IAN BENNIE AND ASSOCIATES

TEST REPORT NO. 2018-067-S2

QT ECOSERIES EXTERIOR WALL CLADDING SYSTEM – CAVITY FIXED

450 MM STUDS WITH 225 MM FIXINGS

STATIC ULTIMATE WIND LOAD TESTS to AS4040.2

for

QT Systems

December 2018

Accreditation No. 2371
Accredited for compliance with ISO/IEC 17025 - Testing.

IAN BENNIE & ASSOCIATES PTY. LTD.
Building Performance Testing

ACN : 007 133 253

Accreditation No. 2371

TEST REPORT NUMBER 2018-067-S2

Test Client **QT Systems**
Unit 2/423 Bradman Street, Acacia Ridge Queensland.

Sample Identification A sample of **QT EcoSeries Exterior Wall Cladding System – Cavity Fixed** was installed on a timber stud frame. The sample consisted of cladding boards fixed with vertical timber battens on a 90 x 45 timber with 200 mm fixing centres. The stud frame was 1790 mm by 1800 mm with 450 mm stud centres. The configuration of the sample is shown in Figure1 and material details provided by QT Systems are given in Appendix A.

Test Method Strength limit state testing was conducted in accordance with AS4040.2 Methods of testing sheet roof and wall cladding, Method 2: Resistance to wind pressures for non-cyclone regions.

Procedure: AS4040.2 nominates for Strength limit state testing test loads shall be applied for a period of 1 minute. In order to ensure the full test pressure was applied to the cladding boards, holes were cut in the sarking.

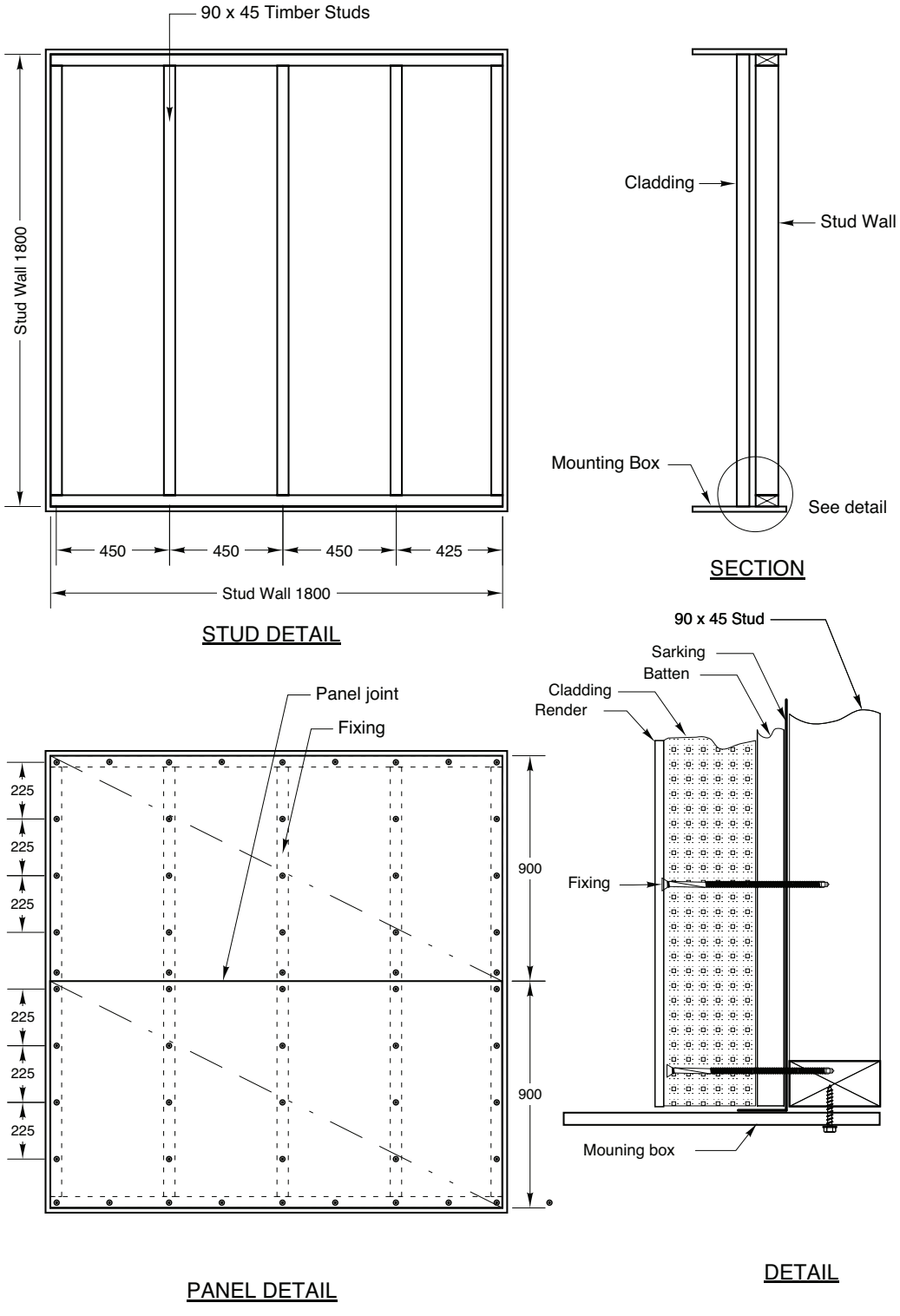
Test Location:	Ian Bennie & Associates Dandenong South, Victoria	**Sample(s) Received:** **Test Date(s):**	2nd August 2018 14th August 2018

