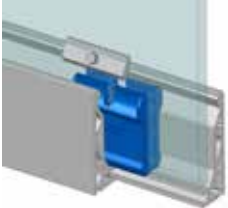
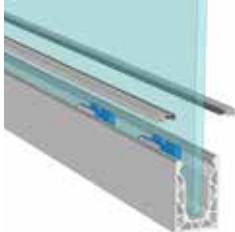


POSIGLAZE SYSTEM

Installation / Fitting Instructions

BASE FIX (PG120B)



Product	Installation/Fitting Instructions
Base Rail 	The PosiGlaze base channel should be placed onto its designated position and the holes marked onto the substrate for drilling. Once the shoe is lined up with the holes and is level, the fixings should be tightened up to make the channel rigid. The fixings must be tightened in accordance with the manufacturer's instructions. M10 or M12 bolts can be used.
Glass Slip Clamp Fitting 	The glass slip clamps need to be placed onto the bottom of the glass. This requires lifting the glass off the floor sufficiently and pushing into place or applying the clamps to the bottom of the glass. The slip clamps require even spacing. When 4 clamps are used on a metre wide panel the clamps need to be positioned 125mm in from the edge of the glass and then at 250mm centres. The glass can now be lowered into the channel. Refer to Metro PS1 for details.
Glass Clamp Bar Fitting 	Once the glass is in the channel the clamp bars must be positioned into the top of each glass slip clamp. Firstly, screw the bolt into the clamp bar until the head of the bolt just reaches the bar. Screw the bolt into the flat side as the shaped side of the bar will sit nearest to the glass. Each clamp bar can now be inserted into the glass slip clamps. As shown in the image to the left.
Getting Glass Level and Tightening Bolts 	Place a spirit level on the glass to get the glass in the correct position. The bolts now need tightening equally to keep the same pressures on the glass. To adjust the glass into position the bolts can be unscrewed back towards the wall of the channel. To achieve the correct positioning firstly square up and level each end of the glass and tighten the bolts. Then tighten the bolts on the intermediate clamp bars. Give the bolts an additional half turn to ensure that the glass is securely held in place. You must use an adhesive, such as Loctite, on the threads.
Top Seal Strip 	The gasket requires feeding into rebates on the smaller profiles, do not stretch the gasket. Once the gasket is flush with each end of the strip it can now be cut and clipped onto the top of the channel. This can be done by pressing firmly down on the profile working from one end to the other. A soft mallet may be required, knocking the right angled corner.
Cleaning	Once everything is correctly in place and the job is complete, the glass and channel need to be cleaned. Use a non-abrasive glass cleaner on the glass and warm soapy water on the PosiGlaze channel. We also recommend a soft sponge or cloth, again to avoid any risk of scratching. For full care and maintenance guidelines please refer to our comprehensive guide pages 778-779.

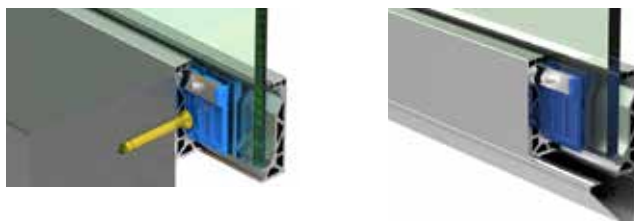
IMPORTANT NOTE: The guide above is simplified, and should in no way be referenced in isolation. For full comprehensive substrate fixing details please refer through to the PS1.

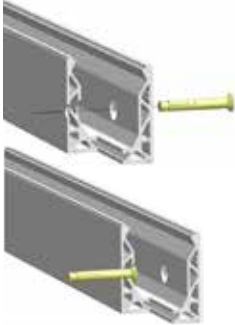
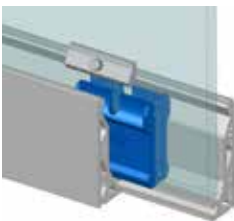
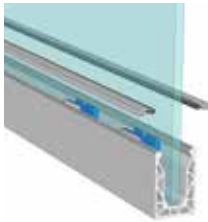
A fitting video is also available on our website www.metroglass.co.nz

POSIGLAZE SYSTEM

Installation / Fitting Instructions

SIDE FIX (PG120S) (PG180S)



Product	Installation/Fitting Instructions
Fixing the Channel 	The side drilled channel should be placed onto its designated position and the holes marked onto the substrate for drilling. Once the shoe is lined up with the holes and level the fixings should be tightened up to make the channel rigid. The fixings must be tightened in accordance with the manufacturer's instructions. M10 or M12 bolts in concrete can be used. M10 bolt / nut or coachscrews can be used for steel and timber substrates.
Glass Slip Clamp Fitting 	The glass slip clamps need to be placed onto the bottom of the glass. This requires lifting the glass off the floor sufficiently and pushing into place or applying the clamps to the bottom of the glass. The slip clamps require even spacing. When 4 clamps are used on a metre wide panel the clamps need to be positioned 125mm in from the edge of the glass and then at 250mm centres. The glass can now be lowered into the channel. Refer to Metro PS1 for details.
Glass Clamp Bar Fitting 	Once the glass is in the channel the clamp bars must be positioned into the top of each glass slip clamp. Firstly, screw the bolt into the clamp bar until the head of the bolt just reaches the bar. Screw the bolt into the flat side as the shaped side of the bar will sit nearest to the glass. Each clamp bar can now be inserted into the glass slip clamps. As shown in the image to the left.
Getting Glass Level and Tightening Bolts 	Place a spirit level on the glass to get the glass in the correct position. The bolts now need tightening equally to keep the same pressures on the glass. To adjust the glass into position the bolts can be unscrewed back towards the wall of the channel. To achieve the correct positioning firstly square up and level each end of the glass and tighten the bolts. Then tighten the bolts on the intermediate clamp bars. Give the bolts an additional half turn to ensure that the glass is securely held in place. You must use an adhesive, such as Loctite, on the threads.
Top Seal Strip & Side Cladding 	The gasket requires feeding into rebates on the smaller profiles, do not stretch the gasket. Once the gasket is flush with each end of the strip it can now be cut. The top seal strip needs to be loosely sat on the ridge of the channel and can be fixed by pressing firmly down on the profile working from one end to the other. A soft mallet may be required, knocking the right angled corner. The side cladding will need a double sided tape or adhesive on the channel, it then simply hooks over the ridge.
Cleaning	Once everything is correctly in place and the job is complete, the glass and channel need to be cleaned. Use a non-abrasive glass cleaner on the glass and warm soapy water on the PosiGlaze channel. We also recommend a soft sponge or cloth, again to avoid any risk of scratching. For full care and maintenance guidelines please refer to our comprehensive guide pages 778-779.

IMPORTANT NOTE: The guide above is simplified, and should in no way be referenced in isolation. For full comprehensive substrate fixing details please refer through to the PS1.

