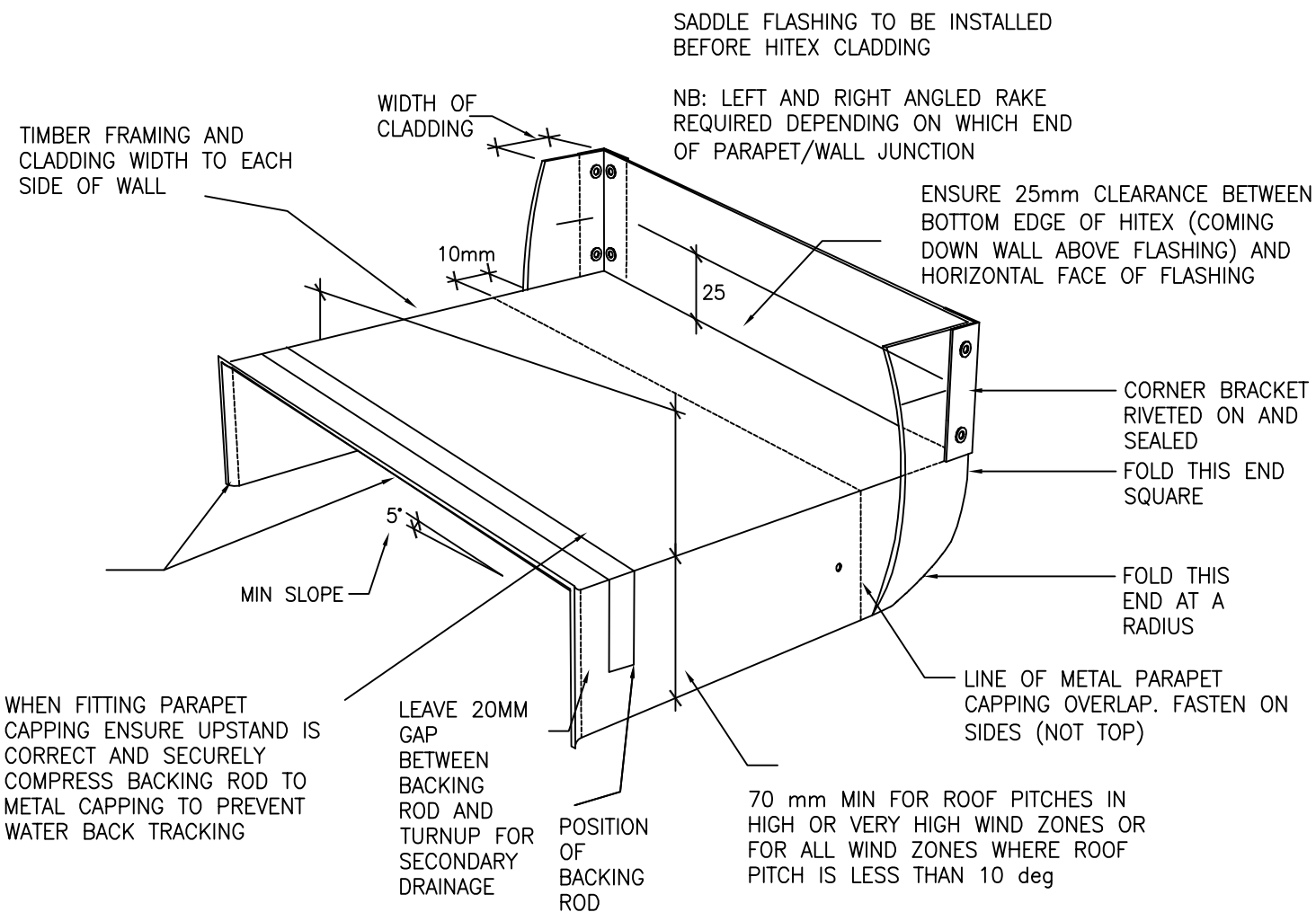


BUILDING SYSTEMS LIMITED

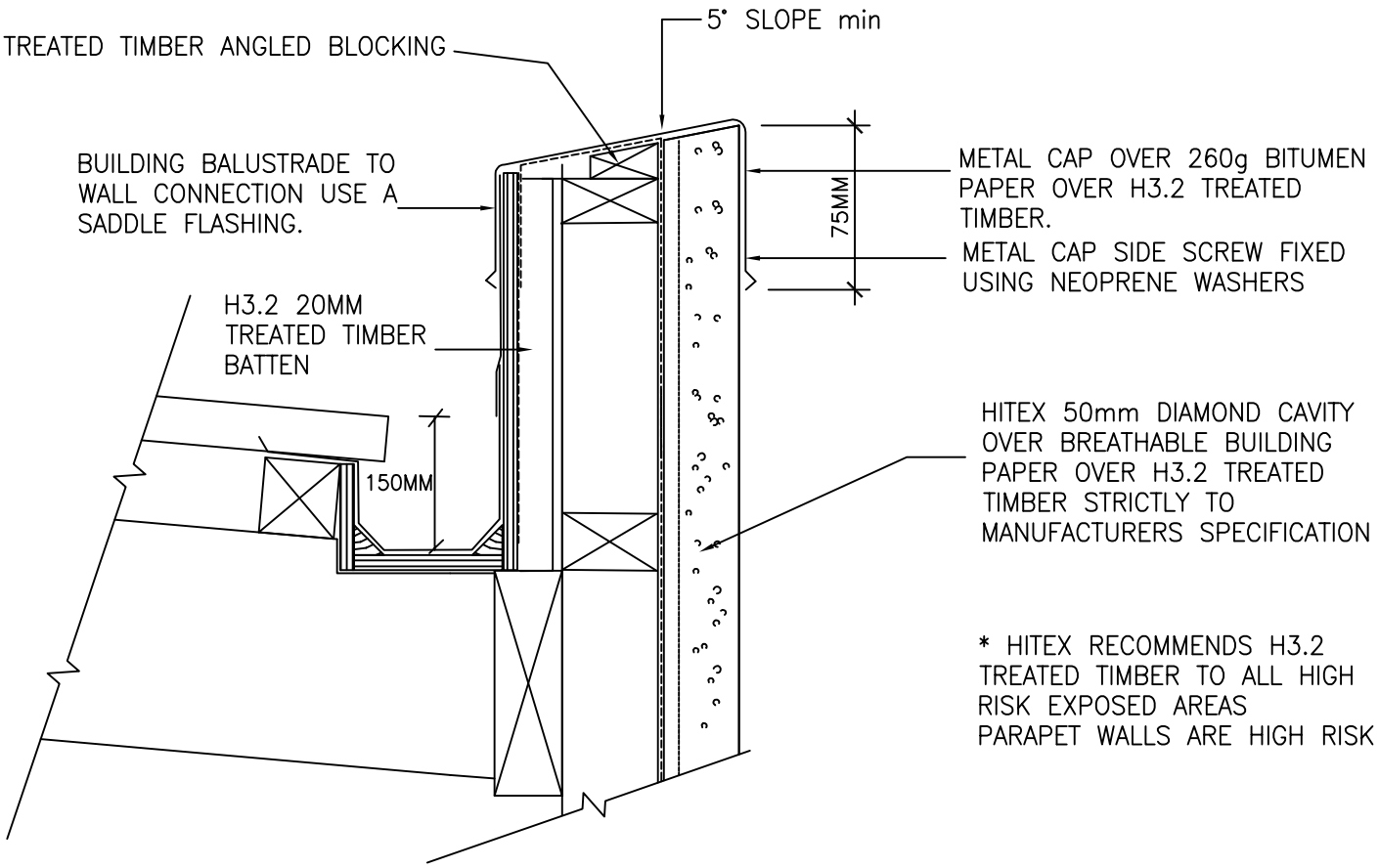
HITEX-DC50 GARAGE JAMB

Ver 1.2 Scale 1:5

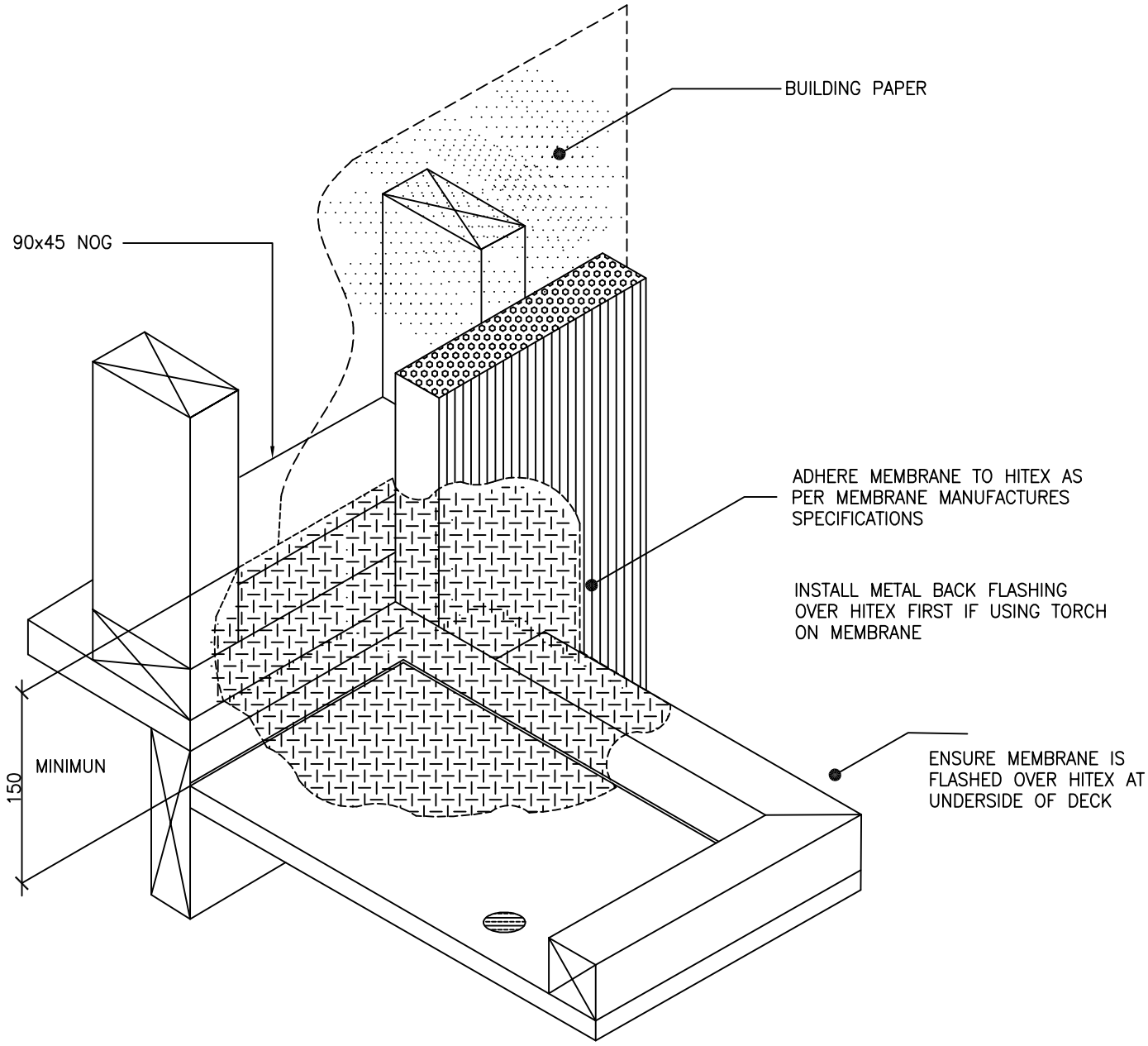
DC50-DO-04



METAL PARAPET CAPPING END TERMINATION TO WALLS. THIS IS A HITEX PREFERED OPTION. ALL PARAPETS MUST HAVE AN EARLY WARNING MOISTURE DETCTION SYSTEM INSTALLED



