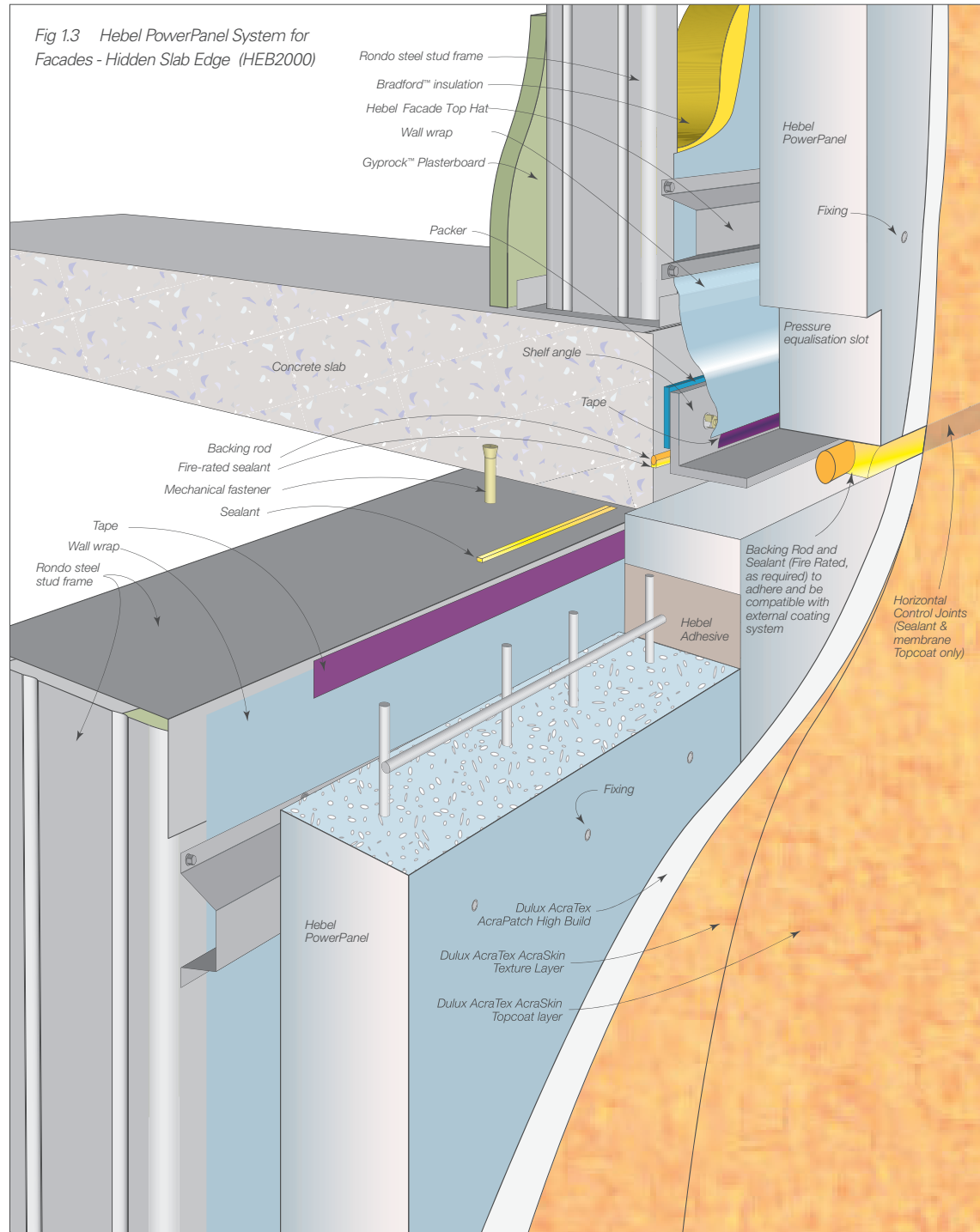


## Hebel PowerPanel System for Facades - Hidden Slab Edge

This is an alternative system to edge beam detailing where the panels are positioned in front of the slab edge. Locating the panels proud of the slab edge produces a single rebated external line at slab level, and provides a more flexible slab edge tolerance.



**IMPORTANT NOTE:** Always refer to current details available in the AutoCAD and pdf versions on the website:  
[www.hebel.com.au](http://www.hebel.com.au)

## 2.3 Design for weather tightness

The primary goal in facade design is the provision of a building solution that manages the environmental conditions that the facade is subjected to during its design life. Of the various environmental conditions, the prevention of water ingress is critical.

The Hebel PowerPanel System for Facades is a high quality rain screen, and adopts the concept of pressure equalisation to provide a system that eliminates water being drawn through the rain screen due to a pressure differential.

When wind pressures act on the external surface of the facade, a pressure difference is generated between the external side and cavity space side of the Hebel PowerPanel cladding. The combination of a pressure differential;

a penetration in the external coating and sealing system; and water, can result in water being drawn through the penetration and into the cavity.

The principal of pressure equalisation is, where wind pressure acting on the external surface of the facade can gain access to the cavity side, thus allowing the pressures on both sides of the cladding to become similar.

The elimination of a pressure differential significantly reduces the process of water being drawn through a penetration in the external coating/sealing system and cladding.

Additionally, the slots provided for pressure equalisation allow for drainage of water from the cavity if ingress occurs.

A compulsory part of the Hebel PowerPanel System for Facades is the wall wrap, which is installed on the external side of the stud frame to seal the cavity space.

Fig 2.5 Hidden Slab Edge Detail (HEB2000)

