AZUMA
Design

Laboratory Report

Date	8.8.16
Customer	A-Tech
	88 Stoney Creek Road Bexley
Test No :	AZT0265.16

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited Laboratory No : 15147

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Azuma Design Pty Limited
38-44 Redfern Street, Wetherill Park. NSW 2164 Ph 02 9604 0255 E-Mail info@azumadesign.com.au

AZUMA DESIGN

TESTING LABORATORY REPORT

NATA
WORLD RECOGNISED ACCREDITATION

SIGNATORIES	
	Reported by : Jayden Mudford
	Checked by : Robert Irwin

Date :	8.8.16
	Test No:
	AZT0265.16

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Wind and Water Penetration Testing

Testing to AS2047 and as per test method AS4420.0 to .6

Manufacturer / Customer A-Tech

Test Sample Data

Deflection Ratio 1 / 250

Unit type	Commercial Sliding Door	
Unit code	101.6 MM	
Size	H (mm)	2660
	W (mm)	1810
Design Pa:		

Tested For	Y / N	Rating	Units
Structural Deflection Positive	Yes	1690	Pa
Structural Deflection Negative	Yes	1660	Pa
Air Infiltration	Yes	75	Pa
Operating Force Initial / Constant	Yes	180/110	N
Water Penetration	Yes	500	Pa
Ultimate Strength Positive	Yes	2500	Pa
Ultimate Strength Negative	Yes	2500	Pa

Test Unit Specifications

Results

Sizes			H	W	Area sq m	Glass Type	Structural Framing Member	Span (mm)	Allowable Deflection	Deflection Result	Actual Ratio	Test Press (Pa)	Results
Frame			2660	1810	4.81		Interlock P	2500	10.00	10.00	250	1690	P
Sash	Fixed		2660	880	2.34		Interlock N	2500	10.00	9.99	250	1660	P
	Slide		2600	880	2.29		Mullion P						
							Mullion N						
							Transom P						
Glass	Thickness (mm)		H	W	m²		Transom N						
	Fixed	6.38	2462	782	1.93	Laminated	H/L Trans P						
	Slide	6.38	2462	782	1.93	Laminated	H/L Trans N						
							H/L Mullion P						
							H/L Mullion N						
							Meet Stile P						
							Meet Stile N						
							Awning Stile P						
							Awning Stile N						

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Test equipments

The test equipment and methods used in the above test comply with the requirements of AS 4420.1-6.

Test Specimen

See drawings at the end of this report.

Test Methods

The test sample was fixed into the rig as outlined in AS 4420.1.

Deflection Test

The test sample was subjected to both positive and negative pressure as prescribed in AS 4420.2. After the initial settling in of the unit at 50% of the required test pressure, the differential pressure was then applied slowly until the nominated design pressure was reached in positive. This process was then repeated for the negative.

Results of Test

The test unit satisfied the requirements of AS 4420.2 in both the positive and negative deflection at the nominated design pressure.

Observations

Nil

Operating Force Test

A force gauge was attached to the operating handle of the sash to determine the force required to set the sash in motion and thereafter to maintain motion as per AS 4420.3.

Force in Newtons

		Opening Force	Closing Force
Initiating Movement	Sash 1	34	50
Sustaining Movement	Sash 1	27	27
Initiating Movement	Sash 2	0	0
Sustaining Movement	Sash 2	0	0
Initiating Movement	Sash 3	0	0
Sustaining Movement	Sash 3	0	0

Results of test

The test unit satisfied the requirement of AS 4420.3.

Observations

Nil

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Air Infiltration Test

The test was first completely sealed as per AS 4420.4 to determine the air leakage of the test rig. It was then subjected to 75 Pa of both positive and negative pressure. Differential pressures were recorded. The test sample was then unsealed and subjected to 75 Pa of both positive and negative pressure. Differential pressures were recorded and air leakage then calculated. The actual leakage of the test sample was then determined.

