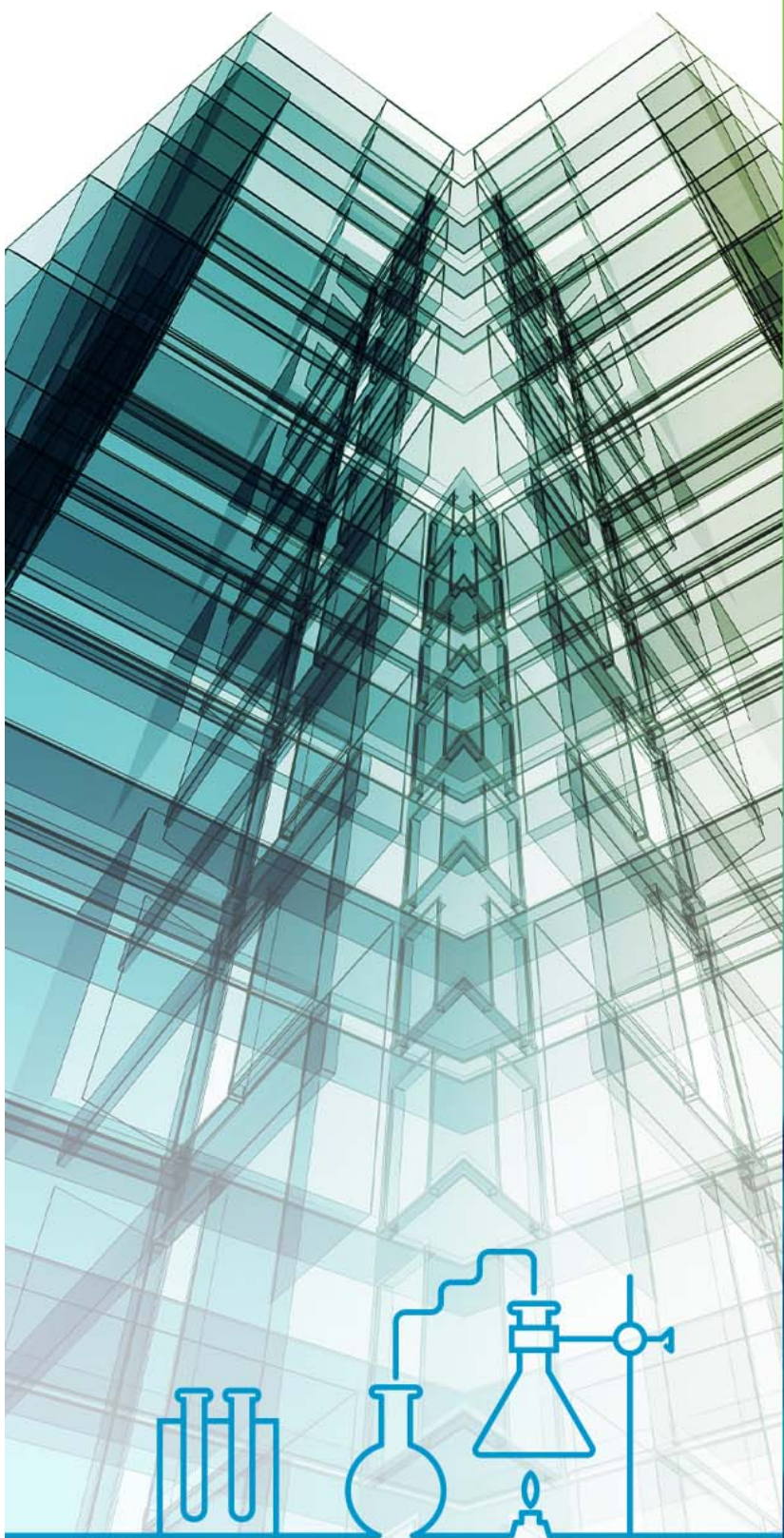




Assurance

Construction Laboratories
and Certification



SUPAPANEL
HORIZONTAL INSTALATION
FIRE ASSESSMENT REPORT

AS 1530.4-2014
AS 4072.1-2005

ACTC-8307-01R I01R00D02

Issued: 23.08.2024

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- NCC Vol 1 BCA 2022



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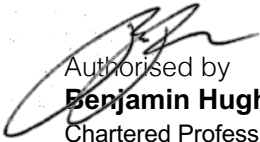
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TL-1162



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1 INTRODUCTION

1.1 Assessment Objectives

The purpose of this report is to document the test undertaken on the Supapanel and to evaluate the application of the Supapanel in line with the National Construction Code – Volume One – Building Code of Australia 2022 (NCC) for installation of the Supapanel in a horizontal orientation to a Span of 6.5 meters with additional cross walls in a horizontal application totalling a combined span of 6.5 meters.

Door systems that are required to be installed in a Supapanel wall and the evaluation of the treatment of the door frame connected to the Supapanel wall with the fire integrity of the particular door system, and the fire capacity of the door system that is to be maintained.

Pipes, services and penetrations through the Supapanel wall, the relative use of passive fire products around these items to maintain fire integrity of the wall system.

Supapanel is to be installed as an infill wall in a horizontal position for a length and height of up to 6.5m and height unlimited. The fire testing of the Supapanel has demonstrated its ability to maintain a Fire Resistance Level of -/180/60 for the 62 mm panel and -/120/120 for the 72mm panel. The structural analysis undertaken by Robert Bird Group based on the Ian Bennie NATA approved wind load testing as well as separate weight load testing has documented the installation requirements to install the Supapanel in a horizontal orientation of spans up to 4 meters for the 62mm panel and 6.5 meters for the 72 mm panel.

Supapanel has been tested in accordance with AS 1530.4-2014 by Pfits / Fire TS Lab for the 72mm panel Warringtonfire for the 62 mm panel. The Supapanel is proposed to be increased in height from the tested system of 3 m to 6.5 m within the subject installation method and detailed connection details nominated in this report.

In accordance with the National Construction Code Clause A5G3 (1)(d) evidence to support that the use of a material, product, form of construction or design meets a Deemed-to-Satisfy Provision may be in the form of a report issued by an Accredited Testing Laboratory. The report demonstrates that a material, product or form of construction fulfils specific requirements of the BCA, and sets out the tests the material, product or form of construction has been subjected to and the results of those tests and any other relevant information that has been relied upon to demonstrate it fulfils specific requirements of the BCA.

In accordance with the National Construction Code Specification 1 Clause S1C2 the tested building element meets the requirement of Specification 1 for fire resistance of building elements where it differs in only a minor degree from a prototype tested under the standard fire test. The FRL attributed to the building element is confirmed in a report from an Accredited Testing Laboratory.

AS 1530.4-2014 outlines the minimum information required for regulatory compliance within Clause 2.16.3. It is required that details of the testing body, details of the test and the applicability of the results for the specimens to be evaluated.

This report is issued by Benjamin Hughes-Brown, Accredited Laboratory Signatory and Chartered Professional Engineer of Assurance Construction Testing and Certification for use under the Deemed-to-Satisfy requirements of the BCA Volume 1 and BCA Volume 2. This report is by an Accredited Testing Laboratory, IAS accreditation TL-1162 and serves as a certificate from a signatory of an Accredited Testing Laboratory and professional engineer in accordance with Clause A5G3(1)(d) and A5G3(1)(e) of the BCA. Assurance holds accreditation to AS 1530.4-2014 and AS 4072.1-2005 with IAS (International Accreditation service) a signatory to the Mutual Recognition Agreement (MRA) under the International Laboratory Accreditation Cooperation.

1.2 Background

The Fire Resistance Level (FRL) of the 72mm Supapanel up to a span of 6.5m and up to 4.0m for the 62mm Supapanel in a vertical orientation is as follows:

A	Supapanel 62 mm	-/180/60
B	Supapanel 62 mm + Fire Grade Mastic outside joint	-/180/90
C	Supapanel 62 mm + 13 mm Fire Grade plasterboard	-/180/90
D	Supapanel 62 mm + 16 mm Fire Grade plasterboard	-/180/120
E	Supapanel 72 mm	-/120/120

1.3 Supapanel

The Supapanel is a 425mm wide x 62mm and 72mm thick panel (nominal 350mm between panel-to-panel joints) comprising of an aerated cement core encased in a 0.3 to 0.4mm thick mild galvanised steel 250 MPa skin with a 425 Kg concrete core. The 0.35 mm thick steel casing was subjected to testing. The following figures detail the 62mm and 72mm wide panels characteristics.

FIGURE 1:
62 MM SUPAPANEL PROFILE

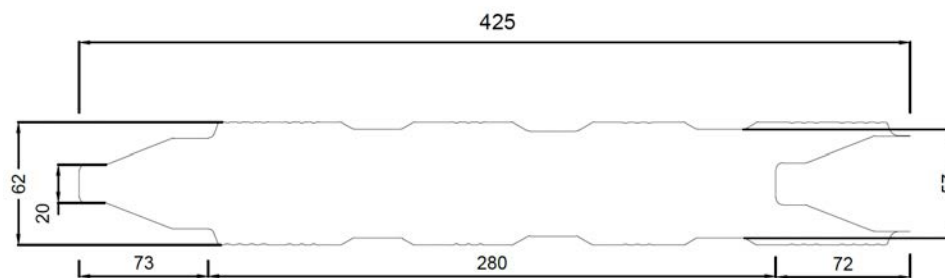
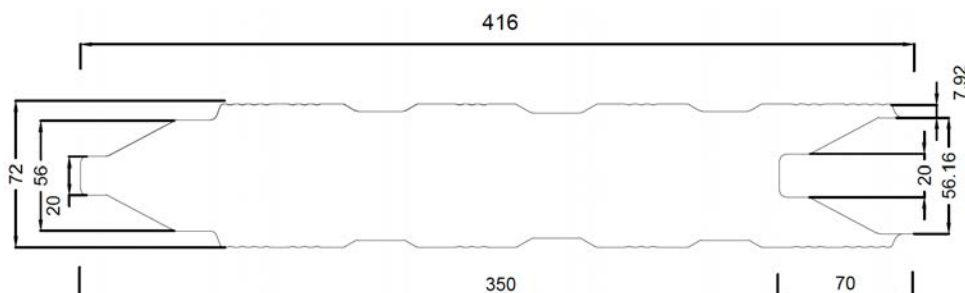


FIGURE 2:
72 MM SUPAPANEL PROFILE





The Supapanel wall system has been tested by PFITS, Fire TSLabs and Warringtonfire in accordance with AS 1530.4:2014. The Supapanel, being a 62mm and 72mm thick panel achieves the following Fire Resistance Levels:

TABLE 1:

SYSTEM A – 62 MM THICK SUPAPANEL

A **Wall System - Supapanel 62 mm**

The wall system consists of a 62 mm Supapanel

BCA Clause

Clause A5G5
AS 1530.4-2014

Supporting Evidence

PFITS Test Report

Test Report

PF19066 R4.0 26.11.2020

Application

The Supapanel is considered suitable for installation where a wall that achieves a Fire Resistance Level of at least -/60/60 is required.

Installation Conditions

The Supapanel is to be installed in accordance with K8 Installation Guide 2020

Fire Resistance Level

Structural Adequacy	-
Integrity	180
Insulation	60

TABLE 2:

SYSTEM B – 62 MM THICK SUPAPANEL + JOINT MASTIC

B **Wall System - Supapanel 62 mm + joint mastic**

The wall system consists of a 62 mm Supapanel and mastic installed over the joints on one side.

BCA Clause

Clause A5G5
AS 1530.4-2014

Supporting Evidence

PFITS Test Report

Test Report

PF19066 R4.0 26.11.2020

Application

The Supapanel with joint mastic is considered suitable for installation where a wall that achieves a Fire Resistance Level of at least -/180/90 is required.

Installation Conditions

The Supapanel is to be installed in accordance with K8 Installation Guide 2020

Fire Resistance Level

Structural Adequacy	-
Integrity	180
Insulation	90*

* The insulation of the wall to 90 minutes is based on an enhancement of the wall with fire grade mastic.


TABLE 3:

SYSTEM C – 62 MM THICK SUPAPANEL + 13 MM FIRE GRADE PLASTERBOARD

C Wall System - Supapanel 62 mm + 13 mm fire grade plasterboard on one side

The wall system consists of a 62 mm Supapanel and 13 mm fire grade plasterboard panel.

BCA Clause

Clause A5G5

AS 1530.4-2014

Supporting Evidence

PFITS Test Report

[Test Report](#)

PF19066 R4.0 26.11.2020

Application

The Supapanel with 13 mm fire grade plasterboard is considered suitable for installation where a wall that achieves a Fire Resistance Level of at least -/180/90.

Installation Conditions

The Supapanel is to be installed in accordance with K8 Installation Guide 2020

Fire Resistance Level

Structural Adequacy	-
Integrity	180
Insulation	90*

* The insulation of the wall to 90 minutes is based on an enhancement of the wall by a 13 mm layer of fire grade plasterboard.

TABLE 4:

SYSTEM D – 62 MM THICK SUPAPANEL + 13 MM FIRE GRADE PLASTERBOARD

D Wall System - Supapanel 62 mm + 16 mm fire grade plasterboard on one side

The wall system consists of a 62 mm Supapanel and 16 mm fire grade plasterboard panel.

BCA Clause

Clause A5G5

AS 1530.4-2014

Supporting Evidence

Warringtonfire

[Test Report](#)

FRT200129 R1.0 10.06.2020

Application

The Supapanel with 16 mm fire grade plasterboard is considered suitable for installation where a wall that achieves a Fire Resistance Level of at least -/180/120.

Installation Conditions

The Supapanel is to be installed in accordance with K8 Installation Guide 2020

Fire Resistance Level

Structural Adequacy	-
Integrity	180
Insulation	120*

* The insulation of the wall to 120 minutes is based on an enhancement of the wall by a 16 mm layer of fire grade plasterboard.

TABLE 5:
SYSTEM E – 72 MM THICK SUPAPANEL

E	Wall System - Supapanel 72 mm	
	The wall system consists of a 72 mm Supapanel with fire grade mastic	
BCA Clause	Clause A5G5 AS 1530.4-2014	
Supporting Evidence	FireTSLabs	Test Report PF23046 13.09.2023
Application	The Supapanel is considered suitable for installation where a wall that achieves a Fire Resistance Level of at least -/120/120 is required.	
Installation Conditions	The Supapanel is to be installed in accordance with K8 Installation Guide 2020	
Fire Resistance Level	Structural Adequacy	-
	Integrity	120
	Insulation	120


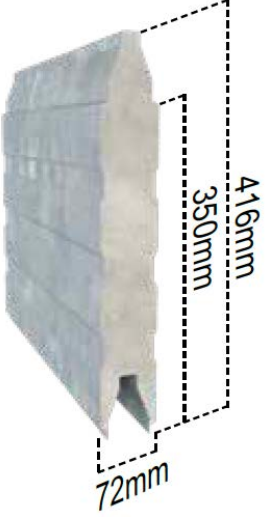
1.4 Conclusion

The Supapanel being a 425mm wide x 62mm and 72mm thick panel (nominal 350mm between panel-to-panel joints) comprising of an aerated cement core encased in a 0.3 to 0.4mm thick mild galvanised steel 250 MPa skin with a 425 Kg concrete core. The 0.35 mm thick steel casing was subjected to testing to AS1530.4: 2014. The below table nominates the maximum vertical span for the 62mm and 72mm thick Supapanel panels.

TABLE 6:
SUPAPANEL APPLICATION SUMMARY



Supapanel wall thickness	62 mm Supapanel	62 mm Supapanel with one side caulked joint or 13 mm fire rated plasterboard	62 mm Supapanel with One 16 mm fire rated plasterboard on one face	72 mm Supapanel	Maximum vertical span between structural elements or vertical Supapanel wall
Maximum wall span	4000 mm	4000 mm	4000 mm	6500 mm	Unlimited
Maximum lineal meters of cross wall connected to primary spanning wall	4000 mm	4000 mm	4000 mm	6500 mm	Unlimited
Fire Resistance Level	-/60/60	-/90/90	-/180/120	-/120/120	-/120/120
Fire core door system	-/60/30	-/90/30	-/120/30	-/120/30	-/120/30
Penetration passive fire product	-/60/60	-/90/90	-/120/120	-/120/120	-/120/120
Access hatches	-/60/30	-/90/30	-/120/30	-/120/30	-/120/120
Ducting fire dampers	-/60/-	-/90/-	-/120/-	-/120/-	-/120/-

2 SCHEDULE OF COMPONENTS

Item	Description	
PANELS		
1	Item Name	62 MM SUPAPANEL
	Product Name	Supapanel
	Specification	425 mm wide x 62 mm thick panels (nominal 350 mm between panels joints) comprised an aerated cement core encased in 0.35 mm thick galvanised steel skin
		
2	Item Name	72 MM SUPAPANEL
	Product Name	Supapanel
	Specification	416 mm wide x 72 mm thick panels (nominal 350 mm between panels joints) comprised an aerated cement core encased in 0.35 mm thick galvanised steel skin
		

Item	Description	
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TRACKS




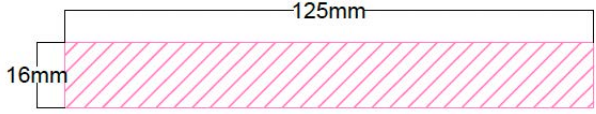

3	Item Name	Top Track / Capping Track
	Material	1.15 BMT Galvanised Steel
	Size	<ul style="list-style-type: none"> • 72 mm or 62 mm – 50/75/50 or 50/65/50 • 72 mm or 62 mm – 50/75/63 or 60/65/63 
4	Item Name	Bottom Track
	Material	1.15 BMT Galvanised Steel
	Size	<ul style="list-style-type: none"> • 72 mm or 62 mm – 50/75/50 or 50/65/50 • 72 mm or 62 mm – 50/75/50 or 19/65/50 

SEALANT

5	Item Name	Fire Rated Sealant
	Material	BOSS FireMastic 300™, Fullers firesound, Promaseal

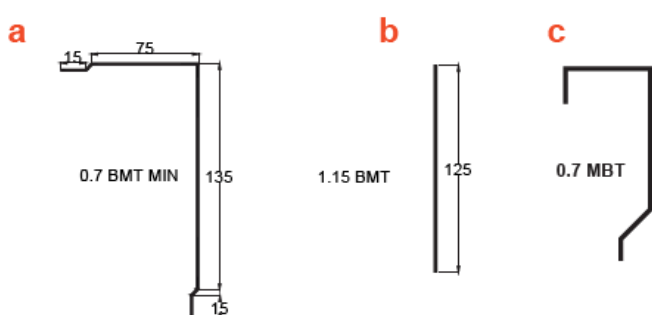
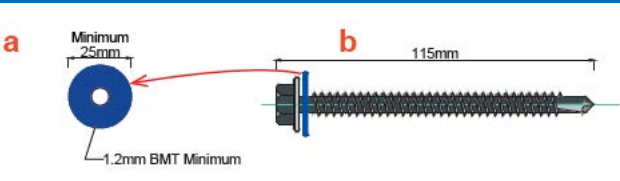
INTUMESCENT STRIP

6	Item Name	Intumescent Strip
	Material	BOSS UniWrap® or Rely Intumescent Wrap
	Size	12 mm x 2 mm 

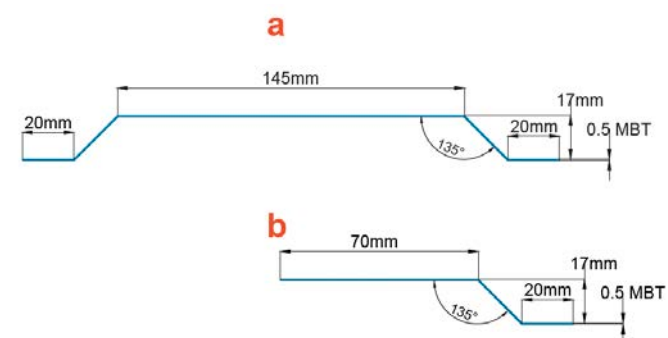
Item	Description	
FIXINGS		
7	Item Name	Joint Screw / Bottom Track Screw
	Product description	6g x 16 mm flat head, self-drill screws 8g x 25 mm wafer head, self-drill screws 
8	Item Name	Plasterboard Screw
	Product description	6g x 45 mm bugle head, self-drill plasterboard needle point screws 
9	Item Name	Seismic Anchor Screw
	Product description	AnkaScrew™ 14g x 45 mm long 
PLASTERBOARD		
10	Item Name	Head Track Protection
	Material	Fire rated plasterboard
	Density	653 kg/m ³
	Size	12 mm x 2 mm 
EQUAL ANGLE		
11	Item Name	Top and Bottom Support
	Size	50/50 – 1.15 mm BMT internal angle 

Item	Description
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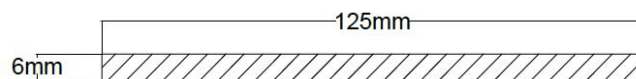
EXTERNAL METAL FLASHING

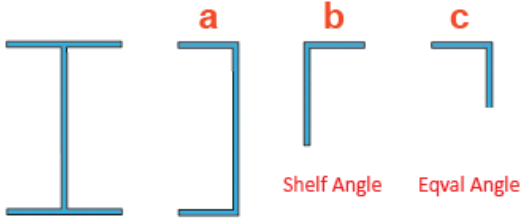
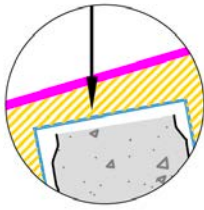




12	Item Name	External Metal Flashing 0.7 BMT Min
	Size	
13	Item Name	12 gauge SDS with Washer
		

HORIZONTAL – VERTICAL COVER

14	Item Name	Horizontal / Vertical Flashing
		

BOARD PROTECTION

15	Item Name	MGO board
		6 mm 125 wide MGO board 

Item	Description	
STEEL BEAM		
16	Item Name	Steel Beam
	Steel beam to engineer specification	
ROCKWOOL		
17	Item Name	Steel Beam
	Fire rated Rockwool to fill void and achieve the required FRL	
SHAFT LINER		
18	Item Name	Shaft Liner
		25 mm Shaft Liner sheet 
6 mm FIBRE CEMENT		
19	Item Name	6 MM Fibre Cement
		25 mm Shaft Liner sheet 
STEEL STUD		
20	Item Name	Steel Stud
		
50 MM BOSS FIRE BATT		
21	Item Name	50 mm Boss Fire Batt
		



3 NATIONAL CONSTRUCTION CODE COMPLIANCE

3.1 General

The following fire safety measures relate to elements that are associated with the performance analysis. All other elements of the buildings fire safety measures not specifically documented in the following section is to comply with the requirements of the BCA and documented by others.

