Certificate of Conformity

Certification Body:

CMI CERTIFICATION
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Certificate Holder:

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Certificate number: CM40282

THIS IS TO CERTIFY THAT

STAAC Wall 75® Low Rise Multi-Residential Inter-tenancy Wall

Type and/or use of product:

Intertenancy Wall System (for Low Rise Multi-Residential Buildings).

Description of product:

STAAC Wall 75® Low Rise Multi-Residential Inter-tenancy wall comprises a steel reinforced 75mm Autoclaved Aerated Concrete (AAC) 400kg/m³ panel and proprietary components vertically installed across horizontal top hats with top hats fixed to steel or timber stud framing for use in both continuous and discontinuous wall structures.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S) **BCA 2022**

	Volume One		Volume Two	
Performance Requirement(s):	B1P1(1), (2)(a), (b), (c) & (d)	Structural reliability	H1P1(1), (2)(a), (b), (c) & (d)	Structural reliability and resistance
Deemed-to-Satisfy Provision(s):	C2D2(2)	Fire resistance and Stability - As applicable - FRL varies, dependant of the configuration of the wall.	H3D2	Non-combustible building elements – Limited to the STAAC Wall 75® Panel only
	C2D10	Non-combustible building elements – Limited to the STAAC Wall 75® Panel only	H3D4	Fire protection of separating walls – As applicable - FRL varies, dependant of the configuration of the wall.
State or territory variation(s):	Not Applicable		Not Applicable	

SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B

Limitations and conditions:

1. Compliance with FRL is dependent on the system components being as specified in A3. Any deviation from the tested specimen does not form part of this certificate of conformity.
2. This system is suitable for use for the horizontal fire separation between fire compartments in sole-occupancy units only and must not be used for the support of fire rated floors, ceilings or roofs. (AAC separating walls).
3. The timber frames shall be designed in accordance with AS 1720.1-2010 or AS 1684-2010 series, or steel frames in accordance with AS 3623:1993 (R2018) or AS/NZS 4600:2018

Building classification/s:

Class 1,2,3,4,5,6,7,8,9 & 10

Richard Donarski – CMI

Don Grehan – Unrestricted Building Certifier

Date of issue: 13/09/2023

Date of expiry: 18/12/2026

4. The gap between the framing and the STAAC Wall 75® widths must be a minimum of 20mm.
5. The panels may only be used in wind category N1, N2 and N3.
6. A site specific performance solution is required for sound insulation. Refer to A6 for technical data regarding RW and RW + Ctr values.
7. The installation of the STAAC Wall 75® - 75mm Intertenancy Walls for House & Low Rise Multi Residential Building system must not deviate from the contents of the STAAC Wall 75® 75mm Intertenancy Walls for House & Low Rise Multi Residential Building Design and Installation Guide July2023.
8. Project specific load bearing capacities for internal load bearing walls must be configured by the project engineer.
9. For the purpose of this certificate, discontinuous construction is defined in the BCA as a wall system having a minimum 20 mm cavity between two separate leaves, with—
   a. for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and
   b. for other than masonry, there is no mechanical linkage between leaves except at the periphery.
10. The above systems where the panel has less than 20 mm cavity between 2 separate leaves and mechanical linkage other than at the periphery are not suitable for discontinuous construction.
11. Any party wall with overhang, extra cantilever must be examined by structural engineers engaged by others, not part of this assessment, to ensure that the wall is adequately supported and that there is no additional load that would introduce deflections at various locations that could have a detrimental impact on the structural adequacy of the wall when exposed to fire on either side.
12. This certificate is limited to the details within this certificate including the above compliance elements, product description, purpose or use.
13. Other than the items and information listed, the remainder of the information contained in the product's literature is outside the scope of this certification.
14. The use of the certified product/system is subject to these Limitations and Conditions and must be read in conjunction with the Scope of Certification below.

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the Certificate Holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Only criteria as identified within this Certificate of Conformity can be used for CodeMark certification claims. Where other claims are made in a client's Installation Manual, Website or other documents that are outside the criteria on this Certificate of Conformity, such criteria cannot be used or claimed to meet the requirements of this CodeMark certification.