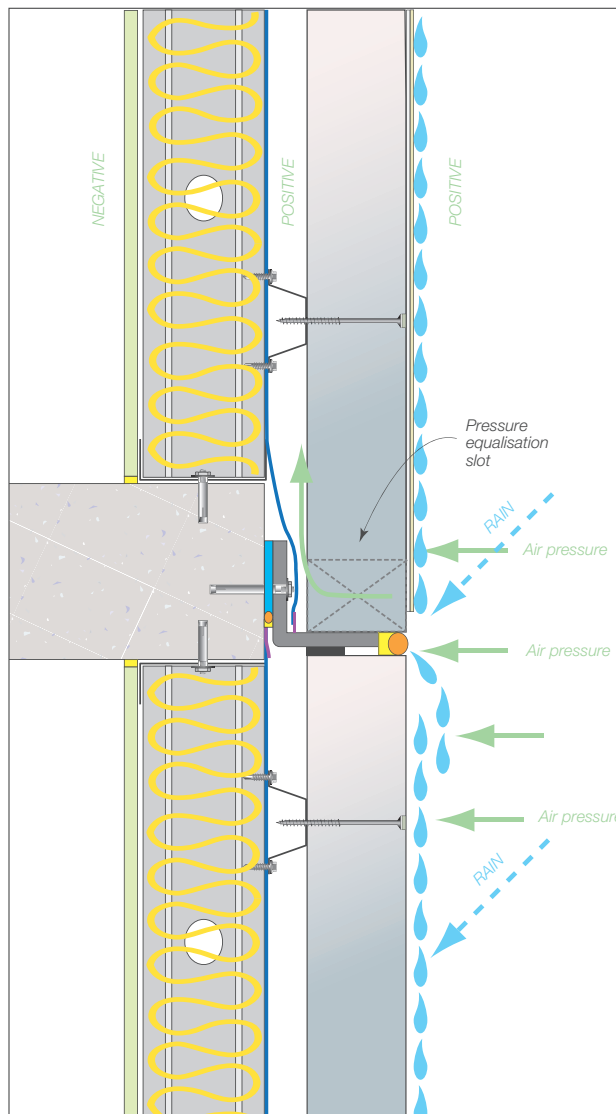
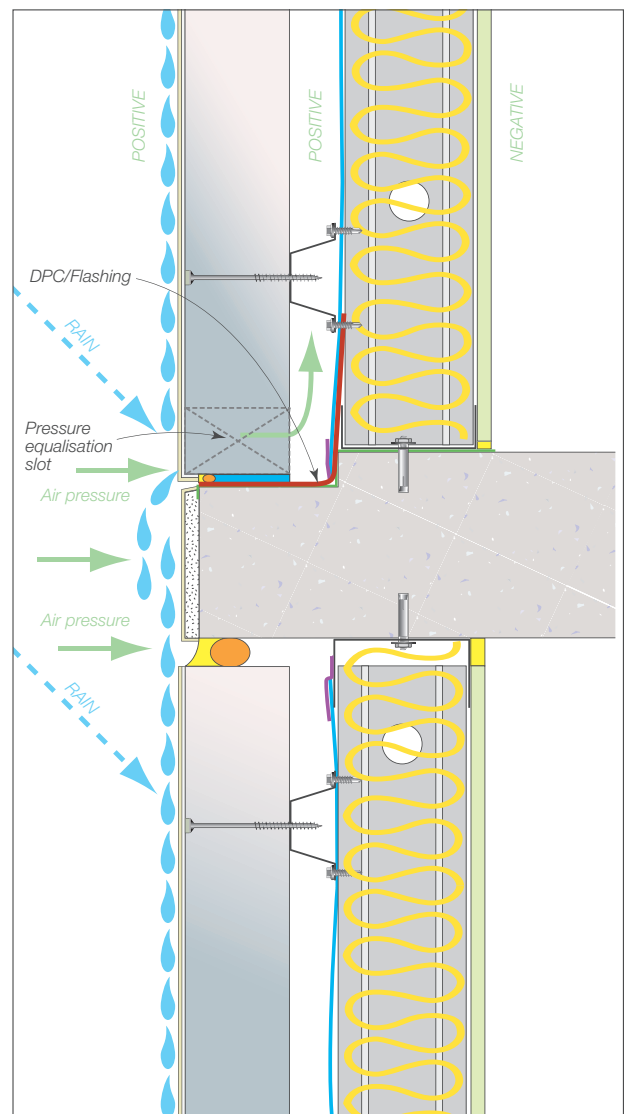


Fig 2.6 Exposed Slab Edge Detail (HEB2001)



### 3.3 Construction details and drawings – General

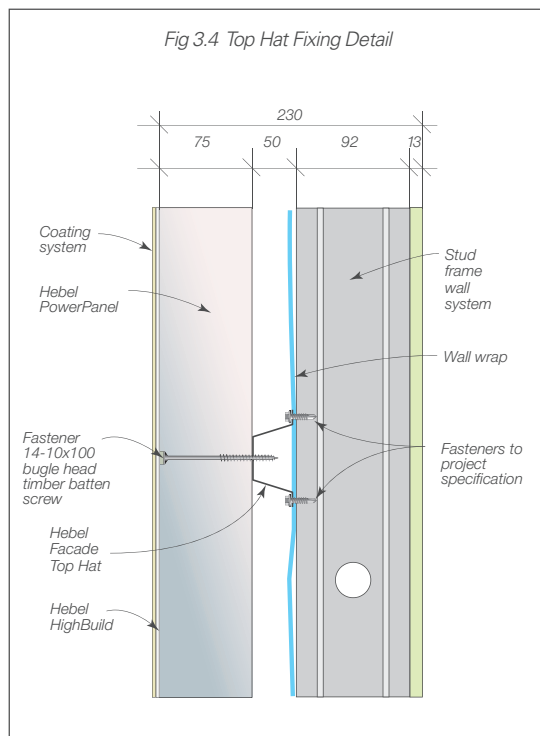
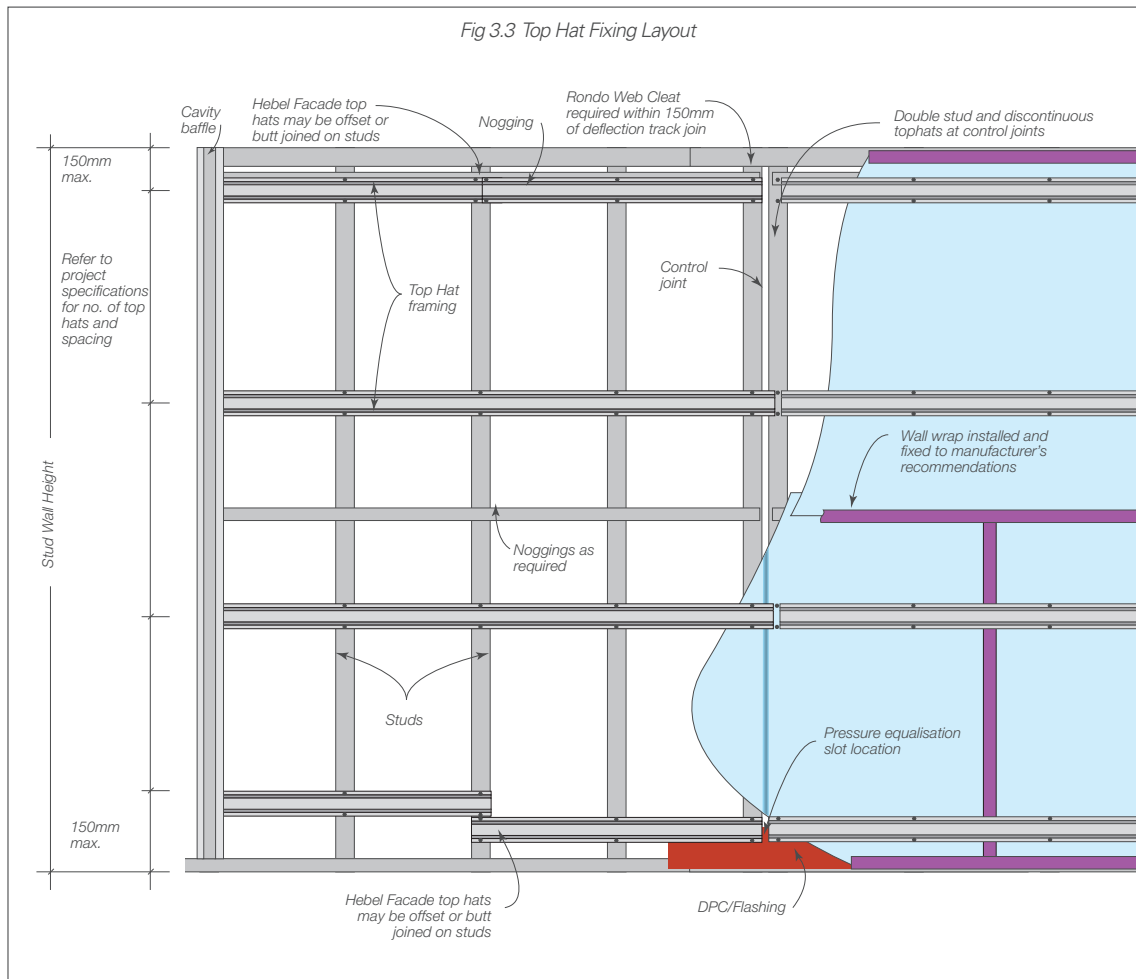