The following clauses of the BCA (including all related State and Territory variations) have been evaluated and is of the opinion of Assurance to satisfy the following parts of the Building Code of Australia. The joints have been tested and reported as per AS 1530.4: 2014, AS 4072.1: 2005 by Fire TS Lab and as per Specification 1 and Clause C4D15 for a tested system. The installation of fire doors within the Supanel has been evaluated against the requirements of AS 1530.4:2014 and AS4072.1:2005.

Volume One – Building Code of Australia 2022

- 3.1.1 [Clause A5G2](#) evidence to support the use of a material meets the nominated Performance Requirements through the Governing Requirements of the NCC.
- 3.1.2 [Clause A5.2 \(1\)\(e\)](#) as evidence to support that the Supanel meets the nominated Performance Requirements and Deemed-to-Satisfy Provisions under a certificate issued by an Accredited Testing Laboratory and being tested by an Accredited Testing Laboratory being Fire TS Lab and Warringtonfire.
- 3.1.3 [Clause A5G5](#) Fire-resistance of building elements
 - a. The FRL of a building element has been determined in accordance with Specification 1 for vertical or horizontal orientation.

3.2 Fire Safety Measures

3.2.1 Wall Compliance (including shaft lining in vertical orientation)

- a. It is proposed that the following clause of the BCA has been evaluated and identified as being complied with:
 - i. [Clause A5G5](#) Fire-resistance of building elements
- b. [Specification 1 Clause S1C2\(c\)](#) being a building element tested to the standard fire curve achieving an FRL for each wall thickness being improved from the tested wall system and listed above.

3.2.2 Installation

- a. The installation of Supanel to maintain the required fire resistance level is documented in the attached drawings by Supanel nominated in this report. This includes screw spacing, fixings, head and base track and equal angle connection details, obtuse connections, fixing to steel structure, intersecting with other light weight fire rated walls in the vertical orientation.

4 EXTENDED SPAN

4.1 General

The purpose of this assessment is to report the applicable use and compliance of Supapanel to maintain its tested Fire Resistance Level when oriented in a horizontal position extending the span from the tested specimen of 3.0m to 6.5m. The strength and ability of the Supapanel is considered to maintain the Fire Resistance Level of the wall system provided.

From the fire testing detailed above, the weakness in the panel occurs in the deflection of the panel joints under pressure. The deflection varied by 10 mm when the wind pressure was increased over the greater 6.5 m length. The greatest deflection occurred during the fire resistance test. It is considered that as the panels increase in size and with the uniform fixing of the joints, the wall is capable to withstand the deflection without failure. Accordingly, the panels, being non-loadbearing, are considered able to maintain their joint and as such maintain the tested fire resistance level for integrity and insulation.

Robert Bird Group undertook structural load testing of the Supapanel on 18 November 2020. It is the nature of the Supapanel core material, being concrete, to have a natural compressive strength. The testing demonstrated an ability for the Supapanel to have the loaded weight up to 6.5m in height without detriment to the established Fire Resistance Level.

4.2 Robert Bird Engineers Report

The following is an extract of reporting form Robert Bird Group based on the testing conducted by Ian Bennie & Associates.

Robert Bird Group – Consulting Structural Engineers, were commissioned from Wall Technologies Pty Ltd to prepare an Interim Structural Design Certificate for the 72 mm Supapanel System maximum height vs wind pressure vs deflection charts based on the available test data and installations tabulated below and derived via methods of theoretical interpolation of testing data.

Robert Bird Group undertook this theoretical desktop assessment and detailed design work for the proprietary installations as specifically tested and reported by Ian Bennie Associates to formulate theoretical interpolations of various spans:

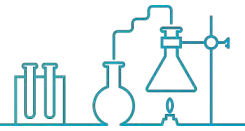
- a. Supapanel Test Report: Supapanel - 0.35BMT/380 kg/m³@3600 Span, Report No. 2021-085-S1- S4 (Amended) dated 3rd February 2022.
- b. Supapanel Test Report: Supapanel - 0.35BMT/380 kg/m³@6000 Span under maximum 300 and 600 Pa testing loads received in January 2022.

The Supapanel wall system used in the 3.6m and 6m high Supapanel testing typically comprised of 2 # 350mm wide core samples combined and interconnected with a half width core each side to form the 3.6m and 6.5m high x 1.0m wide tested system except one testing wall system comprised of 4 # 350mm wide core samples combined with a half width core each side to form the 6.5m high x 1.75m wide tested system. Each core contained 380 kg/m³ density concrete with the screw fixings only installed between panels on the positive pressure face.

The testing report from Ian Bennie & Associates provides an outline for this engineering review undertaken of the wind testing data and how this data was collated to validate the certification of the Supapanel products with 0.35 BMT. The testing application is limited to 3.6 m and 6.5 m maximum height as per the tested panels for the specified 'Safe Working and Ultimate Wind Loads' in the testing reports.

These wind loads have been determined for Region A zones to AS 1170.2-2011 and are not applicable to cyclonic regions.

The testing by Ian Bennie & Associates as well as the evaluation by Robert Bird Group has concluded that the Supapanel has the capacity to maintain its integrity and fixing over a span of 6m when subject to Safe Working and Ultimate Wind Loads.



Further to the wind loading testing of the Supapanel, several jointing options have been considered where the span can be increased to 4m for 62mm panels and 6.5m for 72mm panels. The joints provide the equivalent connection and jointing to the panels and are deemed to present an equivalent level of strength to the wall system, should it be tested.

5 VARIATION TO TESTED PROTOTYPES

5.1 General

The Supapanel 72 mm wall panels have been subjected to testing by Warringtonfire, Pfits and Fire TS Lab. The Supapanel is proposed to be increased in height from the tested system of 3.0m to 6.5 m within the subject installation as well as installed within various connection details.

The purpose of this assessment is to report the applicable use and compliance of the 62 mm and 72 mm thick Supapanel against the requirements of the National Construction Code – Volume One – Building Code of Australia 2022 (BCA) and AS 1530.4-2014 to be used as a non-combustible infill panel wall system where it is to span up to 6.5 m high in a vertical orientation for 72mm panels and 4.0m high for 62mm panels as per Robert Bird Group assessment whilst maintaining its Fire Resistance Level.

This assessment considers the additional span above the tested 3.0m height to a 6.5 m height. A 6.0 m length of Supapanel was tested by Ian Bennie and Associates to AS/NZS 4284:2008 and evaluated by Robert Bird Group in assessment 21626M dated 16 March 2022. Robert Birds assessment indicated the wall system when subjected to substantial wind pressure (at least 250 Pa) that the wall joints did not fail.

During the testing at 1.75 Kpa for the 3.6m length specimen a deflection of 17.3 mm was measured and at 600 pascals for the 6 m length specimen a deflection of 27.4 mm was measured.

AS 1530.4:2014 permits variations to the tested specimen provided no individual component is removed or reduced the increase in the length of a wall of identical construction if the specimen was tested with one vertical edge unrestrained. The following evaluation considers the fire and wind testing of the panels to demonstrate that increasing the panels length to 6.5 m does not present a reduction in performance.

Testing of the wall system in accordance with AS 1530.4-2014 has been undertaken by pfits / Fire TS Lab and documented in their report PF19066 achieved an FRL of at least -/180/60 during testing of the bare 62 mm panel and PF23046 achieved an FRL of at least -/120/120 during testing of the bare 72 mm panel. During the pfits / Fire TS Lab laboratory test a deflection in the order of 160 mm was measured at the peak point of the 240 minute test. It is considered important to note that the Supapanel maintained general integrity over the 240 minutes in this test.

From the above testing, the weakness in the panel occurs in the deflection of the panel joints under pressure. The deflection varied by 10 mm when the wind pressure was increased over the greater 6.5 m length. The greatest deflection occurred during the fire resistance test. It is considered that as the panels increase in size and with the uniform fixing of the joints, the wall can withstand the deflection without failure. Accordingly, the panels, being non-loadbearing, are considered able to maintain the joint strength during exposure to heat and gas as well as wind loading and as such maintain the tested fire resistance level for integrity and insulation.

6 HORIZONTAL INSTALLATION

6.1 General

The purpose of this assessment is to report the applicable use and compliance of Supapanel to maintain its tested Fire Resistance Level when orientated in a horizontal position in lieu of vertical. The strength and ability of the Supapanel is considered to maintain the Fire Resistance Level of the wall system provided the weight of the wall system, in a horizontal orientation, does not increase the deflection of the panel outside of that within the tested system under fire conditions.

From the fire testing detailed above, the weakness in the panel occurs in the deflection of the panel joints under pressure. The deflection varied by 10 mm when the wind pressure was increased over the greater 6.5m length. The greatest deflection occurred during the fire resistance test. It is considered that as the panels increase in size and with the uniform fixing of the joints, the wall is able to withstand the deflection without failure. Additionally, the panels, being non-loadbearing, are considered able to maintain the integrity in the joint of wall system and as such maintain the tested fire resistance level for integrity and insulation.

Robert Bird Group undertook structural load testing of the Supapanel on 18 November 2020. It is the nature of the Supapanel core material, being concrete, to have a compressive strength. The testing demonstrated an ability for the Supapanel to have the loaded weight up to 6.5m in span without detriment to the established Fire Resistance Level.

6.2 Supapanel Testing

The following is an extract of reporting form Robert Bird Group based on the testing conducted by Ian Bennie & Associates.

Robert Bird Group – Consulting Structural Engineers, were commissioned by Wall Technologies Pty Ltd to prepare an Interim Structural Design Certificate for the 72mm Supapanel System maximum height vs wind pressure vs deflection charts based on the available test data and installations tabulated below and derived via methods of theoretical interpolation of testing data.

Robert Bird Group undertook this theoretical desktop assessment and detailed design work for the proprietary installations as specifically tested and reported by Ian Bennie Associates to formulate theoretical interpolations of various spans:

- a. Supapanel Test Report: Supapanel - 0.35BMT/380 kg/m³@3600 Span, Report No. 2021-085-S1-S4 (Amended) dated 3rd February 2022.
- b. Supapanel Test Report: Supapanel - 0.35BMT/380 kg/m³@6000 Span under maximum 300 and 600 Pa testing loads received in January 2022.

The Supapanel wall system used in the 3.6m and 6m high Supapanel testing typically comprised of 2 # 350mm wide core samples combined and interconnected with a half width core each side to form the 3.6m and 6.5m high x 1.0m wide tested system except one testing wall system comprised of 4 # 350mm wide core samples combined with a half width core each side to form the 6.5m high x 1.75m wide tested system. Each core contained 380kg/m³ density concrete with the screw fixings only installed between panels on the positive pressure face.

The testing report from Ian Bennie & Associates provides an outline for this engineering review undertaken of the wind testing data and how this data was collated to validate the certification of the Supapanel products with 0.35mm BMT steel shell. The testing application is limited to 3.6m and 6.5m maximum height as per the tested panels for the specified 'Safe Working and Ultimate Wind Loads' in the testing reports. These wind loads have been determined for Region A zones to AS 1170.2-2011 and are not applicable to cyclonic regions.

The testing by Ian Bennie & Associates as well as the evaluation by Robert Bird Group has concluded that the Supapanel has the capacity to maintain its integrity and fixing over a span of 6m when subject to Safe Working and Ultimate Wind Loads.

Further to the wind loading testing of the Supapanel, several jointing options have been considered where the span can be increased to 4m and 6.5m. The joints provide the equivalent



connection and jointing to the panels and are deemed to present an equivalent level of strength to the wall system, should it be tested.

7 DIRECT FIELD OF APPLICATION

The results of the fire test contained in this test report are directly applicable to similar constructions of the subject wall. Variations in building elements that are not minor will require re-testing.

This report is by an Accredited Testing Laboratory, IAS accreditation TL-1162 and serves as a certificate from a signatory of an Accredited Testing Laboratory and professional engineer in accordance with Clause A5G3 (1)(d) and A5G3 (1)(e) of the BCA Volume 1. Assurance holds accreditation to AS 1530.4- 2014, AS 4072.1-2005 with IAS, being the International Accreditation service, a signatory to the Mutual Recognition Agreement (MRA) under the International Laboratory Accreditation Cooperation.

Fire TS Lab is accredited with IANZ and recognised by NATA through a mutual recognition agreement under the International Laboratory Accreditation Cooperation.



8 PROPOSED VARIATIONS

8.1 INTRODUCTION

The BCA sets the requirements for fire doors to comply with AS 1905.1: 2015. Clause 1.4.13 which details that the nominal grading period, in minutes, that is determined by subjecting a specimen to the standard time temperature curve regime as set out in AS 1530.4: 2014. Clause 1.4.17 details full-scale testing whilst Clause 1.4.25 details pilot-fire tests where the furnace opening is not less than 1000mm x 1000mm and the minimum clear opening size of 800 mm x 800mm. The normative section of AS 1905.1: 2015 being section 3 sets the determination of fire resistance by testing a specimen door set in accordance with the fire resistance test specified in AS 1530.4: 2014.

The TVC-Core doorset has been tested numerous times to AS 1530.4: 2014 and established a consistent FRL of -/120/30. The 72mm Supapanel has been tested and considered to achieve a Fire Resistance Level of -/120/120.

Section 4 of AS 1905.1: 2015 sets variations from the tested specimen. Clause 4.4(a) details the following criteria to trigger a retest of the system. This includes:

- More severe deflection characteristics than the previously tested wall;
- Different frame and wall mounting details on the proposed wall that may be detrimental to the FRL of the door set; and
- Achieved a lower required FRL

The proposed wall system includes the same framing system with the only difference being the physical materials being the installation of the 72mm Supapanel in lieu of a lightweight wall system or Hebel wall system. The requirements of AS 1905.1: 2015 and the testing relate to the door and wall framing,

accessories and the door itself. The material of the wall system is not a direct criterion established under AS 1905.1: 2015.

As such the criteria to confirm variations in the wall design is as follows:

- The wall framing and connection to the door frame is to be equivalent
- The wall system is to achieve an equivalent Fire Resistance Level.

The proposed Supapanel system has an equivalent wall framing and connection to the door frame. The proposed Supapanel wall system achieves an FRL of at least -/120/120 being equivalent to that of the tested system with the TVC-Core door set.

8.2 Testing, Evaluation and Compliance

8.2.1 Tested 72 mm System

72 mm Supapanel	
Structural Adequacy	-
Integrity	120
Insulation	120
TVC-Core Door and Frame	
CSIRO FCO-2872 August 2019	
Structural Adequacy	-
Integrity	120
Insulation	30



8.3 Conclusion

The following clauses of the BCA (including all related State and Territory variations) have been evaluated and identified as being complied with should the full wall and door system be tested:

- Specification C3.4 Fire Doors, Smoke Doors, Fire Windows and Shutters
- Performance Requirement CP2
- Clause 2 Fire Doors

A required fire door must

- a. Comply with AS 1905.1: 2015; and
- b. Not fail by radiation through any glazed part during the period specified for integrity in the required FRL.

The evaluation wall and door system comply with the following:

<p>72 mm Supapanel</p> <p>Structural Adequacy</p> <p>Integrity</p> <p>Insulation</p>	<p>-</p> <p>120</p> <p>120</p>
<p>TVC-Core Door and Frame</p> <p>CSIRO FCO-2872 August 2019</p> <p>Structural Adequacy</p> <p>Integrity</p> <p>Insulation</p>	<p>-</p> <p>120</p> <p>30</p>

9 DOOR EVALAUTION – 60 MIN IN 62 MM WALL SYSTEM

9.1 Door Assessment Objective

The purpose of this assessment is to report the applicable use and compliance of the Fire core TVC30 refractory core panel door to be installed within the Supapanel intertenancy walls have apertures if fire rated boundary wall system against the requirements of the National Construction Code - Volume One - Building Code of Australia 2022 (BCA) as well as AS 1905.1-2015.

The FireCore TVC30 doorset has been tested in accordance with the requirements of AS 1530.4:2014 within a 64mm steel stud dual wall and shaft liner wall system using fire grade plasterboard wall elements and Steel structural elements. This is documented in CSIRO test report FSV 1870 to AS 1530.4:2014 being a full scale test and FSP 1143 to AS 1530.4:2014 being a pilot test where the TVC 30 door achieved an FRL of at least -/60/30.

The FireCore TVC30 doorset has been tested in accordance with the requirements of AS 1530.4 as well as AS 1905.1-2015. This is documented in CSIRO test report FSV 1001. The FireCore TVC 30 door achieved an FRL of at least -/60/60.

When subjected to the test conditions of AS1530.4:2005 the test specimen achieved an FRL -/60/30. Only minor differences exist between AS1530.4:2005 and AS1530.4:2014 test procedures which have no detrimental impact on the test specimen for compliance against AS1530:2014.

In accordance with the National Construction Code Volume One Building Code of Australia 2022 Clause S1C2(b) that the prototype that has been submitted to the Standard fire test being AS 1530.4:2005 which is an equivalent test to AS 1530.4:2014.

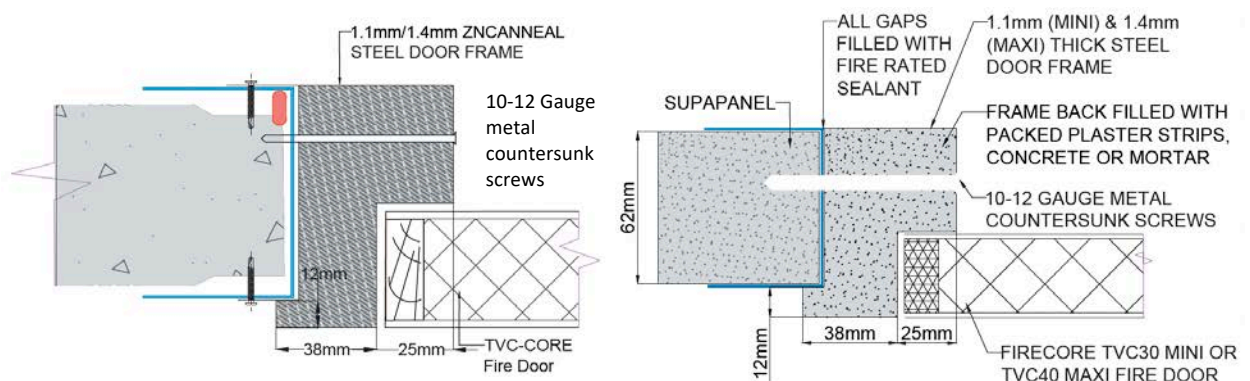
Supapanel has been tested in accordance with the requirements of AS 1530.4:2014 in test report FRT190206 R1.0 dated 6 August 2019 as well as test report FRT 190207 R1.0 dated 25 September 2019.

This evaluation reviews the inclusion of the FireCore TVC30 doorset within the Supapanel system. The TVC 30 fire door as well as its frame and fixings will be equivalent to the tested system and its inclusion within the Supapanel system.

9.2 Product Installation

The proposed wall and door system includes the 62mm Supapanel system and the TVC-30 door. The tested wall and door system is detailed below.

FIGURE 3:
MAXIMUM SPAN BETWEEN SUPPORTS WALLS 4.0 M



9.3 National Construction Code Compliance

The following clauses of the BCA (including all related State and Territory variations) have been evaluated and identified as being complied with:

- Specification 12 Fire Doors, Smoke Doors, Fire Windows and Shutters
- Performance Requirement CP2

- Clause 2 Fire Doors

A required fire door must

(a) Comply with AS 1905.1: 2015; and

(b) Not fail by radiation through any glazed part during the period specified for integrity in the required FRL.

The evaluated wall and door system complies with the following:

72 mm Supapanel	
Structural Adequacy	-
Integrity	60
Insulation	60
<hr/>	
TVC-Core Door and Frame	
CSIRO FCO-3292 dated 4 February 2018	
Structural Adequacy	-
Integrity	60
Insulation	30

9.4 Application

From the above testing and evaluation of the TVC-30 door and associated frame can be used in a nonloadbearing wall being the 62mm Supapanel system where an FRL of at least -/60/60 is required as well as a fire door achieving an FRL of at least -/60/30. The door, wall and framing system is to be installed as per the following figure.

The c-track forming the opening for the door is screwed through the frame on each side into the panels at 350mm centres starting a 100 mm from the floor. The floor track is to be screwed into the door jamb track where they cross.