Barometric pressure *(Pbar)*:	997	Air temperature *(° C)*	15

Max Pressure *(Pa)*	SEALED		UNSEALED	
	Positive *(Pa)*	Negative *(Pa)*	Positive *(Pa)*	Negative *(Pa)*
75	12	4	205	266

Test Pressure	Pressure Direction	Building / Window Type	Allowable leakage flow L/s m^2	Test results			
				$ls^{-1}m^{-2}$ Positive	$ls^{-1}m^{-2}$ Negative	Pos +	Neg -
75 Pa	+/-	Air conditioned	1.0	2.08	2.75	*N/A*	*N/A*
75 Pa	+	Non air conditioned	5.0	2.08	2.75	*Passed*	

Results of test

The test unit satisfied the requirement for a non air-conditioned classification.

Observations

Nil

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WATER PENETRATION

Water was applied to the exterior of the test sample with no less than 0.05 ls-1m-2 for a period of five minutes at zero pressure. After five minutes, a nominated pressure was applied for fifteen minutes as per AS 4420.5.

Maximum pressure *(Pa)* applied for 15 minutes (Nominated pressure)

500

Results of test

The test unit satisfied the requirement of AS 4420.5 in positive pressure at the nominated design pressure.

Observations

Nil

ULTIMATE STRENGTH TEST

The test sample shall be subjected to a smoothly increasing differential pressure. The pressure shall be conducted in both a positive and negative direction as per AS 4420.6. The test pressure shall be

Max. pressure reached for 10 seconds	
Positive	Negative
2500	2500

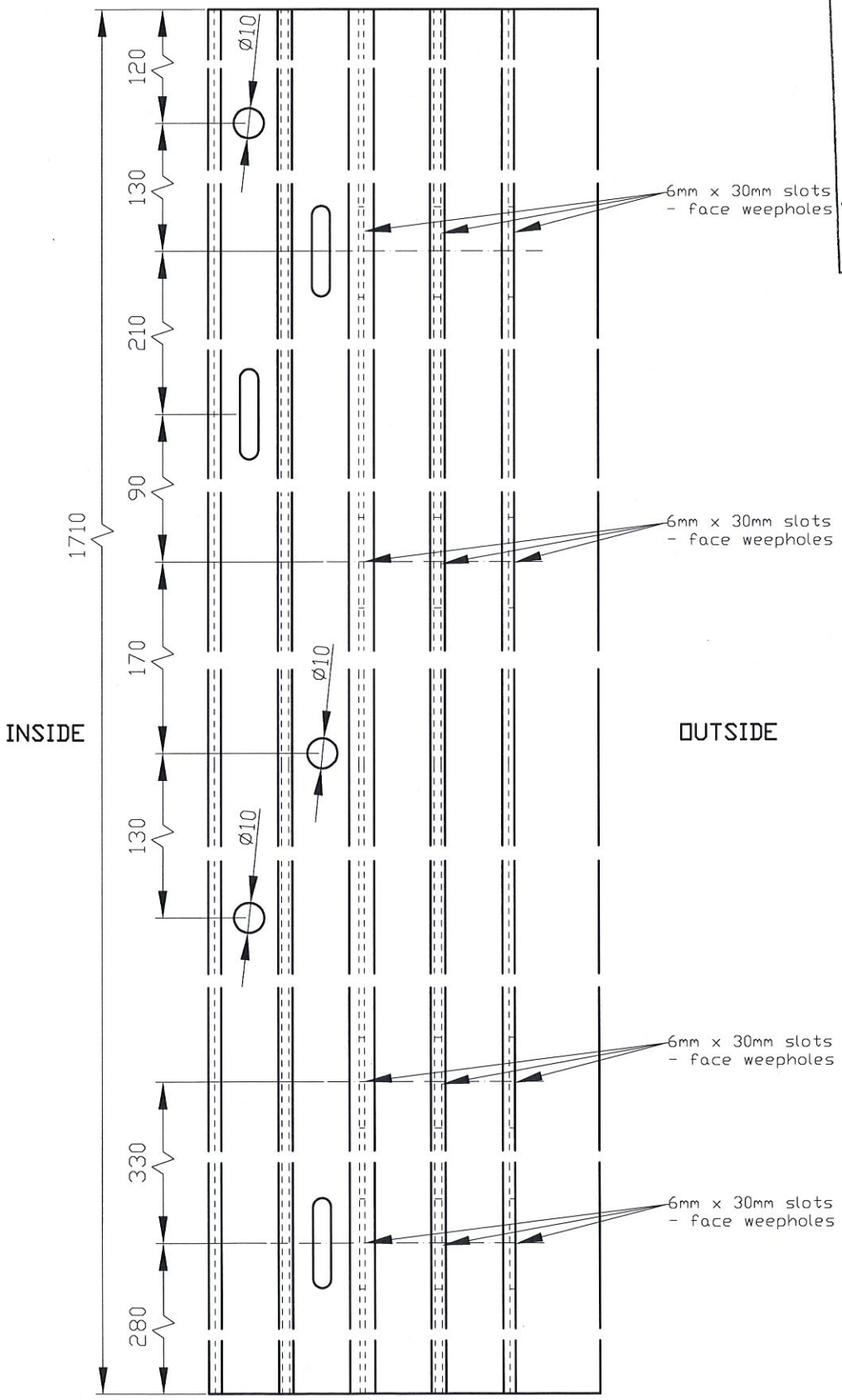
Results of test :	Y or N
Dislodgement of any glass?	No
Dislodgement of a frame or any part of a frame?	No
Removal of alignment with or without its framing sash from a frame?	No
Loss of support of a frame such as when it is unstable in its opening in the building structure?	No
Failure of any sash, locking device, fasteners or supporting stay which would allow an opening light to come open?	No