* EARLY WARNING DECTECTION SYSTEMS(EWDS) TO BE INSTALLED IN PARAPET LOCATIONS

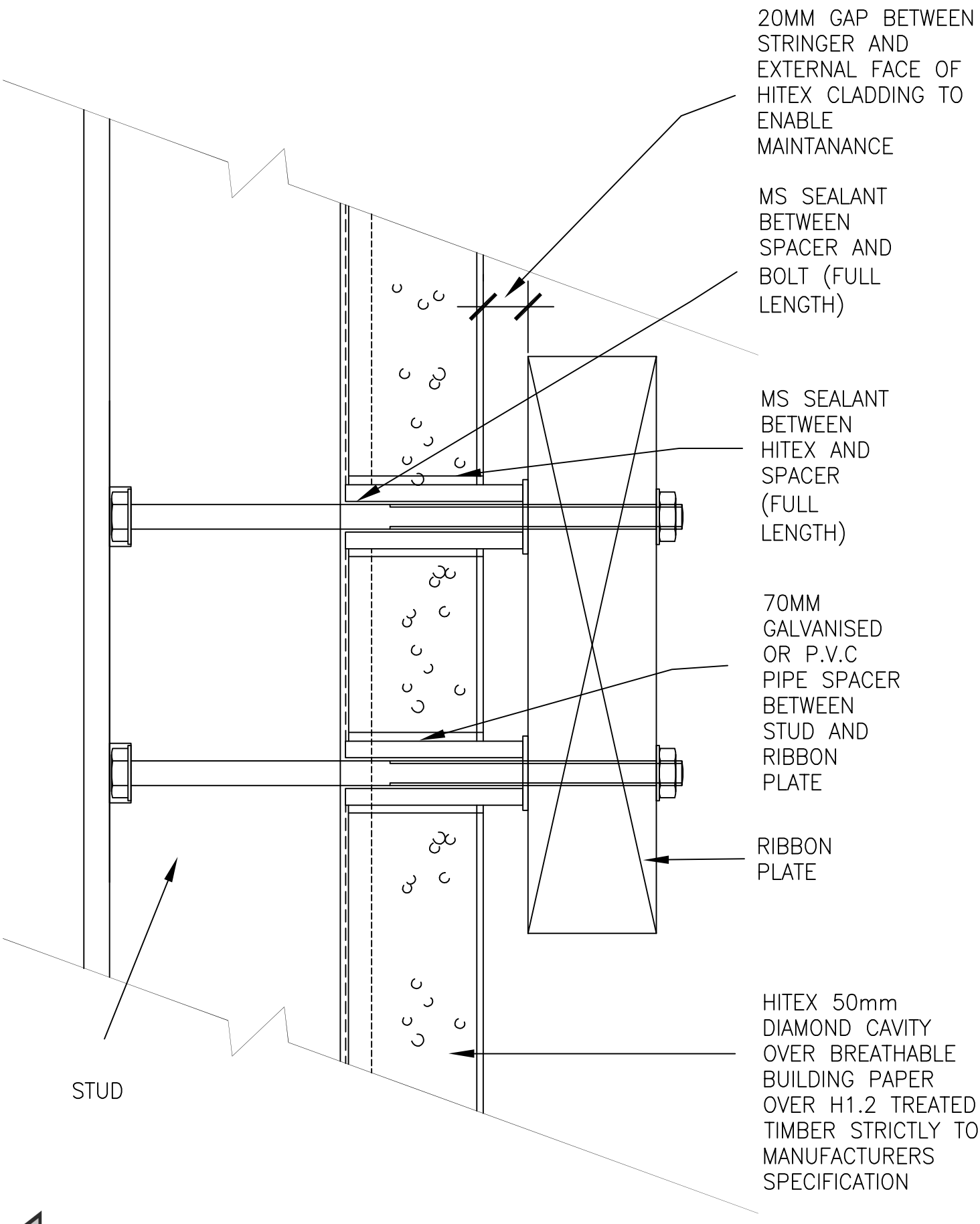


BUILDING SYSTEMS LIMITED

HITEX-DC50 DECK STOP END

Ver 1.2 Scale 1:2

DC50-DE-01

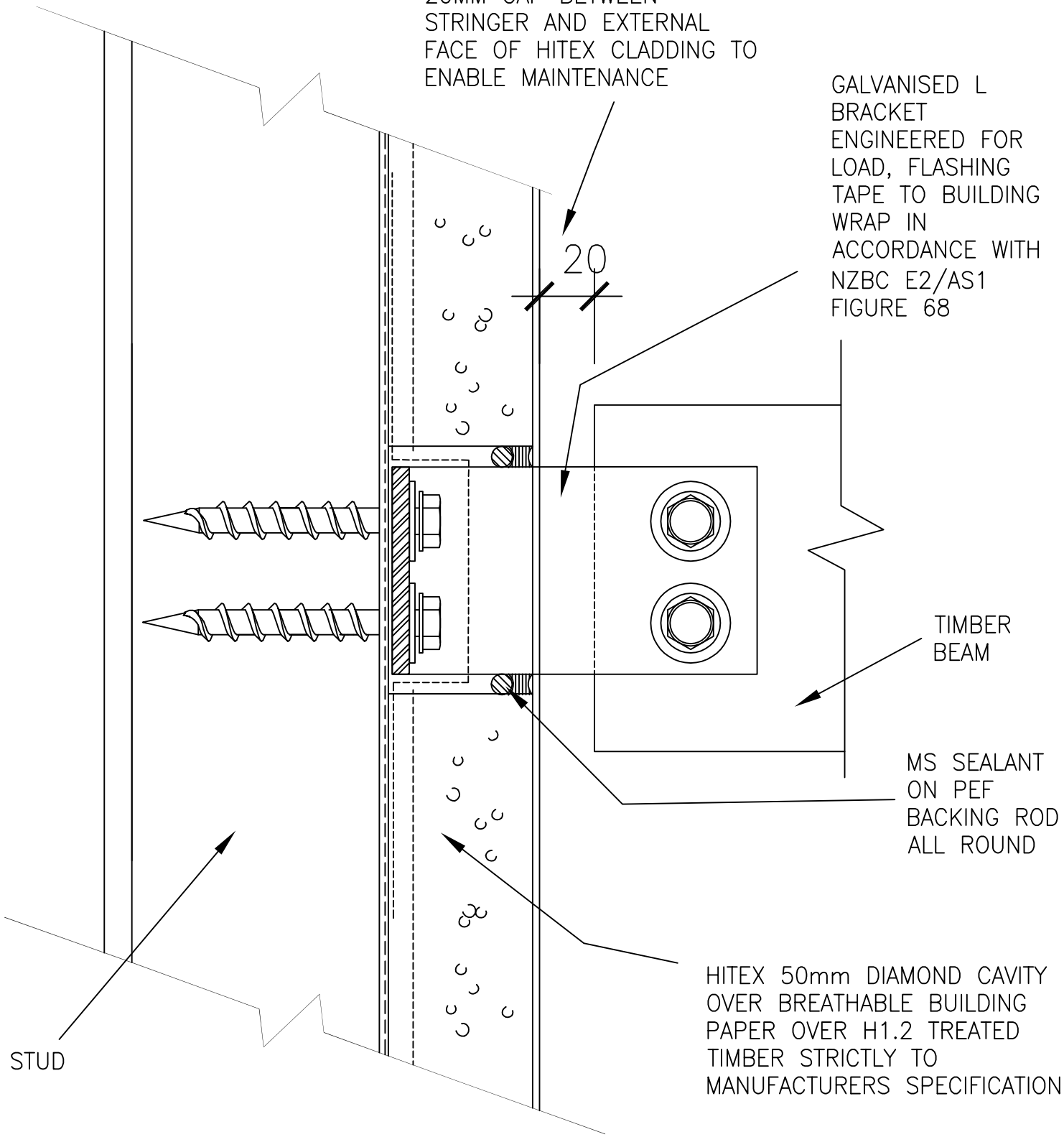


BUILDING SYSTEMS LIMITED

HITEX-DC50 PERGOLA MOUNTING PLATE

Ver 1.2 Scale 1:2

DC50-FA-03