FIGURE 4:

MAXIMUM SPAN BETWEEN SUPPORTS WALLS 3.6 METERS

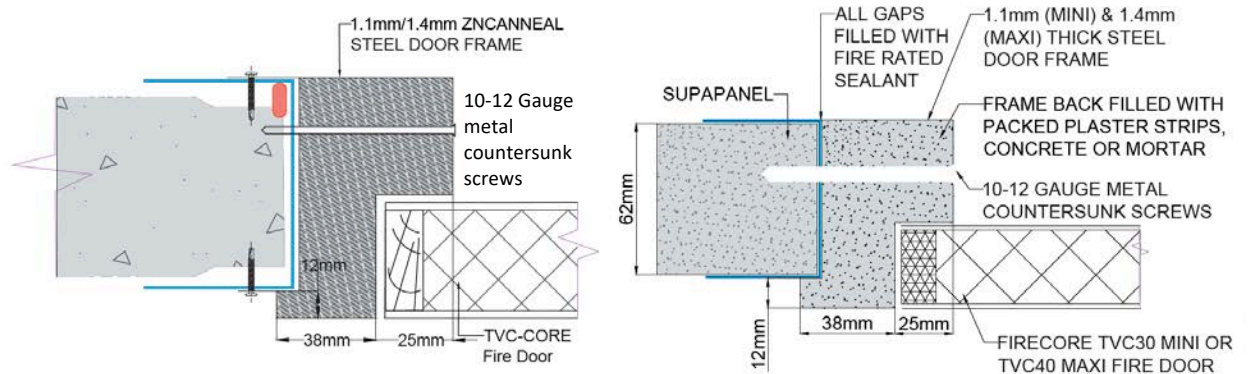
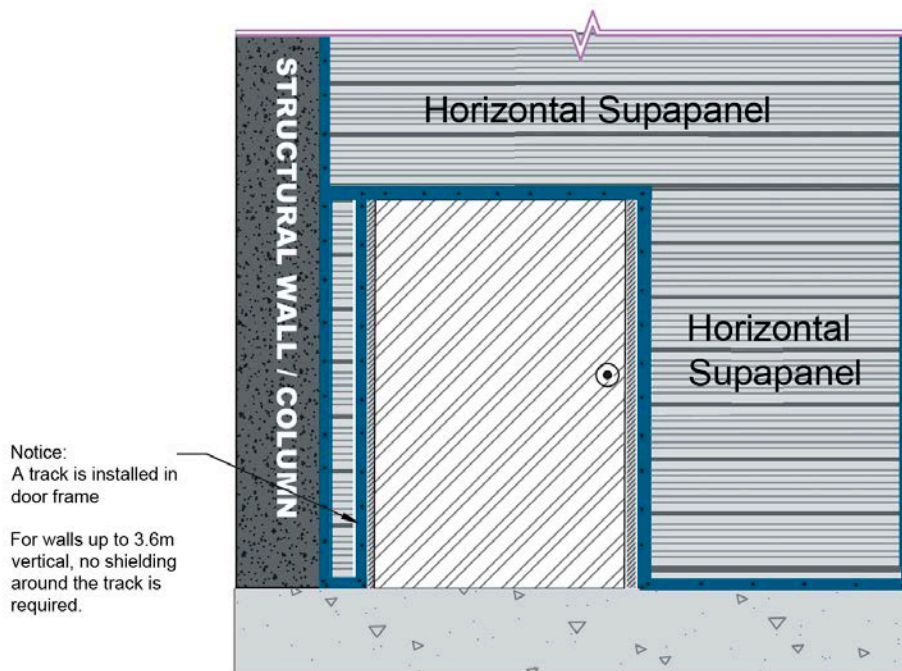
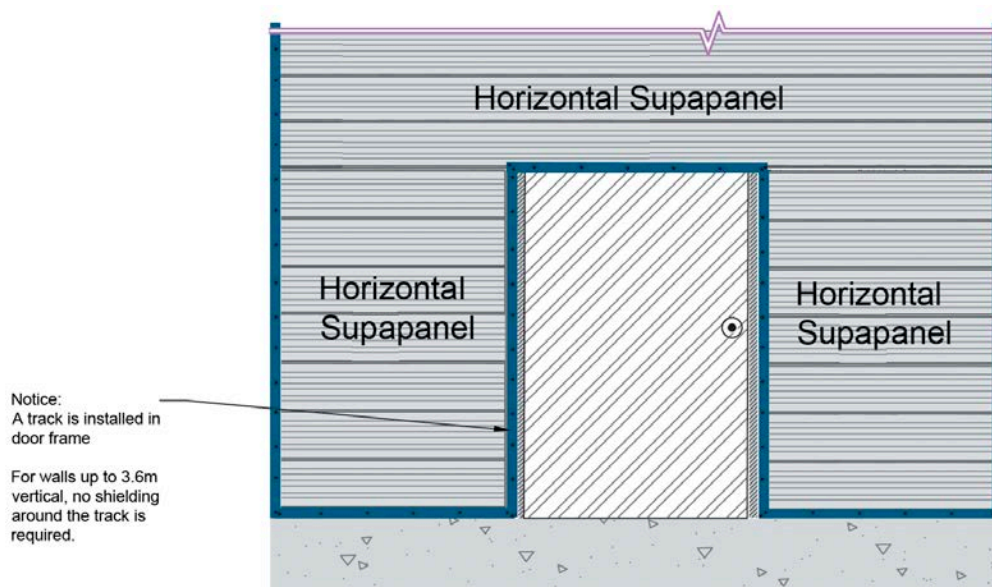


FIGURE 5:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 6:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 7:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT

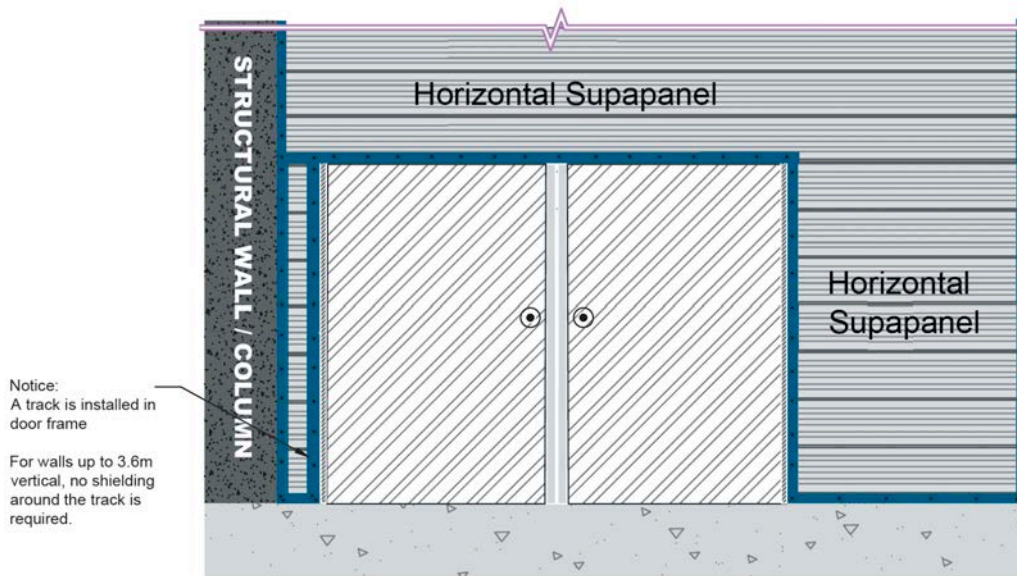


FIGURE 8:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT

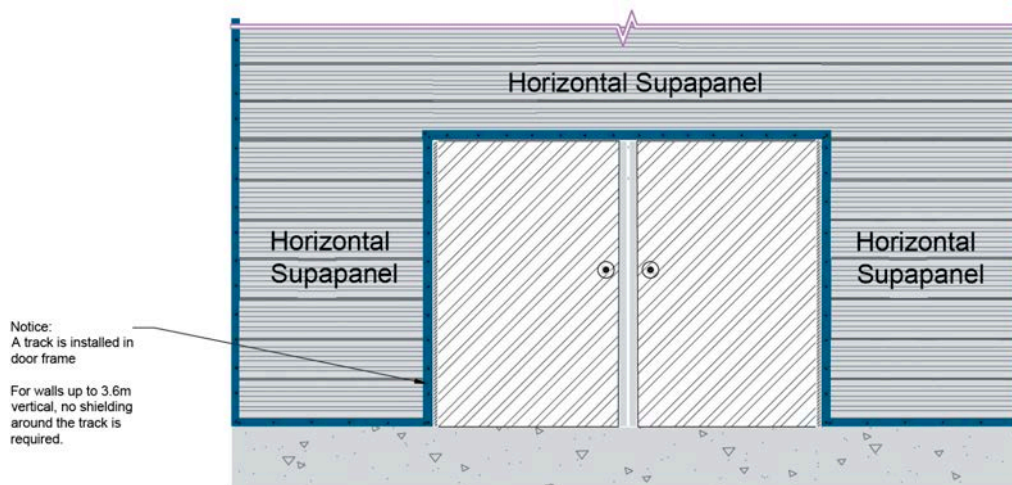


FIGURE 9:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT

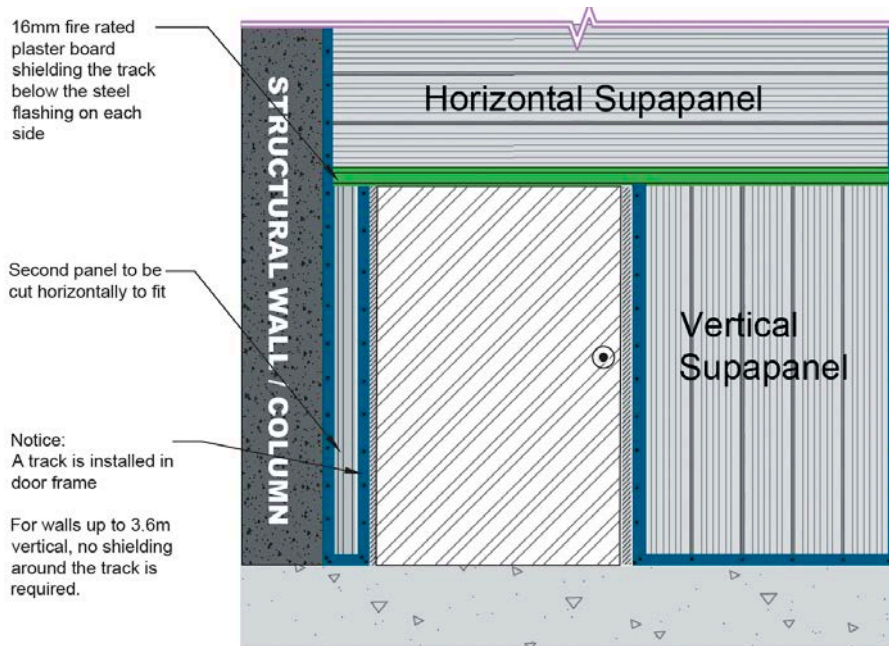
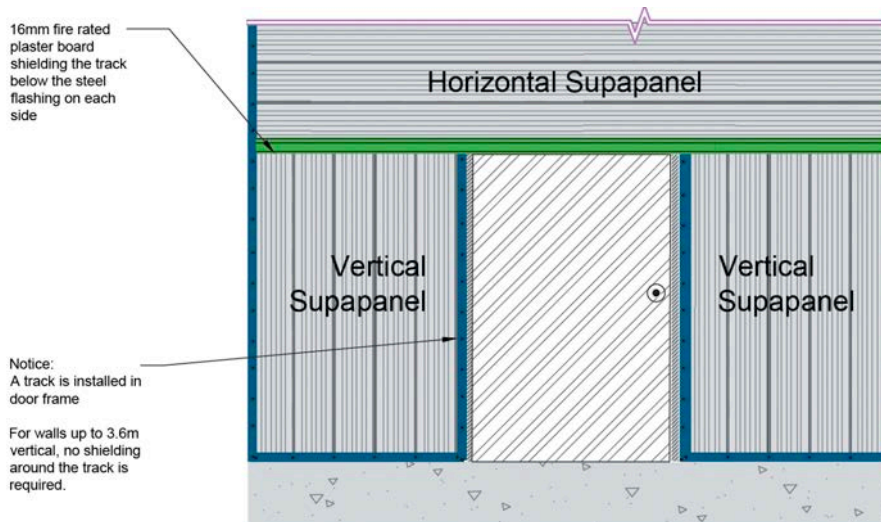


FIGURE 10:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 11:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT

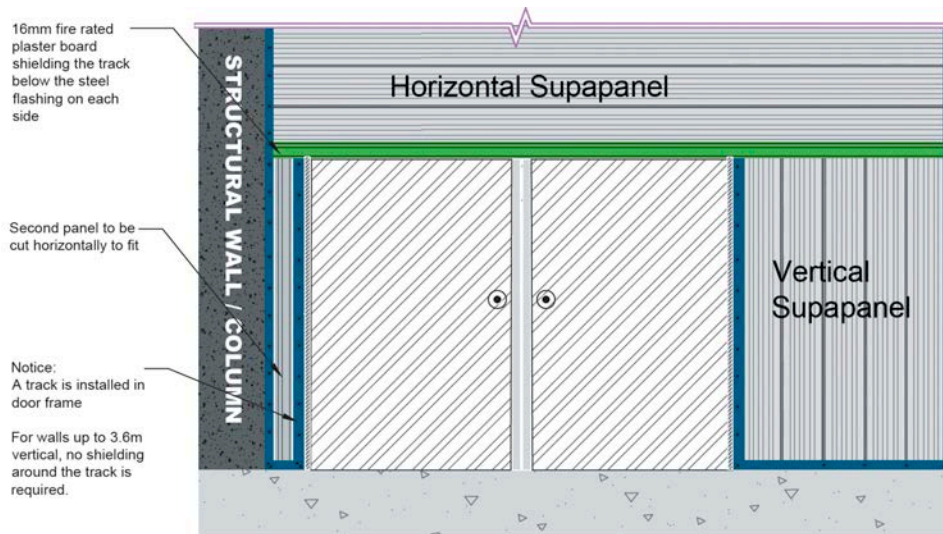
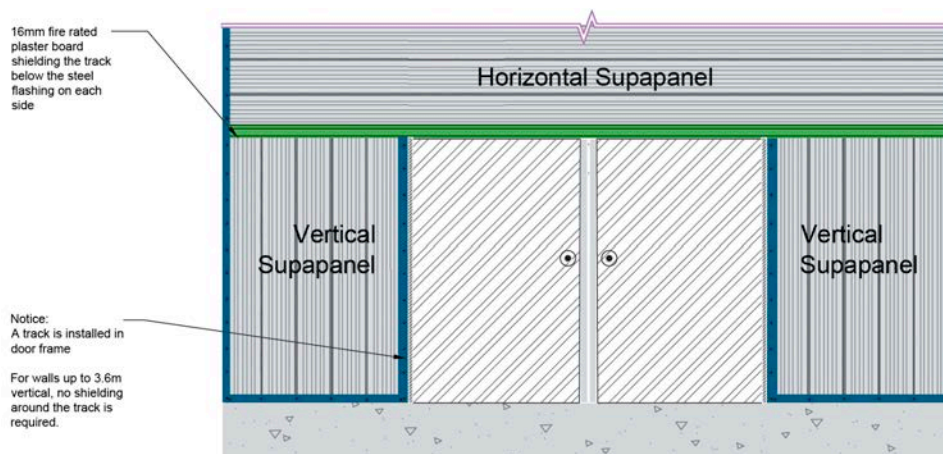


FIGURE 12:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 13:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT

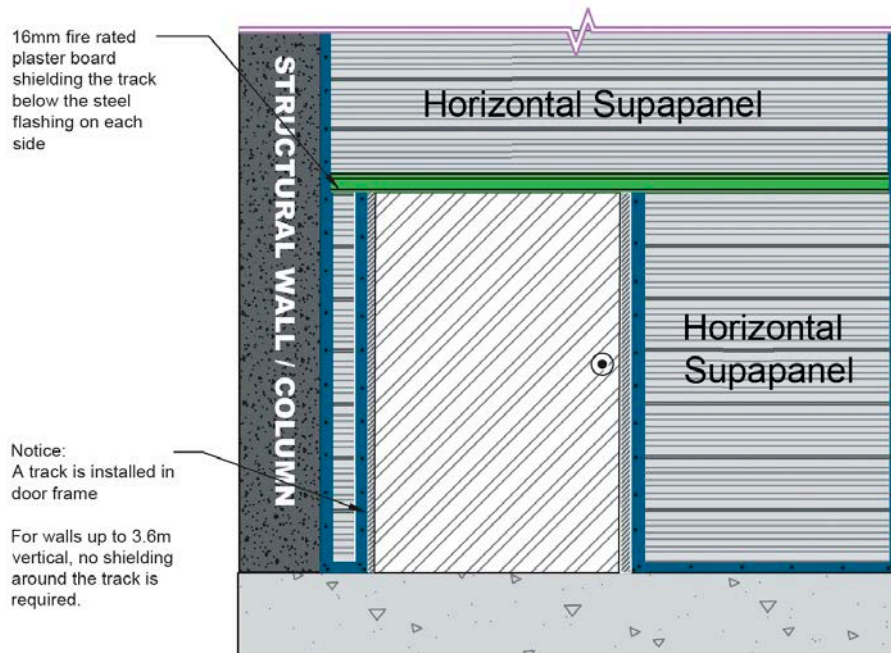
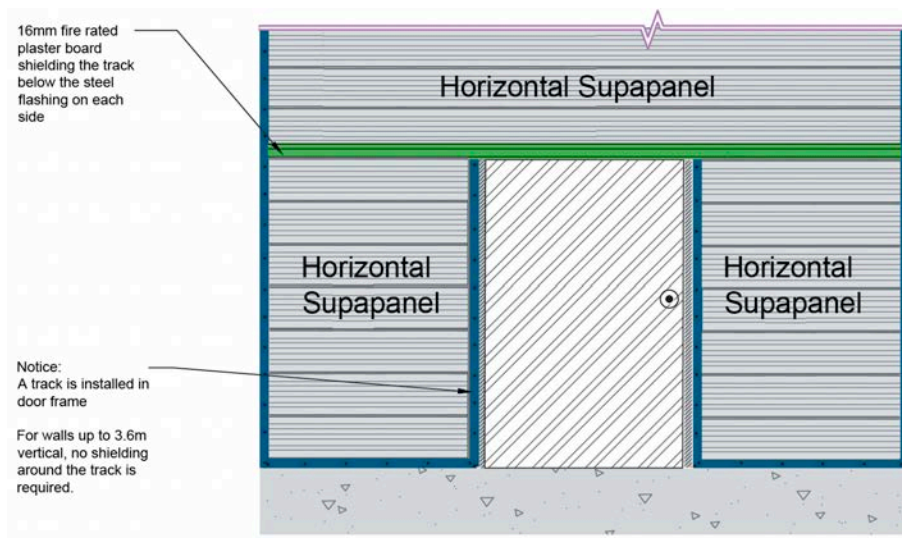


FIGURE 14:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 15:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT

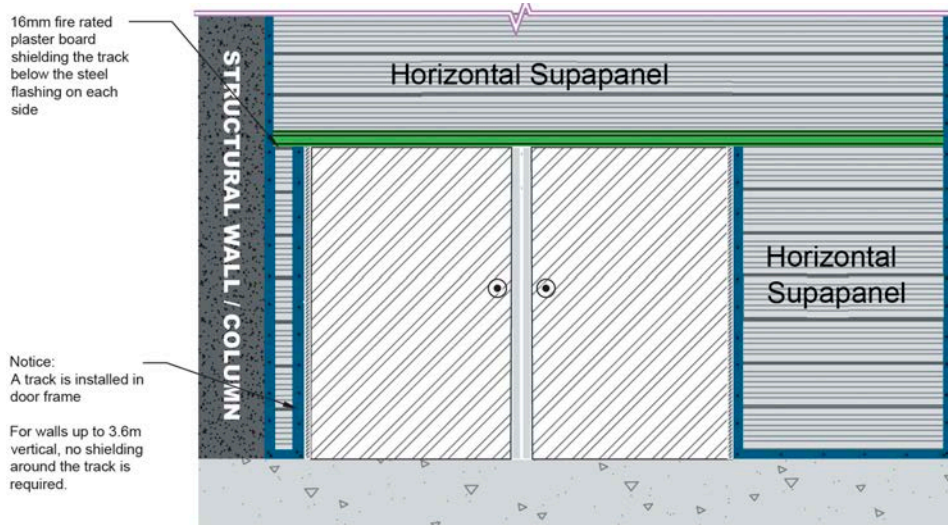


FIGURE 16:
SUBJECT WALL, DOOR AND FRAMING SYSTEM MAXIMUM SPAN 4.0 M UNLIMITED HEIGHT

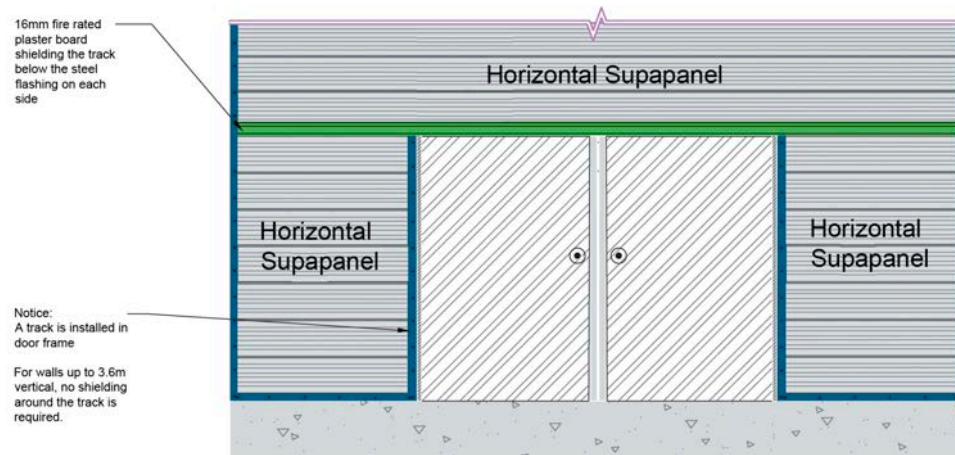
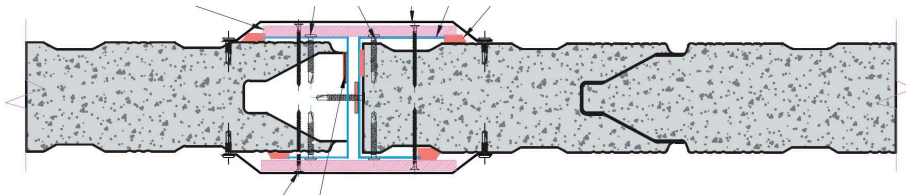


FIGURE 17:
SUBJECT WALL, DOOR AND FRAMING SYSTEM – JOINT COVER DETAIL



10 DOOR EVALAUTION – 120 MIN IN 72 MM WALL SYSTEM

10.1 Door Assessment Objective

The purpose of this assessment is to report the applicable use and compliance of the Firecore TVC refractory core panel door to be installed within the Supapanel intertenancy walls have apertures if fire rated boundary wall system against the requirements of the National Construction Code - Volume One - Building Code of Australia 2022 (BCA) as well as AS 1905.1-2015.

The FireCore TVC-Core doorset has been tested in accordance with the requirements of AS 1530.4: 2014 within multiple walls. This is documented in CSIRO test reports FCO-2872 Rev F August 2019 which evaluates a number of wall variations for the Firecore TVC-Core fire doors within a -/120/30 Fire Resistance Level wall system.

The FireCore TVC-Core doorset has been tested in accordance with the requirements of AS 1530.4: 2014 within a number of wall system that achieves an FRL of at least -/120/120. This is documented in CSIRO test report FCO-2872. The FireCore TVC-Core door achieved an FRL of at least -/120/30.