Fig 3.5 Hebel PowerPanel Fixing Detail (Visible Edge Beam shown)

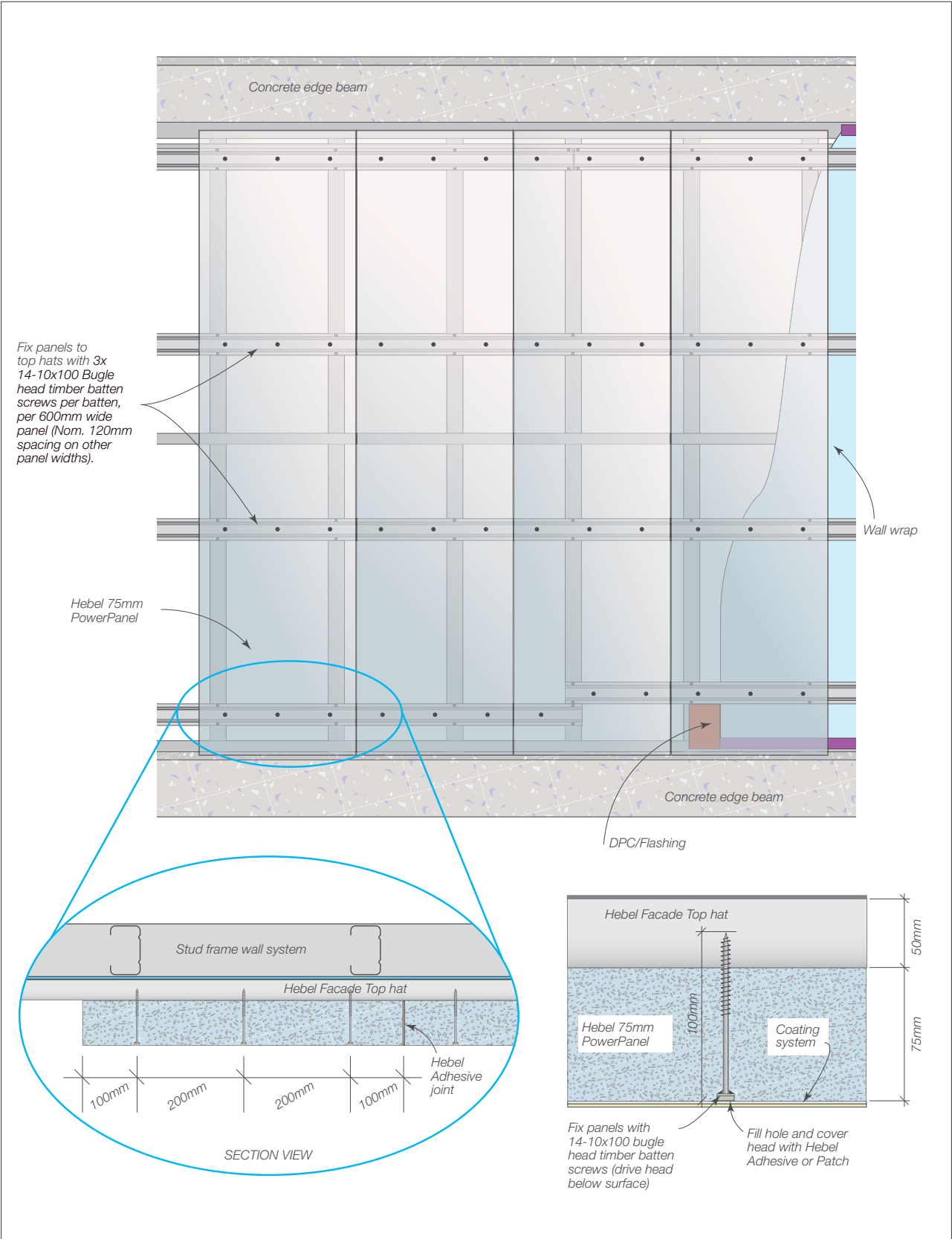


Fig 3.6 Window Opening Detail (Visible Edge Beam shown)

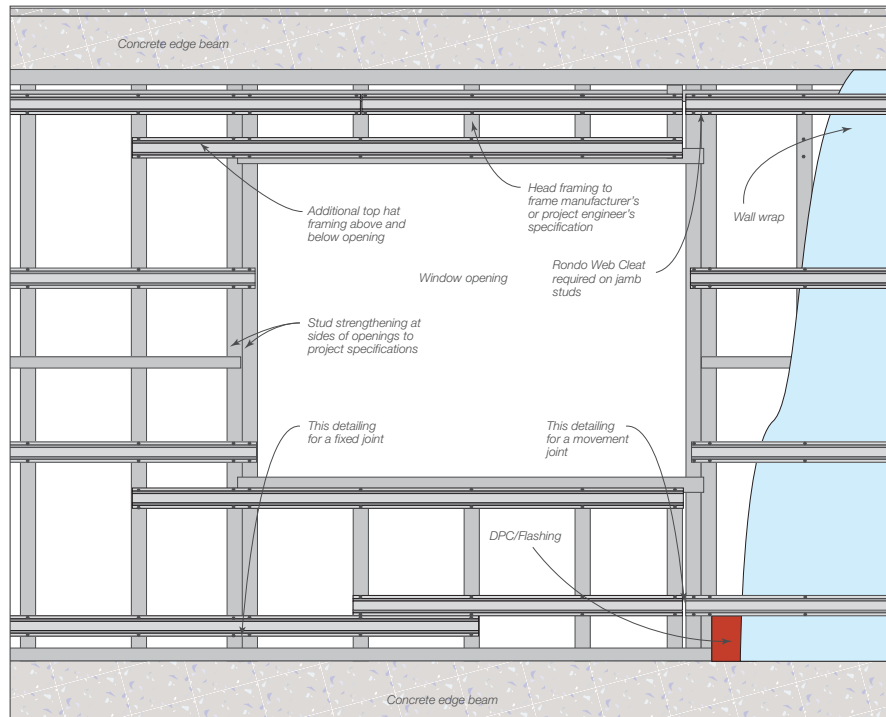
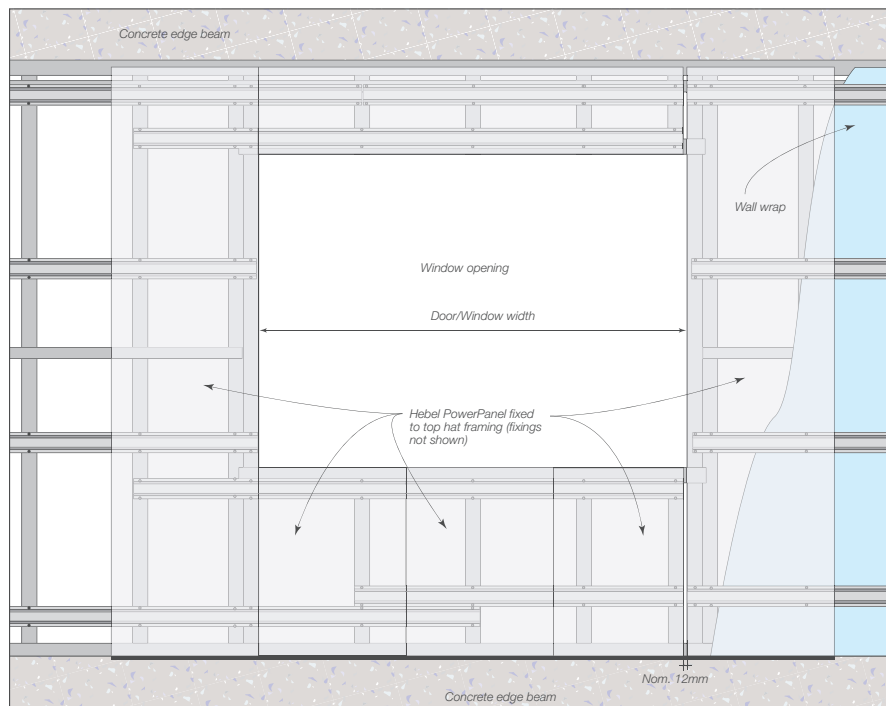


Fig 3.7 Window Opening Detail (Visible Edge Beam shown)



NOTE: For major openings in the Hebel PowerPanel System for Facades, CSR Hebel recommends locating movement joints adjacent to the opening.