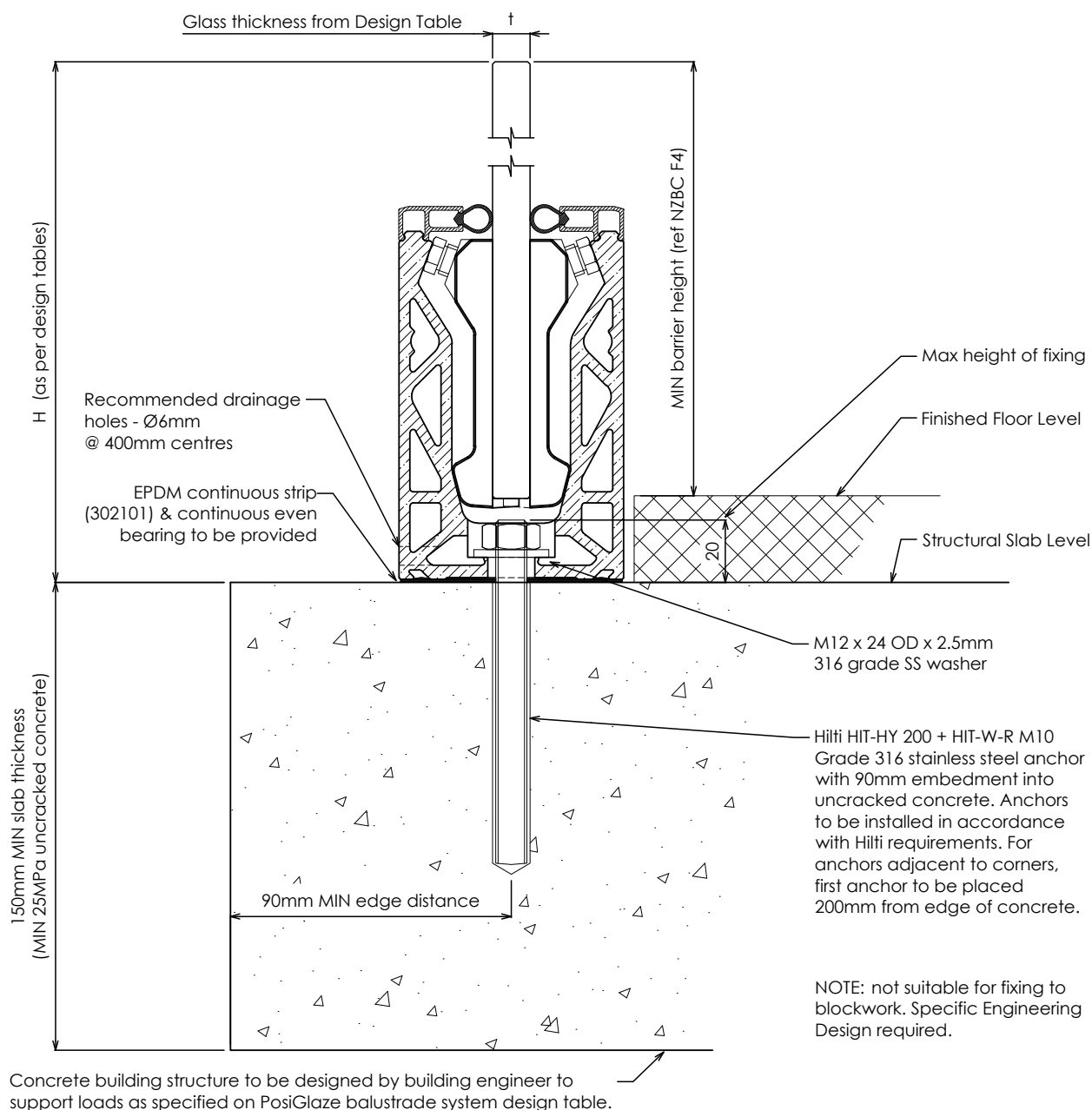
A fitting video is also available on our website www.metroglass.co.nz

POSIGLAZE PG120B BALUSTRADE SYSTEM

Concrete Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120B/C/RA (M10)	R10	PG120 with rod anchor (M10)	A, B, E, C3

NOT SUITABLE FOR OCCUPANCY C1/C2, D OR C5



Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above. Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity. 'H' refers to top of barrier.

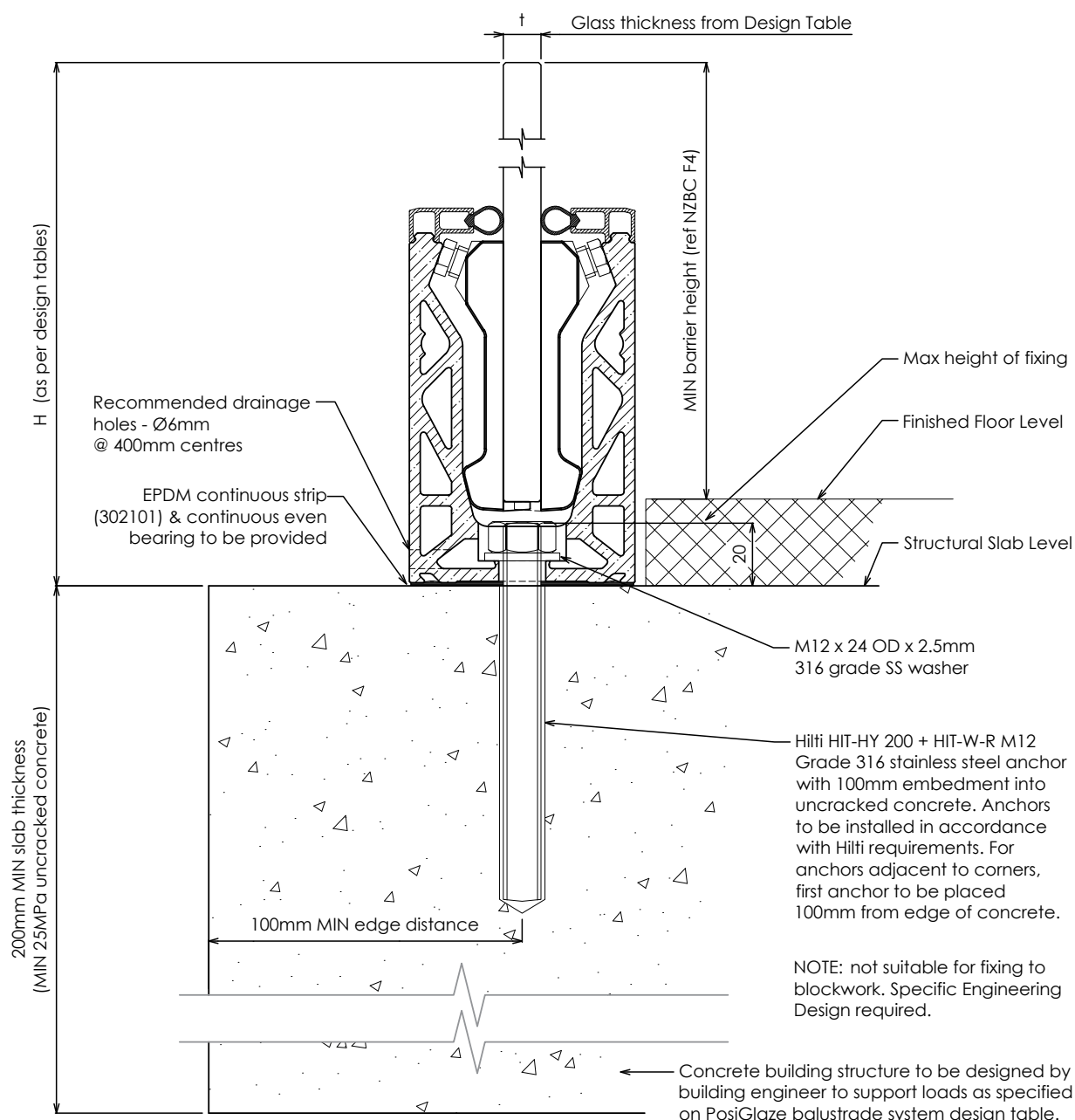
NOTES:

- Capacity of structure is to be of sufficient strength to support loads M^* and T^* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer prior to fixing balustrade.
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- Penetration through a membrane must be completed in accordance with written instructions of the membrane manufacturer.
- No substitution allowed - any variation from the details above and design tables will require specific design.