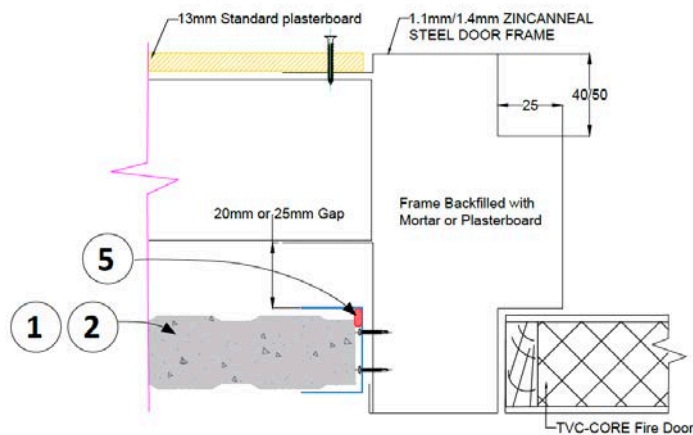
This evaluation reviews the substitution of the tested wall systems being the CSR partywall, the Boral wall system and AAC wall systems for the Supapanel wall system. The TVC-Core fire door as well as its frame and fittings will be equivalent to the tested system for installation into the wall system.

10.2 Product Installation

The proposed wall and door system includes the 72mm Supapanel intertenancy wall and the TVC-Core door. The tested wall and door system is detailed below.

FIGURE 18:

SUPERPANEL WALLS UP TO 4M IN HEIGHT
WALLS WITH MAXIMUM SPAN BETWEEN SUPPORTS 3.6 M



10.3 National Construction Code Compliance

The following clauses of the BCA (including all related State and Territory variations) have been evaluated and identified as being complied with:

- Specification C3.4 Fire Doors, Smoke Doors, Fire Windows and Shutters
- Performance Requirement CP2
- Clause 2 Fire Doors

A required fire door must

(a) Comply with AS 1905.1: 2015; and

(b) Not fail by radiation through any glazed part during the period specified for integrity in the required FRL.

The evaluated wall and door system complies with the following:

72 mm Supapanel	
Structural Adequacy	-
Integrity	120
Insulation	120
<hr/>	
TVC-Core Door and Frame	
CSIRO FCO-2872 August 2019	
Structural Adequacy	-
Integrity	120
Insulation	30

10.4 Application

From the above testing and evaluation of the TVC-Core door and associated frame can be used in a nonloadbearing wall being the 72mm Supapanel system where an FRL of at least -/120/120 is required as well as a fire door achieving an FRL of at least -/120/30. The door, wall and framing system is to be installed as per the following figure.

The c-track forming the opening for the door is screwed through the frame on each side into the panels at 350mm centres starting a 100 mm from the floor. The floor track is to be screwed into the door jamb track where they cross.

FIGURE 19:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
WALLS WITH SPAN GREATER THAN 3.6M UP TO MAXIMUM SPAN 6.5 M

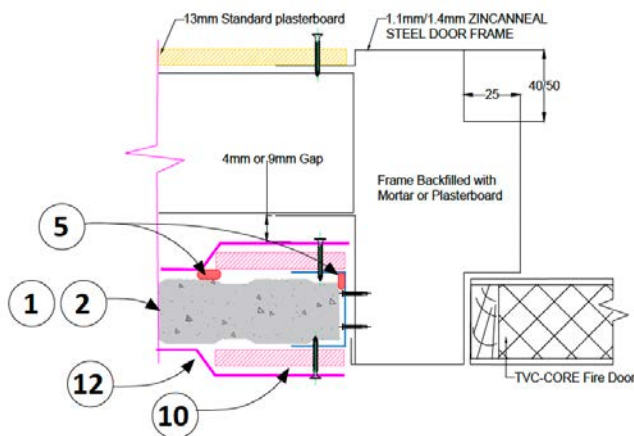


FIGURE 20:
 SUBJECT WALL, DOOR AND FRAMING SYSTEM - ALTERNATIVE 1
 WALLS WITH SPAN GREATER THAN 3.6M UP TO MAXIMUM SPAN 6.5 M

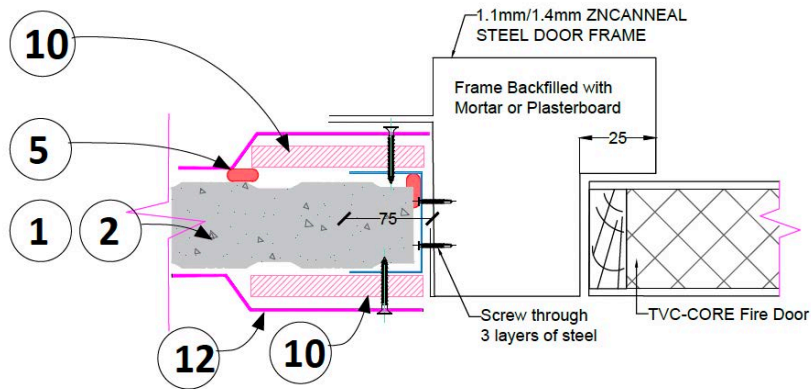


FIGURE 21:
 SUBJECT WALL, DOOR AND FRAMING SYSTEM.- ALTERNATIVE 2
 WALLS WITH SPAN GREATER THAN 3.6M UP TO MAXIMUM SPAN 6.5 M

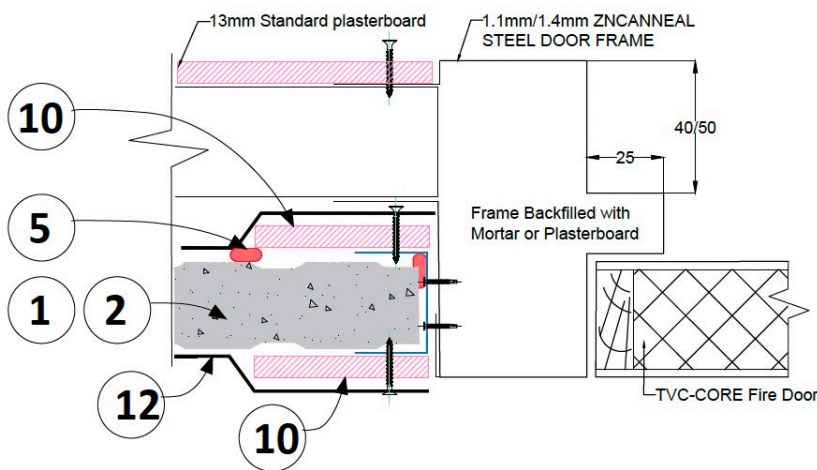
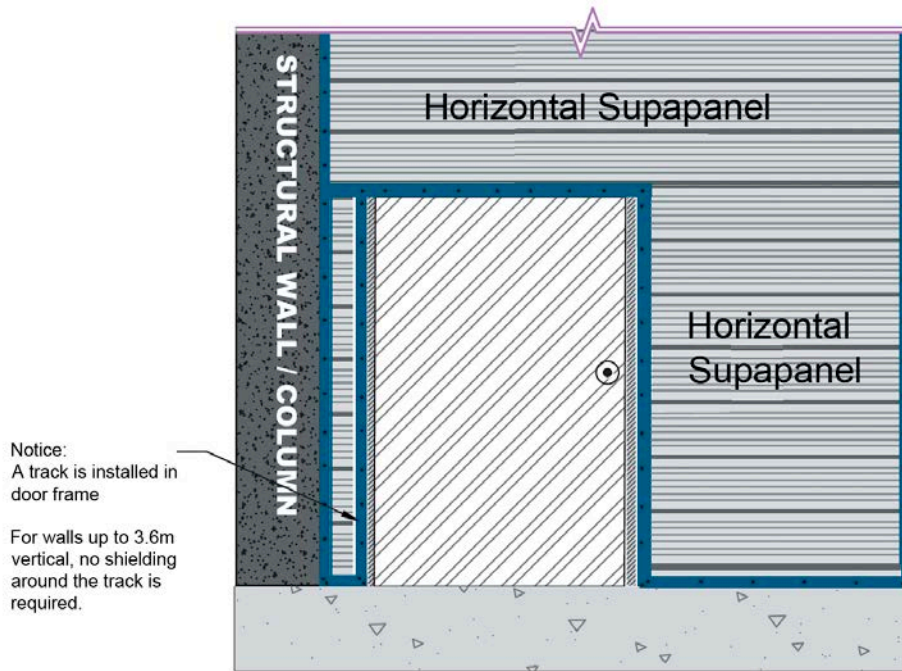
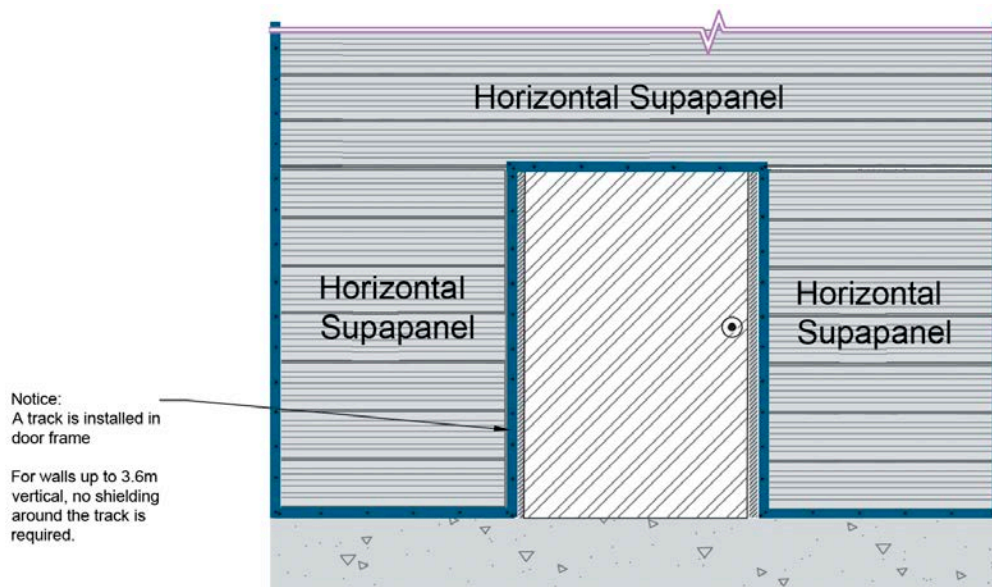


FIGURE 22:
 SUBJECT WALL, DOOR AND FRAMING SYSTEM
 72 MM SUPAPANEL UP TO 3.6 M SPAN UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 23:
 SUBJECT WALL, DOOR AND FRAMING SYSTEM
 72 MM SUPAPANEL UP TO 3.6 M SPAN UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 24:
SUBJECT WALL, DOOR AND FRAMING SYSTEM UNLIMITED HEIGHT

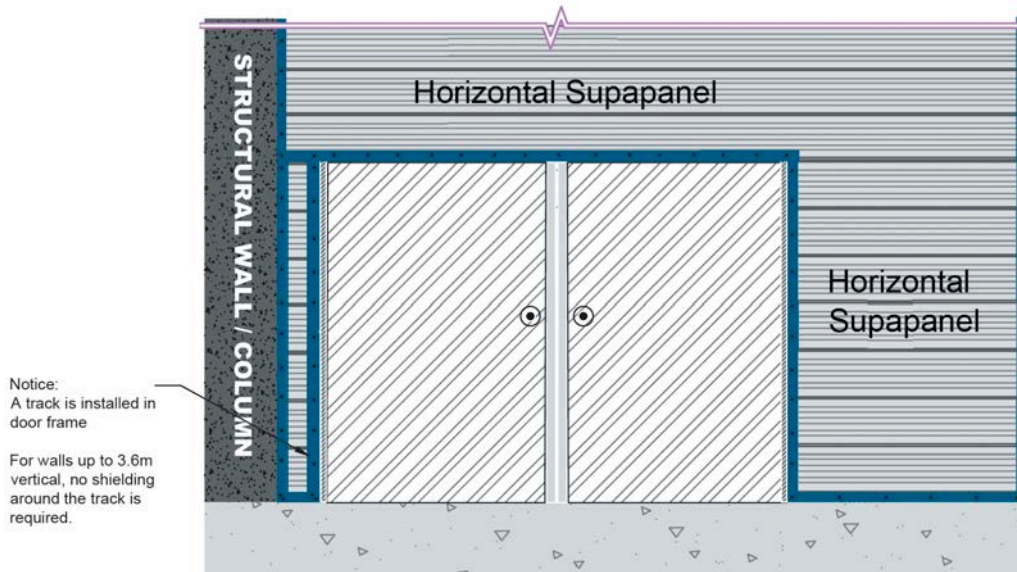


FIGURE 25:
SUBJECT WALL, DOOR AND FRAMING SYSTEM UNLIMITED HEIGHT

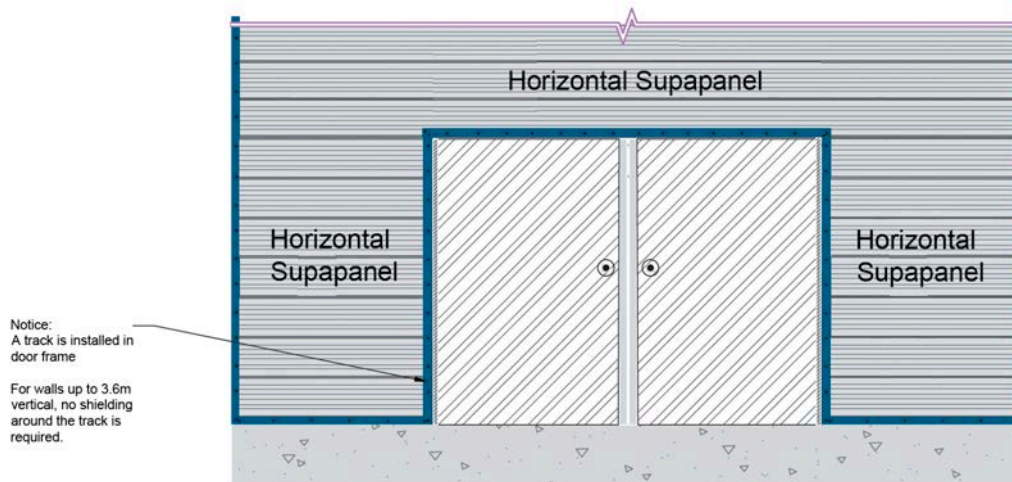
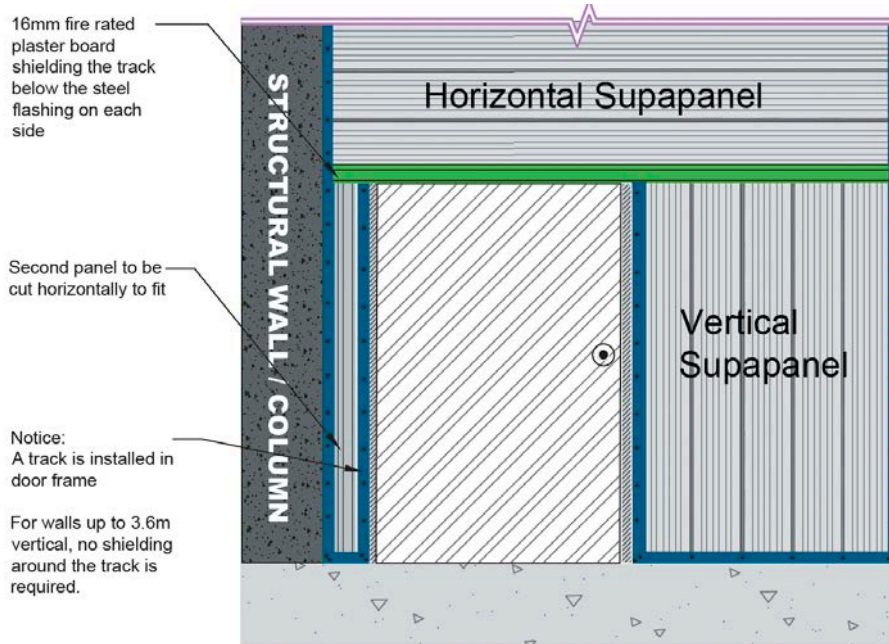
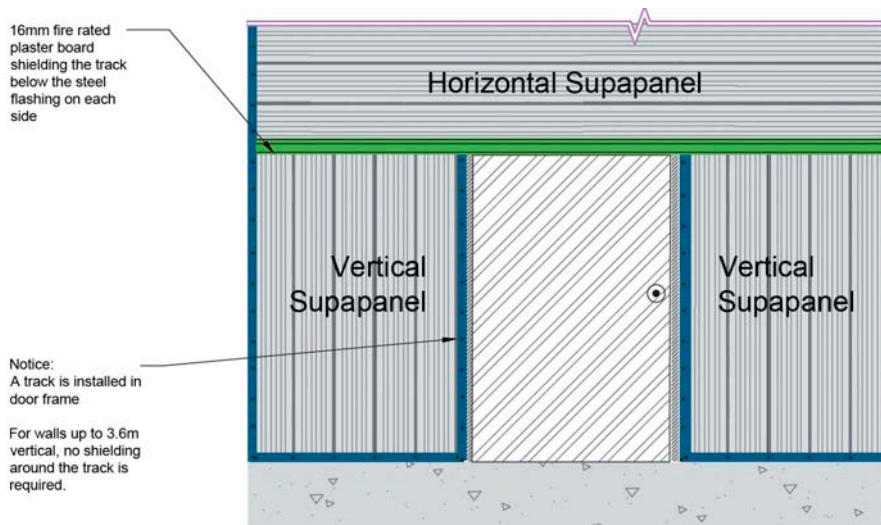


FIGURE 26:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
 72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M UNLIMITED HEIGHT


FIGURE 27:

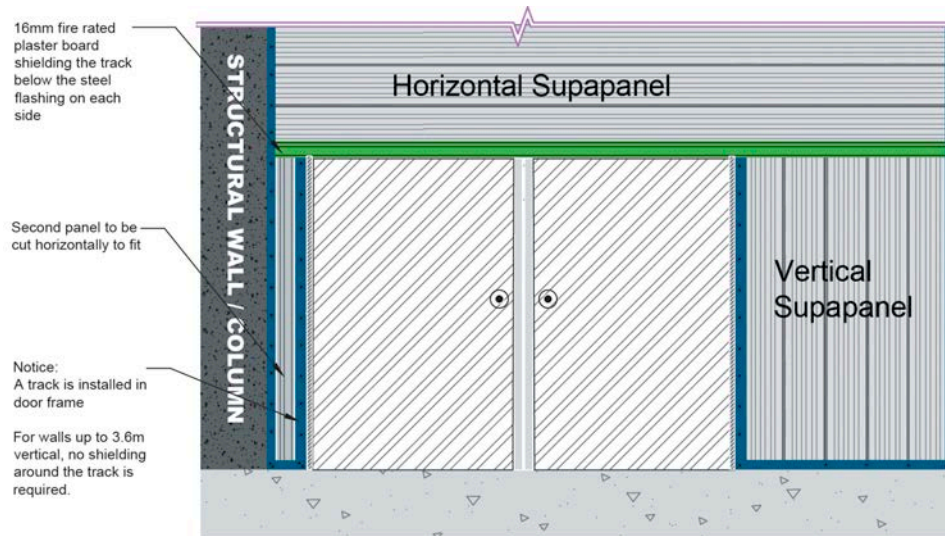
SUBJECT WALL, DOOR AND FRAMING SYSTEM
 72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M UNLIMITED HEIGHT



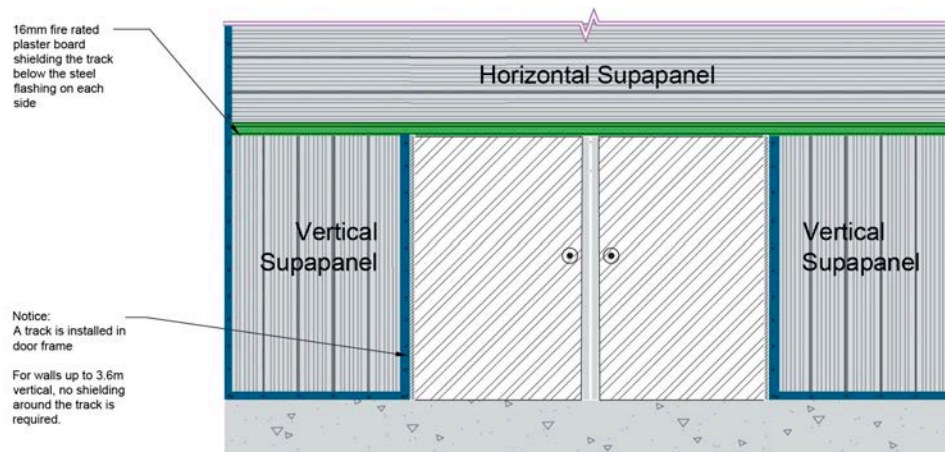
- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 28:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
 72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M UNLIMITED HEIGHT


FIGURE 29:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
 72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 30:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M UNLIMITED HEIGHT

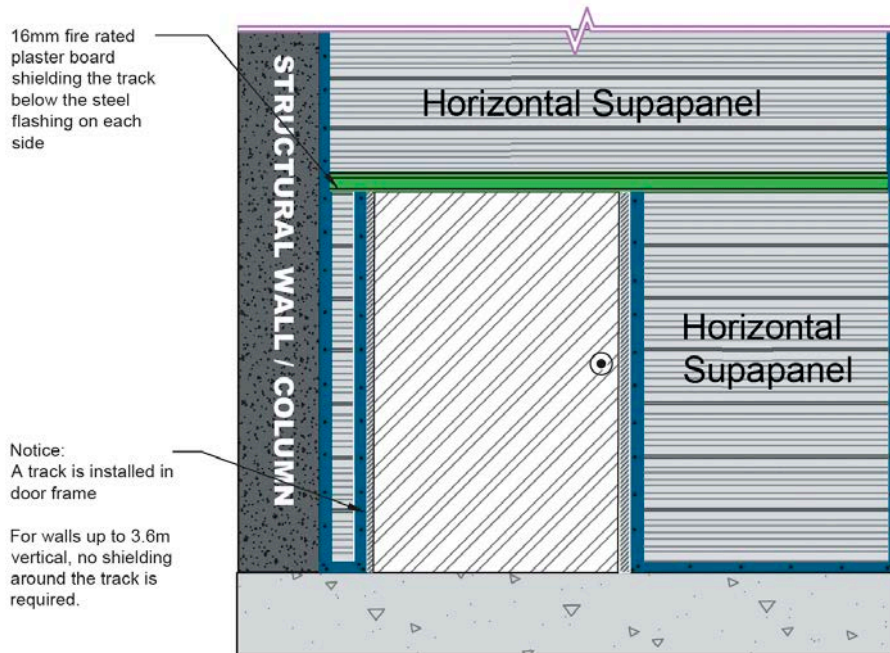
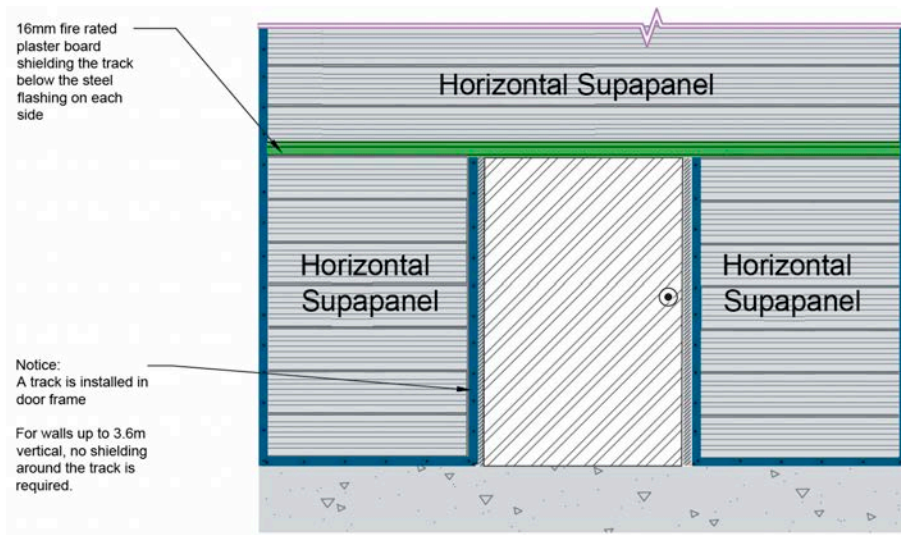