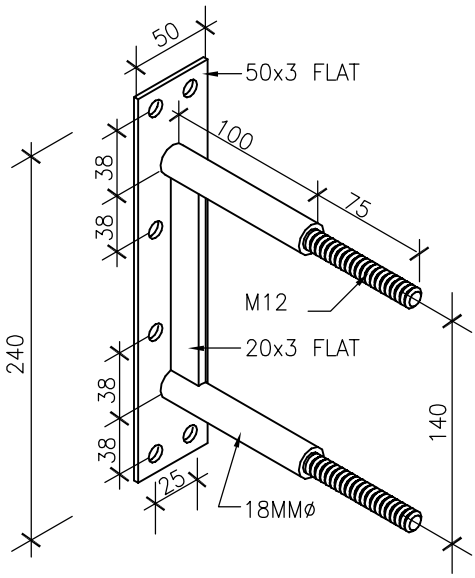


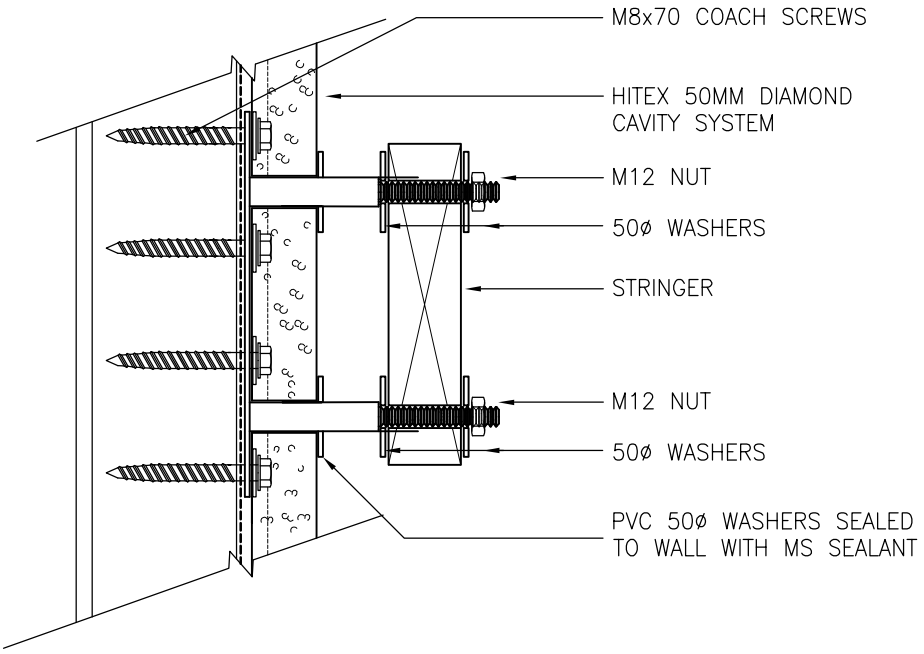
BUILDING SYSTEMS LIMITED

PERGOLA HITEX-DC50 MOUNTING PLATE/ ALT

Ver 1.2 Scale 1:2

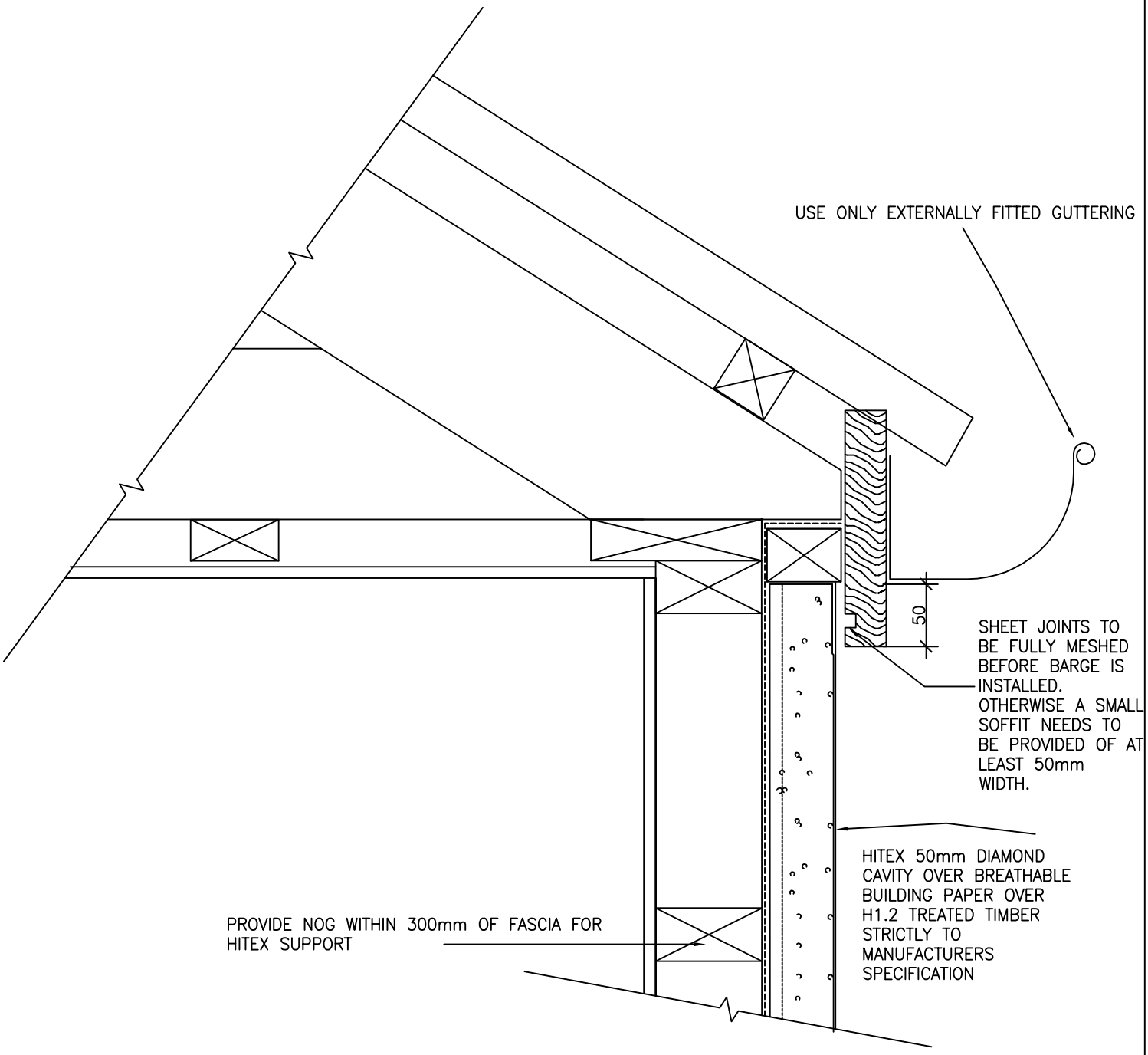
DC50-FA-04





HOT DIPPED GALVANISED
HITEX-DC50 STRINGER HANGER BRACKET

HITEX DC50–FA–05 ver 1.0

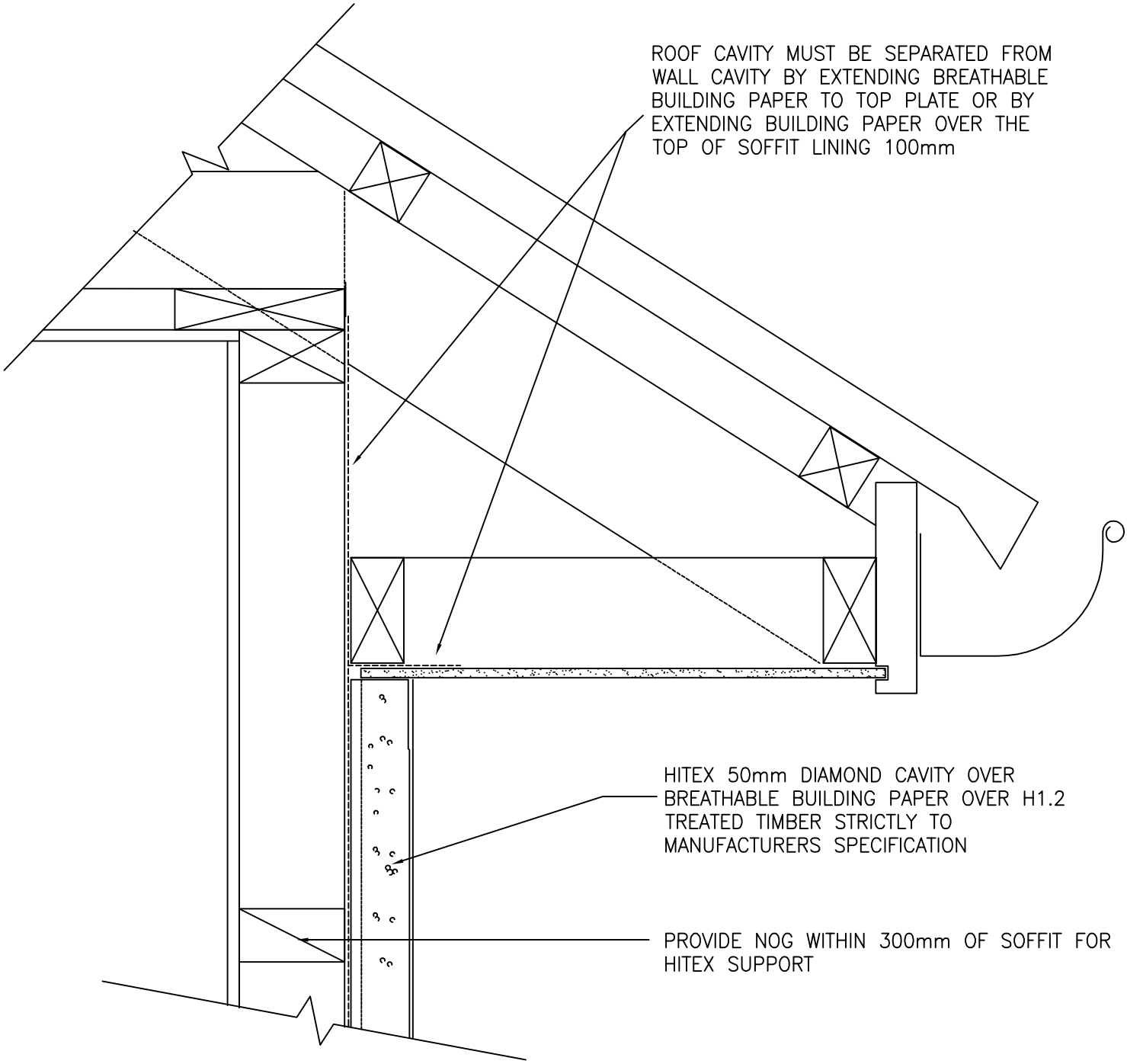