POSIGLAZE PG120B BALUSTRADE SYSTEM

Concrete Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120B/C/RA (M12)	R10	PG120 with rod anchor (M12)	A, B, E, C3, C1/C2, D



Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above. Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity. 'H' refers to top of barrier.

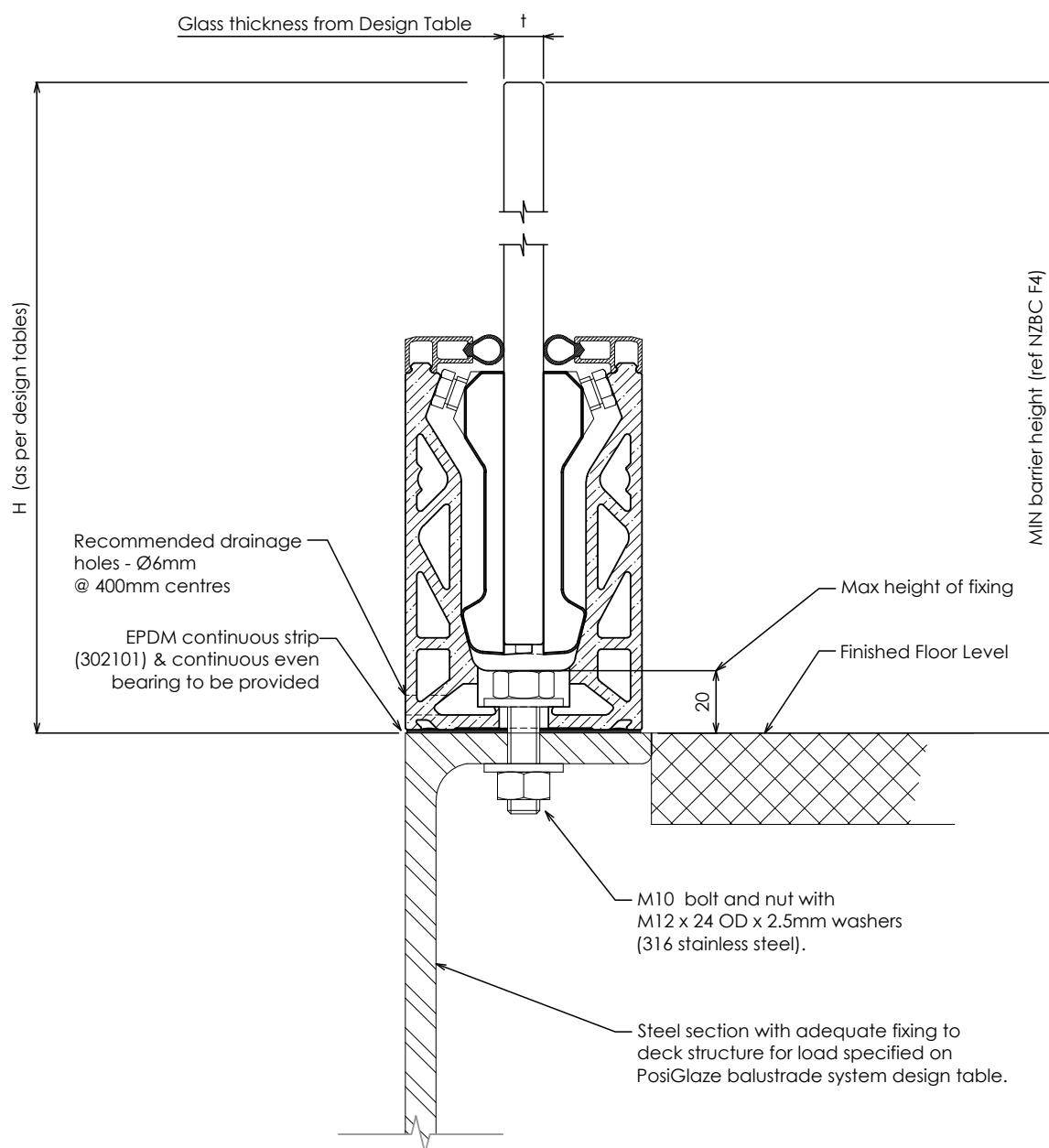
NOTES:

- Capacity of structure is to be of sufficient strength to support loads M^* and T^* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer prior to fixing balustrade.
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- Penetration through a membrane must be completed in accordance with written instructions of the membrane manufacturer.
- No substitution allowed - any variation from the details above and design tables will require specific design.

POSIGLAZE PG120B BALUSTRADE SYSTEM

Steel Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120B/S/BN	R10	PG120 with bolt & nut	A, B, E, C3, C1/C2, D



Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above. Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity. 'H' refers to top of barrier.

NOTES:

- 1) Capacity of structure is to be of sufficient strength to support loads M^* and T^* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer prior to fixing balustrade.
- 2) Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- 3) Penetration through a membrane must be completed in accordance with written instructions of the membrane manufacturer.
- 4) For fixing to steel substrates, the installer shall ensure the bolts are tightened to a "snug-tight" level as defined in NZS3404.
- 5) No substitution allowed - any variation from the details above and design tables will require specific design.