The test unit satisfied the requirement of AS 4420.6.

Observations

Nil

SILL DRAINAGE



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Number: 15147

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- ☐ FOR APPROVAL
- ☐ FOR CONSTRUCTION
- ■ AS BUILT

TITLE

101.6MM COMMERCIAL SLIDING DOOR TEST SPECIMEN SILL DRAINAGE DETAILS

DRAFTSMAN

BARTOSZ MAZUR

TESTING LABORATORY

AZUMA DESIGN

PROJECT NAME

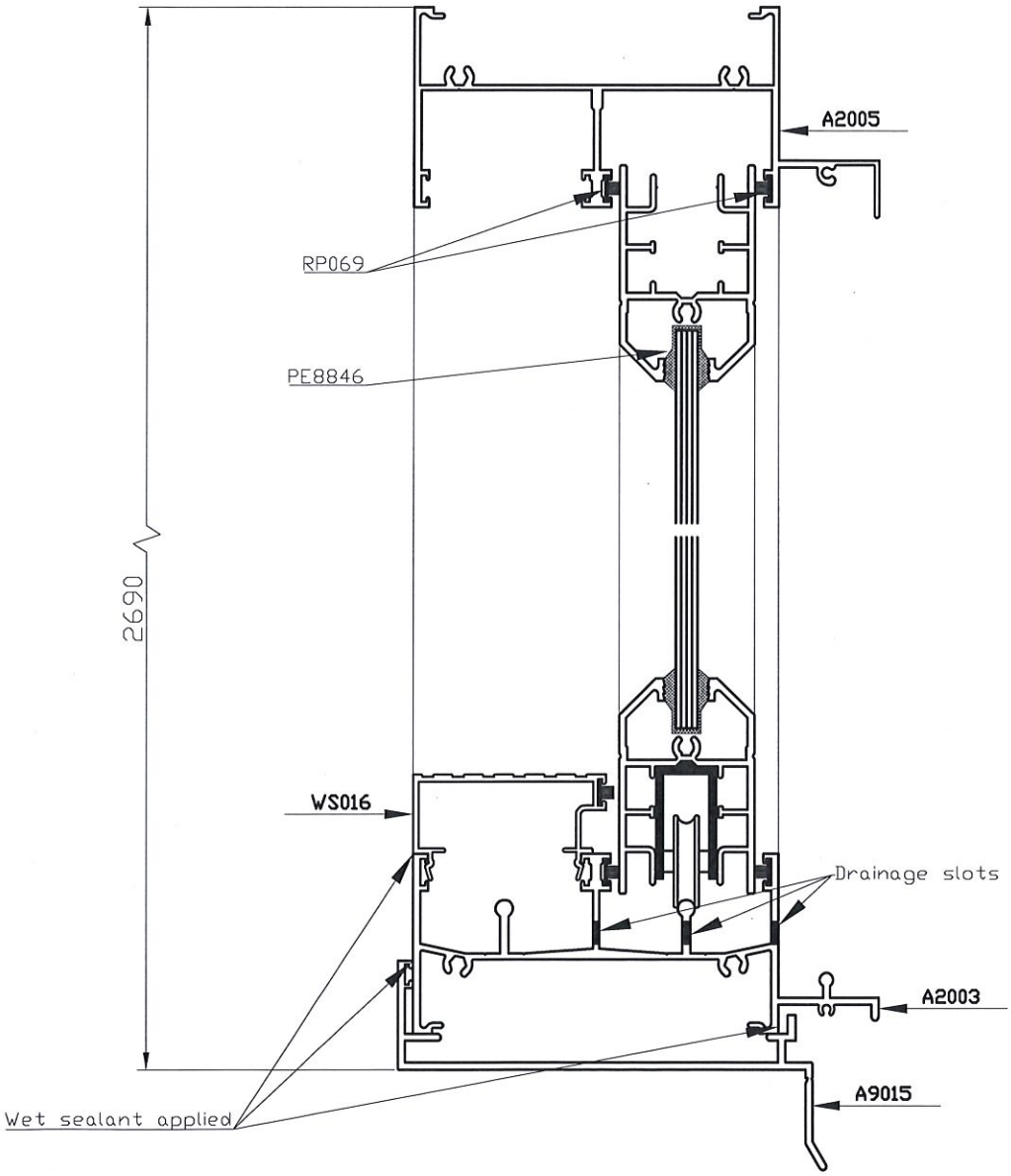
AS2047 COMPLIANCE TEST

CHECK	DATE
C.I	08/08/2016
FORMAT	SCALE
A4	1:2
DRAWING NO.	REV.
CSD-T4	01

A-Tech Australia

AZT0265.16

B-B DETAIL



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TITLE

101.6MM COMMERCIAL SLIDING DOOR TEST SPECIMEN VERTICAL SECTION (B-B)