Control joints at door/window openings:

- Door/windows width  $\leq 2400\text{mm}$  – a control joint is to be provided to one side of the opening (minimum must be provided)
- Door/windows width  $> 2400\text{mm}$  – control joints to both sides of the opening must be provided

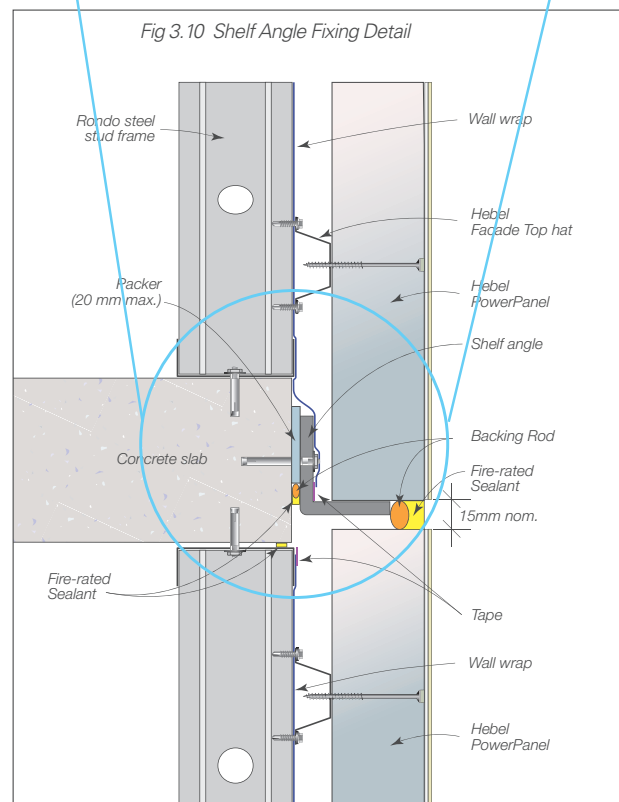
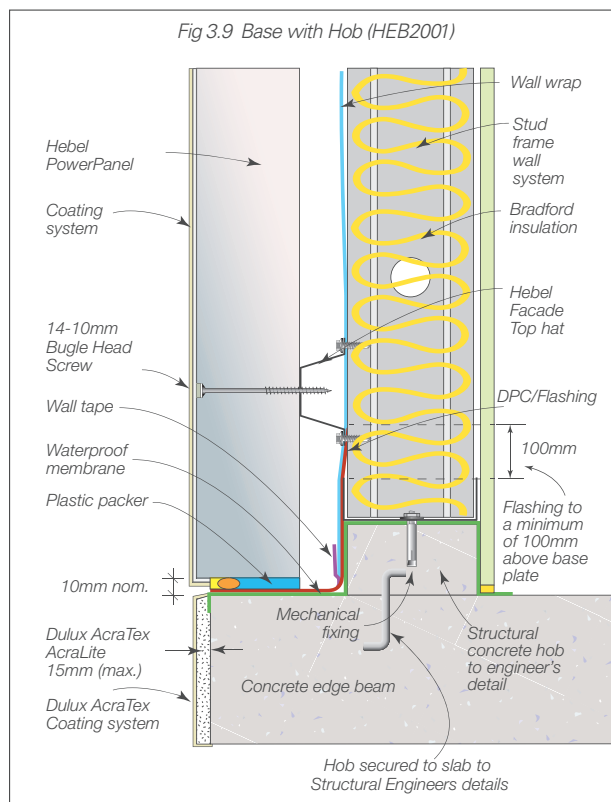
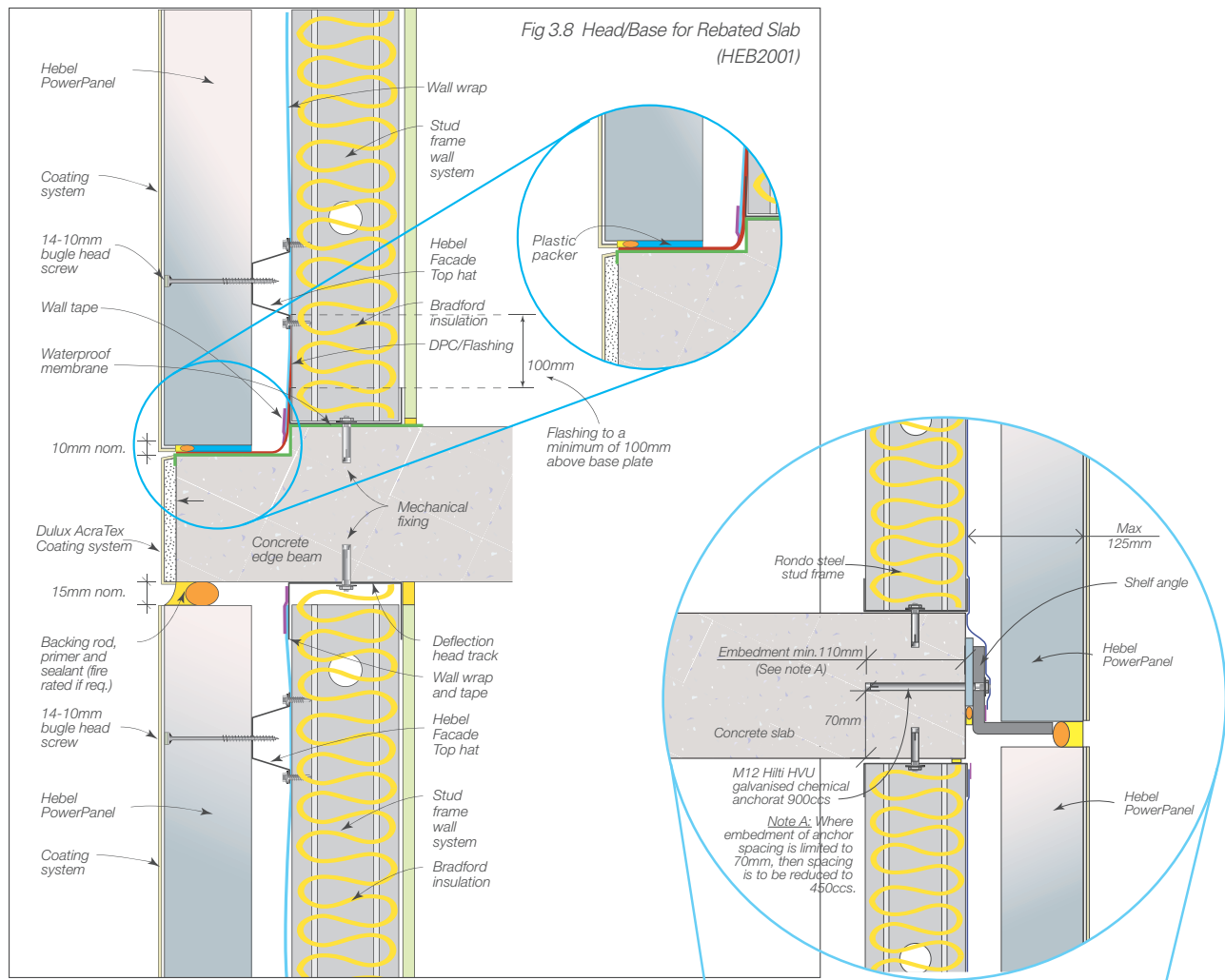