BUILDING SYSTEMS LIMITED

HITEX -DC50 NO EAVES DETAIL

Ver 1.2 Scale 1:5

DC50-WA-12

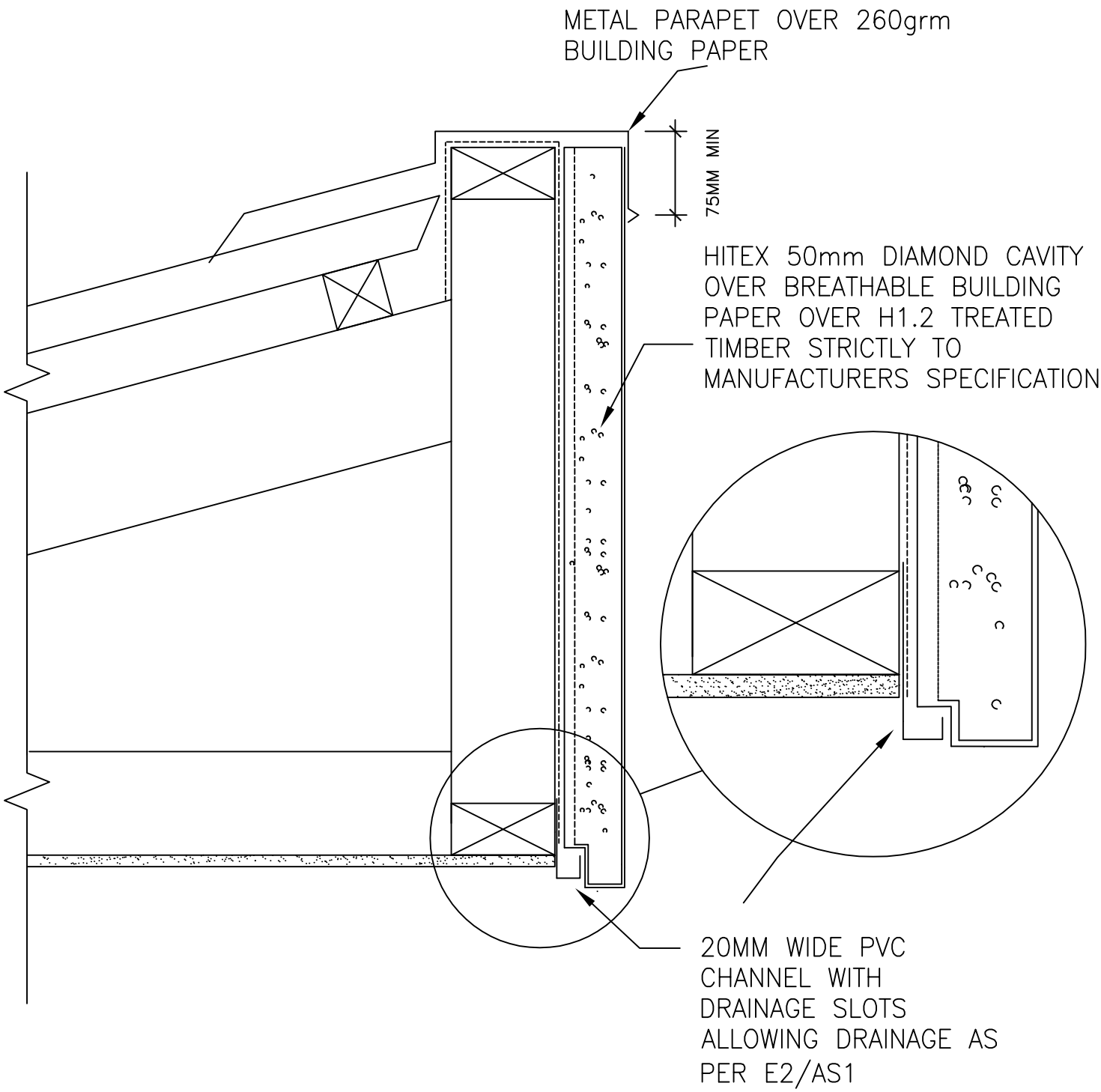


BUILDING SYSTEMS LIMITED

HITEX-DC50 EAVES/SOFFIT

Ver 1.2 Scale 1:5

DC50-WA-13

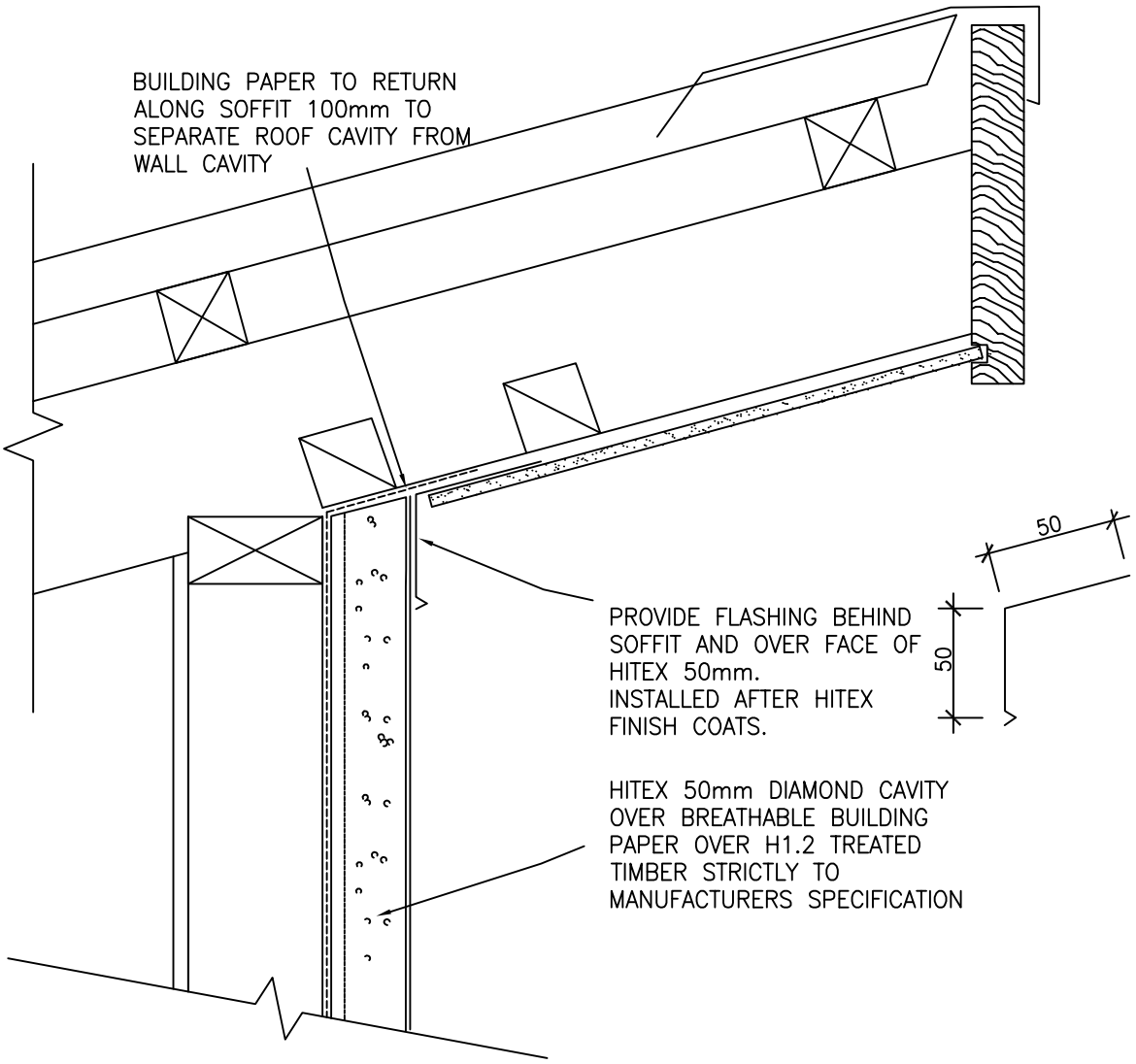


BUILDING SYSTEMS LIMITED

HITEX-DC50 SOFFIT WITH DRIP EDGE

Ver1.2 Scale 1:5

DC50-WA-14



BUILDING SYSTEMS LIMITED

HITEX-DC50 NEGATIVE SLOPING SOFFIT

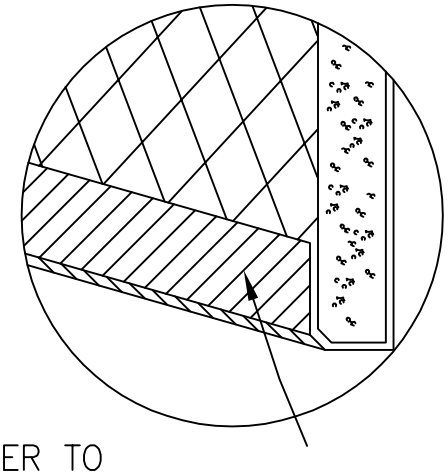
Ver 1.2 Scale 1:5

DC50-WA-15

PROVIDE NAILING WITHIN 80MM OF HITEX BASELINE OVER ALL ROOFS

HITEX 50mm DIAMOND CAVITY OVER BREATHABLE BUILDING PAPER OVER H1.2 TREATED TIMBER STRICTLY TO MANUFACTURERS SPECIFICATION