Observations: The sample sustained the load of 6.48 kPa for a period of 1 minute.

Requirement: AS1562.1 Design and installation of sheet roof and wall cladding specify that the cladding system remain substantially in position, notwithstanding any permanent distortion, fracture or damage that might occur in the sheeting or fastenings.

1 Luisa Avenue, Dandenong 3175, Victoria , Australia
Telephone : (03) 9768 3640 International : +613 9768 3640 Facsimile: (03) 9768 3642

Figure 1: Details of the sample configuration.



Conclusion: AS 4040.2 nominates that design pressures should be multiplied by the appropriate variability factor to determine the test pressures. For Strength Limit State tests, AS/NZS 1170.0 nominates that for one sample being tested the variability factor is 1.46. Based on this factor, the QT EcoSeries Exterior Wall Cladding System – Cavity Fixed sample passed the Strength Limit State test requirements of Australian Standard AS4040.2 Methods of testing sheet roof and wall cladding, Method 2: Resistance to wind pressures for non-cyclone regions up to the strength limit state pressure of **4.44 kPa.** This pressure equals the ultimate strength wind pressure for **N5 Corner housing classifications** specified in AS 4055 Table 3.3.

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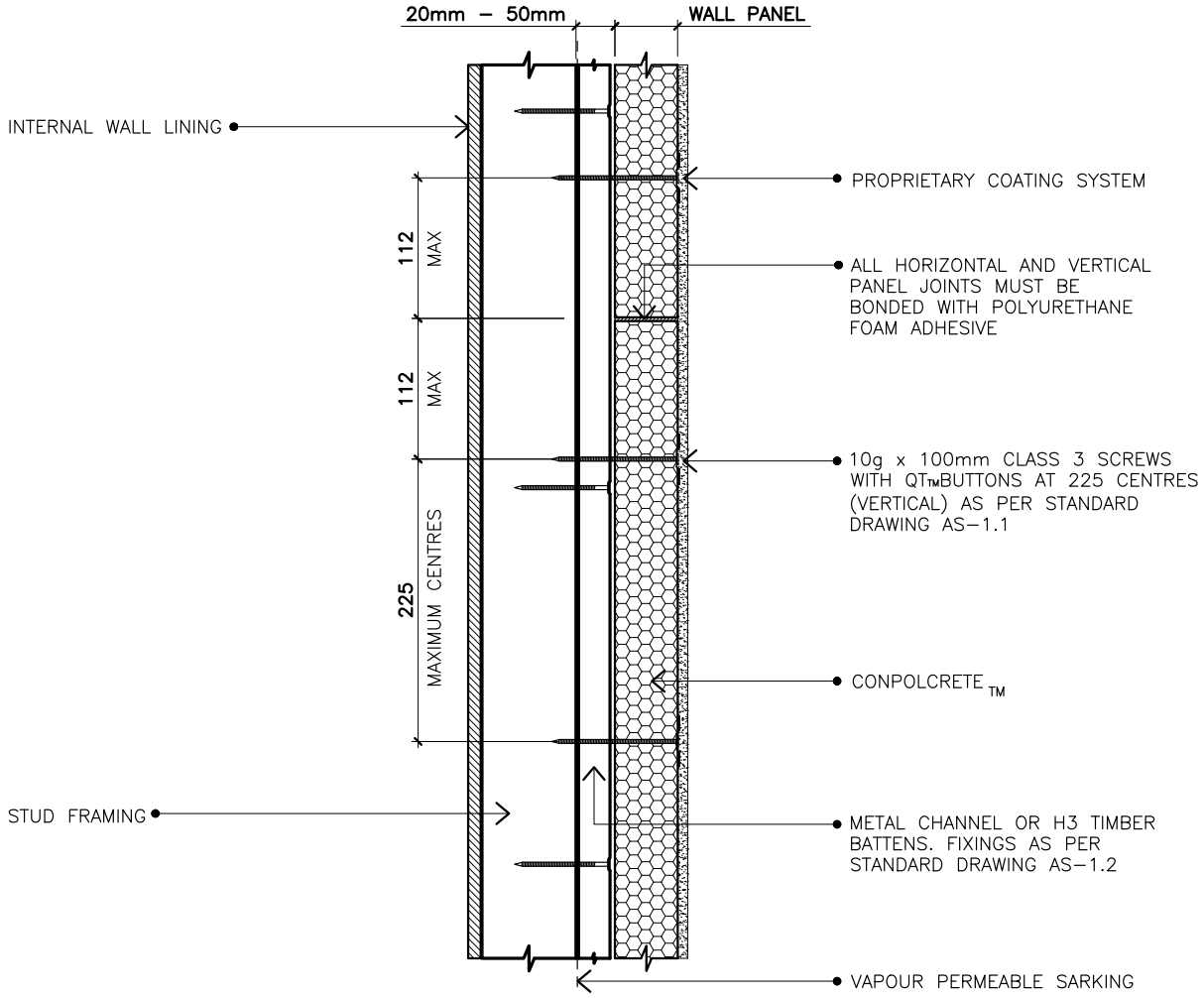
Ian Bennie & Associates 3
QT Systems ..... PDF