The NCC defines a Performance Solution as one that complies with the Performance Requirements by means other than a Deemed-to-Satisfy Solution. A Building Solution that relies on a CodeMark Certificate of Conformity that certifies a product against the Performance Requirements cannot be considered as Deemed-to-Satisfy Solution.

This Certificate of Conformity may only relate to a part of a Performance Solution. In these circumstances other evidence of suitability is needed to demonstrate that the relevant Performance Requirements have been met. The relevant provisions of the Governing Requirements in Part A of the NCC will also need to be satisfied.

This Certificate of Conformity is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate of Conformity is outside of this document's scope and the installation of the certified product will not be covered by this Certificate of Conformity.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.

When using the CodeMark logo in relation to or on the product/system, the Certificate Holder makes a declaration of compliance with the Scope of Certification and confirms that the product is identical to the product certified herein. In issuing this Certificate of Conformity, CMI Certification Pty Ltd (CMI) has relied on the experience and expertise of external bodies (laboratories and technical experts).

Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

As per page 1.

A2 Description of product

STAAC Wall 75® Panel Physical Properties	
Thickness:	75mm, tolerance: ±1.5mm
Standard Width:	600mm, tolerance: ±1.5mm
Standard Length:	2400, 2550, 2700, 2800, 2850, 3000, 3300mm, tolerance: ±5mm
Edge Straightness Deviation (max.):	±1.5mm
Reinforcement:	4 x 4mm longitudinal steel bars and 6-8 x 4mm diameter transverse steel bars per panel
Nominal Dry Density:	400 kg/m^3
Average working density:	540 kg/m^3 at 35% moisture content
Average service life density:	440 kg/m^3 at 10% moisture content

System Components								
STAAC Wall 75® panel	**Length (mm)**	**2400**	**2550**	**2700**	**2800**	**2850**	**3000**	**3300**
	Mass (kg)	58	68	66	68	69	73	80
Deflection Head Track	For positioning and restraining the base connection of the panels to the concrete slab. The deflection head track is nominally 76 x 50 x 0.7mm BMT x 3000mm length.							
Wall Brackets	The brackets are components which enable the AAC panel to be fixed to the wall frame. This provides a cavity space, which can result in increased acoustic insulation performance. The bracket is nominally 76 x 43 x 1.6mm BMT x 50mm wide Aluminium angle.							
Steel battens	Perforated steel hat top hat battens in 24mm and 35mm depth to provide support to STAAC Wall 75® panels.							
Fasteners & Fixings	- Fixing of top hat / angle bracket to timber stud frame: 12-11x35mm hex head type 17 screw. - Fixing of top hat / angle bracket to steel framing; 10-16x16mm hex head self drilling screw. - Fixing back-to-back tracks at end to end STAAC Wall 75® panel joint: 10- 16x16 wafer head screw - Fixing of aluminium bracket to STAAC Wall 75® panels: 14-10x65mm hex head type 17 screw - Fixing of STAAC Wall 75® panels to bottom angle 14-10x90mm hex head type 17 screw							
Hebel Mortar	Hebel® Mortar (supplied in 20kg bags) when required is used as a thick bed mortar base to provide a level base for STAAC Wall 75® panel installation as well as providing acoustic and fire protection at the base of the panels.							
Hebel Adhesive	Hebel® Adhesive (supplied in 20kg bags) is used for gluing the STAAC Wall 75® panels together at vertical and horizontal joints.							
Hebel Patch	Minor Chips or damage to STAAC Wall 75® panels are to be repaired using Hebel® Patch (supplied in 10kg bags).							
Hebel Anti Corrosion Protection Paint	To coat reinforcement steel that has been exposed during cutting of the panels.							

A3 Product specification

Non-combustibility

The Certificate Holder has provided the Certificate of Test for Combustibility for Materials in accordance with AS 1530.1:1994 for STAAC Wall 75® – Autoclaved Aerated Concrete (AAC) of density 400kgm^3.

The material is NOT deemed combustible - Limited to the panel only.