Fig 3.11 Control Joint

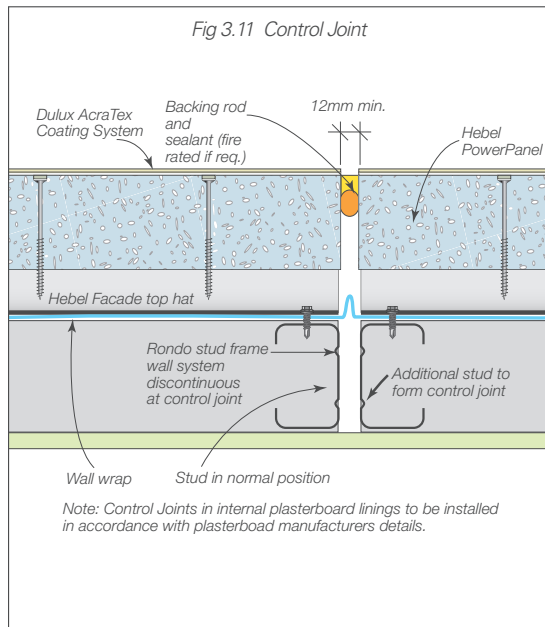


Fig 3.12 Junction with Concrete Column

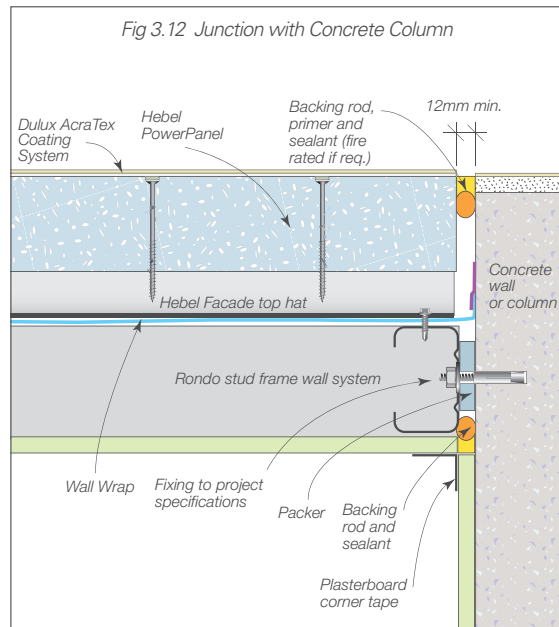


Fig 3.13 External Corner

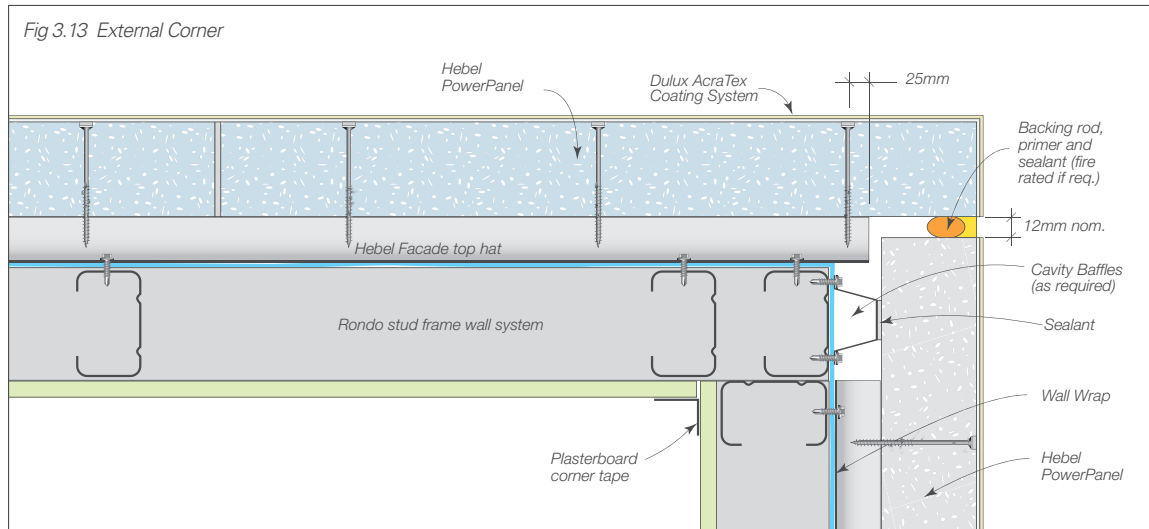
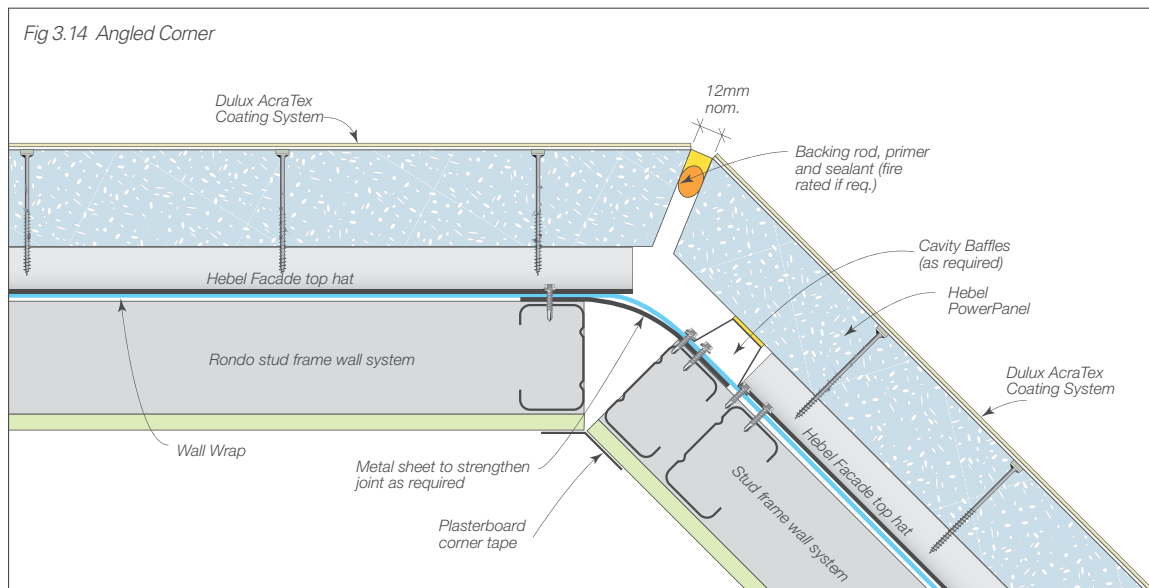


Fig 3.14 Angled Corner



## IMPORTANT NOTES:

- Window/door frames are not to vent into the wall cavity. Provide air seal as required.
- Weather bar and brace flashing are integral to performance and must always be provided as described.
- Perimeter of openings to provide air-seal to plasterboard. Cover/seal holes in studs, seal all corner joints and wrap wall wrap and flashing tape around inside to face of frame.
- Window frame connections are to be in accordance with the window frame manufacturer's specifications.
- Windows are to be structurally supported by the stud frame wall system. No loads are to be transferred to the Hebel PowerPanel cladding.
- Provide support to studs/deflection tracks using Rondo Web Cleat P/N SWC3 as required and as per Rondo Technical Bulletin 30.
- Sealant type and configuration are to be in accordance with the window frame manufacturer's specifications and compatible with the substrates (waterproofing membranes or other sealants). Always prime surfaces to be sealed.