FIGURE 31:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M UNLIMITED HEIGHT



- Screws at 250mm centres both sides of door frames
- Horizontal panel to sit in top track
- Fix into panel joints through track on door frames

FIGURE 32:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M UNLIMITED HEIGHT

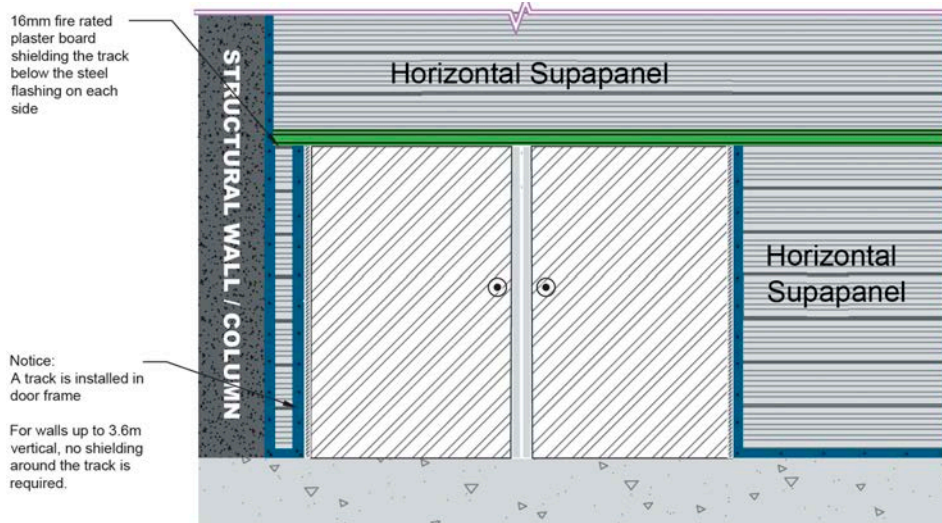


FIGURE 33:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M UNLIMITED HEIGHT

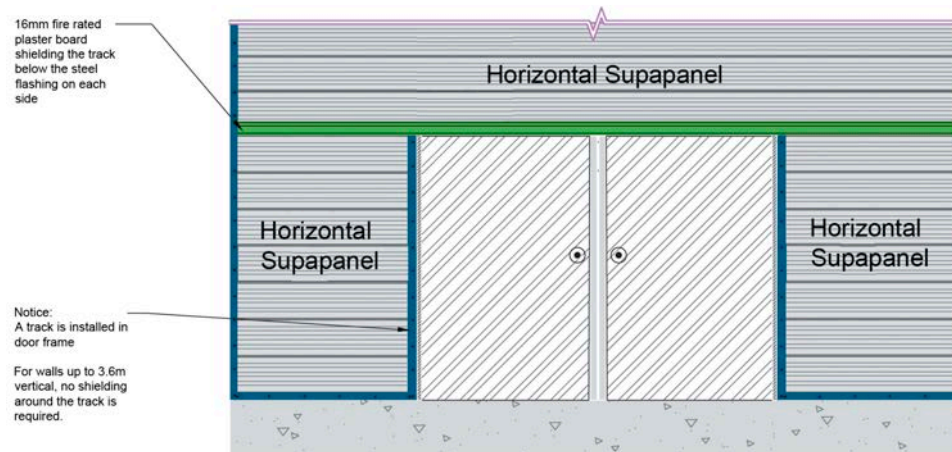
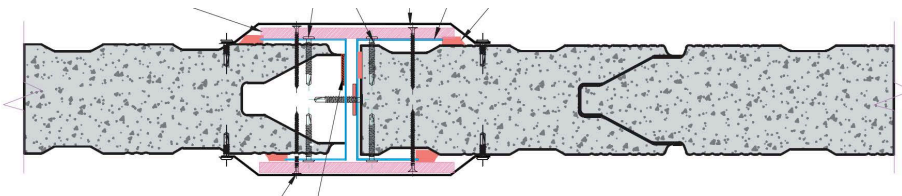


FIGURE 34:

SUBJECT WALL, DOOR AND FRAMING SYSTEM
72 MM SUPAPANEL SPAN GREATER THAN 3.6 M UP TO 6.5 M



11 PASSIVE PRODUCT EVALUATION

11.1 General

The purpose of this assessment is to report the applicable use and compliance of the 72mm and 62mm wide Supapanel against the requirements of the National Construction Code – Volume One – Building Code Testing of the wall system in accordance with AS 1530.4-2014 has been undertaken by FireTSLab laboratory and documented in their report PF23046 achieved an FRL of at least -/120/120 during testing of the raw 72mm panel.

Testing of the wall system in accordance with AS 1530.4-2014 has been undertaken by FireTSLab laboratory and documented in their report PF19066 achieved an FRL of at least -/180/60 during testing of the raw 62mm panel. Warringtonfire undertook a series of development and prototype tests on the 62mm panel in a raw application as well as within a pilot wall with a layer of 16mm fire grade plasterboard.

A number of passive fire penetration treatments are required to have a layer of fire grade plasterboard to maintain the required Fire Resistance Level. The initial development test demonstrated the ability for the Supapanel to achieve an ongoing ability to maintain general integrity for greater than 4 hours as well as the method and process of thermal transmission through the joints in which the insulation criteria fails.

A additional pilot testing was undertaken by Warringtonfire in their report FRT200129 the 62mm Supapanel wall system with a 16mm plasterboard liner. The specimen achieved no failure of integrity and resulted in insulation failure at 165 minutes. The resultant FRL is determined by Warringtonfire to be -/180/120.

Various penetrations are proposed for a building to be installed within the 72 mm Supapanel as well as within the Promaseal Batt. The penetrations include the following to satisfy a Fire Resistance Level of at least -/120/120. The cables are considered for copper only in accordance with AS 1530.4:2014.

- 3 x 2.5 mm Cable (PVC Sheathed)
- 150 x 50 mm Cable Tray with D1 and/or D2 Config. Cables
- Up to Power Cable up to 3 x 3C+ E 20mm
- Up to 20 mm PEX Pipe
- Up to 25 mm PEX Pipe
- Up to 150 mm uPVC Pipe
- Up to 100 mm uPVC Pipe
- Up to 110 mm HDPE Pipe
- Up to 25 mm NBN Conduit
- HiFire 1B Damper
- Up to 50 mm Gal Pipe through Supapanel or Promaseal Batt
- Up to 50 mm or 80 mm Copper Pipe through Supapanel or Promaseal Batt
- Boss UniWrap or Reply intumescent strips
- Boss Firematic 300
- Promat Promaseal
- Promat Promastop UniCollars or Multicollars
- HB Fuller FireSound Fire Rated Acoustic Sealant
- HB Fuller FulaFlex FR Hybrid Polymer Fire Rated Sealant

Installer of passive fire products to verify correct installation to respective manufacturers requirements.

TABLE 7:
PIPES CABLES AND THROUGH SUPAPANEL

Material identification and product name	Penetration Type		FRL
PROMASEAL A Acrylic sealant 30mm cone and PROMASEAL Supawrap	3 x 2.5mm cable (PVC sheathed)	A.1	-/120/120
Boss Fire Mastic 300	3 x 2.5mm cable (PVC sheathed)	A.1	-/120/120
PROMASEAL Bulkhead Batt and PROMASEAL Supawrap	150 x 50mm cable tray with D1 and/or D2 Config Cables	A.2	-/120/120
Boss FireMastic 300 and Boss Thermal defence wrap	150 x 50mm cable tray with D1 and/or D2 Config Cables	A.2	-/120/90
PROMASEAL A Acrylic sealant 30mm cone and PROMASEAL Supawrap	Power Cable up to 3 x 3C+E 20mm	A.3	-/120/120
Boss Fire Mastic 300 and Boss Thermal defence wrap	Power Cable up to 3 x 3C+E 20mm	A.3	-/120/120
PROMASEAL Conduit collar (CFC32)	20mm Pex Pipe	A.4	-/120/120
Boss Fire Mastic HPE or Boss FireMastic	300 20mm Pex Pipe	A.4	-/120/120
PROMASEAL Conduit collar (CFC32)	25mm Pex Pipe	A.5	-/120/120
Promastop Unicollar plus Armaflex	50-70 mm Pex-Al-Pex	A.6	-/120/30
PROMASEAL Retrofit collar (FC150)	150mm uPVC pipe	A.7	-/120/120
PROMASEAL Retrofit collar (FC100)	100mm uPVC pipe	A.8	-/120/120
Boss Maxi Collar	100mm uPVC pipe	A.8	-/120/120
PROMASEAL Retrofit collar (FC100)	110mm HDPE pipe	A.9	-/120/120
PROMASEAL Conduit collar (CFC32)	Up to 25mm NBN Conduit	A.10	-/120/120
Boss FireMastic HPE or Boss FireMastic 300	Up to 25mm NBN Conduit	A.10	-/120/120
PROMASEAL A Acrylic sealant 30mm cone	Up to 30mm bunch of 2.5mm ² cables		-/120/120
Boss Fire Mastic 300 and Boss Thermal defence wrap	Up to 30mm bunch of 2.5mm ² cables		-/120/120
Hi Fire Mech Damper	HiFire IB Damper - mechanical		-/120/120
Blendair SHD and MFSD series fire dampers	125 mm strip of 16 mm fire rated plasterboard on one side of opening		-/120/-
Wastech Chute Doors	Garbage self-closing hopper door	A.11	-/120/45
Boss Fire Mastic 300 and Boss P40 Mak wrap	Up to 50mm Gal pipe	A.15	-/120/120
Boss Fire Mastic 300 and Boss Thermal defence wrap	32mm or up to 50 mm or 80 mm Copper pipe	A.16	-/120/120
Promaseal A and Promashield or Promaseal SupaWrap	32 mm to 150 mm Copper pipe	A.14	-/120/120



A1	3 x 2.5 mm Cable
Service	
Product Name	Boss FireMastic HPE or Boss FireMastic 300 Fire Grade Mastic
Aperture Side	Close fit core hole up to 25 mm in diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire 49599300.7 dated 22/02/2019
Installation	Complete infill around service with 25mm deep fire mastic controlled by foam backing rod. Sealant finished with a nominal 25 mm fillet on both sides of the wall.
Fire Resistance Level	-/120/120
Product Name	
Promat Promaseal Fire Grade Mastic Promaseal Supawrap	
Aperture Side	
Close fit core hole	
Test Evidence	
Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FAS200022 R2.1 dated 06.04.2020	
Installation	
Complete infill around service with 30mm deep fire mastic controlled by foam backing rod. Sealant finished with a nominal 25 mm fillet on both sides of wall. Promaseal Supa Wrap 600 mm on each side.	
Fire Resistance Level	
-/120/120	

A2	150 x 50 mm Cable tray
Service	
Product Name	Boss Fire Mastic-HPE Fire Grade Mastic + Wrap
Aperture Side	Close fit core hole
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FAS200332 R1.0 dated 04.12.2020 Complete infill around service with fire mastic.
Installation	Install BOSS Thermal Defence Wrap in accordance with BOSS installation instruction.
Fire Resistance Level	-/120/90



A3	Power Cable up to 3 x 3C+ E 20mm
Service A1	
Product Name	Boss Fire Mastic-HPE Fire Grade Mastic
Aperture Side	Close fit core hole up to 125 mm in diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire 49599300.7 dated 22/02/2019
Installation	Complete infill around service with 25mm deep fire mastic controlled by foam backing rod. Sealant finished with a nominal 25 mm fillet on both sides of wall.
Fire Resistance Level	-/120/120
Service	
Product Name	Promat Promaseal Fire Grade Mastic Promaseal Supawrap
Aperture Side	Close fit core hole
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FAS200022 R2.1 dated 06.04.2020
Installation	Complete infill around service with 30mm deep fire mastic controlled by foam backing rod. Sealant finished with a nominal 25 mm fillet on both sides of the wall. Promaseal Supa Wrap 600 mm on each side.
Fire Resistance Level	-/120/120



A4	
20 mm PEX Pipe	
Service A1	
Product Name	Boss Fire Mastic-HPE Fire Grade Mastic
Aperture Side	Close fit core hole up to 125 mm in diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire 49599300.7 dated 22/02/2019
Installation	Complete infill around service with 25mm deep fire mastic controlled by foam backing rod. Sealant finished with a nominal 25 mm fillet on both sides of wall.
Fire Resistance Level	-/120/120
Service	
Product Name	PROMASTOP Unicollar FC 32 Promaseal Acrylic Sealant
Aperture Side	Close fit core hole
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Bodycote Warringtonfire 2253502.1 dated 2008
Installation	Install fire collar as per Promat installation instructions on both sides of the wall. Install Promaseal acrylic sealant between the separating element within the Promastop Unicollar and pipe to a depth of 10 mm. Two layers of 13 mm fire grade plasterboard is required on a single side of the Supapanel.
Fire Resistance Level	-/120/120
A5	
25 mm PEX Pipe	
Service A1	
Product Name	Boss Fire Mastic-HPE Fire Grade Mastic
Aperture Side	Close fit core hole up to 60 mm in diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire RIR FRT 190033 R1.0 dated 27.02.2019
Installation	Complete infill around service with 25mm deep fire mastic controlled by foam backing rod. Sealant finished flush with the wall on both sides of wall.
Fire Resistance Level	-/120/120
Service	
Product Name	PROMASTOP Unicollar FC 32 Promaseal Acrylic Sealant
Aperture Side	Close fit core hole
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FAS200022 R2.1 dated 06.04.2020
Installation	Complete infill around service with 30mm deep fire mastic controlled by foam backing rod. Sealant finished with a nominal 25



	mm fillet on both sides of the wall. Promaseal Supa Wrap 600 mm on each side.
Fire Resistance Level	-/120/120
A6	50-70 mm PEX Pipe
Service	
Product Name	Promaseal Unicollar plus Armaflex (25 mm thickness)
Aperture Side	Close fit core hole up to 60 mm in diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations A-14-946 dated 26.02.2015
Installation	Install Promastop Unicollar as well as Armaflex with a thickness of 25 mm.
Fire Resistance Level	-/120/120

A7	150 mm uPVC Pipe – Fire Collar
Service	
Product Name	Promaseal FC Collar FC150
Aperture Side	Close fit core hole
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FAS190113 R7.0 dated 09.09.2021
Installation	Install fire collar as per Boss installation instructions on both sides of the wall. Two layers of 13 mm fire grade plasterboard is required on single side of the Supanel.
Fire Resistance Level	-/120/120

A8	100 mm uPVC Pipe
Service	
Product Name	Boss 100 mm MaxiCollar
Aperture Side	Close fit core hole up to 60 mm in diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire RIR FRT 190033 R1.0 dated 27.02.2019
Installation	Install fire collar as per Boss installation instructions on both sides of the wall. Two layers of 13 mm fire grade plasterboard is required on single side of the Supanel.
Fire Resistance Level	-/120/120

A9	110 mm HDPE Pipe
Service	
Product Name	Boss Fire Mastic-HPE Fire Grade Mastic or Boss 300 Mastic
Aperture Side	Close fit core hole up to 60 mm in diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations



	Warringtonfire 49599300.7 dated 22/02/2019
Installation	Complete infill around service with 25mm deep fire mastic controlled by foam backing rod. Sealant finished with a nominal 25 mm fillet on both sides of wall.
Fire Resistance Level	-/120/120
Service	
Product Name	Promaseal FC Collar FC100
Aperture Side	Close fit core hole
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FAS190113 R7.0 dated 09.09.2021
Installation	Install fire collar as per Promat installation instructions on both sides of the wall. Two layers of 13 mm fire grade plasterboard is required on a single side of the Supapanel.
Fire Resistance Level	-/120/120

A10	Up to 25 mm NBN Conduit
Service	NBN Conduit
Product Name	Boss Fire Mastic-HPE or Boss FireMastic 300 Fire Grade Mastic
Aperture Side	Close fit core hole up to 25 mm in diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire 49599300.7 dated 22/02/2019
Installation	Complete infill around service with fire mastic. Sealant finished with a nominal 20 mm fillet on both sides of wall.
Fire Resistance Level	-/120/120

A11	Wastech Garbage Chute
Service	Garbage self-closing hopper door
Product Name	Wastedch Chute Doors
Aperture Side	Close fit hole 1200 mm x 1200 mm
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FRT200126 R1.0 dated 03 July 2020
Installation	Opening to be supported by Steel L angles and C channels around perimeter screw fixed to the wall. Door is to be fixed to opening as per manufactures installation instructions.
Fire Resistance Level	-/120/45

A12	Fyreguard Access Panel
Service	Wall Access panel
Product Name	Fyreguard Access Panel
Aperture Side	Close fit hole up to 1200 mm x 1500mm



Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations BRANZ FC10241-001 Issue 2 dated 27 July 2020
Installation	Opening to be supported by Steel L angles and C channels around perimeter screw fixed to the wall. Access door is to be fixed to opening as per manufactures installation instructions.
Fire Resistance Level	-/120/120

A13	HiFire 1B Damper
Service	High Fire Heating
Product Name	Ruskin IBS Fire Damper
Aperture Side	Close fit hole 1200 mm x 1200 mm
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FRT190122 R1.0 dated 24 June 2019
Installation	Two sets of 1200 mm high x 15 mm wide x 15 mm high x 1.15 mm thick galvanised steel L angle installed at nominal 80 mm apart from each other
Fire Resistance Level	-/120/-
	Where the damper is attached to the wall directly, if there are no combustible elements within 100 mm from the edge of the channel perimeter for a distance of 2 m, the installed system will maintain the fire resistance level as listed. No insulation criteria is required where BCA C4D15(2)(a)(iii) is satisfied.