TAPE APRON FLASHING TO BUILDING PAPER



75 mm MIN LAP

MINIMUM CLEARANCE 35mm. REFER TO FIGURE 48 E2/AS1

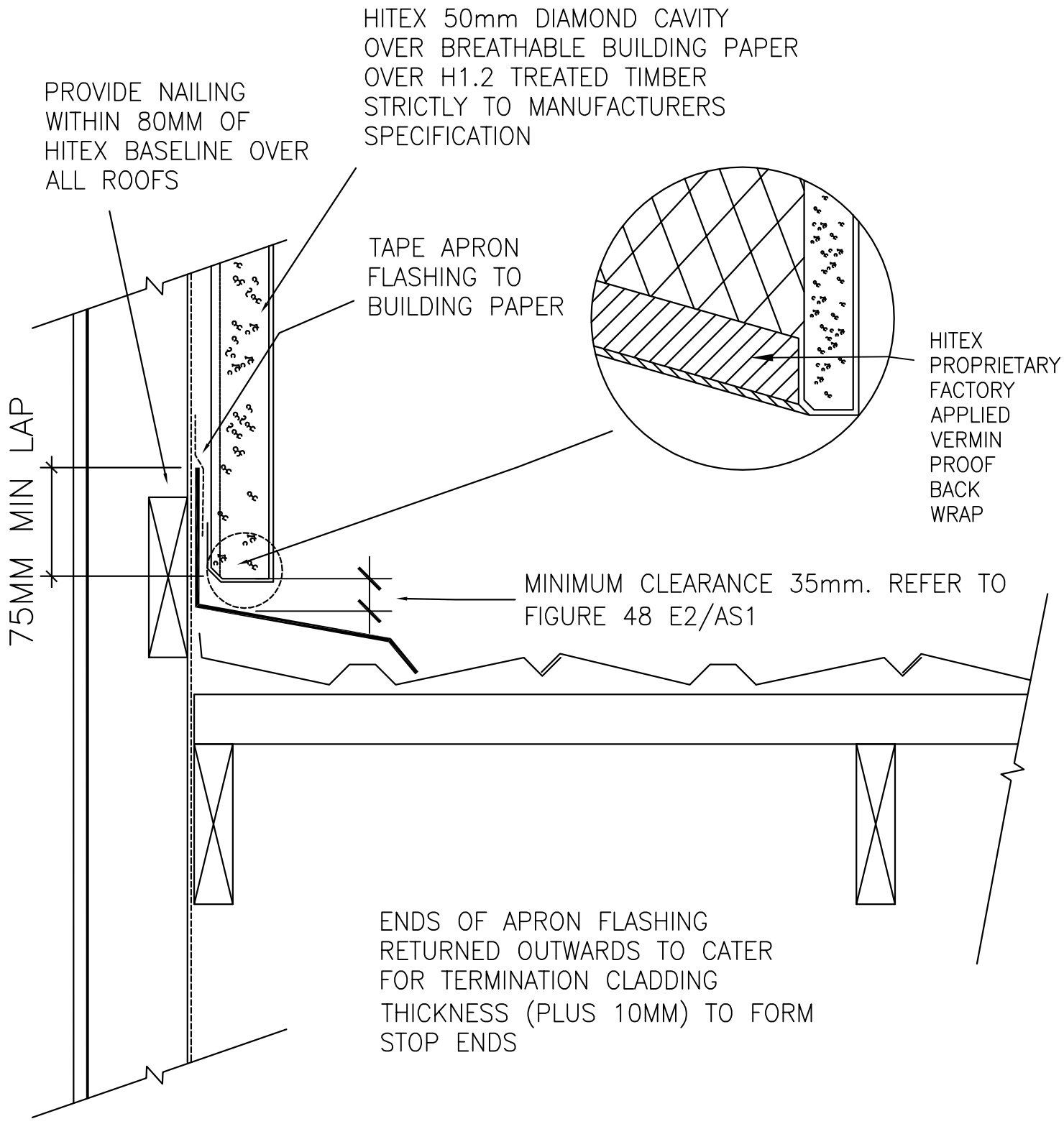
HITEX PROPRIETARY FACTORY APPLIED VERMIN PROOF BACK WRAP

BUILDING SYSTEMS LIMITED

HITEX-DC50 ROOF FLASHING

Ver 1.2 Scale 1:5

DC50-RO-01

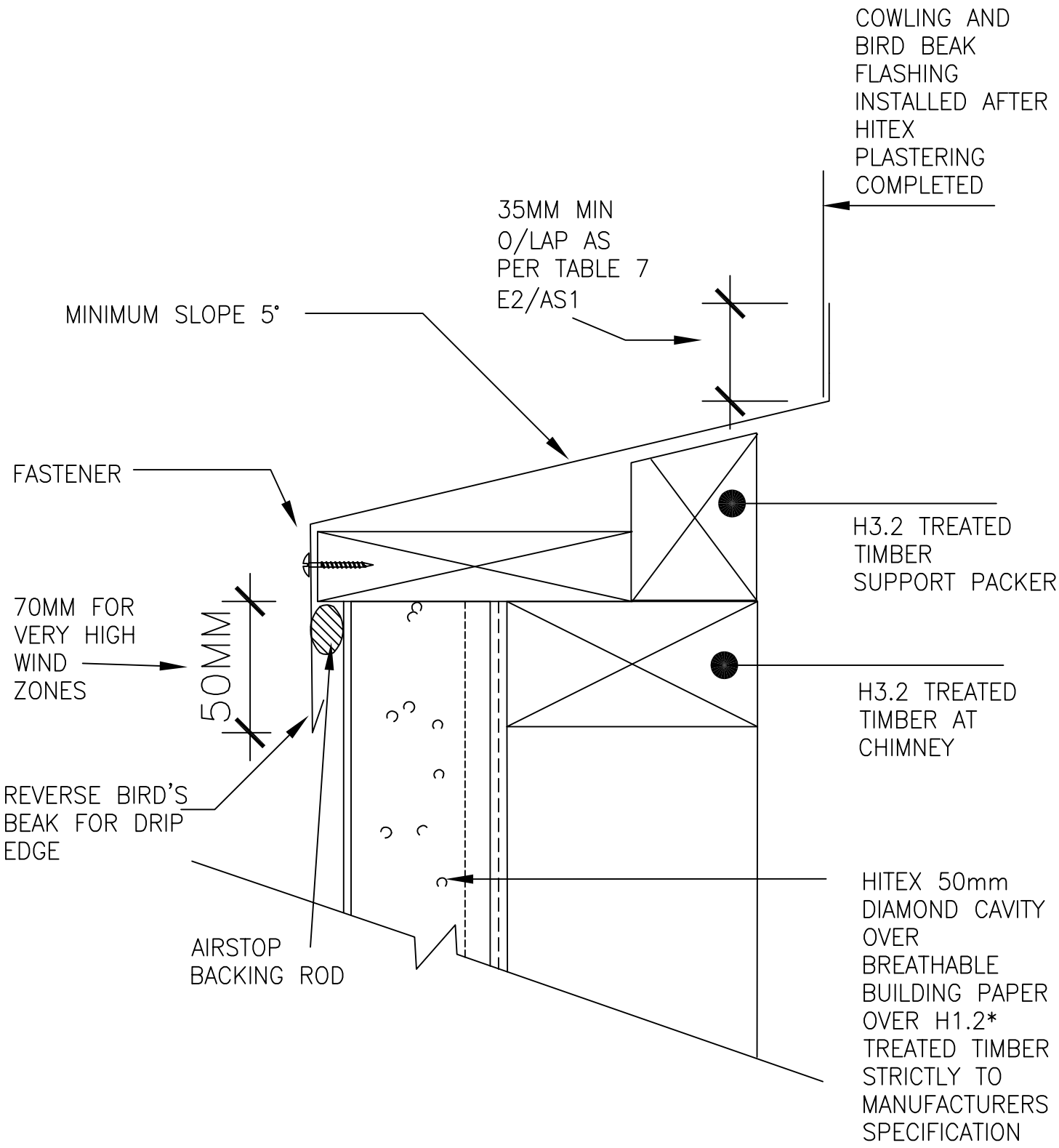


BUILDING SYSTEMS LIMITED

HITEX-DC50 APRON FLASHING

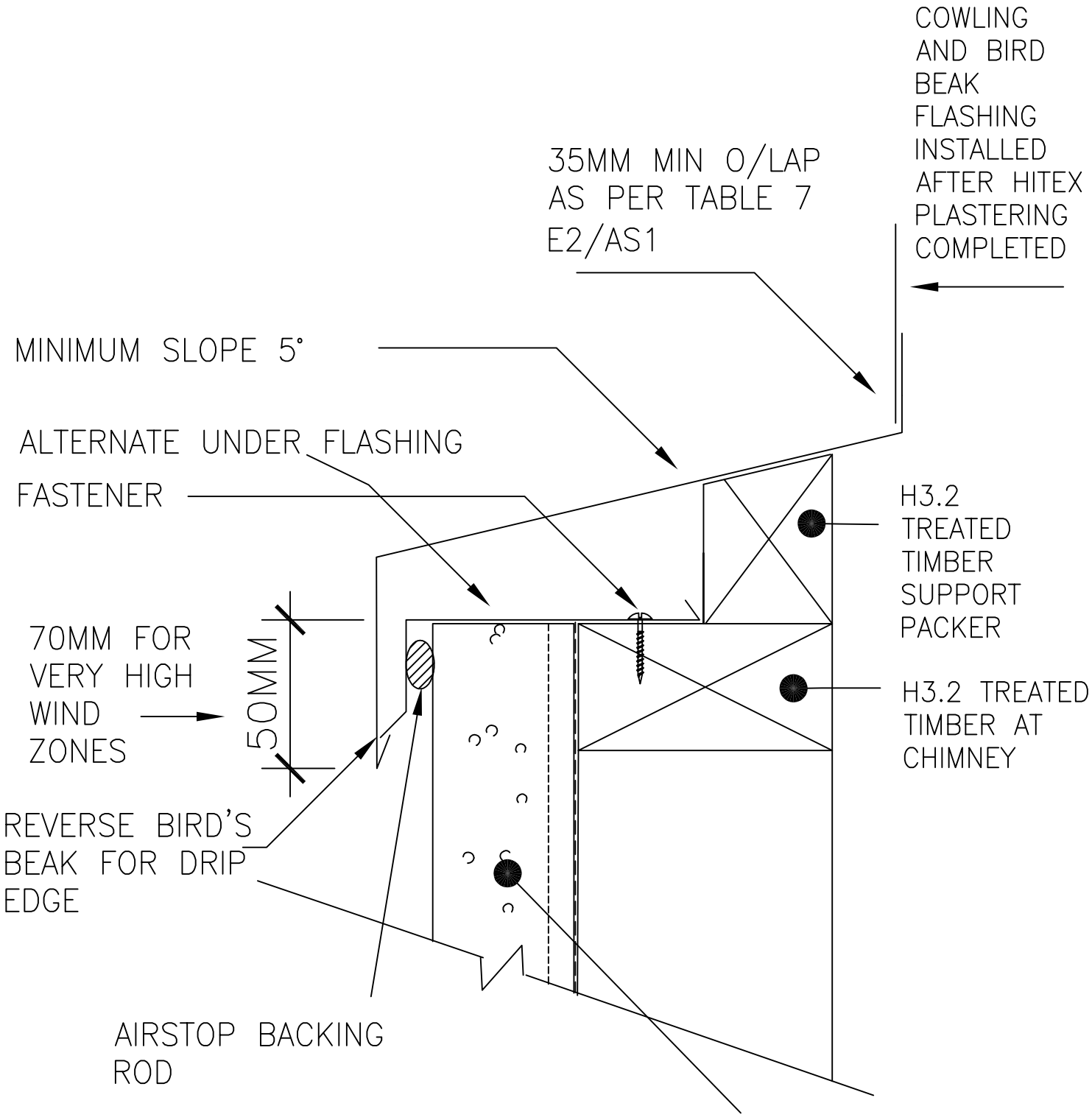
Ver 1.2 Scale 1:5

DC50-RO-02



* HITEX RECOMMENDS H3.2 TREATED TIMBER TO ALL HIGH RISK EXPOSED AREAS

* CHIMNEYS ARE HIGH RISK



* HITEX RECOMMENDS H3.2 TREATED TIMBER TO ALL HIGH RISK EXPOSED AREAS

* CHIMNEYS ARE HIGH RISK

HITEX 50mm DIAMOND CAVITY OVER BREATHABLE BUILDING PAPER OVER H1.2* TREATED TIMBER STRICTLY TO MANUFACTURERS SPECIFICATION

BUILDING SYSTEMS LIMITED

HITEX-DC50 CHIMNEY CAP DETAIL/ALTERNATE

Ver 1.2 Scale 1:2

DC50-PA-05