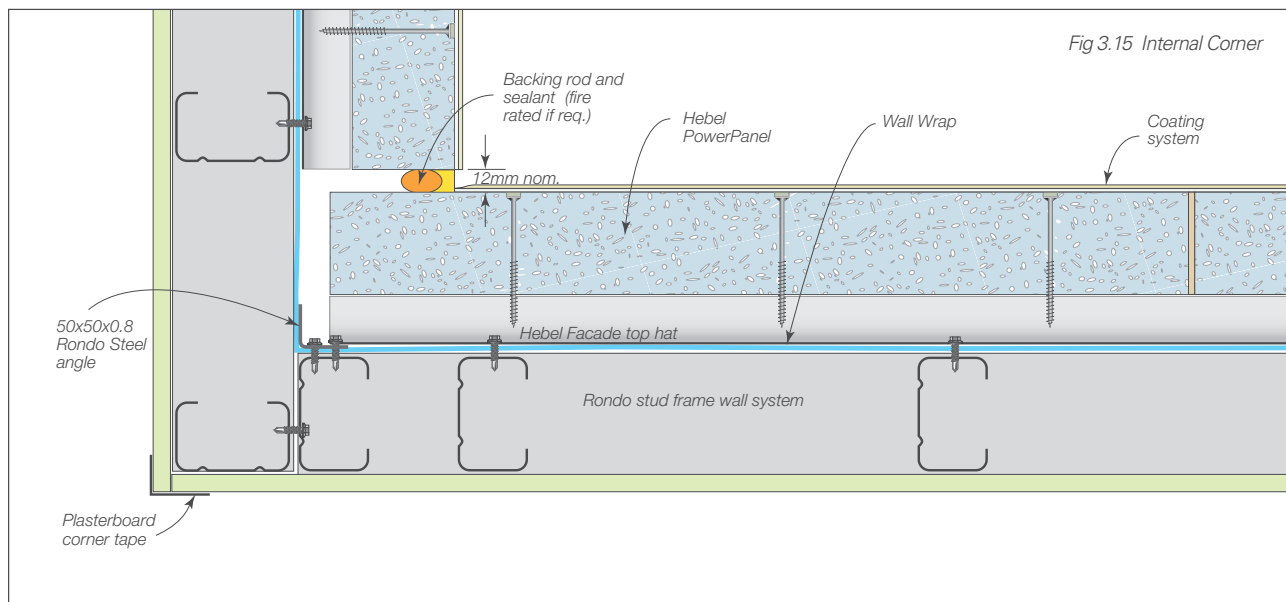


Fig 3.16 Window Head

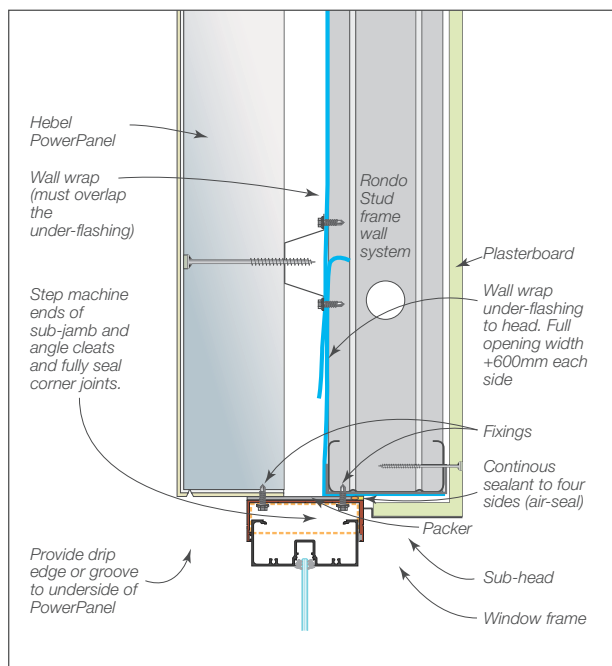
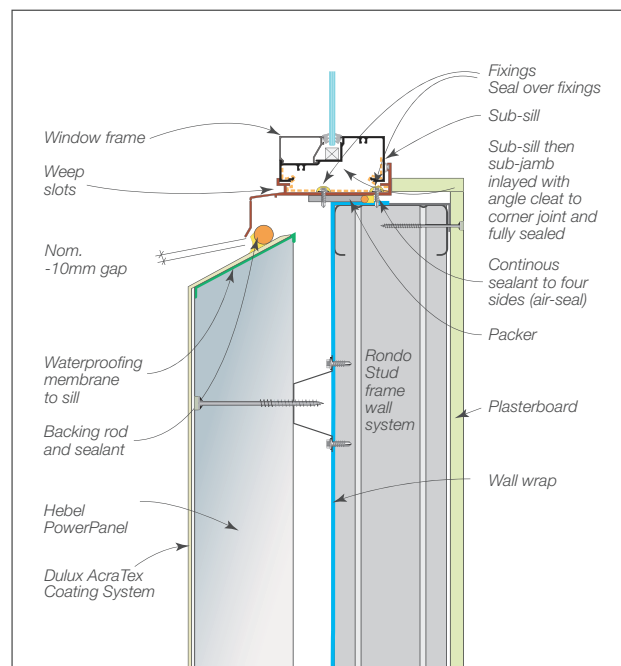