A14	Holyoake Passive Fire Damper
Service	Fire Damper
Product Name	Holyoake IBD-FS
Aperture Side	1200 mm Wide max x 1200 mm high max, single unit
Test Evidence	Tested system CSIRO-FCO-3356, 5 December, 2019
Installation	The Holyoake IBD-FS fire damper is installed as a single unit in a penetration of 1200mm x 1200mm maximum. A Steel C channel is installed around the opening with 20mm 8g screws at maximum 200mm centres on one side. 4 x 40mm x 60mm x 2mm steel angles are to be bolted to the damper body on each side of the perimeter. One layer 16mm fire rated plaster on one side of the wall 125mm wide.
Fire Resistance Level	-/120/-

A15	Up to 50 mm Gal Pipe
Service	Up to 50 mm Gal Pipe
Product Name	Boss FM300
Aperture Side	Close fit core hole
Test Evidence	Tested system



	Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire 49599300.7 dated 22/02/2019
Installation	Complete infill around service fire mastic. Sealant finished with a nominal 20mm fillet on both sides of wall. If there are no combustible elements within 100mm from the edge of the service for a distance of 2m, the installed system does not require the insulation criteria to be satisfied. i.e. a thermal wrap is not required. No insulation criteria is required where BCA Clause C3.15(a)(ii) is satisfied.
Fire Resistance Level	-/120/120

A16	32 mm up to 80 mm Copper Pipe
Service	32 mm to 80 mm Copper Pipe
Product Name	Boss FM300 and Boss Thermal Defence Wrap
Aperture Side	Close fit core hole
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FAS190346 R1.5 dated 04.08.2021
Installation	Complete infill around service with fire mastic. Sealant finished with a nominal 20mm fillet on both sides of wall. Installation advice from BOSS is for the wall itself to be 116mm thick to achieve the required FRL of -/120/120. This is based on typical light weight and masonry wall systems. The Supapanel itself maintains an FRL of at least -/120/120. Therefore, based on the tested system the thickness can be reduced to the size of the Supapanel and the ability to maintain an FRL of -/120/120 is maintained. If there are no combustible elements within 100mm from the edge of the service for a distance of 2m, the installed system does not require the insulation criteria to be satisfied. i.e. a thermal wrap is not required. No insulation criteria is required where BCA Clause C4D15(2)(a)(iii) is satisfied.
Fire Resistance Level	-/120/120

A17	32 to 150 mm Copper Pipe
Service	32 mm to 150 mm Copper Pipe
Product Name	Promaseal Acrylic Sealant For 32 mm to 100 mm Promashield For 100 mm to 150 mm Promaseal SupaWrap 600 mm each side
Aperture Side	Close fit core hole
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations Warringtonfire FAS200022 R2.1 dated 06.04.2020
Installation	Complete infill around service with fire mastic. Sealant finished with a nominal 20 mm fillet on both sides of wall. If there are no combustible elements within 100 mm from the edge of the service for a distance of 2 m, the installed system does not require the insulation criteria to be satisfied. i.e. a thermal wrap is not required. No insulation criteria is required where BCA Clause C4D15(2)(a)(iii) is satisfied.
Fire Resistance Level	-/120/120

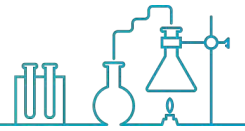


A18	25 mm and 40 mm Copper Pipe
Service	Wall
Product Name	Promaseal Acrylic Sealant and Armaflex (25 mm thick)
Aperture Side	Close fit core hole plus Armaflex diameter
Test Evidence	Tested system Clause C4D15(2)(a)(iii) Openings for service installations FSRG A-14-946 dated 26/02/2015
Installation	If there are no combustible elements within 100 mm from the edge of the penetration for a distance of 2 m, the installed system does not require the insulation criteria to be satisfied i.e. a thermal wrap is not required. No insulation criteria is required where BCA Clause C4D15(2)(a)(iii) is satisfied. Complete infill around service fire mastic. FR Armaflex 400 mm long either side of the penetration and through the wall.
Fire Resistance Level	-/120/120

A19	HB Fuller FireSound Fire Rated Acoustic Sealant
Service	Wall
Product Name	HB Fuller FireSound Fire Rated Acoustic Sealant
Aperture Side	
Test Evidence	Tested system FireTslab Test report PF23046
Installation	
Fire Resistance Level	-/120/120

A20	HB Fuller FulaFlex FR Hybrid Polymer Fire Rated Sealant
Service	Wall
Product Name	HB Fuller FulaFlex FR Hybrid Polymer Fire Rated Sealant
Aperture Side	
Test Evidence	Tested system FireTslab Test report PF23046
Installation	
Fire Resistance Level	-/120/120

A21	Pyropanel PromaSeal Fire Grade Mastic
Service	Wall
Product Name	Pyropanel PromaSeal Fire Grade Mastic
Aperture Side	
Test Evidence	Tested system Pyropanel FSRG A-14-946
Installation	
Fire Resistance Level	-/120/120



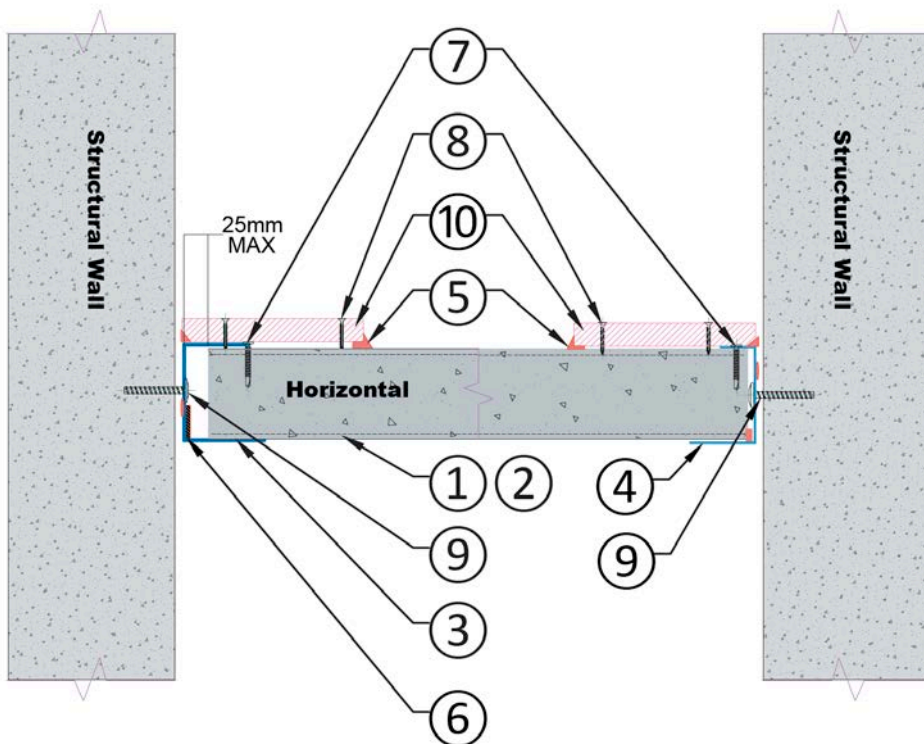
A22	BOSS FireMastic-300
Service	Wall
Product Name	Boss Fire Mastic-3000
Aperture Side	
Test Evidence	Tested system PFITS PF 1190667 R4.0
Installation	
Fire Resistance Level	-/120/120

12 DETAILED DRAWINGS

FIGURE 35:
SUPAPANEL HORIZONTAL

SUPAPANEL HORIZONTAL

TRACKS ARE PROTECTED BY PLASTERBOARDS FOR THERMAL PERFORMANCE
- SCREW ON ONE SIDE ONLY

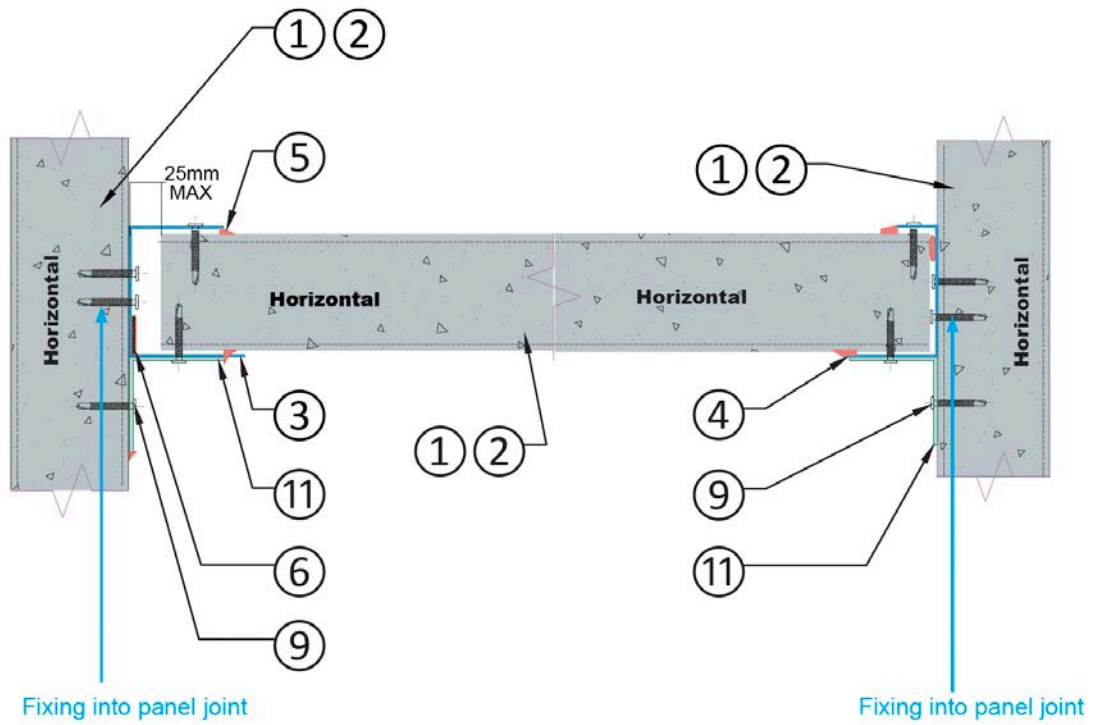


Tracks are protected by plasterboards for thermal performance – screw on one side only as required.

FIGURE 36:
SUPAPANEL T JUNCTION – HORIZONTAL INTO HORIZONTAL PANELS

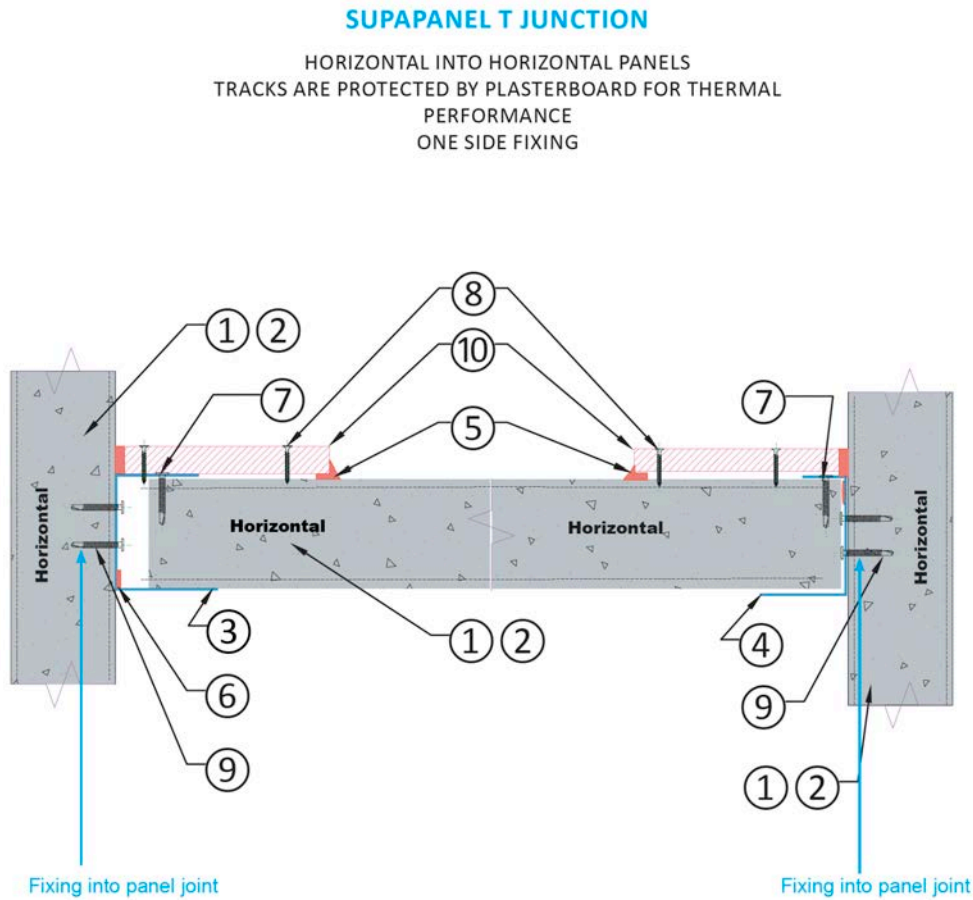
SUPAPANEL T JUNCTION

HORIZONTAL INTO HORIZONTAL PANELS
TRACKS ARE PROTECTED BY ANGLES FOR THERMAL PERFORMANCE
- ONLY FOR SCREW ON BOTH SIDE



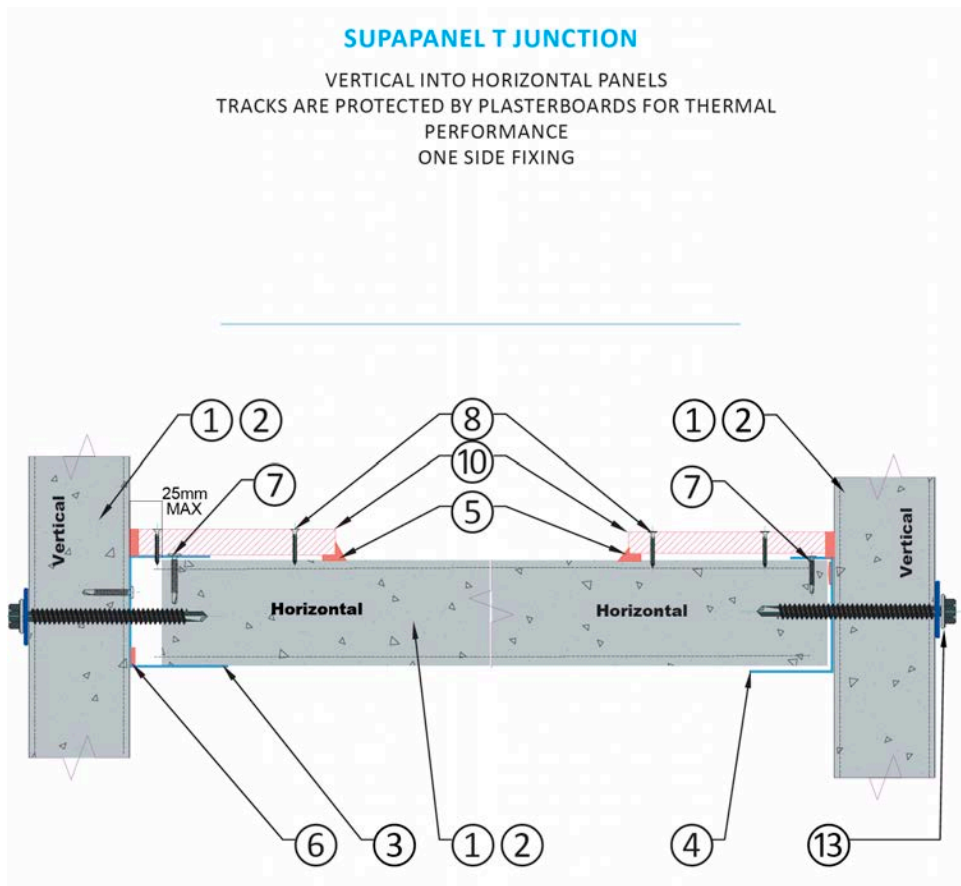
Horizontal into horizontal panels, tracks are protected by angles for thermal performance – screw on both sides.

FIGURE 37:
SUPAPANEL T JUNCTION – HORIZONTAL INTO HORIZONTAL PANELS



Horizontal into horizontal panels, tracks are protected by plasterboards for thermal performance.

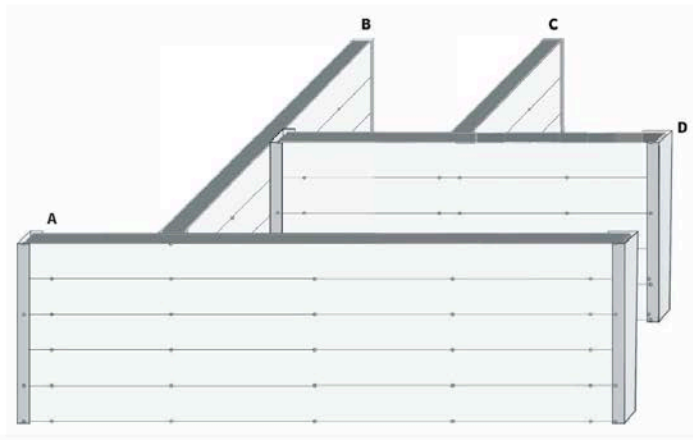
FIGURE 38:
 SUPAPANEL T JUNCTION – VERTICAL INTO HORIZONTAL PANEL



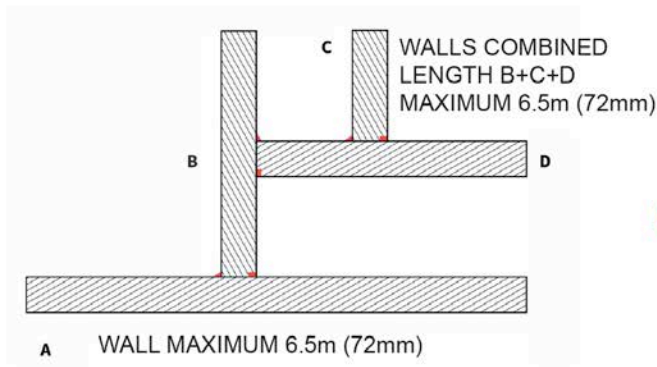
Vertical into horizontal panels, tracks are protected by plasterboards for thermal performance.

FIGURE 39:
HANGING SHAFT CONSTRUCTION TO STRUCTURAL WALL

HANGING SHAFT CONSTRUCTION TO STRUCTURAL WALL

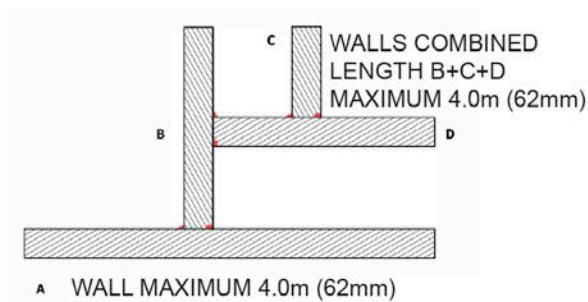


72MM SUPAPANEL



Fixings into panel joint

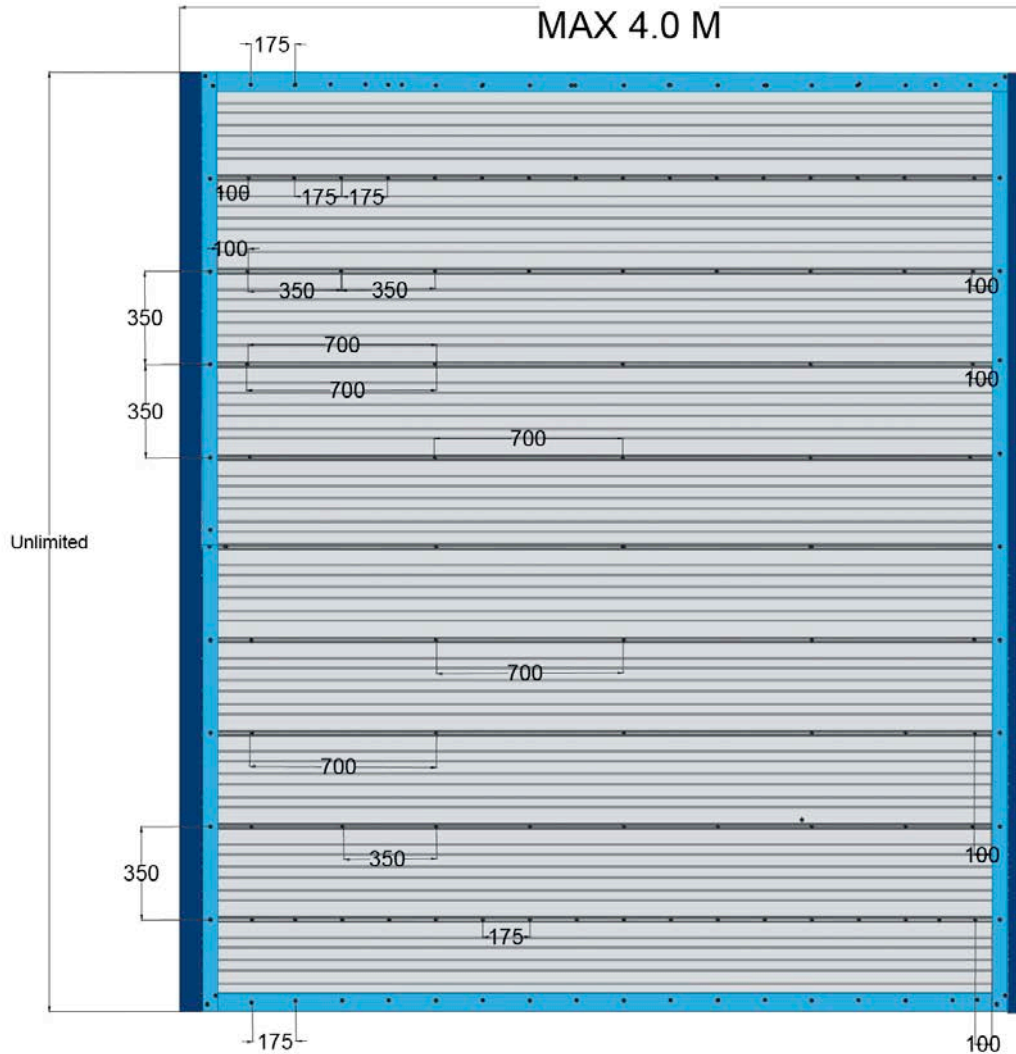
62MM SUPAPANEL



Wall combined length b+c+d, maximum 6.5 m for 72 m and 4.0 m for 62 mm Supapanel

FIGURE 40:
WALLS LESS THAN 4.0 M

62MM SUPAPANEL MAXIMUM SPAN 4.0 M



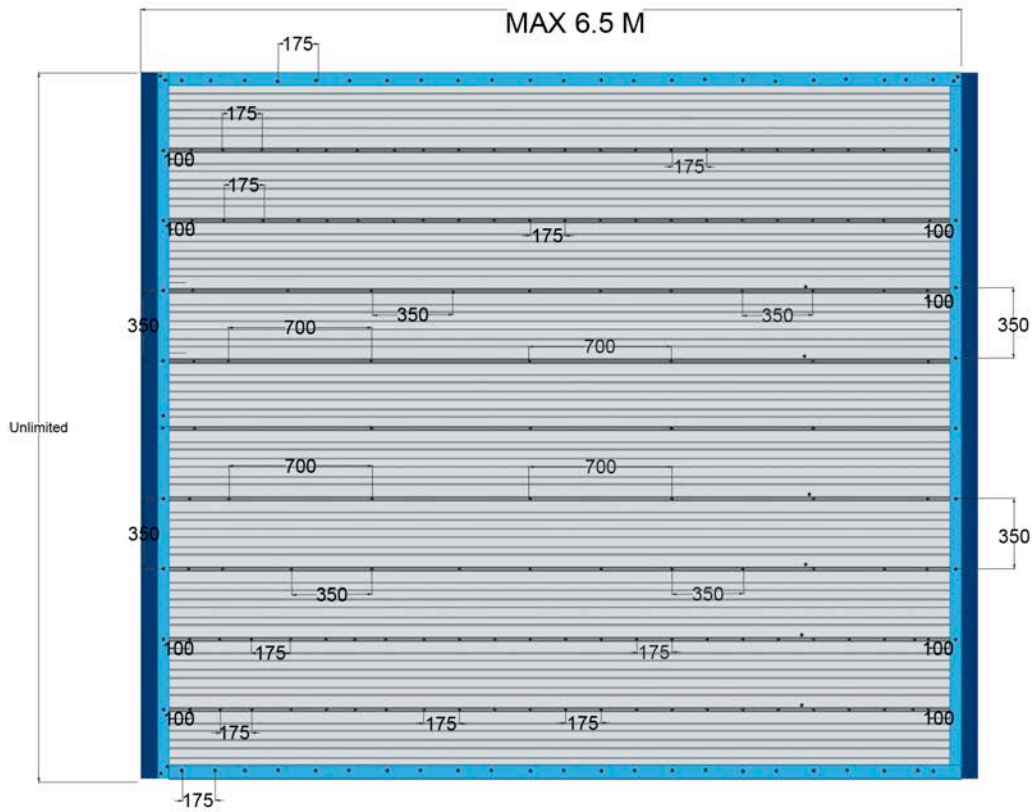
Fixings Orientation :
For walls less than 4.0M