POSIGLAZE PG120B BALUSTRADE SYSTEM

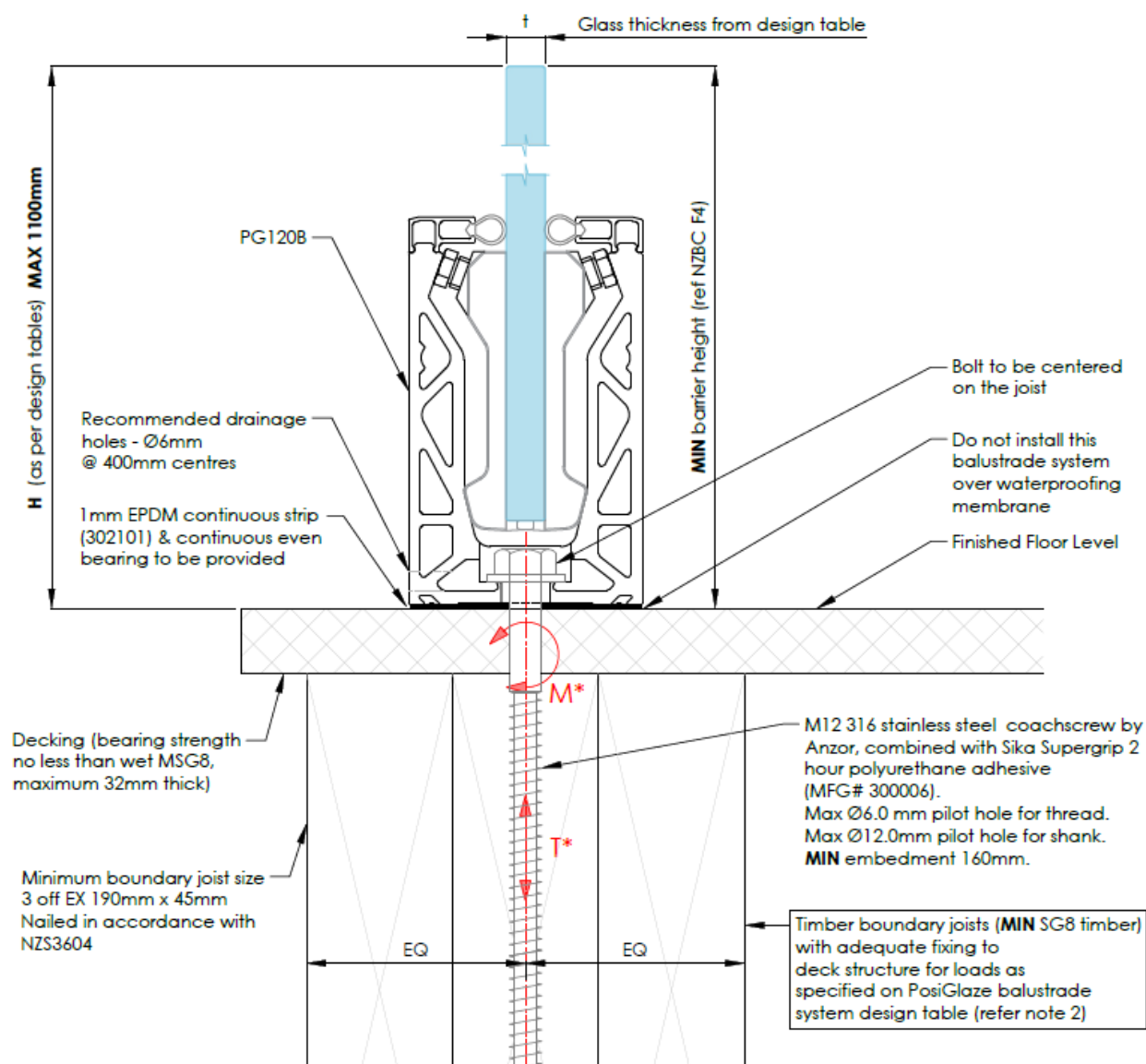
Timber Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120B/T-TJ/CS	R10	PG120B with M12 coach screw on Triple 190x45mm joist	A, A (other), C3

NOT SUITABLE FOR OCCUPANCY B, E, C1/C2, D OR C5
SUITABLE FOR WIND ZONES UP TO AND INCLUDING VERY HIGH

Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above.

NOTES: Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity.
 'H' refers to top of barrier.



NOTES:

- Capacity of structure is to be of sufficient strength to support loads M^* and T^* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer where applicable or checked to NZS3604 requirements prior to fixing balustrade.
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- For fixing to timber substrates, the installer shall ensure that the bolt / coach screw is sufficiently tightened to reduce movement of the bolt head and washer. Care should be taken not to over tighten the fixings that would cause crushing of the timber or compromise the thread leading to anchor pull-out.
- No substitution allowed - any variation from the details above and design tables will require specific design.
- Fixings to timber must be re-tightened 2 months after installation and periodically thereafter to allow for timber shrinkage.
- Substructure designer to ensure that there is no water runoff from dissimilar metals or treated timber onto barrier components.

POSIGLAZE PG120B BALUSTRADE SYSTEM

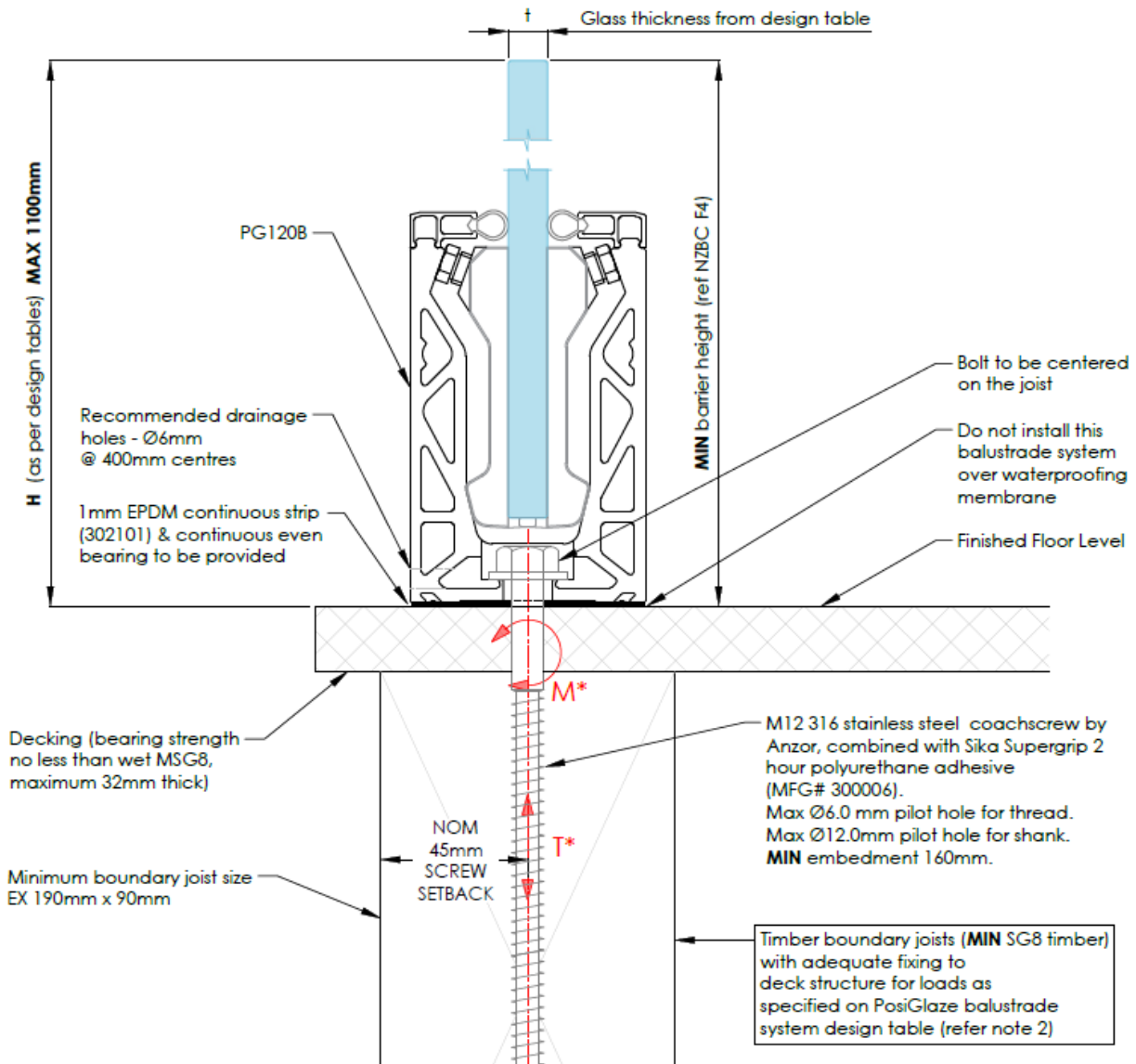
Timber Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120B/T-SJ/CS	R10	PG120B with M12 coach screw on Single 190x90mm joist	A, A (other), C3

NOT SUITABLE FOR OCCUPANCY B, E, C1/C2, D OR C5
SUITABLE FOR WIND ZONES UP TO AND INCLUDING VERY HIGH

Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above.