Fig 3.17 Window Sill



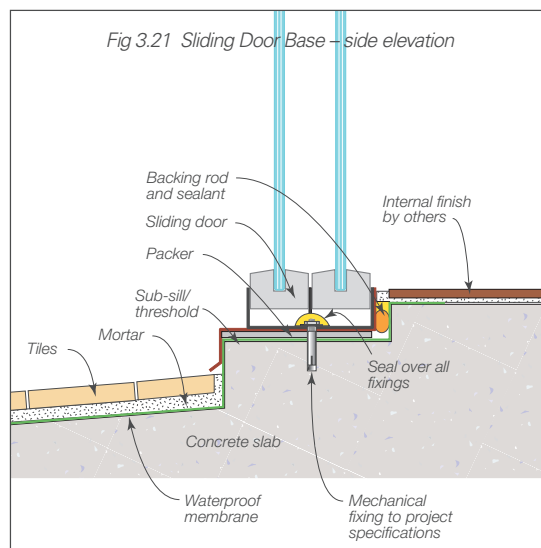
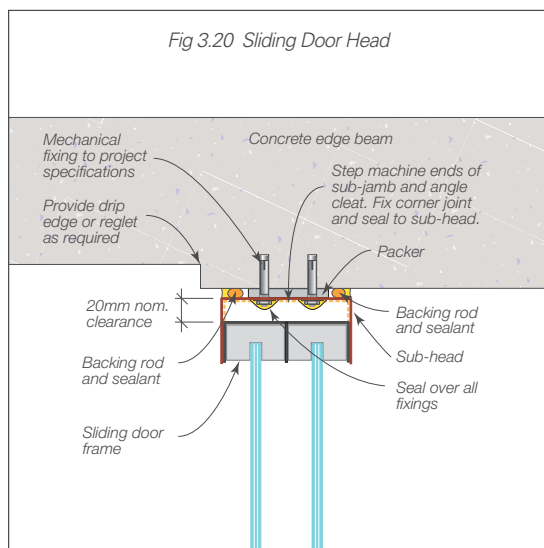
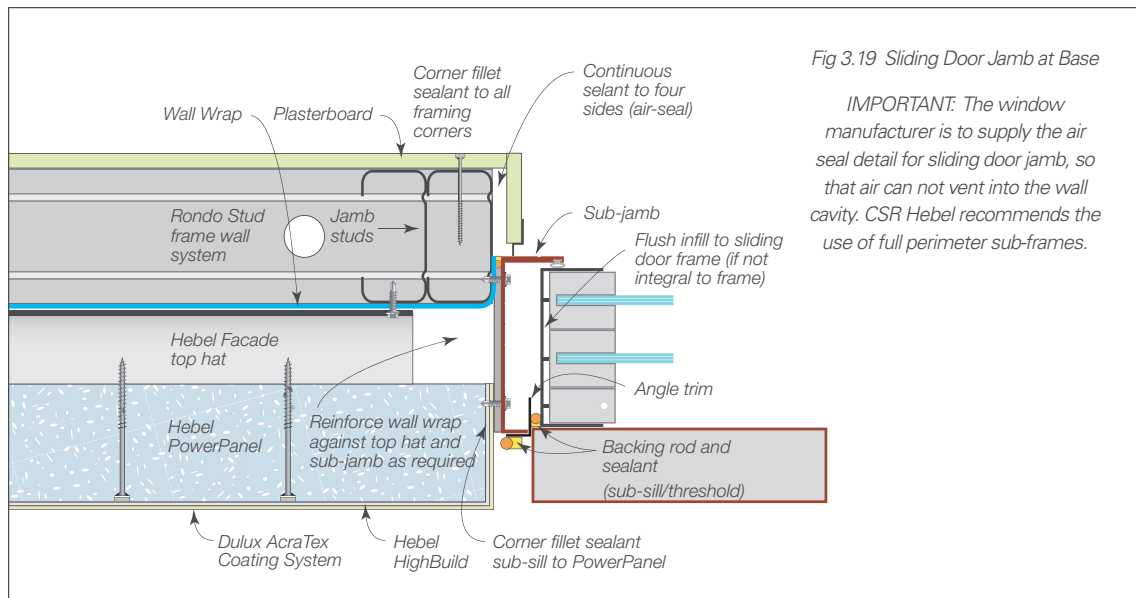
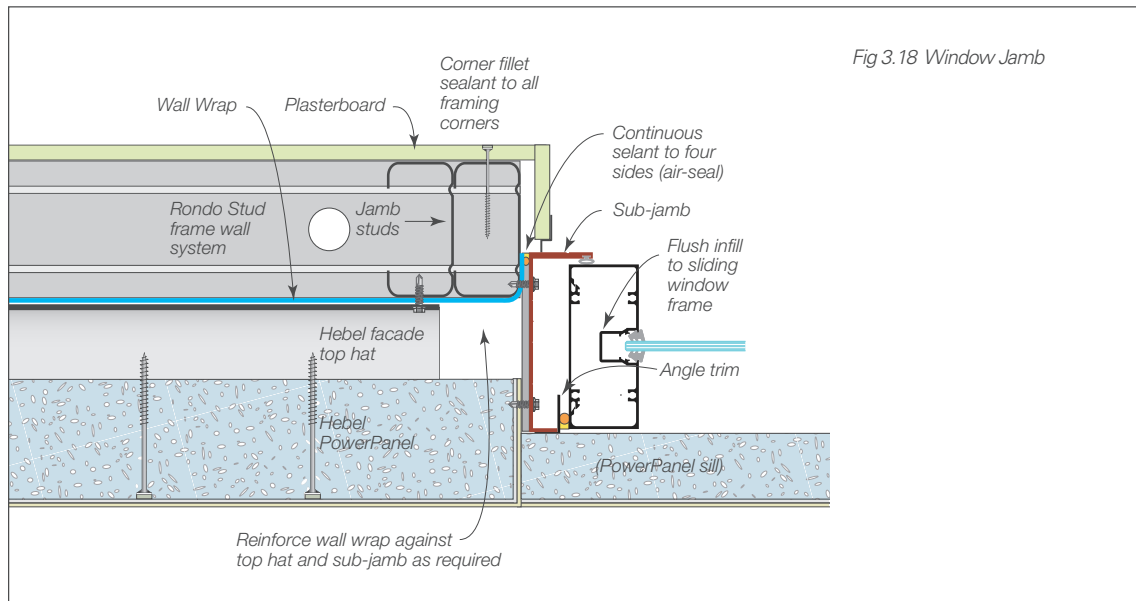
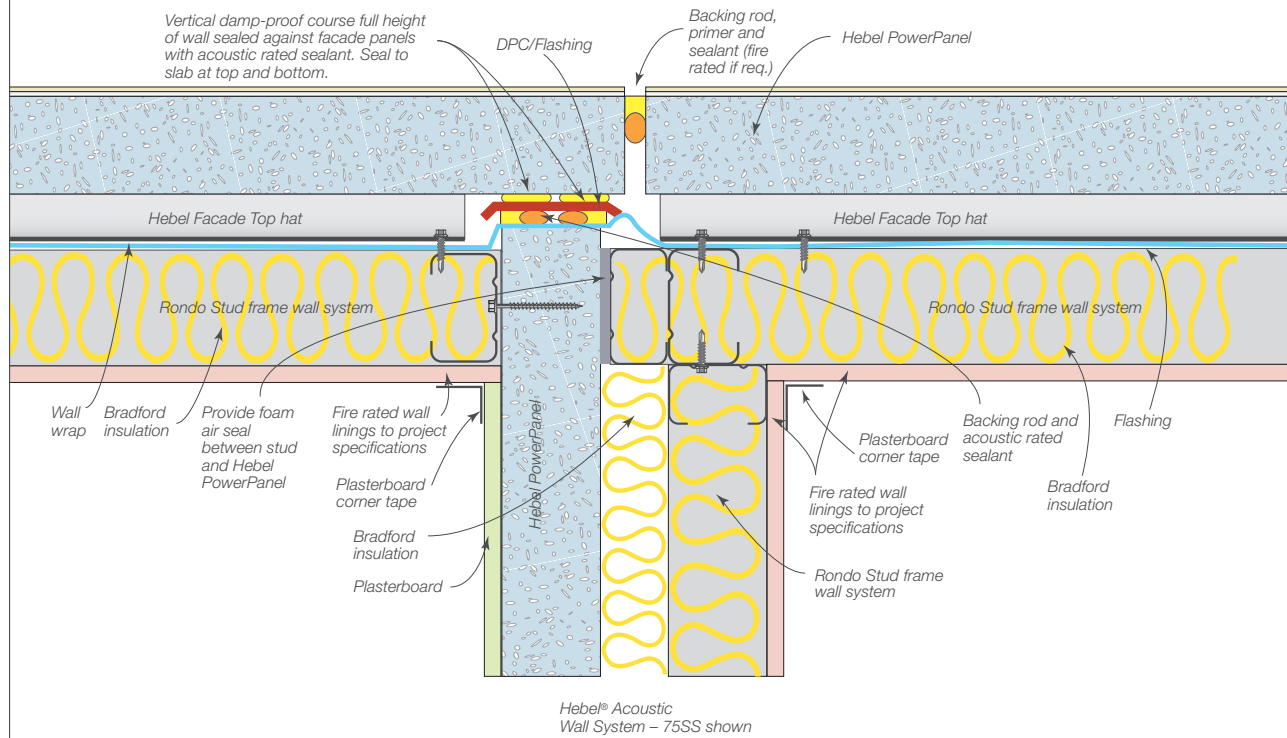
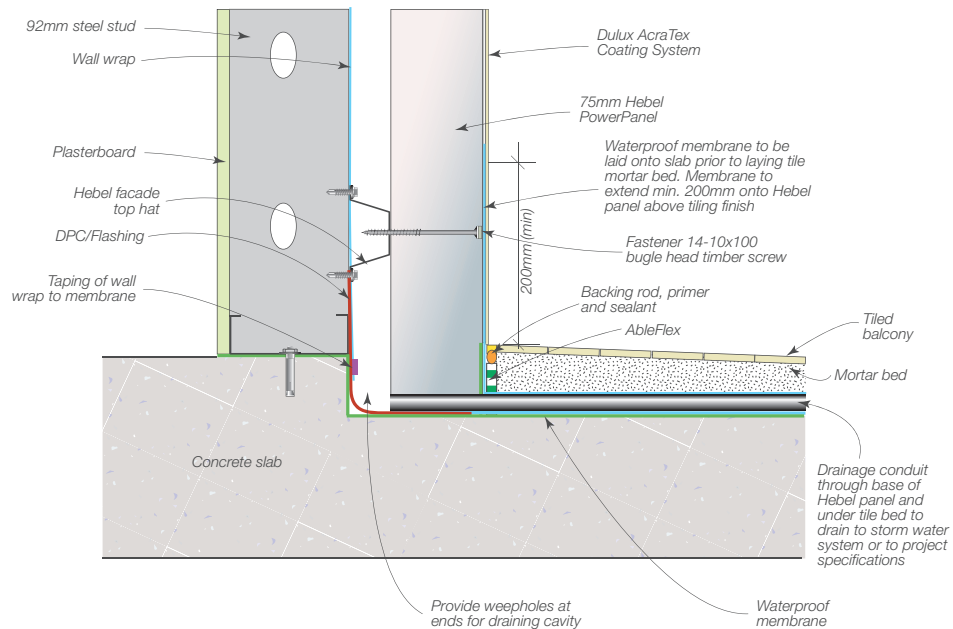