Derek Dubout 15 December 2018
Authorised Signatory

APPENDIX A - Sample details provided by the Client

Exterior
Wall System



CROSS SECTIONAL VIEW

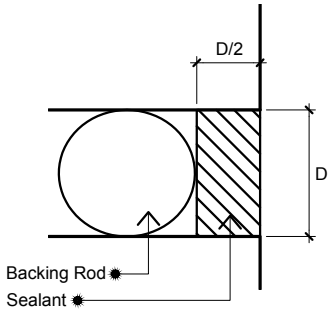
QT™ECOSeries WALL PANEL
TYPICAL CONSTRUCTION DETAIL

SCALE: A4=1:5

EcoSeries
Wall Panel

REF No.	QTES–001
REV:	B
DATE:	2/9/18
DETAIL No.	AS–1.3

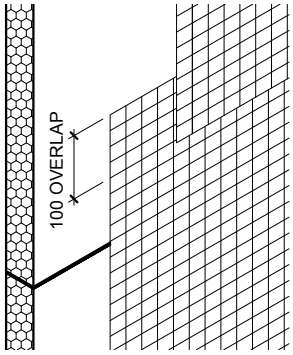
MISCELLANEOUS DETAILS (AS)



SEALANT APPLICATION DETAIL

General Sealant Notes

1. Use an exterior grade weathersealing sealant for exterior wall construction and as a general purpose gap-filling. Apply in accordance manufacturers recommendations.
2. Sealant must only contact a maximum of two surfaces.
3. For sealant to work effectively, the sealant must be applied as shown in the adjacent sketch, Opening Width (D) x Depth (D/2) half the width. Use packing rod as required.
4. Ensure surfaces are in good condition clean and free from oil, dust, loose materials including old sealant and release agents.
5. Apply masking tape to surfaces where contact with sealant is not required. Tape should be removed before sealant cures.
6. Smooth the surface of the sealant, ensure excess sealant is removed.
7. Refer manufacturers curing or drying times before painting.



QT™FullMesh OVERLAP

Reinforced Plaster Notes

1. Trowel an even coat of base coat render over the entire wall face. While base coat is still wet, embed QT™FullMesh or a mesh that the Coating Manufactures deems suitable. (Follow Proprietary Coating Manufacturers Instructions)
2. Lay QT™FullMesh or Coating Manufactures equivilent mesh onto wall in strips 1 metre wide, overlapping edges by at least 100mm
3. Additional reinforcement (QT™45° Mesh) is still required around opening corners Refer Drawing AS-2.6
4. Internal and External corners also require reinforcement (QT™CornerMesh) Refer Drawing AS-3.1, AS-3.1.1, AS -3.2 & AS-3.2.1

REF No.	QTES-001
REV:	C
DATE:	2/9/18
DETAIL No.	AS-1.5