NOTES: Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity.
 'H' refers to top of barrier.



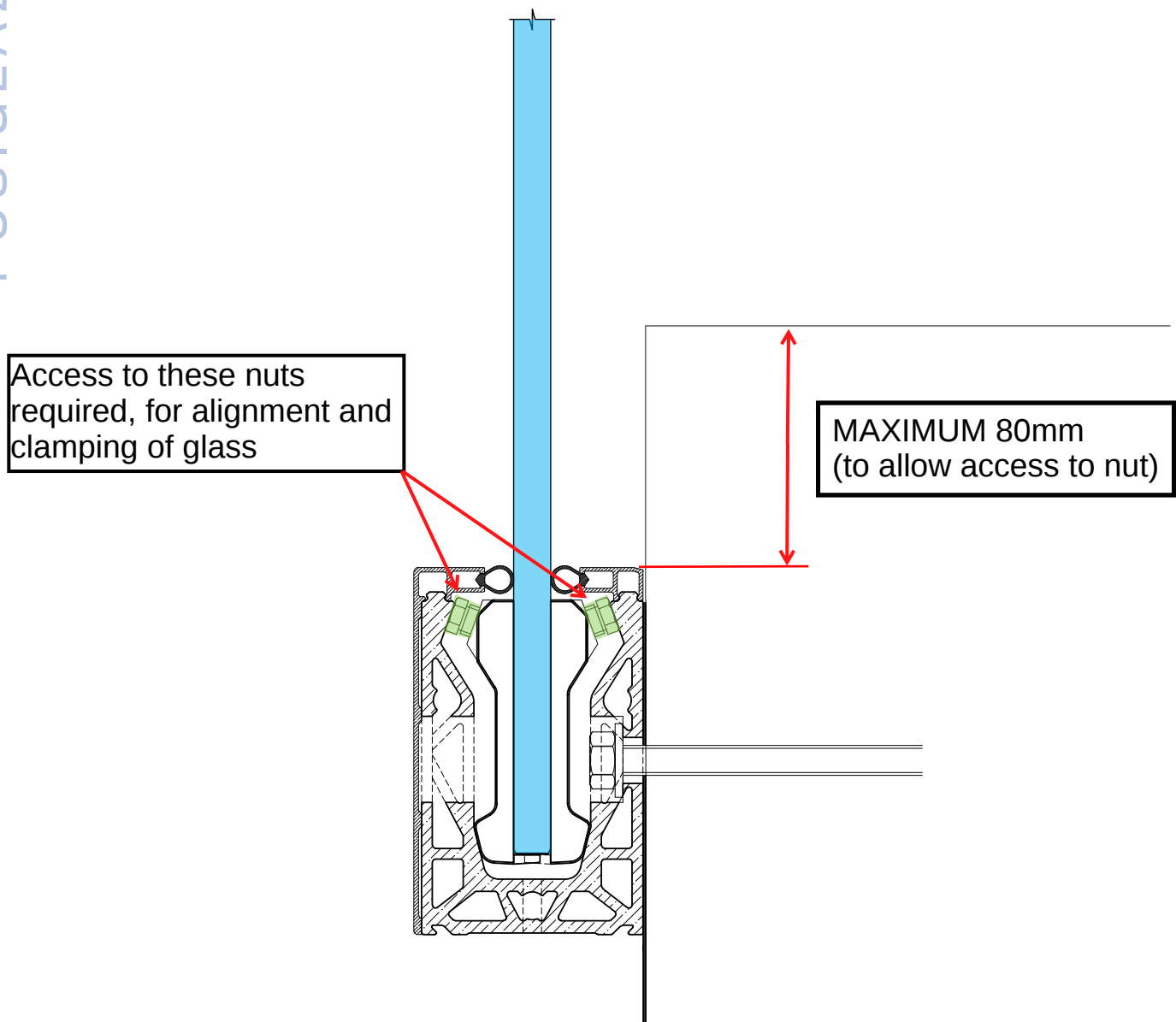
NOTES:

- Capacity of structure is to be of sufficient strength to support loads M^* and T^* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer where applicable or checked to NZS3604 requirements prior to fixing balustrade.
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- For fixing to timber substrates, the installer shall ensure that the bolt / coach screw is sufficiently tightened to reduce movement of the bolt head and washer. Care should be taken not to over tighten the fixings that would cause crushing of the timber or compromise the thread leading to anchor pull-out.
- No substitution allowed - any variation from the details above and design tables will require specific design.
- Fixings to timber must be re-tightened 2 months after installation and periodically thereafter to allow for timber shrinkage.
- Substructure designer to ensure that there is no water runoff from dissimilar metals or treated timber onto barrier components.

POSIGLAZE PG120S & PG180S BALUSTRADE SYSTEM

Side Fixing Details

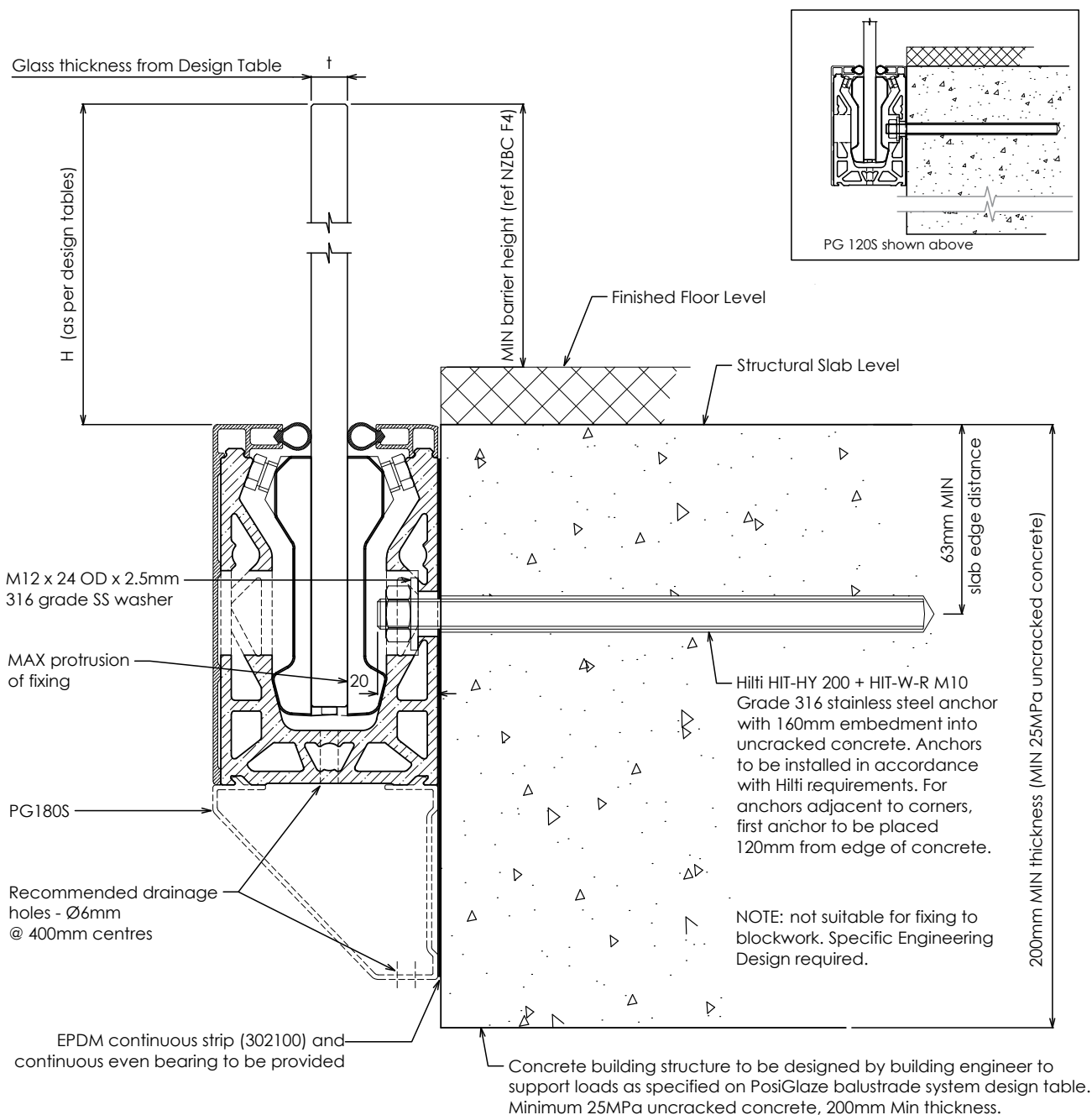
When considering the use of PosiGlaze for a side fixed installation, it is important to remember that the installation process requires access to the clamp adjustment nuts to align the glass correctly and tighten the glass clamps onto the glass panels. Please refer to the diagram below for the recommended maximum "step down" when installing side fixed PosiGlaze:



POSIGLAZE PG120S & PG180S BALUSTRADE SYSTEM

Concrete Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120S-180S/C/ RA(M10)	R10	PG120S & PG180S with rod anchor (M10)	A, B, E, C3, C1/C2, D



Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above. Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity. 'H' refers to top of barrier.

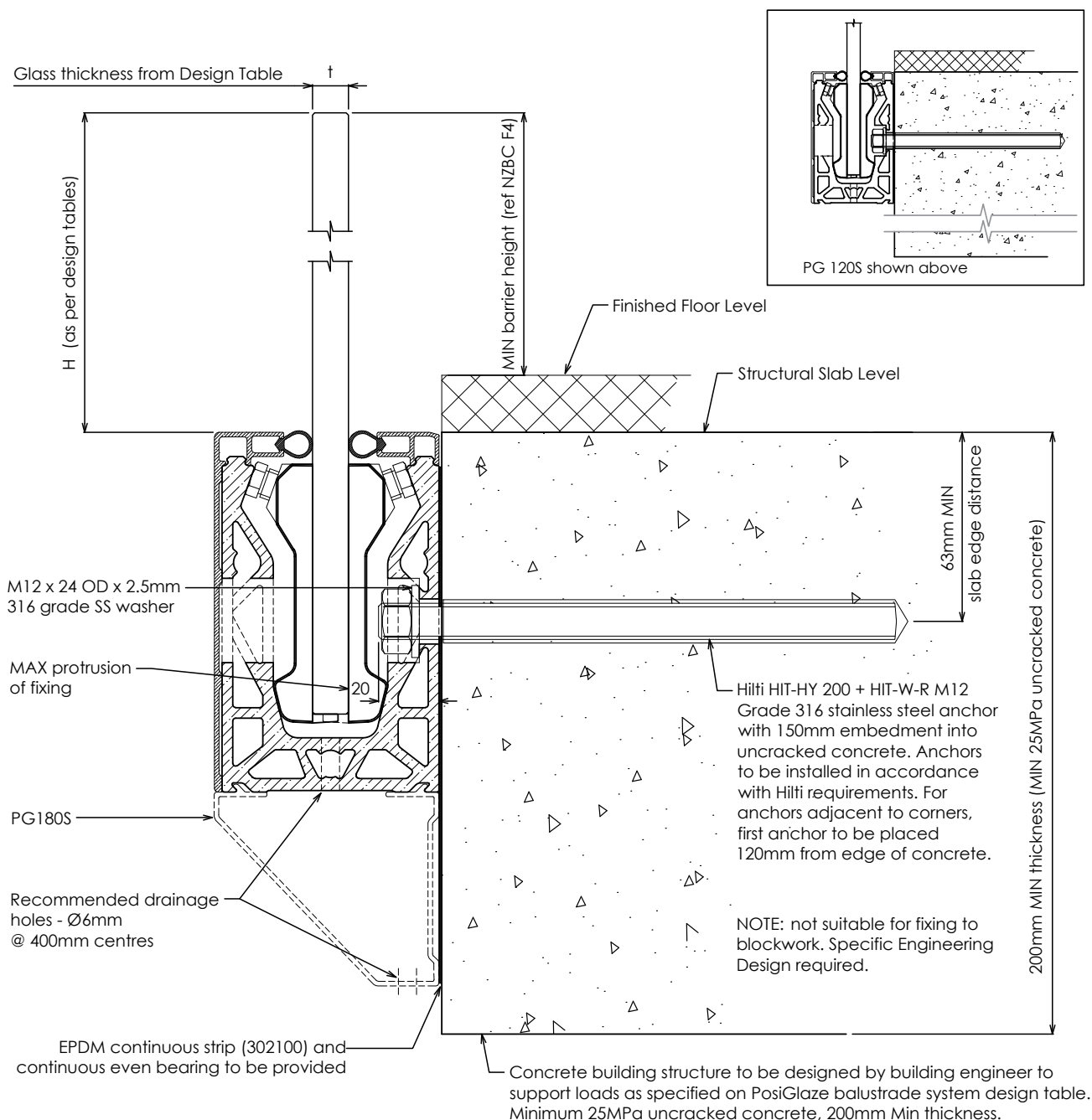
NOTES:

- Capacity of structure is to be of sufficient strength to support loads M^* and T^* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer prior to fixing balustrade.
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- Penetration through a membrane must be completed in accordance with written instructions of the membrane manufacturer.
- No substitution allowed - any variation from the details above and design tables will require specific design.

POSIGLAZE PG120S & PG180S BALUSTRADE SYSTEM

Concrete Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120S-180S/C/ RA(M12)	R10	PG120S & PG180S with rod anchor (M12)	A, B, E, C3, C1/C2, D



Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above. Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity. 'H' refers to top of barrier.