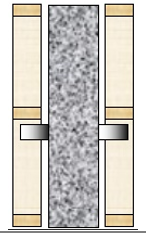
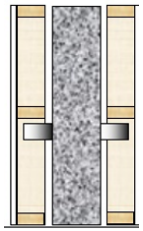
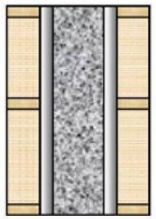
Source: *CSIRO; NATA Accreditation No. 165; Report No. FNC12491 dated 11/11/2019.*

Fire Resistant Levels - FRLs

Exova Warringtonfire Aus Pty Ltd; Report No. FAS190160, Reference No. 45771

Depending on the configuration, FRL can be achieved as set out below.

Construction details are as follows:

System	Detail	Central Core	Framing	Lining	Performance
A		STAAC Wall 75® panel	Load bearing or non-load bearing	No internal linings	12m high (max) FRL 90/90/90 Or -/90/90
B		STAAC Wall 75® panel	Load bearing or non-load bearing	The proposed internal linings are to be installed by traditional glue and nail/screw fixing methods and must be either; • Sound Grade Plasterboard (10mm & 13mm) • Moisture Grade Plasterboard (10mm & 13mm) • Standard Plasterboard or GIB board minimum 6.5kg/m^2 (10mm & 13mm) • Fire Grade Plasterboard (10mm & 13mm) • Fibre Cement (6mm & 9mm	12m high (max) FRL 90/90/90 Or -/90/90
C		STAAC Wall 75® panel	Load bearing or non-load bearing timber framing with horizontal steel batten (24mm Top hats) at 1200mm centres. The timber frames shall be designed and constructed in accordance with latest versions of AS 1720.1-2010 and/or AS 1684-2010.	The proposed internal linings are to be installed by traditional glue and nail/screw fixing methods and must be either; • Sound Grade Plasterboard (10mm & 13mm) • Moisture Grade Plasterboard (10mm & 13mm) • Standard Plasterboard or GIB board minimum 6.5kg/m^2 (10mm & 13mm) • Fire Grade Plasterboard (10mm & 13mm) • Fibre Cement (6mm & 9mm	FRL 90/90/90 Or -/90/90 Limited to panel side only

System A represents the common application in roof space, between floors or below floor level where plasterboard linings are not present.

System B represents the application of the separating wall between habitable areas with plasterboard linings.

Note: Where the panel has less than 20 mm cavity between 2 separate leaves and mechanical linkage other than at the periphery are not suitable for discontinuous construction.
This assessment considers a number of variations to the tested prototype, and these are:

1. Extrapolation of wall height up 12m;
2. Structural timber frame with studs in accordance with AS 1684-2010 and at various spacings;
3. Structural steel frame with studs in accordance with AS 3740 and at various stud spacings;
4. Application of plasterboard and fibre cement internal linings;
5. Up to an FRL of 90/90/90;
6. Details of suitable horizontal joints;
7. Aluminium clips (1.6mm or 2.0mm thick) on each side of each panel, top and bottom and spaced at a maximum 3000mm centres vertically, Clips shall be no more than600mm apart horizontally and centrally located within the panel width;
8. A 20mm minimum gap between framing and panels; and
9. Overhang party wall construction over ground floor common veranda.