- First screw within 100 mm from end of panels as per diagram
- 350 mm fixings required in the side tracks
- First layer requires 175 mm fixings in the joints
- Second layer requires 350 mm fixings in the joints
- Subsequent 700 mm centres in the joints

Typical screw fixings for 62 mm Supapanel walls up to 4.0 m width

FIGURE 41:
WALLS LESS THAN 6.5 M

72MM SUPAPANEL MAXIMUM SPAN 6.5 M

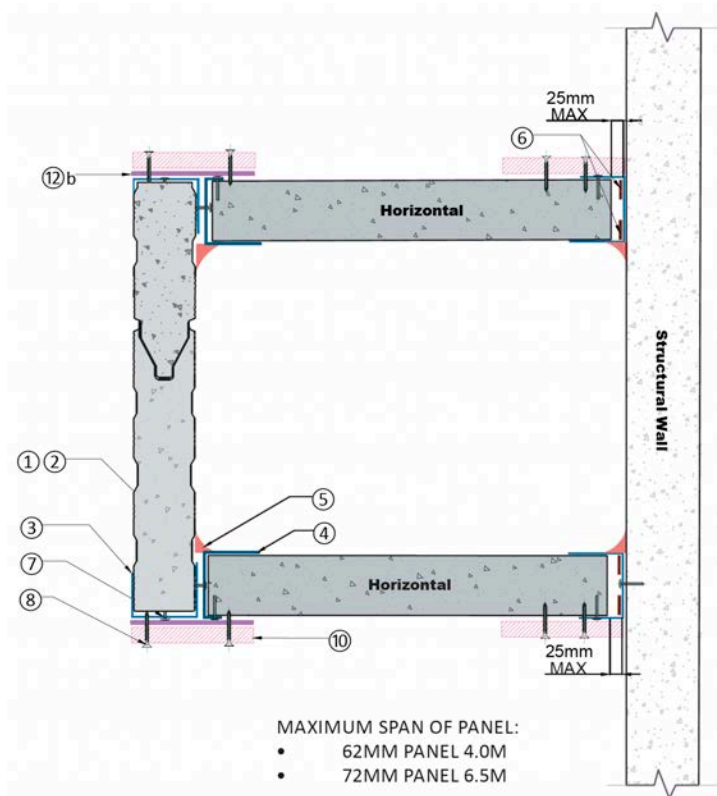


Fixings Orientation :
For walls less than 6.5M

- First screw within 100 mm from end of panels as per diagram
- 350 mm fixings required in the side tracks
- First two layers require 175 mm fixings in the joints
- Next layer requires 350 mm fixings in the joints
- Subsequent 700 mm centres in the joints

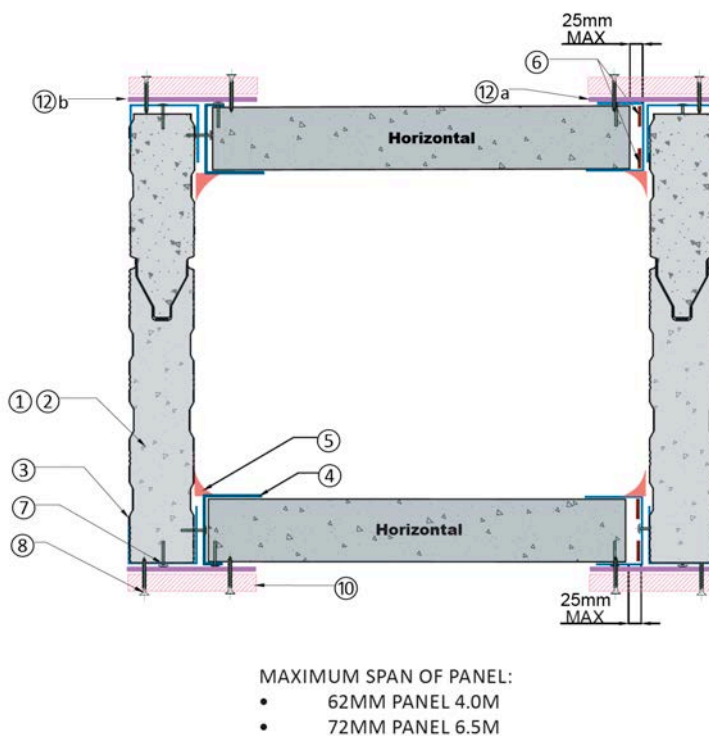
Typical screw fixings for 72 mm Supapanel walls up to 6.5 m width

FIGURE 42:
HORIZONTAL SUPAPANEL TO STRUCTURAL WALL



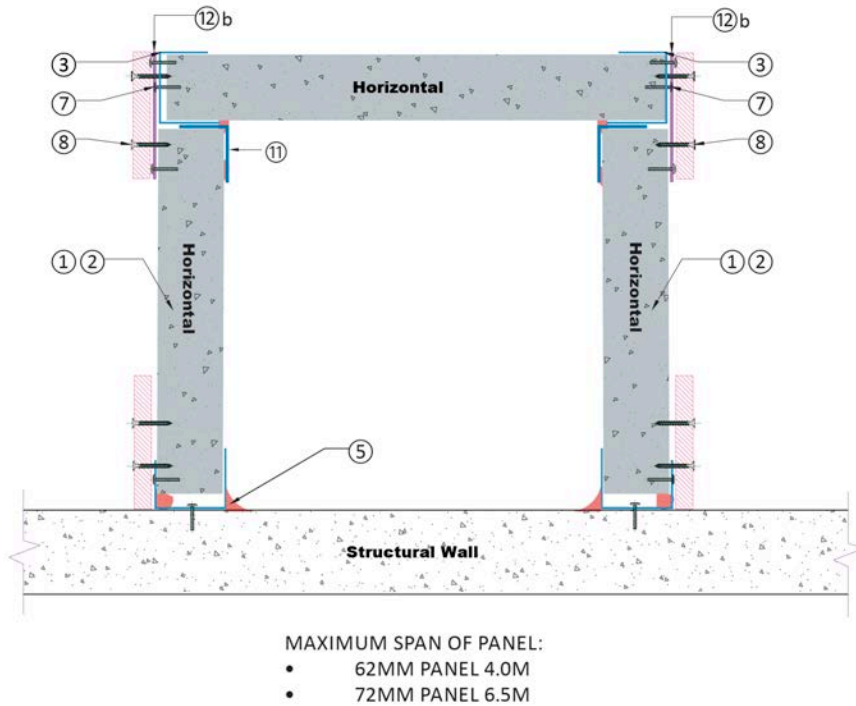
Vertical Supapanel to horizontal Supapanel to structural wall, tracks are protected by plasterboards for thermal performance.

FIGURE 43:
HORIZONTAL SUPAPANEL TO VERTICAL SUPAPANEL



Horizontal Supapanel to vertical Supapanel, tracks are protected by plasterboards for thermal performance.

FIGURE 44:
HORIZONTAL SUPAPANEL TO HORIZONTAL SUPAPANEL - OPTION



Horizontal Supapanel to horizontal Supapanel, tracks are protected by plasterboards for thermal performance.

FIGURE 45:
HORIZONTAL SUPAPANEL TO HORIZONTAL SUPAPANEL - OPTION

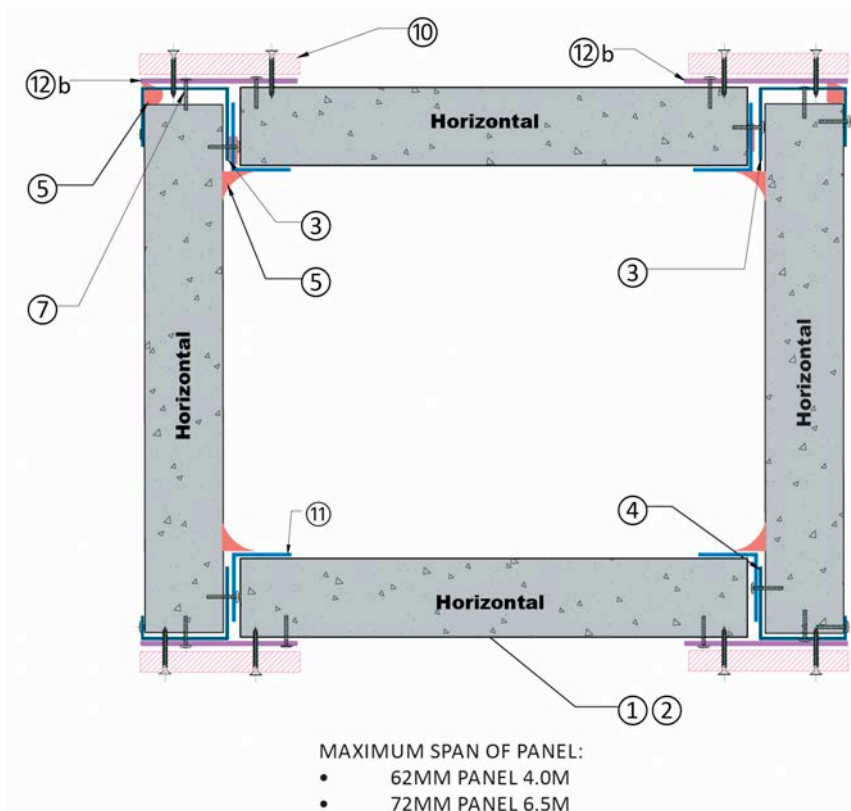
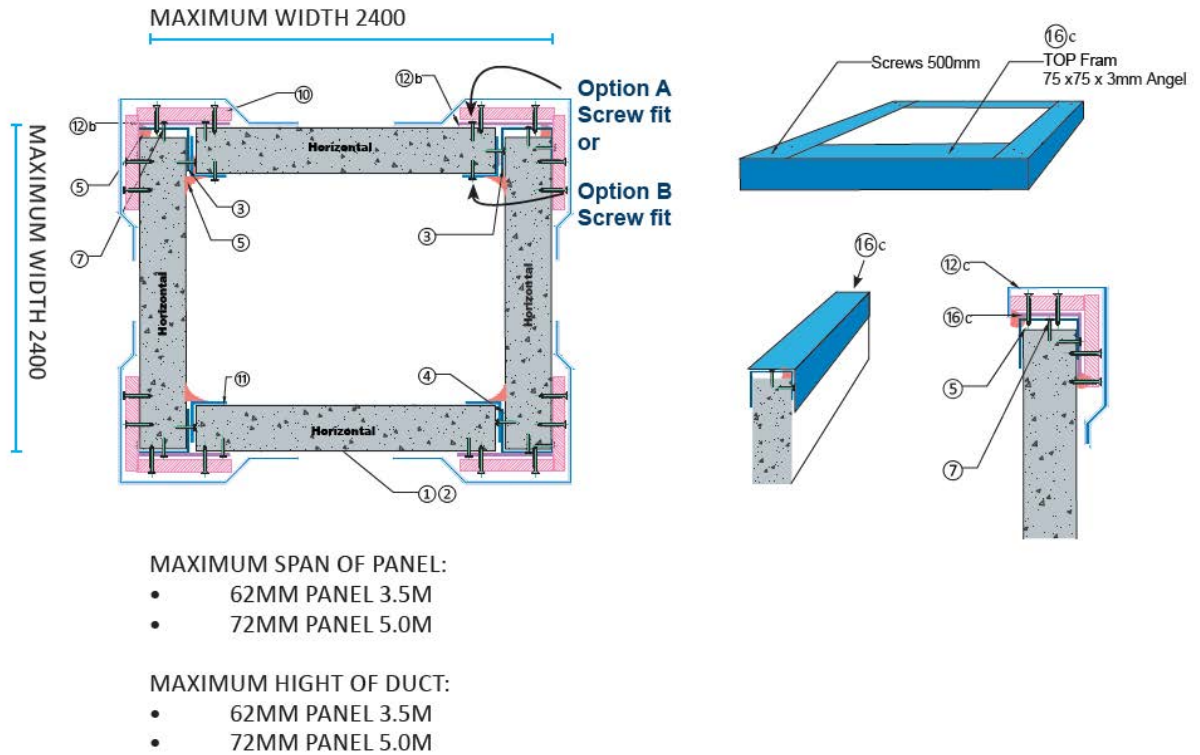
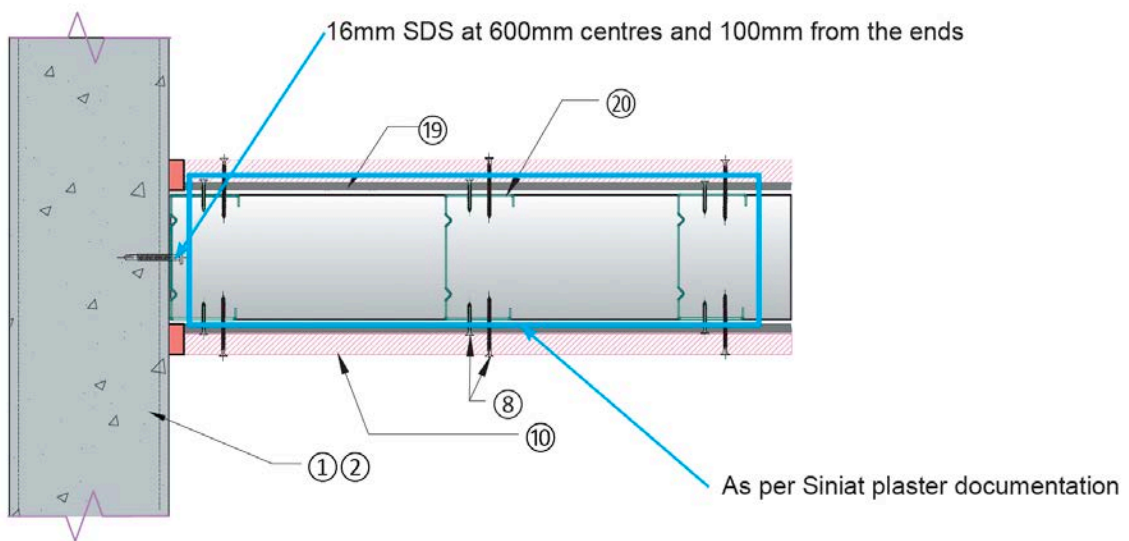


FIGURE 46:
HORIZONTAL SUPAPANEL TO HORIZONTAL SUPAPANEL
OPTION FREE STANDING BOX / CHIMNEY OPEN TOP



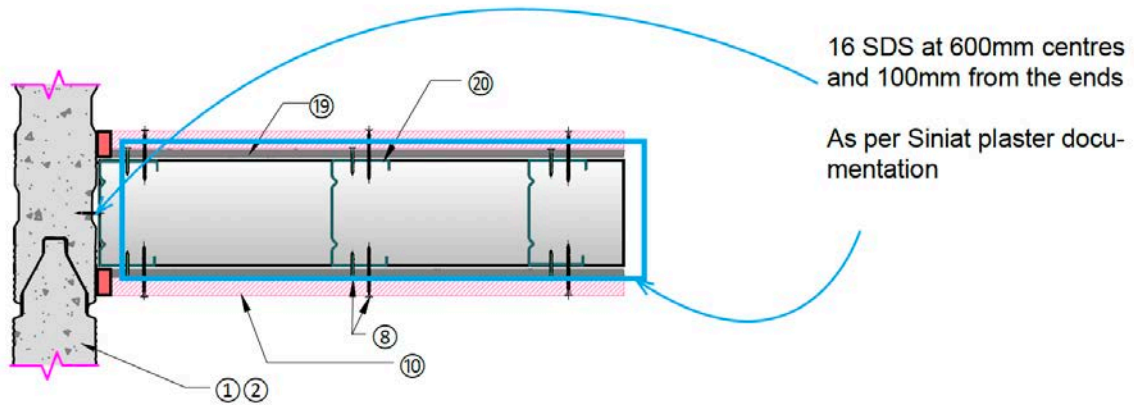
Horizontal Supapanel to horizontal Supapanel, tracks are protected by plasterboards for thermal performance.

FIGURE 47:
SUPAPANEL TRANSITION DETAIL PLASTERBOARD SHAFTLINER WALL PLAN VIEW



T intersection of 1 hour plaster system into 62 mm or 72 mm Supapanel system

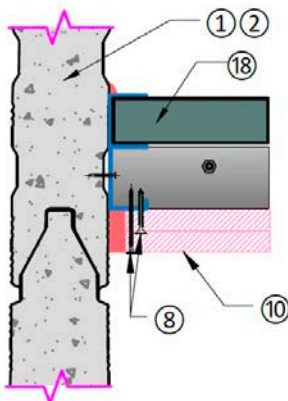
FIGURE 48:
SUPAPANEL TRANSITION DETAIL PLASTERBOARD SHAFTLINER WALL PLAN VIEW



T intersection of 1 hour plaster system into 62 mm or 72 mm Supapanel system

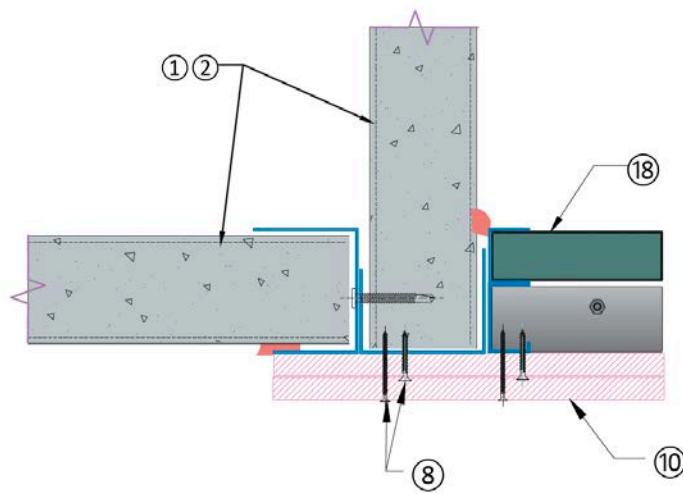
FIGURE 49:
SUPAPANEL TRANSITION DETAIL SHAFTLINEER WALL PLAN VIEW

SINIAT CONNECTION DETAILS TO SUPAPANEL



T intersection of 2 hour plaster system into 62 mm or 72 mm Supapanel system

FIGURE 50:
SUPAPANEL SINIAT TRANSITION DETAIL SHAFTLINEER WALL PLAN VIEW



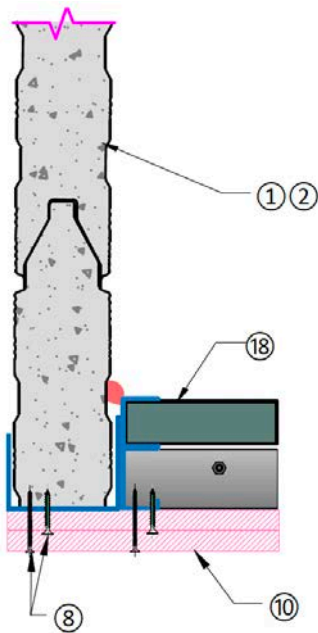
Fix together using steel framing screws into steel track at 600mm maximum centres vertically, and 100mm maximum from ends

16mm SDS at 600mm centres and 100mm from the ends

As per Siniat plaster documentation

T intersection of 2 hour plaster system into 62 mm or 72 mm Supapanel system

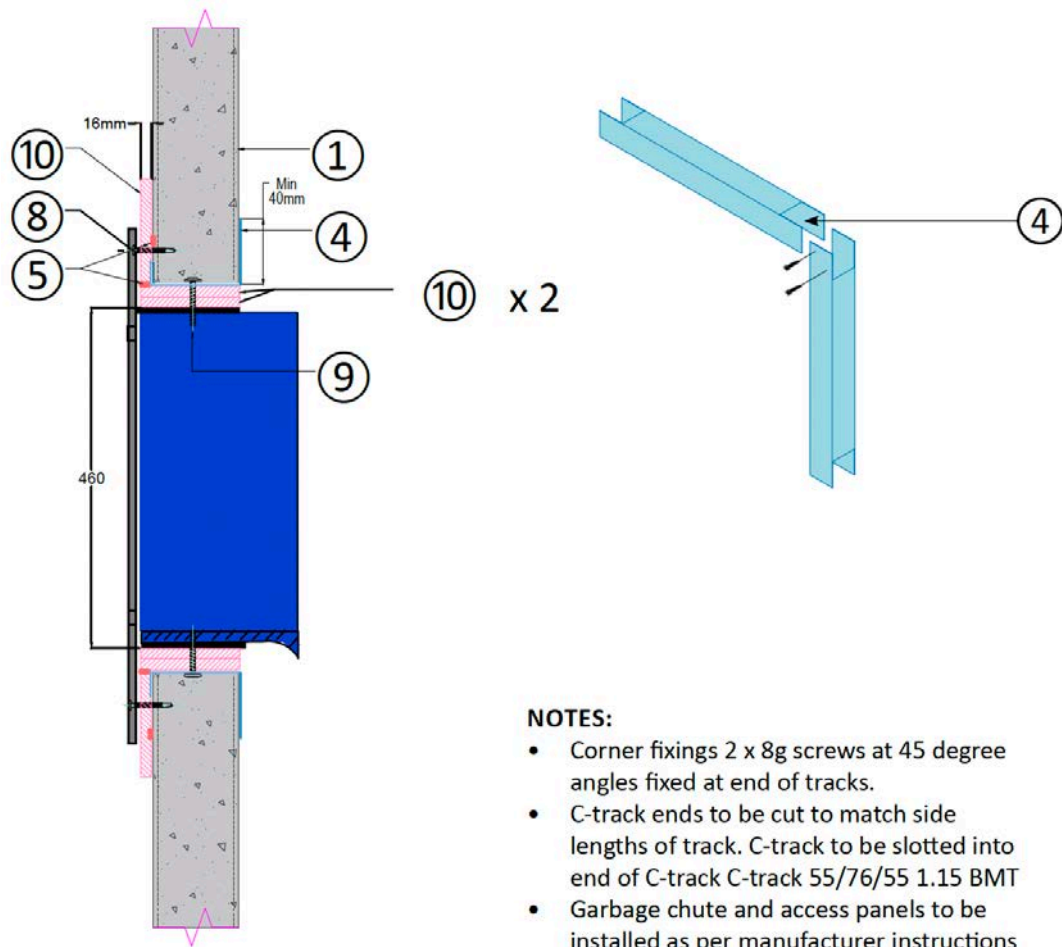
FIGURE 51:
SUPAPANEL TRANSITION DETAIL SHAFTLINEER WALL PLAN VIEW



Fix together using steel framing screws into steel track at 600mm maximum centres vertically, and 100mm maximum from ends

Corner junction of 2 hour shaft lines system connected to 72 mm or 62 mm Supapanel systems

FIGURE 52:
SUPAPANEL ACCESS HATCH AND WASTE CHUTE DETAILS

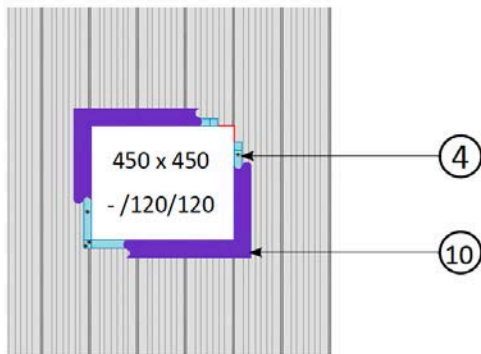


NOTES:

- Corner fixings 2 x 8g screws at 45 degree angles fixed at end of tracks.
- C-track ends to be cut to match side lengths of track. C-track to be slotted into end of C-track C-track 55/76/55 1.15 BMT
- Garbage chute and access panels to be installed as per manufacturer instructions

Access panel and garbage chute products to be installed as per supplier instructions

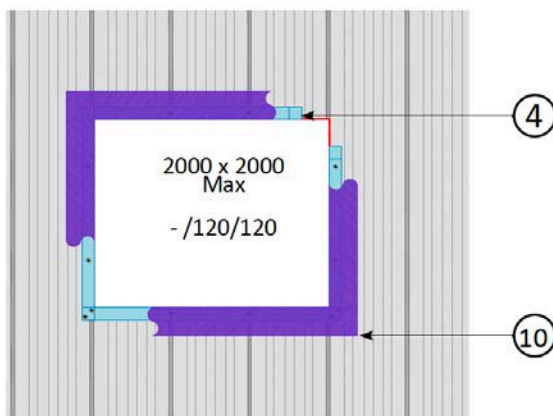
FIGURE 53:
SUPAPANEL OPENING DETAIL



If thermal fire rating isn't needed around the perimeter, plasterboard is not required. However, it becomes necessary based on specific thermal rating requirements. Refer to the notes for details.