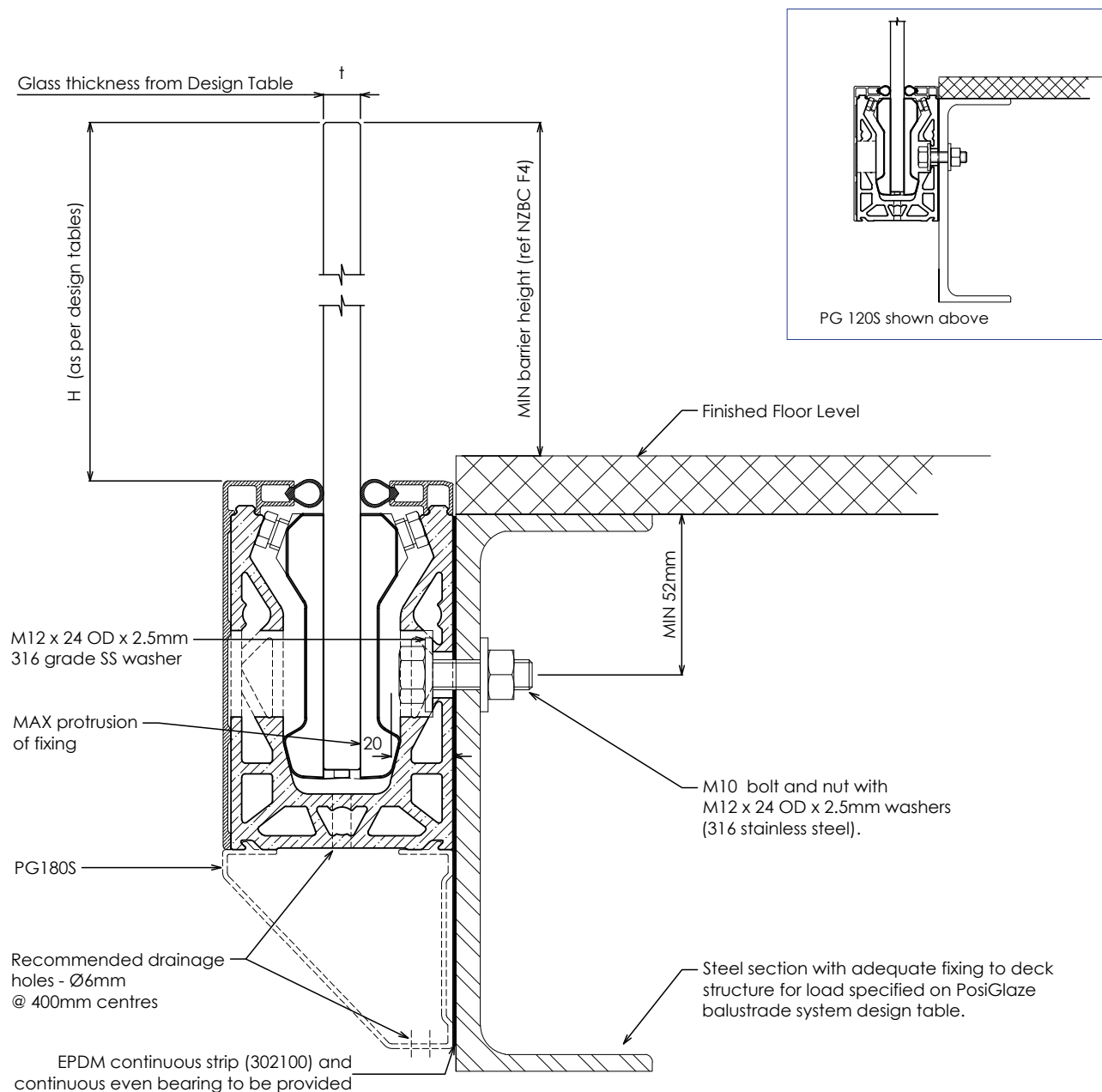
NOTES:

- Capacity of structure is to be of sufficient strength to support loads M^* and T^* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer prior to fixing balustrade.
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- Penetration through a membrane must be completed in accordance with written instructions of the membrane manufacturer.
- No substitution allowed - any variation from the details above and design tables will require specific design.

POSIGLAZE PG120S & PG180S BALUSTRADE SYSTEM

Steel Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120S-180S/S/BN	R10	PG120S & PG180S with bolt and nut	A, B, E, C3, C1/C2, D



Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above. Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity. 'H' refers to top of barrier.

NOTES:

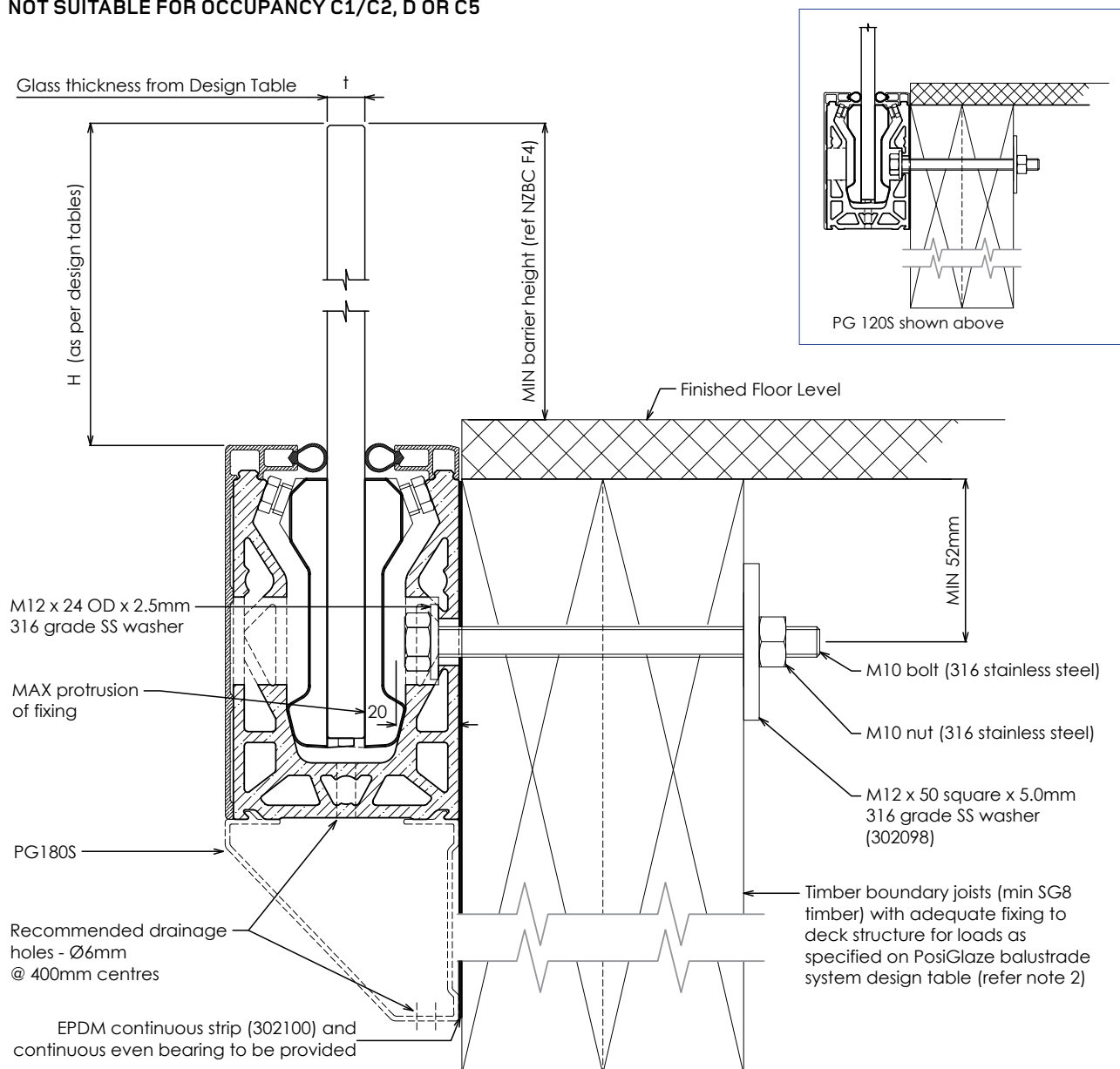
- Capacity of structure is to be of sufficient strength to support loads M^* and T^* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer prior to fixing balustrade.
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- Penetration through a membrane must be completed in accordance with written instructions of the membrane manufacturer.
- For fixing to steel substrates, the installer shall ensure the bolts are tightened to a "snug-tight" level as defined in NZS3404.
- No substitution allowed - any variation from the details above and design tables will require specific design.