Aluminium Clip Connecting STAAC Wall 75® Core to Structural frames	The STAAC Wall 75® Panels are secured to the structural frame on both sides of the central core by 70mm x 40mm x 1.6mm thick aluminium clips 50mm wide only. The aluminium clips on each side of each panel,top and bottom and spaced at a maximum 3000mm centres vertically, Clips shall be no more than 600mm apart horizontally and centrally located within the panel width. The aluminium clips are screw fixed to the STAAC Wall 75® with two No 12-8x60 or two No 1211x50 Hex Head Type 17 screws. The aluminium clips are fixed to the timber framing with two 25mm long hot dipped galvanised steel nails or 2xNo 12-11x35mm Hex head screws. The aluminium clips shall be fixed to steel framing with two 10-16x16 wafer head screws. Or The STAAC Wall 75® panels are secured to the structural frame on both sides of the central core by 70mm x 40mm x 2.0mm thick aluminium clips 50mm wide only. The aluminium clips on each side of each panel, top and bottom and spaced at a maximum 3000mm centres vertically. Clips shall be no more than 600mm apart horizontally and centrally located within the panel width. The aluminium clips are screw fixed to the STAAC Wall 75® with two No 12-8x60mm long or two No 12 11x50mm long Hex Head Type 17 screws. The aluminium clips are fixed to the timber framing with two 25mm long hot dipped galvanised steel nails or 2xNo 12-11x35mm long Hex head screws. The aluminium clips shall be fixed to steel framing with two 10-16x16mm long wafer head screws.
Structural Timber Framing	The structural timber framing is to be designed in accordance with AS 1684-2010 and AS 1720.1-2010. Minimum timber size is to be 70x35mm with a 20mm separation from the STAAC Wall 75® Panels. A nogging is to be provided at the clip positions to facilitate fixing to the frame if a plate is not present at the required position. To aid in construction of the wall system a steel batten may be fixed to one or both of the frames to space the panels from the frame correctly. In no cases are the battens to be fixed to the panels.
Structural Steel Framing	The structural steel framing can be made from light gauge steel designed in accordance with AS 3623:1993 (R2018) or AS/NZS 4600:2018. Minimum BMT for light gauge steel shall be 0.5mm with a 20mm separation from the STAAC Wall 75® Panels. A nogging is to be provided at the clip positions to facilitate fixing to the frame if a plate is not present at the required position. To aid in construction of the wall system a steel batten may be fixed to one or both of the frames to space the panels from the frame correctly. In no cases are the battens to be fixed to the panels.

Horizontal Joints in Central STAAC Wall 75® Core	The sealant shall be applied to both sides of the wall and achieve a fire resistance level (FRL) of at least -/90/-for system A and -/90/90for system B when tested or assessed protecting a joint in 75mm STAAC Wall 75®. The sealant shall be applied to one side of the wall and achieve a fire resistance level (FRL) of at least -/60/-for system A and -/60/60 for system B when tested or assessed protecting a joint in 75mm STAAC Wall 75®.
Vertical Joints in Central STAAC Wall 75® Core	The sealant shall be applied to both sides of the wall and for-/90/-for system A and -/90/90 for system B applications when tested or assessed protecting a joint in 75mm CSR STAAC Wall 75®. The sealant shall be applied to one side of the wall and for-/60/-for system A and -/60/60 for system B applications when tested or assessed protecting a joint in 75mm CSR STAAC Wall 75®.
Variation of Party Wall with Overhang over Ground Floor Veranda	The Party Wall system is varied optionally with the construction of the non-discontinuous Party Wall overhanging over the common ground floor veranda as shown in Figure 9a & 9b.
Conditions:	The following restrictions apply: 1. The walls shall be constructed in accordance with section 2 of this report. 2. The timber frames shall be designed in accordance with AS 1720.1-2010 or AS 1684-2010 or steel frames in accordance with AS 3623:1993 (R2018) or AS/NZS 4600:2018. 3. Typical service penetrations, such as 19mm copper pipes, 65mm uPVC pipes, GPO outlets and electrical cable penetrations that may penetrate the outer linings without special treatments provided the clearance between the edge of the service and opening cut in the lining does not exceed 6mm. 4. Services shall not penetrate the STAAC Wall 75® core for System type B. 5. For larger penetrations of metallic services and cables through the outer linings only the opening around the penetrations shall be sealed with a tested fire rated sealant. 6. If openings have been cut in the linings it shall be reinstated with similar materials to ensure the contribution of the lining material is maintained. 7. Subject to the above the lining materials can be fixed to the structural framing following the general requirements currently specified by CSR for non-fire resistant plasterboard. 8. Service penetrations that penetrate the STAAC Wall 75® core in the roof space (System Type A) shall be protected by systems that can achieve an FRL of -/90/90 when penetrating the wall system as described in section 2. (However, it should be noted that applicable legislation may restrict service penetrations through separating walls, regardless of tested performance). 9. The gap between the framing and the STAAC Wall 75®s widths must be a minimum of 20mm. 10. The results of the referenced assessment report are based on actual test data and the scope is necessarily limited to the specifications indicated Section 3 and discussed in the Appendices of the assessment.