Fig 3.22 Party Wall Intersection



**IMPORTANT:** Treatment of party wall junctions requires specific project design and approval by structural, fire, acoustic and other project consultants.

Fig 3.23 Balcony Detail



**NOTE:** Pressure equalisation slots are to be installed at the tops of panels at a max. 3.0m CTRs over balconies greater than 3m in width.

Fig 3.24 Intertenancy Facade Junction Detail

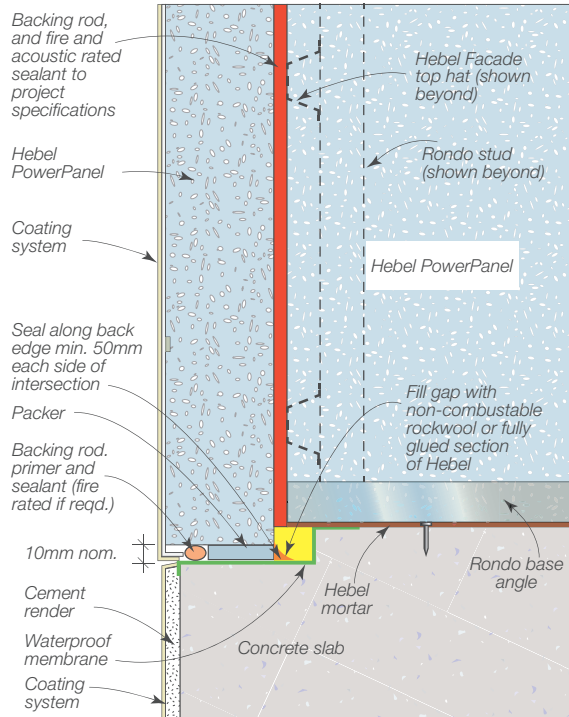
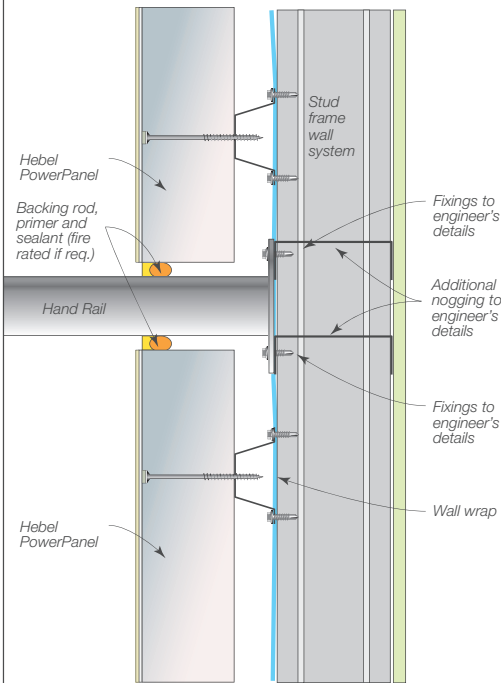
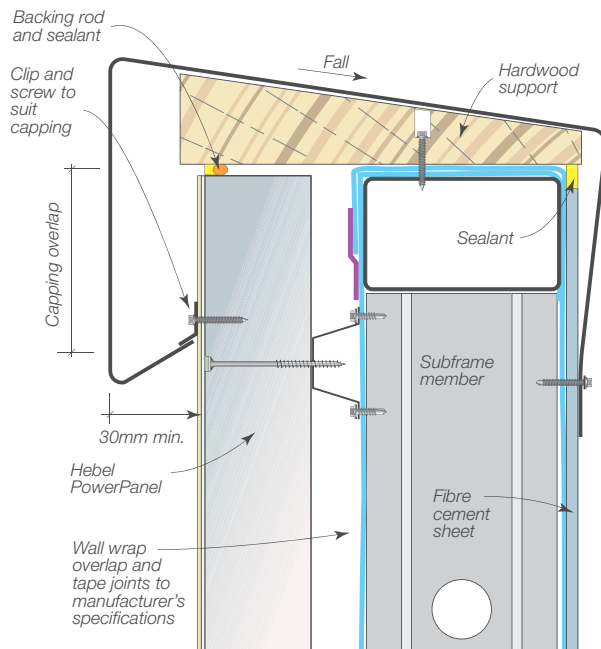


Fig 3.25 Handrail Attachment



NOTE: All elements to be supported by wall shall be connected to the structural steel framing. No loads are to be carried by Hebel PowerPanel cladding.

Fig 3.26 Parapet Capping



NOTE: Parapet capping shall be designed and fastened in accordance with SAA – HB39 1997 – Installation Code for Metal Roofing and Wall Cladding. Stop ends shall be incorporated to all flashings.

Table 3.27 Capping Overlap.

Ultimate Design Wind Pressure (kPa)	Capping Overlap Minimum (mm)
1.5	50
3.5	100
5.0	150
7.0	200