POSIGLAZE PG120S & PG180S BALUSTRADE SYSTEM

Timber Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120S-180S/T/BN	R10	PG120S & PG180S with bolt and nut	A, B, E, C3

NOT SUITABLE FOR OCCUPANCY C1/C2, D OR C5



Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above. Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity. 'H' refers to top of barrier.

NOTES:

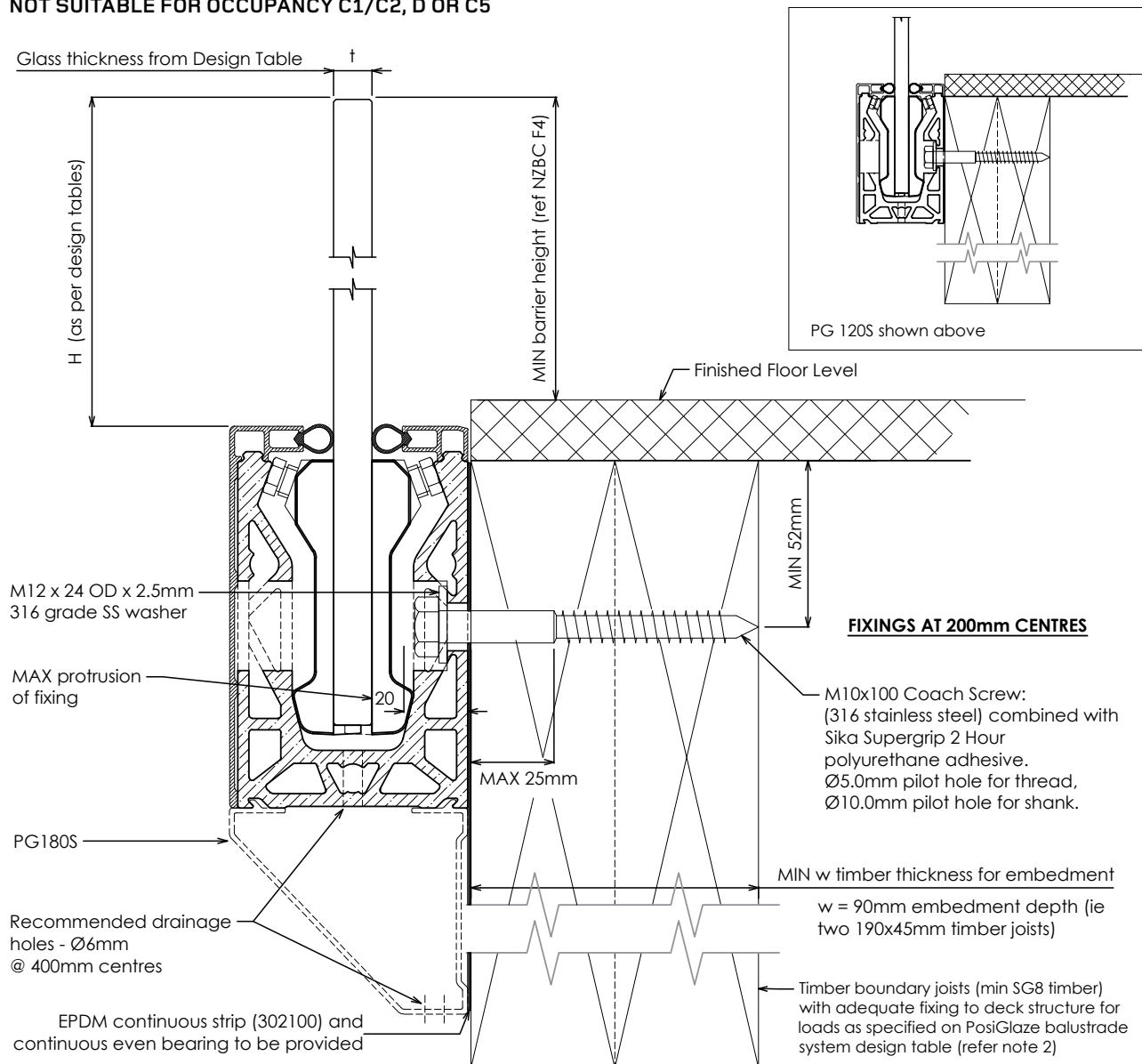
- Capacity of structure is to be of sufficient strength to support loads M* and T* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer where applicable or checked to NZS3604 requirements prior to fixing balustrade.
- Timber decks designed to NZS 3604:2011 guidelines will meet loading requirement, **except for decks including cantilever floor joists where specific design is required.**
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- Penetration through a membrane must be completed in accordance with written instructions of the membrane manufacturer.
- For fixing to timber substrates, the installer shall ensure that the bolt / coach screw is sufficiently tightened to reduce movement of the bolt head and washer. Care should be taken not to over tighten the fixings that would cause crushing of the timber or compromise the thread leading to anchor pull-out.
- No substitution allowed - any variation from the details above and design tables will require specific design.

POSIGLAZE PG120S & PG180S BALUSTRADE SYSTEM

Timber Fixing Detail

Drawing No.	Revision	Fixing Type	Occupancy
PG120S-180S/T/CS	R10	PG120S & PG180S with coach screw	A, B, E, C3

NOT SUITABLE FOR OCCUPANCY C1/C2, D OR C5



Refer to PosiGlaze balustrade system design table for required glass thickness, fixing spacings and fixing loads according to AS/NZS 1170.1:2002 for the occupancies listed above. Refer to design tables and elevations for post failure requirements. Interlinking rail / clips not shown for clarity. 'H' refers to top of barrier.

NOTES:

- Capacity of structure is to be of sufficient strength to support loads M* and T* specified on PosiGlaze balustrade system design table. Structure capacity to be verified by building engineer where applicable or checked to NZS3604 requirements prior to fixing balustrade.
- Timber decks designed to NZS 3604:2011 guidelines will meet loading requirement, **except for decks including cantilever floor joists where specific design is required.**
- Max loading to comply with AS/NZS 1170.1:2002 Minimum Imposed Actions for Barriers Occupancy, shown at top of drawing, for design in accordance with PosiGlaze balustrade system design table.
- Penetration through a membrane must be completed in accordance with written instructions of the membrane manufacturer.
- For fixing to timber substrates, the installer shall ensure that the bolt / coach screw is sufficiently tightened to reduce movement of the bolt head and washer. Care should be taken not to over tighten the fixings that would cause crushing of the timber or compromise the thread leading to anchor pull-out.
- No substitution allowed - any variation from the details above and design tables will require specific design.