DRAFTSMAN

BARTOSZ MAZUR

TESTING LABORATORY

AZUMA DESIGN

PROJECT NAME

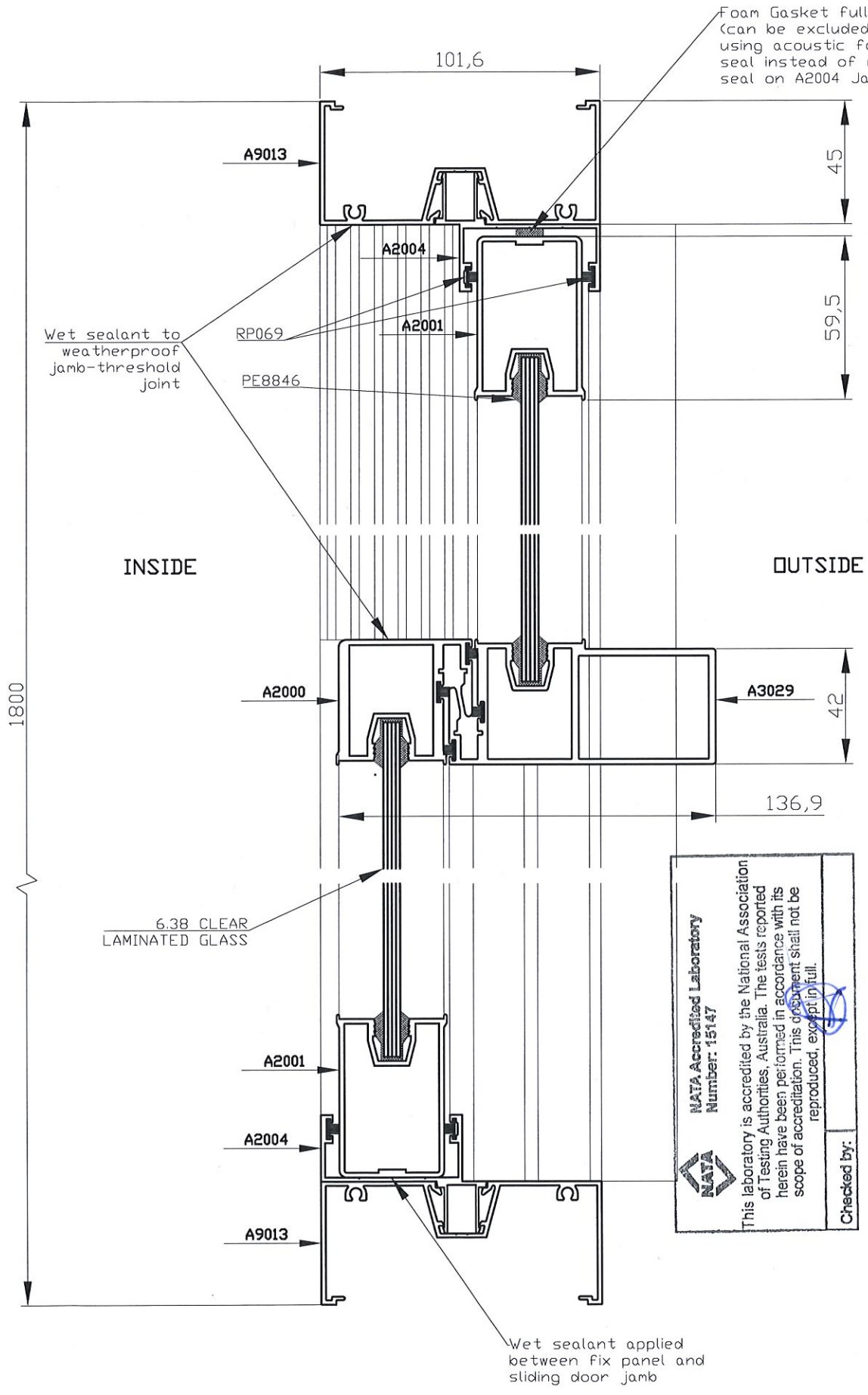
AS2047 COMPLIANCE TEST

CHECK	DATE
C.I	08/08/2016
FORMAT	SCALE
A4	1:2
DRAWING NO.	REV.
CSD-T2	01

A-Tech Australia

A2T0265-16

A-A DETAIL



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TITLE
101.6MM COMMERCIAL SLIDING DOOR TEST SPECIMEN HORIZONTAL SECTION (A-A)