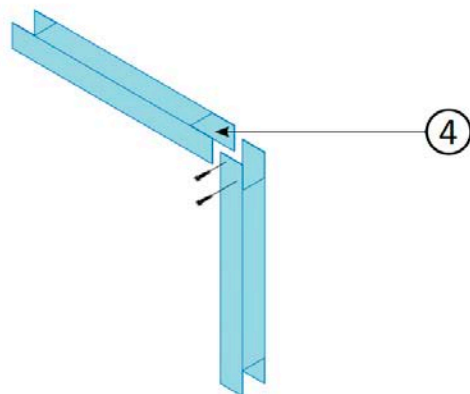
NOTES:

- If opening exceeds 450mm in either length or height then 16mm fire shield or 6mm magnesium board at 125mm is required.
- Additional layers of 125mm strips of fire rated plasterboard may be required to match wall thickness requirements for certified tested dampers.
- All track ends to overlap
- 72mm and 62mm Supapanel



NOTES:

- Apertures 450-2000mm require FRPB or MgO strips.
- Additional layers of 125mm strips may be required to match wall thickness required for certified tested dampers.
- All track ends to overlap
- 72mm and 62mm Supapanel

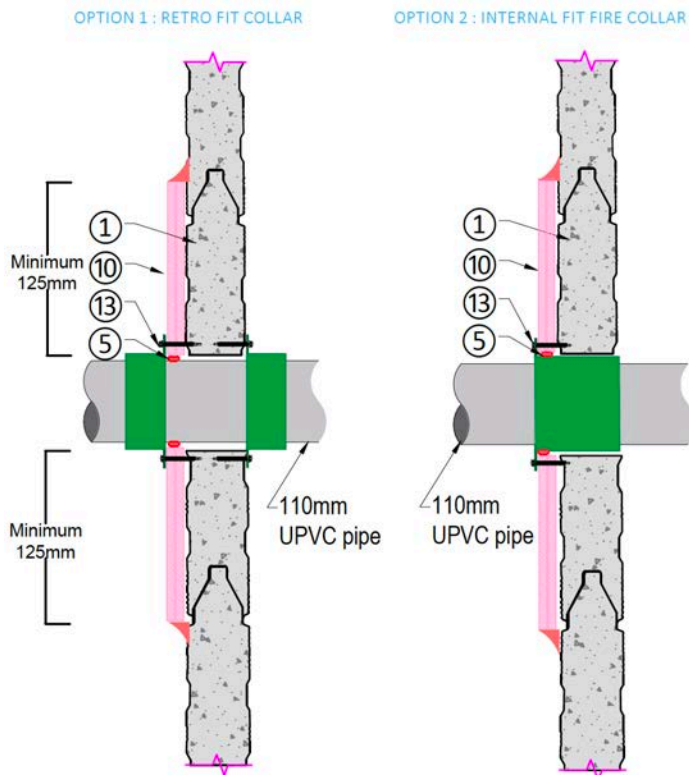


NOTES:

- Corner fixings 2 x 8g screws at 45 degree angles fixed at end of tracks.
- C-track ends to be cut to match side lengths of track. C-track to be slotted into end of C-track C-track 55 x 76 x 55 1.15 BMT

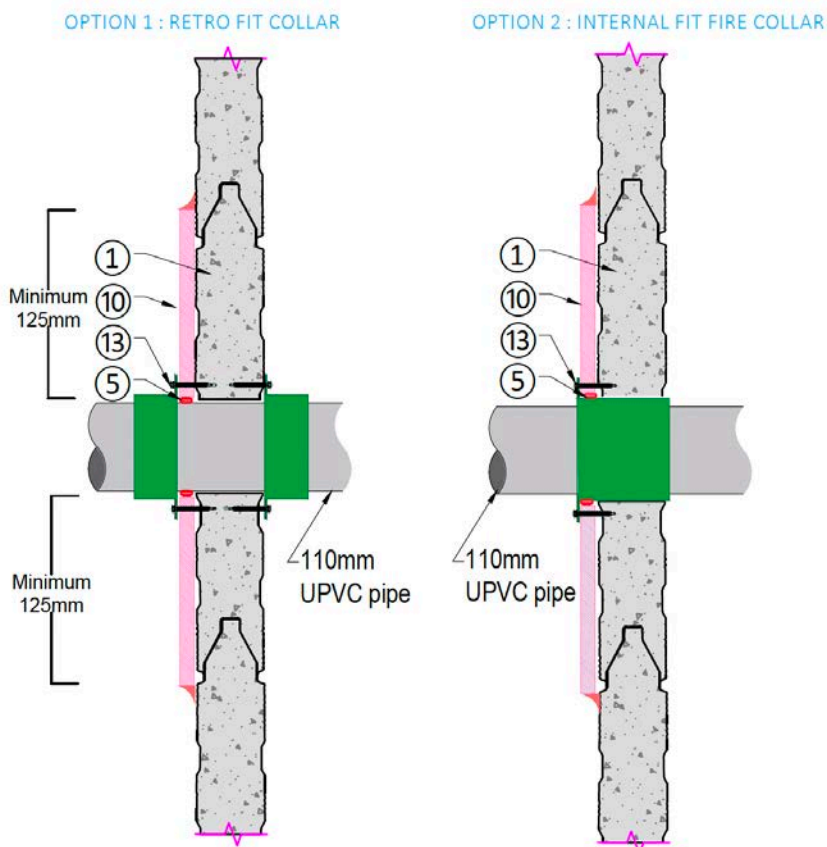
General opening details and linings for dampers, cable trays and square openings in Supapanel 72 mm and 62 mm panel wall systems

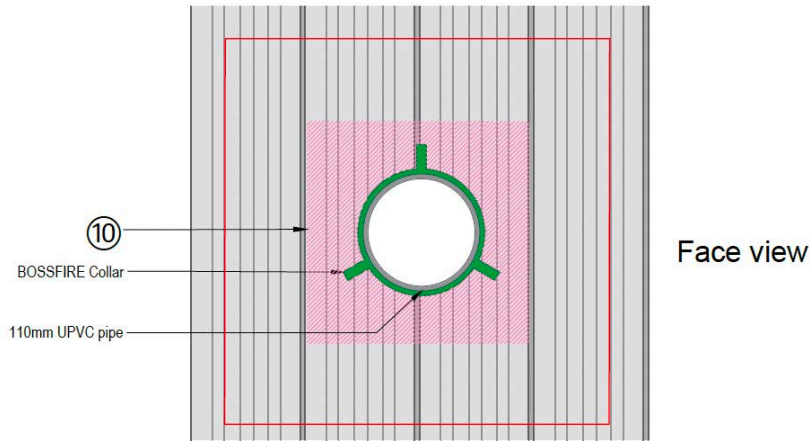
FIGURE 54:
SUPAPANEL PENETRATION 62 MM



PVC and HDPE pipe penetration detail through 62 mm Supapanel with two layers 16 mm fire rated plasterboard

FIGURE 55:
SUPAPANEL PENETRATION 72 MM

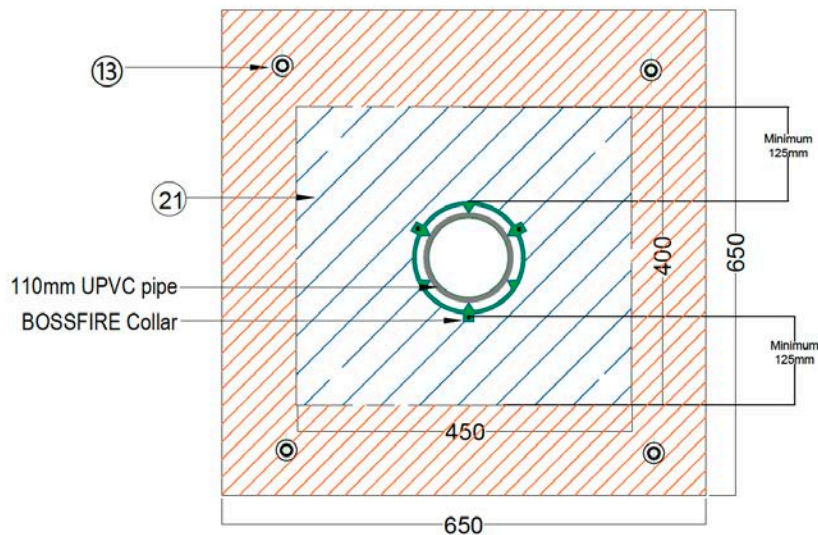
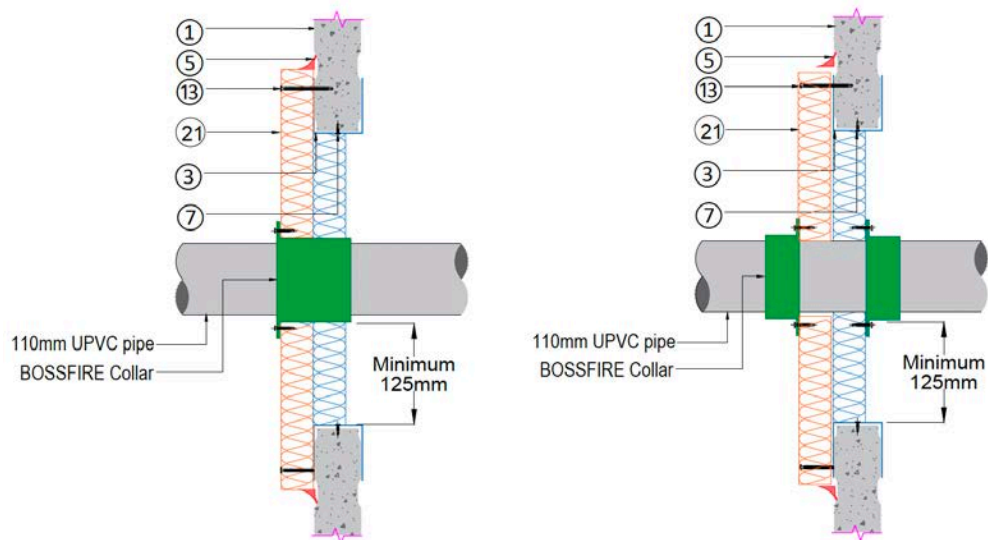




PVC and HDPE Pipe penetration detail through 72 mm Supapanel with one layers 16 mm fire rated plasterboard.

FIGURE 56:
SUPAPANEL PENETRATION 62 MM

ROCKWOOL BAT PASSIVE FIRE PENETRATION DETAILS

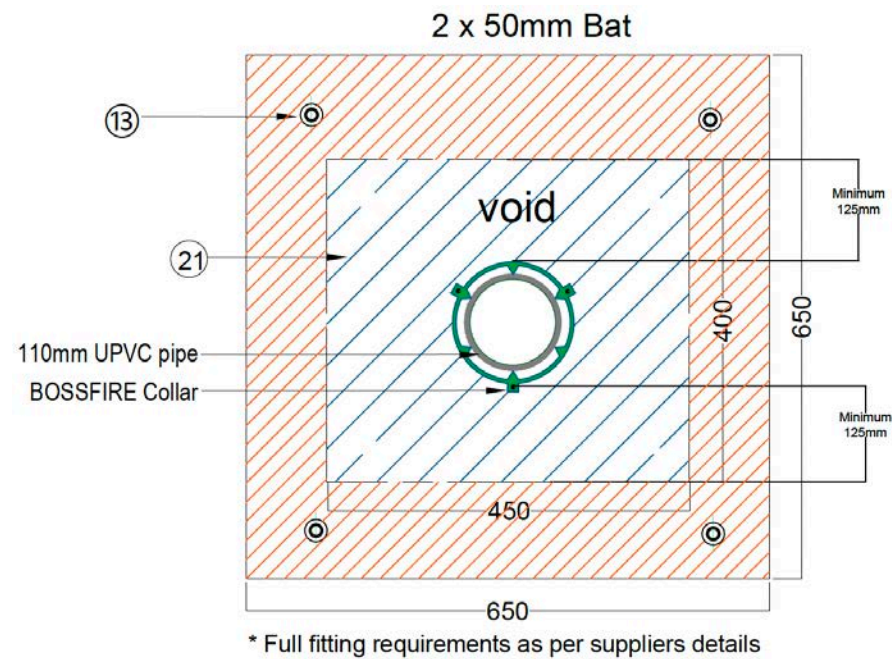
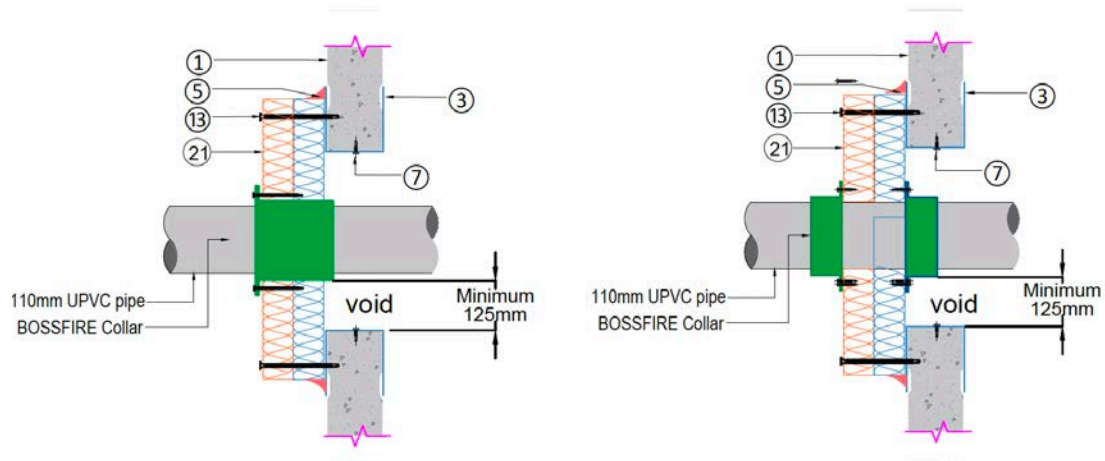


* Full fitting requirements as per suppliers details

PVC and HDPE pipe penetration detail through Rockwool fire rated batt system in framed opening

FIGURE 57:
SUPAPANEL PENETRATION 72 MM

OPTIONAL ROCKWOOL BAT



Variation PVC and HDPE pipe penetration detail through Rockwool fire rated batt system in framed opening.

13 CONCLUSION OF PERFORMANCE CAPABILITY

Supapanel being a 425mm wide x 62mm and 72mm thick panel (nominal 350mm between panel-to-panel joints) comprising of an aerated cement core encased in a 0.3 to 0.4mm thick mild galvanised steel 250 MPa skin with a 425 Kg concrete core. The 0.35 mm thick steel casing was subjected to testing to AS1530.4: 2014. The below table nominates the maximum vertical span for the 62mm and 72mm thick Supapanel panels.

TABLE 8:
SUPAPANEL APPLICATION SUMMARY

Supapanel wall thickness	62 mm Supapanel	62 mm Supapanel with one side caulked joint or 13 mm fire rated plasterboard	62 mm Supapanel with One 16 mm fire rated plasterboard on one face	72 mm Supapanel	Maximum vertical span between structural elements or vertical Supapanel wall
Maximum wall span	4000 mm	4000 mm	4000 mm	6500 mm	Unlimited
Maximum lineal meters of cross wall connected to primary spanning wall	4000 mm	4000 mm	4000 mm	6500 mm	Unlimited
Fire Resistance Level	-/60/60	-/90/90	-/180/120	-/120/120	-/120/120
Fire core door system	-/60/30	-/90/30	-/120/30	-/120/30	-/120/30
Penetration passive fire product	-/60/60	-/90/90	-/120/120	-/120/120	-/120/120
Access hatches	-/60/30	-/90/30	-/120/30	-/120/30	-/120/120
Ducting fire dampers	-/60/-	-/90/-	-/120/-	-/120/-	-/120/-

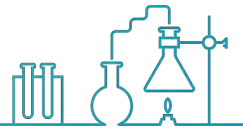


14 APPENDIX A

Summary of Supapanel Test Report and Listing of Supporting Test Report

The following information sources were used as supporting evidence in the evaluation of the system.

1. National Construction Code, Volume One, Building Code of Australia, Class 2 to 9 Buildings, 2022	
2. International Fire Engineering Guidelines, Australian Building Codes Board, Canberra, 2005	
3. Ian Bennie & Associates 2021: 085-55-S7,	June 21, 2022
4. Ian Bennie & Associates 2021: 085-51-S4,	November 30, 2021
5. Report Bird engineering assessment evaluation,	March 16, 2022
6. Warringtonfire FRT 200129,	June 10, 2020
7. PFits (FireTSLab) PF 19066 R4.0,	November 26, 2020
8. CSIRO FCO-2872,	August 10, 2016
9. FireTSLab PF 23046,	September 13, 2023
10. CSIRO FSU 1870,	August 23, 2019
11. Warringtonfire FAS 200022 R2.1,	April 6, 2020
12. Warringtonfire FAS 225350,	January 2, 2008
13. Warringtonfire FAS 200332 RI.0,	December 4, 2020
14. Warringtonfire FAS 190113 R7.0,	August 9, 2021
15. Warringtonfire FAS 190346 R1.5,	April 8, 2021
16. Warringtonfire FAS 190346 R1.5,	April 4, 2022
17. Warringtonfire RIP FRT 190033 R1.0,	February 27, 2019
18. Warringtonfire FAS 27776	April 11, 2023
19. Warringtonfire FAS 200126 R1.0,	July 3, 2020
20. Warringtonfire 49599300-7,	February 22, 2019
21. CSIRO-FCO-3356,	December 5, 2019
22. Warringtonfire FRT 190122 24 R1.0,	June 24, 2019
23. BRANZ FC 10241-001,	July 2, 2020
24. PYROPANEL FSRG A-14-946,	February 2, 2015
25. CSIRO FCO-3292,	February 4, 2018



15 APPENDIX B – ROBERT BIRD ENGINEERING ASSESSMENT



CONDITIONS AND LIMITATIONS

This assessment report does not provide an endorsement by Assurance of the actual product evaluated.

The conclusions of this assessment may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazards under all conditions.

Because of the nature of fire testing, and the consequent difficulty in quantifying the uncertainty of measurement, it is not possible to provide a stated degree of accuracy. The inherent variability in test procedures, materials and methods of construction, and installation may lead to variations in performance between elements of similar construction.

The assessment can therefore only relate to the actual prototype test specimens, testing conditions and methodology described in the referenced documents, and does not imply any performance abilities of constructions of subsequent manufacture.

This assessment is based on information and experience available at the time of preparation. The published procedures for the conduct of tests and the assessment of test results are the subject of constant review and improvement and it is recommended that this report is reviewed on or, before, the stated expiry date.

This report is prepared in good faith and with due care for information purposes only, and should not be relied upon as providing any warranty or guarantee. In particular, attention is drawn to the nature of the inspection and investigations undertaken and the limitations these impose in determining with accuracy the state of the building, its services or equipment and life safety.

Assurance's involvement in the Project is limited to the role outlined in our 'Scope of Service' of the quote. This report reflects that role.

Any reliance on, or use of, this report for purposes outside the scope of service is at the user's own risk.

Assurance shall not be held liable for any loss or damage resulting from any defect of the building or its services or equipment or for any non-compliance of the building or its services or equipment with any legislative or operational requirement, whether or not such defect or non-compliance is referred to or reported upon in this report, unless such defect or non-compliance should have been apparent to a competent engineer undertaking the evaluation of the type undertaken for the purpose of preparation of this report.

Assurance has carefully reviewed and applied to the best of our ability the requirements of local Legislation, the current NCC and the Australian Fire Engineering Guidelines. Any changes to the reference documents including the NCC should warrant a review of this report.

This report is provided to the client at their request to evaluate the product performance under fire safety performance analysis. Assurance provides no warranty that this report will be approved by building authorities, future legislation or changes to the building code that would impact this evaluation where a deemed to satisfy solution may be required, further evaluation is needed or be subject to a fire order or new legislation for its design.

Assurance has relied upon the information provided by the client such as the architectural plans, building photos and construction detail. Assurance has not audited these documents or the building and assumes the information provided by the client on these documents is accurate. Assurance cannot provide any warranty that our report accuracy is maintained should the information provided have errors.



Global Reach
Local Knowledge



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---- END OF REPORT ---