Source: *Exova Warringtonfire Aus Pty Ltd; Report No. FAS190160 R21.0; reference No. 45771 dated 23/02/2023.*

A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact the Certificate Holder for details.

A5 Installation requirements

The installation of the STAAC Wall 75® Intertenancy Walls for House & Low Rise Multi Residential Building system must not deviate from the contents of the STAAC Wall 75® 75mm Intertenancy Walls for House & Low Rise Multi Residential Building Design and Installation Guide July2023.

- The STAAC Wall 75® Intertenancy Walls for House & Low Rise Multi Residential Building system is only to be installed by a suitably qualified tradesperson or a builder.
- The panel wall is constructed using maximum 3300mm x 600mm x 75mm thick STAAC Wall 75® panels with a minimum nominal dry density of 400kg/m^3 with a maximum span between support anchors of 3000mm.
- Project specific load bearing capacities for internal load bearing walls must be configured by the project engineer and are outside the scope of this Certificate of Conformity.

A6 Other relevant technical data

Acoustic

Where a minimum field acoustic performance rating is required to be achieved, specific project advice should be sought from a specialist Acoustic Consultant to determine whether the systems and installation methods are applicable and suitable.

Table 1 – Acoustic Performance Opinion

Stud spacing	Cavity Insulation	Wall Lining Both Sides	Rw/Rw + Ctr	
			70mm	90mm
450mm	NIL	1 layer of 10mm Gyprock™ plasterboard	42/34	44/35
450mm	90mm Bradford Comfortseal R2.0 – both sides		61/51	63/54
450mm	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		60/50	52/52

Table 2 – Acoustic Performance Opinion

Stud spacing	Cavity Insulation	Wall Lining Both Sides	Rw/Rw + Ctr	
			70mm	90mm
600mm	NIL	1 layer of 13mm Gyprock™ Standard 13mm	43/34	45/36
600mm	90mm Bradford Comfortseal R2.0 – both sides		64/52	67/55
600mm	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		63/50	66/53
600mm	NIL	1 layer of 13mm Gyprock™ Soundchek™	44/35	45/36
600mm	90mm Bradford Comfortseal R2.0 – both sides		67/55	70/58
600mm	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		66/53	69/56
600mm	NIL	1 layer of 10mm Gyprock™ Aquachek™	43/34	45/36
600mm	90mm Bradford Comfortseal R2.0 – both sides		64/52	67/55
600mm	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		63/50	66/53
600mm	NIL	1 layer of 9mm Cemintel® Fibre cement sheet	44/35	45/36
600mm	90mm Bradford Comfortseal R2.0 – both sides		67/55	70/58
600mm	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		66/53	69/56

Source: *Acoustic Logic Consultancy Report 2010861.19/0508A/R3/GW dated 05/08/2016.*

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Fire Safety Provisions A5G3(1)(d). A report issued by an Accredited Testing Laboratory.
2. Structural Resistance Provisions A5G3(1)(e). A report issued by a professional engineer.

B2 Reports

1. Exova Warringtonfire; NATA Accreditation 3277; Report No: FAS190160 Revision R21.0; Reference No. 45771; Fire assessment report CSR Hebel partywalls incorporating aluminium clips to AS 1530.4:2014; Dated 23/02/2023. Report provides FRLs for compliance with C2D2(2) & H3D4.
2. CSIRO; NATA Accreditation No. 165; Report No. FNC12491; Certificate of Test for Combustibility Test for Materials in accordance with as 1530.1:1994; Dated 11/11/2019. Report confirms the non-combustibility of the STAAC Wall 75® Panel complying with C2D10 & H3D2 of the panel only.
3. PACE Structural Pty Ltd; File No. PS23021; Structural design capacity calculations; Dated 01/08/2023. Report confirms the structural design capacity calculations of the Stoddart STAAC Wall 75® Intertenancy system comply with B1P1(1), (2)(a), (b), (c) & (d) and H1P1(1), (2)(a), (b), (c) & (d).

The Certificate Holder has chosen not to make the above evidence of compliance publicly available, due to the documents being considered commercial in confidence.