DRAFTSMAN
BARTOSZ MAZUR

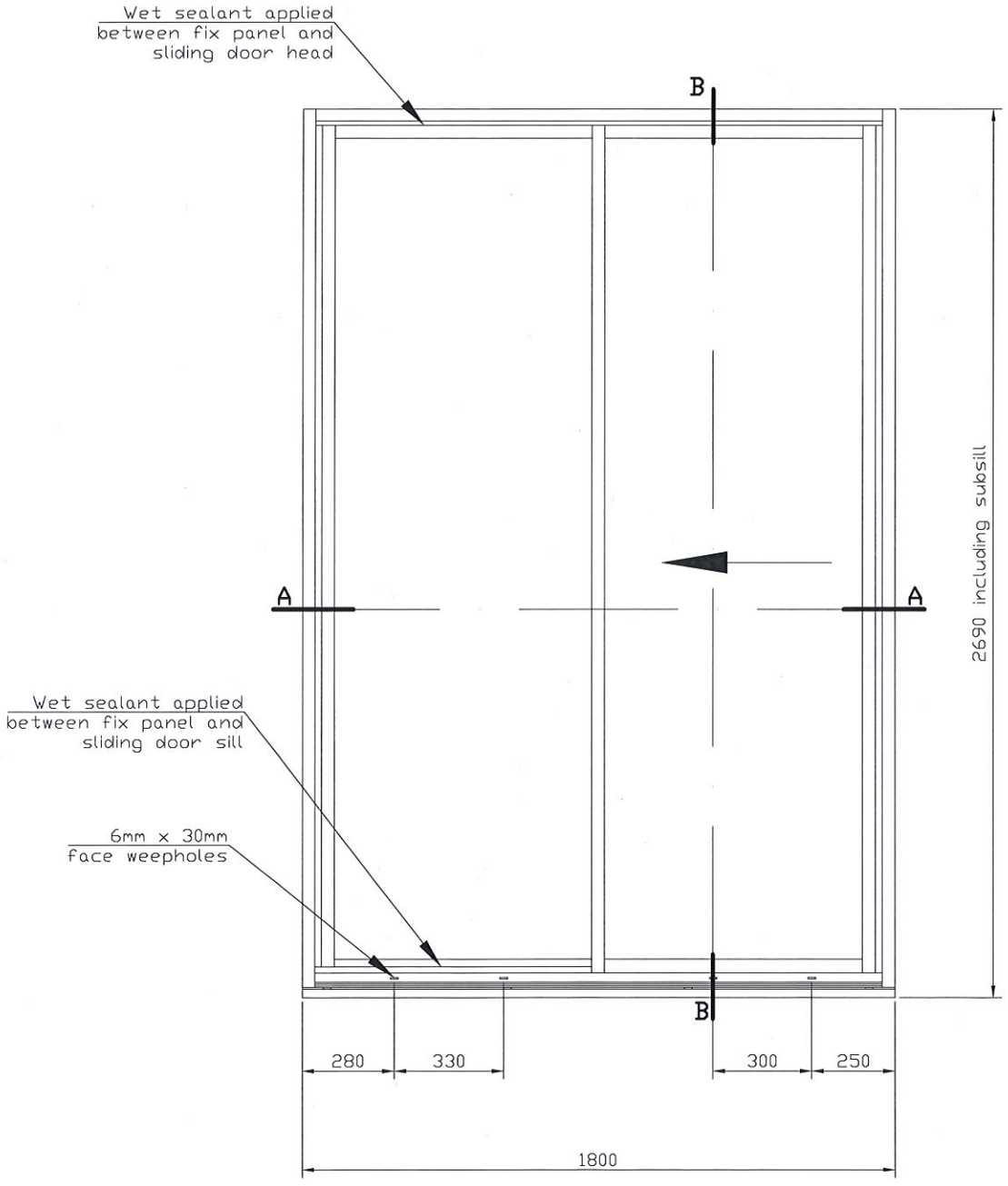
TESTING LABORATORY
AZUMA DESIGN

PROJECT NAME
AS2047 COMPLIANCE TEST

CHECK	DATE
C.I	08/08/2016
FORMAT	SCALE
A4	1:2
DRAWING NO.	REV.
CSD-T3	01

A-Tech Australia

AZT0265.16



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TITLE

101.6MM COMMERCIAL SLIDING DOOR TEST SPECIMEN

DRAFTSMAN

BARTOSZ MAZUR

TESTING LABORATORY

AZUMA DESIGN

PROJECT NAME

AS2047 COMPLIANCE TEST

CHECK	DATE
C.I	08/08/2016
FORMAT	SCALE
A4	1:20
DRAWING NO.	REV.
CSD-T1	01

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